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The Politics of Language Regimes

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Abstract

The Politics of Language Regimes

By Amy H. Liu

If language regimes are the rules that delineate which languages can be used when and where—thereby institutionalizing the distribution of linguistic powers—what explains a government’s language regime choice? Specifically, under what conditions are linguistic powers concentrated in the hands of the dominant group language, shared across several different languages, and neutralized via a lingua franca? In the dissertation, I argue language regimes are political institutions, and by extension, language regime choice is the product of bargaining between linguistic groups over institutional designs. Employing a Rubenstein bargaining model, I formally demonstrate language regime choice is the product of two components: the second period uncertainty and the socioeconomic hierarchy. I argue we are most likely to see (1) power-concentrating language regimes when the politically non-dominant group is socioeconomically dominant but the likelihood of it coming to power is low; (2) power-neutralizing language regimes under the aforementioned socioeconomic hierarchy conditions but when the likelihood of the non-dominant group coming to power is high; and (3) power-sharing language regimes when the politically dominant group is also the socioeconomically advantaged group.

I test the generated propositions first on a cross-sectional dataset that includes all instances of political independence and democratic transitions between 1945 and 2000. I supplement the statistical analysis with a qualitative study of Indonesia, Malaysia, and Singapore to get at (1) not just *whether* but *why* there is a correlation between the variables of interest and (2) the *degree*—as opposed to just the *type*—of linguistic distribution.

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Language is a vehicle for communication; it structures human interactions. But when it comes to this dissertation, I'm not wholly certain it does justice in expressing my feelings of gratitude and indebtedness. I can only hope what I put into words is mildly sufficient.

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1. INTRODUCTION

When Singapore's People's Action Party (PAP) won the first General Election under self-government in 1959, it pursued a multilingual policy. The Government maintained the status quo of conducting parliamentary debates in four languages; allowed the radio to continue broadcasting in multiple languages and dialects (Lee 1988); and established a national education system to standardize the previously hodgepodge language school systems (Tan 2007a).

Under this *power-sharing* arrangement, “Malay [was designated] as the lingua franca and the future national language...English as the language of international commerce and science, Mandarin as the mother tongue of the Chinese and Tamil, Hindi, or Punjabi for the Indians” (Lee 1998: 216). This emphasis on Malay as the first language among equals was reflected by the development of an Institute of Malayan culture for popularizing and synthesizing the Malayan culture (The Sunday Times: August 23, 1959); the promotion of a national language awareness week (The Sunday Times: March 25, 1959); and the legislation mandating the compulsory learning of Malay in all schools (Tan 2007a).

Six years later when Singapore suddenly found itself “separated” from the Malaysian Federation in 1965, the Government maintained constitutionally that “Malay, Mandarin, Tamil, and English shall be the 4 official languages in Singapore [and that] the national language shall be the Malay language...” (Constitution of the Republic of Singapore, Part XIII: 153A). This multilingual, *power-sharing* arrangement was evident in a wide range of government policies: the establishment of a spelling committee for standardizing the Romanization of the Malay language (The Strait Times: February 12, 1966); a continued

commitment to improve the quality of the poor-performing Tamil schools (The Strait Times: June 23, 1966); and the financial support to the Malay Teachers Union to help train teachers in their study of Mandarin (The Strait Times: December 3, 1966). Despite Government rhetoric on the continued status of Malay as the national language, (Mandarin) Chinese and English soon shared equal prominence (Lee 1988). In fact, within a few years later, English would replace Malay as the primary language of the national service (The Strait Times: July 11, 1971) and as the second language in schools (Tan 2007a).

While small in size, Singapore is home to a heterogeneous population that includes the Chinese, Eurasians,¹ Indians, and Malays.² Each of these groups, in turn, is an aggregation of a number of linguistic communities. For instance, the Chinese race³ encompasses the Cantonese-, Hainanese-, Hakka-, Hokkien-, and Teochew-speakers; the Indian race, the Bengali-, Hindi-, Tamil-, and Urdu-speakers; and the Malay race, the Boyanese-, Bugis-, Javanese-, Minankabau-, and Peninsular Malay-speakers (Chua 2005). Given this heterogeneity, a multilingual arrangement does seem practical. However, there are several paradoxes with this *power-sharing* linguistic arrangement.

First, given the population size of the Chinese (76.8%) and their dominance in politics, the choice to share linguistic powers is highly puzzling. **Why did the Government**

¹ Eurasians are descendents of Europeans who intermarried with the locals. At the time of independence, the Eurasian community was by far the smallest. Nowadays, the community is not recognized on the census.

² Unless otherwise noted, all countries, ethnic groups, and languages are listed alphabetically in this dissertation to avoid any implication as to who has more value or importance.

³ The use of the word “race” here is to reflect the official terminology used by the Government.

choose a language regime that was not power-concentrating? It would have seem more rational if the Government opted for a monolingual arrangement with (Mandarin) Chinese as the sole language of government services, education system, and mass media. *Power-concentrating* language regimes are simply more efficient from both a physical and social capital standpoint.⁴

Second, even if we understand why the choice was *power-sharing* instead of *power-concentrating*, we are then left wondering: **Why was (Mandarin) Chinese never considered the first language among equals?** The choice to promote a language spoken by only 13.9% of the population as the national language and the lingua franca seems counterintuitive. The Government not only poured significant resources into the aforementioned Institute of Malayan culture, national language awareness month, and Malay language curriculum, it also fought on several occasions against a Chinese-dominated *power-sharing* linguistic arrangement. This oddity is even more salient in the post-merger period. Although (Mandarin) Chinese and English shared equal prominence, the Government would later elevate English to de facto first language among equals. This was especially evident post-1971 following the withdrawal of British troops. Never once in the history of Singapore has (Mandarin) Chinese been the sole first language among equals.

⁴ The exclusive use of (Mandarin) Chinese at the expense of English, Malay, and Tamil would support Huntington's "clashes of civilizations" thesis (1996). Roughly speaking, Singapore is home to four different civilizations: The Chinese are Sinic; the Eurasians, Western; the Indians, Hindus; and the Malays, Islamic. In addition to this heterogeneity of civilizations, four of the six possible alignments are considered conflict prone (Hindu-Islamic, Hindu-Sinic, Islamic-Western, and Sinic-Western).

Third, while (Mandarin) Chinese was never considered the first language among equals, the language that held that distinction changed between the pre- and post-merger periods. This de facto shift in the distribution of linguistic powers is surprising given the fact that between the two periods, the Government remained fundamentally unchanged; the PAP remained in Government; and the language regime remained *power-sharing*. **What explains this subtle change despite the broader constancy?**

In this dissertation, I answer these three questions: Why did the Government adopt a power-sharing language regime? Why was (Mandarin) Chinese—the language of the majority—never considered the first among equals? And why did the first language among equals change between the pre-merger and the post-merger periods? At a more general level, I ask: **What explains a government's language regime choice?** Under what conditions are language regimes power-concentrating, power-sharing—as in the case of Singapore, and power-neutralizing?

These questions and the notion of language regimes are not novel as they have been asked and studied by language planners, ethnic conflict specialists, and state-building scholars. In this dissertation, however, I approach these questions differently by drawing from the political institutions literature. I argue language regimes are political institutions because they impute values and structure behaviors: *Who* can speak *which* languages *when* and *where*. By extension, any institutional choice touches upon the issues of representation and power distribution.

Traditionally, institutional designs fall along a one-dimensional spectrum. On one end, one group is represented and all powers are concentrated in its hands. On the other end, multiple groups are represented and all powers are shared. We see both ends—and

hybrid in-betweens—in a variety of institutions including electoral rules, federalism, and language regimes. However, when it comes to language regime choice, I argue there is a third distinct option: No group is represented and all powers are neutralized via a *lingua franca*. This possibility of *power-neutralization* adds a new dimension to traditional arguments of institutional bargaining.

I argue language regime choice is the product of strategic bargaining between groups over institutional design. This bargaining process is guided by two considerations. The “second-period uncertainty” refers to the likelihood of future events happening should there be no immediate agreement on a language regime. There are three possible developments: the dominant group⁵ remains in power; a non-dominant group comes to power; and the state destabilizes. The likelihood of each event—vis-à-vis the other two events—happening is important for language regime choice.

The second consideration is the “socioeconomic hierarchy”. While every language at the individual level has some intrinsic value to its speakers, not all languages at the aggregate level are considered equal. Certain languages are simply more important than others. This importance is noted in the political *and* socioeconomic hierarchies. I make a distinction between the two types of hierarchies because the political dominance of a language does not necessarily guarantee its socioeconomic dominance. The relationship between these two hierarchies—specifically, whether they converge—matters for language regime choice.

⁵ In this dissertation, the “dominance” of the “dominant group” is always in reference to *political* powers. In discussions of non-political powers, I will specify the exact source of the power, for instance the “socioeconomically dominant group”.

In this dissertation I formally demonstrate the bargaining over language regime choice. Solving the model and taking the comparative statics reveals language regime choice is the product of the “second-period uncertainty” and the “socioeconomic hierarchy”. Specifically, we are most likely to see a *power-concentrating* language regime when the socioeconomic hierarchy does not converge (with the political hierarchy) *and* the likelihood of the politically non-dominant group coming to power is low. The logic is that the (politically) dominant group has an incentive to change the socioeconomic status quo. Since the likelihood of the non-dominant group coming to power is low, the dominant group will adopt a language regime that concentrates all linguistic powers in its own language. The dominant group has no incentive to share linguistic powers as there are communication and transaction costs associated with any multilingual arrangement.

Conversely, we are most likely to see a *power-neutralizing* language regime under the same socioeconomic hierarchy conditions (non-convergent) *but* when the likelihood of the politically non-dominant group coming to power is high. Fundamentally, the rationale is still the same: The dominant group wants to change the socioeconomic status quo. But under these conditions, it is constrained by the non-dominant group, and as such, linguistic concentration is no longer a feasible option. A power-sharing language regime is also not ideal as such choices incur communication costs and can actually widen the socioeconomic gap. All this suggests the use of a third-party lingua franca, such as a colonial language or a regional trading language, is actually the optimal choice.

And finally, we are most likely to see a power-sharing language regime when the socioeconomic hierarchy converges, regardless of the second-period uncertainty. This argument seems counter-intuitive: Why would a group that has all the power be interested in

sharing any of it? I argue the reasoning has to do with the constraint of state destabilization. I do not assume all groups always want to avoid state destabilization. Under such conditions, for a non-dominant group that has no political or socioeconomic powers, there is less incentive for it to participate in the state-building process. It is easy to fathom that if the situation were dire enough, a non-dominant group would actually prefer for the state to destabilize than to accept a non-favorable language regime. Since the dominant group knows this and has all the powers, there is an incentive to make sure the state does not destabilize. One way to ensure the stability of the state is to make linguistic concessions so that the non-dominant group will participate in the state-building process.

The remainder of this introductory chapter is divided into four sections. I begin by highlighting the importance of language regimes and their vast implications for national cohesion and economic development. I then argue why it is important to study language—and language regimes—independent of ethnicity. In Section 3, I identify the three types of language regimes (power-concentrating, power-sharing, and power-neutralizing) and discuss the broader theoretical advantages of using this classification. In the fourth and final section, I lay out the plan for the rest of this dissertation.

1.1. RATIONALE

According to a Biblical story, the men of the Shinar Plains—bonded by “one language and a common speech”—decided to build themselves a “city with a tower that reache[d] the heavens.” When God saw this, he responded, “If as one people speaking the same language they have begun to do this, then nothing they plan to do will be impossible for them. Come, let us go down and confuse their language so they will not understand each

other.” With that, the men stopped building the city and scattered over the world (The Holy Bible, New International Version: Genesis 11:1-9).

To argue language was the bond that held the men of the Shinar Plains together is no exaggeration. Tocqueville (1835, 2002) once observed, “The bond of language is perhaps the strongest and most lasting that can unite men” (Part 1, Chapter 2; 29). Language not only glues a community together from the inside, it also marks the identity of the group from the outside. For many ethnic groups, language is “not just *a* marker, it is *the* marker: It determines who is and is not a member of the group, and what the boundaries of the group are” (Brown and Ganguly 2003: 3; italicized in original source).

Since languages bond and identify groups, and since states are often an aggregation of several of these groups, we quickly see how the rules governing language usage can be a source of political conflict. The recognition and use of a group’s language at the state level suggests “that some people have a legitimate claim to greater respect, importance, or worth in the society than have some others” (Horowitz 1985: 220). In short, language is power, and the choice of language regimes is political.

Language regime choice is political in part because of the inherent tradeoff between equality and efficiency. On the one hand, “multilingual” arrangements are more representative of linguistically-diverse societies. Power-sharing language regimes can breed a sense of equality, and by extension, it can encourage a more vibrant political culture (Almond 1956; Fanon 1967; Verba 1965). By allowing all groups to express their linguistic identities, members of that given society are more likely to vote, engage in political discourse, and reflect some level of democratic attitudes (McLaughlin 2006).

On the other hand, this same “multilingual” arrangement is significantly less efficient than one that is “monolingual”. The use of only one language can minimize the volume of transaction costs (Pool 1991). In any country, there are general operating costs to maintain uniformity among anything and everything: executive orders, court rulings, accounting ledgers, military operations, education curriculums, amongst others (Laitin 1988). When this need for standardization spans multiple languages, the physical and social capital required is by no means trivial. In short, a language regime can encourage equality or efficiency—but not both.

1.1.1. Implications: National Cohesion

In addition to the tradeoff between equality and efficiency, the process of choosing a language regime is also political because of its vast implications. One such implication is national cohesion. The fact that more than 67% of all post-Cold War armed conflicts have involved language rights, linguistic autonomy, or some other ethno-national component illustrates the delicate nature of language regime choice (Paulston and Tucker 2003). National cohesion happens when individuals identify with their greater national identity as much as—if not more than—their individual linguistic identity (in certain instances the two are the same).

Any language regime can undermine national cohesion. In theory, power-sharing language regimes provide linguistic groups with institutionalized channels—and the incentives—to negotiate, bargain, and compromise peacefully within the state apparatus, thereby strengthening the legitimacy of the government (Das Gupta 1970). In India, for instance, the multilingual arrangement of fifteen state languages protected by the Eighth

Schedule and the creation of linguistically defined states have defused the language riots of the 1950s and 1960s (Das Gupta 2003; Stuligross and Varshney 2002). But at the same time, a power-sharing language regime can also strengthen group identities, thereby breeding fragmentation to the detriment of national cohesion. In Sri Lanka, for example, efforts to build a collective “Sri Lankan” identity have been derailed on multiple occasions when riots broke out between the Sinhalese and Tamil speakers (DeVotta 2003).

In contrast, a non-power-sharing language regime can provide the platform to unite linguistically the general population. However, this unity comes at the price of institutionally muting most—if not all—of the linguistic groups. In Burma, for example, the choice of a power-concentrating language regime has limited the capacities of the government and rendered the minority groups marginalized (Callahan 2003). This muting can also explode into violence over time (Cohen 1997; Norris 2002). When the plight of one linguistic group vis-à-vis another linguistic group becomes a central concern, these grievances can escalate into riots and civil wars. It is not a coincidence that the two instances of successful secession during the Cold War period—Bangladesh and Singapore (Minorities at Risk Project 2005)—both involved the central government attempting to shift the language regime towards one more power-concentrating in nature (Ganguly 2003; Mohsin 2003).

1.1.2. Implications: Economic Development

Another implication of language regime choice is economic development. Linguistic heterogeneity has become a common explanation for poor growth (Easterly and Levine 1997). Such arguments are quite fatalistic. While there are reasons to believe fractionalization can make economic development more difficult, I argue what should matter

as much—if not more—is how this diversity is handled via different institutions (Coulmas 1984). For instance, Singapore and Switzerland are two feel-good stories. Despite high levels of linguistic heterogeneity, their levels of economic development rival the best in the world.

Any language regime can stunt economic development when it (1) fails to increase the standard of living and/or (2) widens the gap between the haves and have-nots. Let me focus on the education sector to demonstrate how language regimes can affect development. Economists have long argued the importance of education for growth (Barro 1990; Birdsall et al. 1997; Romer 1990). The fact that no country has economically developed in the absence of significant human capital accumulation speaks volume (Easterly 2001).

A non-power-sharing education system in a linguistically-diverse country risks developing a subpopulation with poor language competency. Pedagogically, students are more likely to learn a second language (L2) successfully after having developed a strong foundation in their mother tongue (L1). This happens because the use of L1 allows for the development of critical thinking and more meaningful interactions in L2. In contrast, insistence on L2 from the outset can result in slower acquisition of both L1 and L2 (Auerbach 1995).

What this suggests is that in a power-concentrating language regime, individuals from the non-dominant group are at an economic disadvantage. Over time, this translates into deepening inequality between the dominant and non-dominant groups. In Nepal, for instance, the choice of a Nepali power-concentrating language regime has rendered many of the minority groups economically depressed, including the Newari speakers—55% of the Kathmandu Valley population (Eagle 2000).

While a power-neutralizing language regime may narrow the inequality gap between the linguistic groups, the concern here is that the overall poor competency of all individuals would translate into an aggregate, low standard of living. For instance, the French Government's recent reversal of its long standing preference of French-only as the medium of instruction in African primary schools was not because the government suddenly cared about local languages, but because it had been convinced by Francophone scholars that African children would learn French better if they were taught first in a local language (Albaugh 2005, 2007).

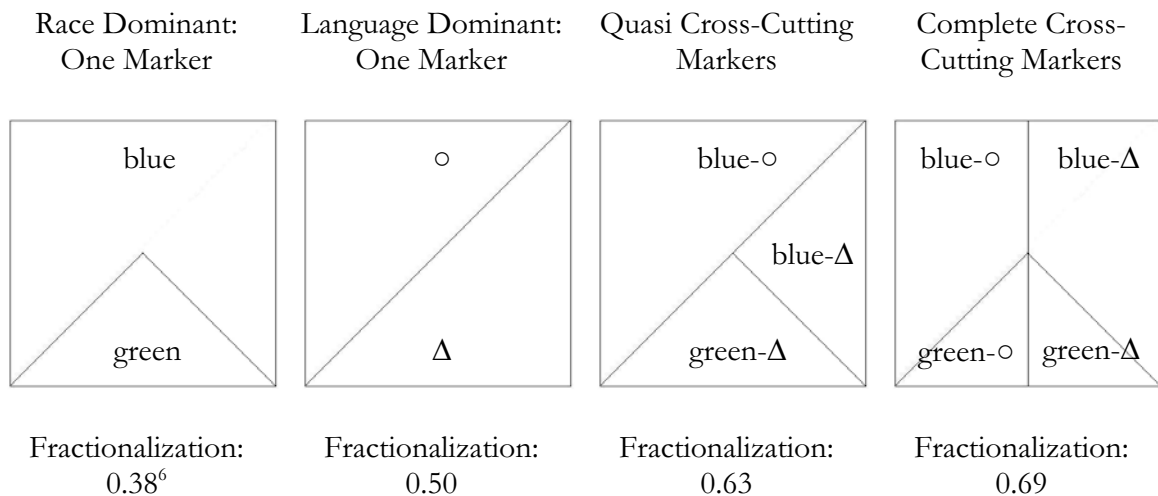
While a better option pedagogically, a power-sharing education system is equally prone to stunting development. All languages are situated in a hierarchy (Brown and Ganguly 2003; Rahman Embong 2004; Wang 2007). Some are simply more important than others. As such, proficiency in the "right" language is imperative. Proficiency in the "right" language, however, can fail to materialize due to budget constraints, poorly developed curriculums, and/or the emphasis of an economically "wrong" but politically "right" language. For instance, recent rhetoric and actions by the Malaysian Government suggest the Malay emphasis post-1971 to build a Malaysian state may have caused the country to lose its international economic advantage. The use of using English again as the medium of instruction in the science classes at the secondary level is one attempt to reverse this development (Ganguly 2003; Kaplan and Baldauf 2003; Leclerc 2007; Lee 2007). Regardless of why, a weak proficiency in the "right" language can be detrimental for economic development. If the knowledge of the "wrong" language is across the aggregate, national population, this can further solidify the poor standard of living; or if the knowledge is

confined to one segment of the population, this can deepen the inequality among linguistic groups.

1.2. LANGUAGES AND ETHNICITY

Language is an ethnic marker. However, a study of ethnicity is not a study of language. Ethnicity is a composite indicator. It includes some or all of the following: language, religion, race, kinship, laws, customs, dress, crafts, music, architecture, and food (Brown 1993). As such, objectively and accurately identifying an ethnic group is no small feat. Figure 1.1 illustrates the different ethnic groups in a hypothetical polity. Racially, three-fourth of the populations is *blue* and one-fourth is *green*. Linguistically, half of the population speaks *circle* and the other half speaks *triangle*.

FIGURE 1.1: Identifying Ethnic Groups



⁶ Ethnic fractionalization is commonly calculated as one minus the Herfindahl index of ethnic group shares: $F = 1 - \sum_{i=1}^n s_i^2$, where s_i is the share of group i . This index measures the probability that two randomly selected individuals from a population belong to *different* groups.

Although hypothetical, this illustration highlights the scenario in the United States. In the United States, racial and linguistic markers do not overlap completely: Not all whites are English speakers, and not all English speakers are white. In some states—such as Alabama and Mississippi—the racial marker is more pronounced. In other states—such as Arizona and New Mexico—the more dominant marker is language (United States Census 2000).

This highlights the complexity, and hence the difficulties, of identifying an ethnic group. Anderson and Paskeviciute (2006), for instance, find a correlation of only 0.380 between ethnic fractionalization and linguistic fractionalization. In fact, Mexico “scores low on linguistic heterogeneity (.13), but quite high on ethnic heterogeneity (.54). Conversely, the Philippines and Tanzania score extremely high on linguistic heterogeneity, but very low on ethnic heterogeneity. What is more, Mexico, the Philippines, and Tanzania are far from exceptional as a number of states are either ethnically heterogeneous or linguistically heterogeneous but usually not both” (788).

The weak correlation between ethnic and linguistic heterogeneity becomes even weaker when we take religious heterogeneity into consideration. See Table 1.1.⁷ The different fractionalization numbers between these articles warrants caution.

This is especially true when examining the effects of fractionalization. For instance, Alesina et al (2003) find linguistic heterogeneity has a negative effect on economic growth

⁷ Until recently, there was only one measurement for ethnolinguistic fractionalization (ELF). It was calculated using the Herfindahl concentration index from data published in the Atlas Narodov Mira (1964). Since then, newer measures have been developed (Alesina et al. 2003; Fearon 2003; Posner 2004; Roeder 2001). Overall, the low correlations between the different measurements highlight the fragile nature of these indices.

and the quality of government. But in contrast, religious fractionalization has a positive effect on the quality of the government. Boix (2003) also finds heterogeneity type matters. Specifically, while the results for ethnolinguistic fractionalization are mixed, the evidence indicates religious fractionalization does not matter for democratic transitions, stability of the democracy, or civil war outbreak.

TABLE 1.1: Correlation Matrix (Fractionalization)

	Alesina et al (2003)			Campos and Kuzeyev (2007)		
	Ethnicity	Language	Religion	Ethnicity	Language	Religion
Ethnicity	1.000	_____	_____	1.000	_____	_____
Language	0.697	1.000	_____	0.879	1.000	_____
Religion	0.142	0.269	1.000	0.317	0.072	1.000

All this suggests the importance of studying languages independently of ethnicity. Using an aggregated measure of ethnicity affects the empirical evidence and the conclusions drawn. In the next section, I define a language regime and discuss the three different types of regimes.

1.3. LANGUAGE REGIMES

Language regimes are the de jure rules that delineate which languages can be used when and where. They institutionalize the distribution of linguistic powers; they standardize expectations; and they coordinate behaviors. Public officials assume the same language will be spoken by *everyone* in government services; educators expect the same language will be taught *every day* in the classrooms; and average citizens behave as if the same language will be

used *every time* to disseminate information. Simply put, there is no rational reason to expect any other behavior.

In this dissertation, I identify three types of language regimes based on the distribution of linguistic powers. The first is what I call a “power-concentrating” language regime. Such regimes are characterized by the concentration of linguistic powers in the dominant group language. In Bangladesh, for instance, linguistic powers are concentrated exclusively in Bengali. All government services are provided in Bengali. The same is true of the education curriculum (Mohsin 2003).

In contrast, “power-sharing” language regimes are defined by the use of multiple languages. The aforementioned example of Singapore is one instance of a power-sharing language regime. All four languages—(Mandarin) Chinese, English, Malay, and Tamil—are designated official state languages. Their use in the government, in schools, and on the transportation systems is testament of linguistic power-sharing (Kaplan Baldauf 2003; Leclerc 2007; Tan 2007a).

Third, “power-neutralizing” language regimes can be identified by the neutralization of linguistic powers via a neutral, *lingua franca*. Often—but not always—this neutral third-party language is of colonial origin although it can be a regional trading language or a religious language. In Mozambique the use of Portuguese is an example of removing all power from the hands of the domestic actors and placing it in the hands of a third-party. The 1990 revised Constitution explicitly states Portuguese as the “only medium of...national communication in the areas of [government] administration and education” (Lopes 1999: 92-93).

In this dissertation, I argue language regime choice is the product of the second-period uncertainty and the socioeconomic hierarchy. When the socioeconomic hierarchy does not converge, and the likelihood of the (politically) non-dominant group coming to power is low, we are most likely to see a power-concentrating language regime. In contrast, under the same socioeconomic hierarchy conditions, but when the likelihood of the non-dominant group coming to power is high, we are most likely to see a power-neutralizing language regime. And finally, we are most likely to see a power-sharing language regime when the socioeconomic hierarchy converges.

By focusing on the distribution of linguistic powers, this classification highlights the political and institutionalized nature of language regimes. Similar to other institutional choices, language regime choice establishes who merits what degree of recognition and when. Let me draw the analogy to federalism. The choice of a unitary government by definition accords political recognition solely to the national government. Under such arrangements, it is understood that all government affairs, from national defense to housing development would fall under the jurisdiction of the national government. The analogous “unitary government” for language regimes would be the “power-concentrating” regime. Under such conditions, it is expected that all public linguistic transactions would take place in that one language. The same parallel can be drawn for a federal government and a “power-sharing” language regime.

While similar to federalism and other political institutions, language regimes are also distinctly different because of the possibility for power-neutralization. Not many institutions have this distinct option to take the power away from all relevant parties and completely place it in the hands of a third-party. For instance, while a unitary government is “power-

concentrating” and a federal government is “power-sharing”, there is no equivalent to “power-neutralizing”. The institution of party systems is no different. A two-party system “concentrates” power in one party and a multi-party system “shares” the power through a coalition. But again, there is no party system arrangement that can “neutralize” the power. This distinct choice of power-neutralization suggests there is an alternative approach to understanding representation and power distribution.

So when and where do language regimes matter? Fishman (1989) identifies “big three” public functions—government services, mass media, and elementary education. In this dissertation, I focus predominantly on education. In the statistical analysis, I look exclusively at primary and secondary education; in the qualitative case studies, I consider as well (although only in passing) the official language of the government since in some circumstances the politics behind official language choice and language-in-education choice are intertwined. I focus on education because, in line with Albaugh (2005, 2007), I argue the politics surrounding education reflect the government’s future. Education, after all, is the “transmitter and perpetuator of culture” (Kaplan and Baldauf 1997: 123). In other words, education provides the very foundation for government services and mass media.

In contrast to Albaugh (2005, 2007), however, I focus on both primary and secondary education. I do so for two reasons. First, by focusing across both levels of education, I can better capture the distribution of linguistic powers. Consider for instance Indonesia and Malaysia. In both countries, linguistic powers are shared across multiple groups at the primary level but completely neutralized (in Indonesia) or concentrated (in Malaysia) at the secondary level. If the focus were exclusively on the primary level, such cases would be systematically miscoded as being more power-sharing than they actually are.

Second, if the comparative interest is cross-national, then a consistent unit of measurement is necessary. Unfortunately, the use of primary education is highly inconsistent. The number of years of primary education is highly inconsistent not just cross-nationally but also within case. Consider the United States for instance. In some school districts, “elementary school” is five years; in other districts, six years. Furthermore, “middle school” or “junior high” provides confusion over whether it should be constituted as primary or secondary education. While the US Census considers secondary education as solely the four years of high school (<http://www.census.gov/govs/www/school.html>), UNESCO lists six years for the American secondary education system (<http://portal.unesco.org/en/>). To minimize the likelihood of a coding error, I focus on both levels of education.

1.4. PLAN OF DISSERTATION

In Chapter 2 I lay the foundation for my argument. Language regimes are political institutions, and by extension, language regime choice is the product of strategic bargaining between different groups over institutional designs. I make this argument by locating it in several bodies of scholarship. In doing so, I present an alternative to the language planning literature’s instrumental, apolitical approach by highlighting the political nature of languages and the institutionalized process of language regime choice. I also introduce a third, distinct institutional choice beyond the majoritarian-consociational dichotomy that has long dominated ethnic conflict studies. Instead of concentrating powers in the hands of one or sharing the power across several, conflicting preferences can be resolved by neutralizing powers via a third-party. Finally, I highlight the importance of language regimes for state-building given their implications for war, revenue-extraction, and power distribution.

In Chapter 3 I present my argument formally. I use a Rubenstein bargaining model to capture the strategic interaction between two groups. I demonstrate language regime choice is the product of two components. The first component is the second-period uncertainty. In the model, when the two groups fail to agree on a language regime in the first period, one of three outcomes happens in the second period: the dominant group remains in power, the non-dominant group comes to power, or the state destabilizes. The second component is the socioeconomic hierarchy. Here, the relationship between the political and socioeconomic hierarchy matters. Specifically, the issue of importance is whether the two hierarchies converge. If they do, this would suggest the politically dominant group is also the socioeconomically advantaged group.

Solving the model suggests power-concentrating language regimes are most likely when the socioeconomic hierarchy does not converge and the likelihood of the (politically) non-dominant group coming to power is low. In contrast, power-neutralizing language regimes are most likely when the socioeconomic hierarchy, again, does not converge but the likelihood of the non-dominant group coming to power is high. And finally, power-sharing language regimes are most likely when the socioeconomic hierarchy converges.

Chapter 4 is the statistical analysis. I begin by first testing one of the biggest assumptions underlying my model: Bargains over language regime choice are more likely to happen after a political shock. Shocks such as political independence and democratic transitions introduce uncertainty and can shift the distribution of power—whether actual or perceived—between the different groups. It is under such conditions that groups have the opportunity to change the status quo language regime. I test this assumption on a time-series cross-sectional sample of all Asian states between 1950 and 2000. I focus only on Asia

because of the theoretical contributions while keeping in mind the practicality considerations. Theoretically, there is greater variation in Asia than any other region when it comes to language regime choice. There is also significant variation on many of the independent variables.

In the second half of the chapter, I test the argument that language regime choice is the product of the second-period uncertainty and the socioeconomic hierarchy. I use a cross-sectional sample that includes all instances of political independence and democratic transitions between 1945 and 2000. I focus on these two political shocks not because they are the only ones that matter, but because they allow me to analyze the bargaining over language regimes systematically across a large sample of countries.

I continue with the empirical tests in Chapters 5-7. These chapters are in-depth case studies of language regime choice in three Southeast Asian countries (Indonesia, Malaysia, and Singapore). I use both the congruence method and comparative-historical analysis in a total of seven observations. The contribution of these chapters is twofold. First, by going beyond the code and correlate nature of statistical analyses, I can verify whether the proposed causal mechanisms are at play (Eckstein 1991; Lijphart 1971). I am able to answer not only *whether* there is a correlation between the variables of interest, but *why* the interaction between the second-period uncertainty and the socioeconomic hierarchy matter for language regime choice.

The second advantage of these case studies is that a small N test allows for the study of not just the de jure type of language regime but the de facto degree of it. Focusing on the precise distribution is important because the emphasis of one language within a de jure power-sharing language regime can render the language regime to take on a more de facto

non-power-sharing characteristic. For instance, at one point the language regime in Indonesia, Malaysia, and Singapore were all de jure power-sharing. However, the de facto degree was quite different. In Indonesia, despite multiple (as many as ten) languages being recognized as languages of instruction in the early years of primary education, the language regime was actually more power-neutralizing. Malay, a lingua franca, was the only language of instruction starting in the fourth grade. In contrast in Malaysia, despite the use of (Mandarin) Chinese, Malay, and Tamil in primary education, the de facto language regime was power-concentrating. It is not a coincidence that Malay, the dominant group language, was the only language of secondary education. And finally, in Singapore, as mentioned in the opening paragraphs, (Mandarin) Chinese, English, Malay, and Tamil were all accorded equal recognition at both the primary and secondary levels. Yet in the period right after independent, the de facto language regime fell somewhere between power-sharing ((Mandarin) Chinese and English) and power-neutralizing (English).

I conclude in Chapter 8. After summarizing the arguments and the findings in this dissertation, I discuss the theoretical, methodological, and policy implications of this project. Theoretically, I highlight the contributions—and the limitations—of the formal model. Methodologically, this project draws on mixed methods, an increasing development in political science. However, the rigorous testing of the propositions generated from the model on the qualitative case studies is something less commonly found in the literature. I discuss how the two methods, one for generating theory and one for testing theory, complement each other in ways that are rarely acknowledged. And in terms of policy implications, I make no recommendation on the “best” language regime. But I do make the

claim that political institutions matter. Similar to other political institutions, it is not whether a group is represented that matters but how it is represented that does.

2. LITERATURE REVIEW:

Language Planning, Ethnic Conflict, and State-Building

Language regimes are the set of rules that delineate which languages can be used when and where, thereby institutionalizing the distribution of linguistic powers. What explains a government's language regime choice? Under what conditions are language regimes power-concentrating, power-sharing, and power-neutralizing?

While various bodies of scholarship have studied or touched on the interaction between governments and languages, the analyses have been non-systematic. In this dissertation, I provide an alternate actor-centered rationalist explanation for language regime choice. In the previous chapter, I argued language regimes are political institutions, and that by extension, language regime choice is the product of institutional bargaining between different groups. Specifically, language regime choice is the product of two constraints: the second-period uncertainty and the socioeconomic hierarchy.

In this chapter, I discuss the broader contributions of my theoretical arguments by locating them in several different bodies of scholarship. First, I question (1) the common assumption in the language planning literature that languages are strictly linguistic instruments and (2) the frequent emphasis on the effects of language policies. In response, I argue languages are political instruments and as such, it is imperative that we understand the political origins of language regimes. Second, I challenge the dominance of power-concentrating (majoritarian) and power-sharing (consociational) institutions in ethnic conflict studies. In addition to these two institutional designs, I argue there is a third distinct option (power-neutralizing) that is as prevalent and as viable for conflict resolution. Third, I call

attention to the implications of language regimes for state-building. Building on Laitin (1988), I argue language regime choice is the product of strategic bargaining between different groups. In the fourth section, I argue language regimes are political institutions. Whether language regimes are power-concentrating, power-sharing, or power-neutralizing is the product of two constraints: the second-period uncertainty and the socioeconomic hierarchy. I review the extant literature on the effects of each constraint on institutional choice. I conclude in the last section.

2.1. LANGUAGE PLANNING AND POLICY⁸

Language planning is the “*deliberate, although not always overt, future oriented*” (Rubin and Jernudd 1971; italicized in original) attempt by a “decision-making administrative structure” (Paulston 1973) to “influence the behavior of others with respect to acquisition, structure, or functional allocations of their languages” (Cooper 1989). The development of Latin during the Roman Empire, the expansion of Arabic in the Islamic world, and the

⁸ The conflation of “language planning” and “language policy” is highly prevalent in the literature. Despite a consensus by some scholars on the need to differentiate between the two, there is little agreement on how to go about doing this. For example, Paulston (1973) defines language planning (also known as “language cultivation”) as the act of “maintaining and improving standard languages, with normative orthographies, grammars, and dictionaries”; and language policy as “the deliberate attempt at social change in language behavior” (1921). In contrast, Kaplan and Baldauf (1997) argue language planning is the “activity, most visibly undertaken by the government, intended to promote systematic linguistic change in some community of speakers”; and language policy, the “body of ideas, laws, regulations, rules and practices intended to achieve the planned language change” (xi). I sidestep this debate by committing the sin of collapsing the two as “language planning”.

spread of Chinese in the Confucian courts of East Asia are all testament to the historical prevalence and geographical scope of language planning (Kaplan and Baldauf 1997). Clearly, the involvement of the government in language planning is anything but trivial.

When language planning emerged as an academic discipline in the 1960s, the emphasis was on “real-world interdisciplinary solutions of immediate practical problems” (Kaplan and Baldauf 1997: xi)—usually those of the new independent developing countries (Fishman et al. 1968). As a result, the focus has been predominantly on the *effects* of language planning. For instance, among those who study language-in-education planning, there is a fascination for evaluating the success of a given policy.⁹

More attention is given to language-in-education planning than any other public spheres (government services and mass media; see Fishman 1989) because “in any attempt at social and cultural change the matter of control over implementation is crucial...and the classroom with its prescribed curriculum and texts lends itself to such control. The function of the school can also be crucial in *bringing about the desired language shift* under certain conditions” (Paulston 1973: 1921; italicized for emphasis).

By focusing on the effects—whether a certain policy was able to bring about “the desired language shift”—this literature has not been able to answer adequately the *political* origins of the language planning. Existing explanations conceptualize languages strictly as *linguistic instruments*. Language planning is seen as a response to an observed linguistic pattern, and is in itself a mechanism to spur linguistic change.

⁹ Other effects of language planning include evolving vocabulary and grammar structures, changing language usages at home, and shifting preferences over the types of schools (Dwyer 2005; Gonzalez 1999; Gopinathan 1998; Guo 1996; Heath 1972; Lieberman 1970; Rubin 1968; Zhou 1996).

Such explanations on the origins of language planning are also apolitical. There is a reason for this development. For a period of time, bureaucrats in the education ministries and language commissions viewed themselves as a separate entity from the Government. This removal from the daily politics coupled with the specialized expertise rendered a general misconception that education policies passed under the umbrella of language planning were politically neutral (Kaplan and Baldauf 1997). But as political scientists, we know no policy is ever created and implemented in a political vacuum. There are institutional constraints and rules that make certain choices more likely than others. These rules are the language regime.

My contribution to these works is both in theory and in methodology. Theoretically, I argue languages are *political instruments* and language regimes are *political institutions*. In doing so, I focus on the *political origins* of language regimes. This approach is not completely radical in language planning. For instance, there are studies in language planning that look at official language choice. Whether the focus is on the “official establishment of norms” (Haugen 1966) or the “central authorization of a standard of language” (Jernudd 1971), these works demonstrate an awareness of the politicized process of choosing a regime. These works, however, do not address systematically which political constraints—and in what capacity—matter. In this dissertation, I present a systematic theoretical explanation of language regime choice.

I test this argument using a cross-national quantitative dataset and a three-case qualitative comparative study. In doing so, I make a methodological contribution to the study of language planning. When the literature on language planning—then known as “language engineering” (Fishman et al. 1968)—first emerged, it was predominantly a non-

theoretical *and* non-comparative discipline. Since then, studies on language planning have been more theoretically-grounded (Cooper 1989; Fishman 2003; Kaplan and Baldauf 1997; Kroskrity 2000; Paulston and Tucker 2003) *or* comparative in nature (Baldauf and Kaplan 2000; Blommaert 1999; Kaplan and Baldauf 1999, 2003, 2005; Kennedy 1983; Trewby and Fitchat 2000), *but* not both (for an exception see Tollefson 1995). In this dissertation, I do both.

2.2. ETHNIC CONFLICT

My dissertation also draws from and contributes to ethnic conflict studies. Given the increasing occurrence of ethnic conflicts, the literature has become saturated with different recommendations for conflict resolution. One type of recommendation focuses on institutional designs. From a normative standpoint, if governments should be “of the people, by the people, for the people”, then there must exist some institution that can provide stability, certainty, and incentive for cooperation (Hall and Taylor 1996; Immergut 1998; Koelble 1995; Peters 1999).

If governments choose certain institutions to resolve—or perhaps avoid—an ethnic conflict, there is reason to believe the same dynamics exist when it comes to language regime choice. Recall, language is an ethnic marker (Smith 1993), and language regimes institutionalize the distribution of linguistic powers between the different groups. By definition, the failure to agree on or the breakdown of a language regime is an ethnic conflict (Brown 1993).

The debate on the “best” institutions for conflict resolution has been long dominated by two camps. In the *power-concentrating* (majoritarian) camp, the argument is that

systems need to have “integrative solutions” that de-crystallize ethnic differences (Horowitz 1985, 1991, 1996). For example, the direct election of a president in a federalist country creates an incentive for pre-electoral coalition building. Also, an electoral system based on the alternate vote allows for vote pooling across ethnic lines. Such electoral rules can encourage groups with different preferences to behave moderately. Candidates from extreme parties are less likely to garner sufficient votes to make any significant impact. In Malaysia, for instance, the strength of the Alliance Party 1957-1969 was its ability to unite the moderate parties from the three major ethnic groups: the United Malays National Organization (UMNO), the Malaysian Chinese Association (MCA), and the Malaysian Indian Congress (MIC).

In contrast, in the *power-sharing* (consociational) camp, the claim is the following: With grand coalitions, cultural autonomy, proportional representation, and a minority veto, different groups are represented in cabinet formations and therefore have the capacity to influence policies that affect their respective communities (Lijphart 1968, 1999, 2004). In the Netherlands, for example, each of the four pillars (Calvinist, Catholic, Liberal, and Socialist) is a tightly-organized group with its own schools, hospitals, and newspapers. Despite this fractionalization, power-sharing institutions allow each pillar to be represented in the Government.

Studies of institutional designs have fallen traditionally on or somewhere in between these two camps: power-concentrating (majoritarian) or power-sharing (consociational). This is not necessarily shocking. Fundamental to every institutional choice is the tension between accountability and representativeness and also between decisiveness and

resoluteness (Cox and McCubbins 2001; Tsebelis 1995, 2002).¹⁰ In short, for every ethnic conflict, the key to resolution is either—or a combination of—power-concentrating and/or power-sharing institutions.

However, when the ethnic conflict involves language, I argue there is a third distinct institutional choice in addition to the aforementioned two. Aside from concentrating powers in the dominant group language (power-concentrating) or sharing powers across multiple languages (power-sharing), there is also the option to neutralize all powers by employing a *lingua franca*. A *lingua franca* is a “language spoken widely and understood practically universally within the boundaries of a state, but this language is not associated as the mother tongue of a significant language group living within that state.” (Laitin 2000: 151) It can be a regional trading language, a religious language, or—in most cases—a colonial language.

Although the use of a *lingua franca* involves forfeiting the recognition of an indigenous language, there are several advantages. As *linguas franca* are supposed to connote neutrality, their use can mitigate the normative tensions between linguistic groups over fairness, equality, and relative recognition. Furthermore, as *linguas franca* are often colonial languages, they can also have a socioeconomic advantage that the indigenous

¹⁰ We see this tension in a wide range of institutions, including electoral rules (Bawn 1993; Kaminski 1999; Remington and Smith 1996; Shugart and Wattenberg 2001), selection of chief executives (Cheibub 2002a, 2002b; Frye 1997; Linz 1994), budget constraint levels (Montinola et al. 1995; Rodden 2006; Wibbels 2003), discretion of bureaucracies (Huber and Shipan 2002), and monetary institution independence (Bernhard 1998, 2002; Broz 1999; Hallerberg 2002a, 2002b; Simmons 1996).

languages lack. Under such conditions, the choice of a power-neutralizing language regime can equalize socioeconomic opportunities in a linguistically heterogeneous polity.

Power-neutralizing institutions are not specific to only language regimes, although admittedly their use is not as prevalent or salient with other ethnic markers. With territory-based conflicts, disputes between two ethnic groups can be neutralized by placing the region under the auspices of an international institution. For example, following several years of fighting, a transitional UN administration (UNMIK) and a NATO-led peacekeeping force (KFOR) was placed in the Albanian-populated, Serbian-birthplace Kosovo (UN Resolution on Kosovo, 1999). Similarly, with religion-based conflicts, disputes can be neutralized via secularism.¹¹ For instance, despite a religious heterogeneity including Buddhists, Christians, Hindus, Muslims, and Taoists, the Singapore Government has officially declined to establish any national religion (Tamney 1988). Clearly, this is not a Singapore-specific design, as freedom of religion is constitutionally protected in the United States Constitution as well.

It is important to recognize a power-neutralizing design is as viable of an alternative as power-concentrating and power-sharing designs. This is especially important with language regime choice. Albaugh (2005), for example, coded 34 out of 47 African states (72%) as having had a power-neutralizing language regime at the time of independence. This is clearly not Africa-specific. Other instances of power-neutralization include the use of

¹¹ While there are a number of power-concentrating religious arrangements (Finland, Malaysia, Nepal, amongst others), there are significantly fewer power-sharing arrangements. One example is Lebanon. While officially a secular state, the constitution requires the President and the Prime Minister to be from different religious backgrounds. The former must be a Maronite Catholic; and the latter, a Sunni Muslim (Hudson 1997).

classical Arabic in the Middle East, Malay in Southeast Asia, and European languages in the Pacific Isles. Given the prevalence of power-neutralizing language regimes, ignoring them can render any subsequent empirical analysis systematically (and possibly selectively) biased. Yet, such discussions remain absent in discussions of conflict resolution.

2.3. STATE-BUILDING

State-building is the establishment of a “set of organizations invested with the authority to make binding decisions for people and organizations juridically located in particular territory and to implement these decisions using, if necessary, force” (Reussemeyer and Evans 1985). It is the “centralized, institutionalized, territorialized regulation of many aspects of social relations” (Mann 1986: 26; also see Migdal 1994). Traditionally, the literature on state-formation has focused on war and money (Laitin 1988). The importance of the military (Barnett 1992; Centeno 1997; Downing 1992; Ertman 1997; Herbst 2000; Jackson 1992; Jackson and Rosberg 1982, 1986; Mann 1988; Tilly 1989, 1992), revenue-collecting institutions (Bates and Lien 1985; Boone 1994; Centeno 1997; Chaudhry 1989; Levi 1988; Lieberman 2001; Ross 1999; Slater 2005; Tilly 1989, 1992; Trockie 2000; Vandewalle 1998), and the market (Boone 1994; Maxfield and Schneider 1997; Perry 1994; Przeworski 2003; Schneider 2004; Spruyt 1994; Trockie 2000) is well-documented.

Just as war and money are necessary—but not individually sufficient—conditions for state building, I argue in line with Laitin (1988) that languages regimes are also necessary. No government can effectively launch a military campaign in the absence of uniformity in military commands, and no government can successfully extract revenues in the absence of a standardized accounting procedure. And in both instances, uniformity in military commands

and standardized accounting procedure require a language regime. For instance, at one point after independence but before a language regime had been chosen, Singapore had a military that was roughly 50% ethnically Chinese, but of which the majority of the ethnical Chinese spoke the Hokkien dialect (Lee 2000; Tan 2007b). So not only were the communication difficulties *inter-ethnic* between the Chinese, Malays, and Indians, they were also *intra-ethnic* between the Hokkien, Cantonese, Hainanese, Hakka, and Teocheow speakers. Such arrangements would have been undoubtedly catastrophic in a time of war.

In addition to efficiency purposes, language regimes are also important for state-building given the implications for socioeconomic equality (Esman 1987; Rahim 1998; Tollefson 1995). In a monolingual regime, the recognition of one language equalizes the *opportunities* for all individuals regardless of their linguistic backgrounds. If the official language of the state is the hypothetical “orange” language, then all individuals, whether they speak “apple” or “banana”, must learn “orange” to be employed in the civil service, to gain admission to higher education, and to negotiate business contracts. In contrast, in a multilingual regime, the recognition of multiple languages equalizes the *use* of different languages. If both “apple” and “banana” are official languages, then individuals can use either language for government, education, and business purposes. Whether monolingual or multilingual, language regimes delineate which languages can be used when and where. The recognition of one language but not another suggests “some people have a legitimate claim to greater respect, importance, or worth in the society than have some others” (Horowitz 1985: 220).

The effects of language regimes have been well-documented, most often in single-case studies. For example, in Somalia (Laitin 1977) and Mozambique (Lopes 1999), the

failure to choose a language regime quickly resulted in the 1969 military coup in the former and a sixteen-year civil war in the latter. In Burma (Callahan 2003) and Nepal (Eagle 2000), the choice of a power-concentrating language regime has severely crippled the government and marginalized the minority groups. In Finland, the bilingual arrangement with Finnish and Swedish as constitutionally recognized official languages has defused the language conflicts that plagued the country at independence (Latomaa and Nuolijarvi 2005). The same cannot be said for Malaysia (Ganguly 2003; Lee 2007) or for Pakistan, especially when Bangladesh was still “East Pakistan” (Alyres 2003). In Latvia, the Latvian-Russian language regime has affected how the non-titular Russians act like Latvians (Kronenfeld 2005), while in contrast, in Kazakhstan, the Kazakh-Russian bilingual arrangement has encouraged a sizable proportion of titular Kazakhs to continue studying Russian (Fierman 2006).

If war, money, and languages have important consequences for state-building, the question should be: What explains their *political origins*? Surprisingly, little research has been done to study the origins of the institutions that matter for “standardiz[ing] laws and norms” (Laitin 1988: 289). For example, there has been no shortage of works looking at the effects of state-directed initiatives (Kohli 2004), embedded autonomy (Evans 1989, 1995), and corruption (Rose-Ackerman 1999) on development. From this literature, we know developmental institutions matter, yet we know very little about *why* governments create these “organizational complexes in which expert and coherent bureaucratic agencies collaborate with organized private sectors to spur economic transformations” (Doner et al. 2005: 328) in the first place. Campos and Root (1996) argue state leaders are constrained to build strong institutions to promote growth when there is an environment of “political contestability”, based predominantly on external threats. In contrast, Waldner (1999) claims

it was the strong elite cohesion that allowed state leaders to develop strong institutions without being constrained by the need to incorporate the popular sector. And finally, Doner et al (2005)(Doner et al. 2005) contend state leaders create bureaucracies with strong capacity and embedded/encompassing linkages only when faced with “systemic vulnerability”—the interactive product of coalition, resource, and military constraints.

If the topic of money—compared to language—has dominated the state-building literature, but yet so little attention has been given to understand the origins of developmental institutions, most certainly, there is reason to believe even less work has been done to study the origins of language regime choice. One study is Laitin (1988). In his state rationalization game, the central government and regional elites bargain over a language regime. He finds that “the ruler has a dominant strategy to administer in the language of the center no matter what strategy is pursued by the regional elites. At best, they can avoid their worst pay-off by learning the language of the center and thereby become bilingual. The equilibrium outcome is...the state administering laws in a single language and regional elites learning the language of the center” (292).

In this dissertation, I continue to build on this gap in the literature by highlighting the importance of language regimes for state-building. Similar to Laitin (1988), I argue language regimes are the product of institutional bargaining between different actors. Different from Laitin (1988), however, I allow for a third language in the menu of options. In addition to the central (dominant) or regional (non-dominant) languages, there is also a lingua franca. The generated predictions are also different. Whereas Laitin (1988) argues the dominant strategy is a power-concentrating language regime, I argue this is only true when two conditions interact: the socioeconomic hierarchy does not converge *and* the likelihood

of the non-dominant group coming to power is low. In the absence of this interaction, we are most likely to see either a power-sharing or power-neutralizing language regime.

2.4. POLITICAL INSTITUTIONS

I argue language regimes are political institutions. They are *political* because they determine which linguistic group has the “authoritative allocation of values” (Easton 1953); which linguistic group “can do what to whom” (Lenin 1905); and which linguistic group “gets what, when, how”(Lasswell 1936). Language regimes are *institutions* because they allow individuals to act in a predictable manner, ensure stability to some degree, affect individual behaviors, and create some sense of shared value and meaning among the members (Peters 1999). If language regimes are political institutions, then by extension, language regime choice is the product of institutional bargaining between different groups.

In this dissertation, I argue whether a language regime is power-concentrating, power-sharing, or power-neutralizing is the product of two considerations: the second-period uncertainty and the socioeconomic hierarchy. In the remainder of this section, I review how individually each consideration affects institutional choice (broadly speaking) and then explain why I expect similar dynamics with language regime choice.

2.4.1. Effects of Second-Period Uncertainty

Governments behave differently when there is uncertainty over remaining in power. There are two types of uncertainty. There is uncertainty over an opposition group coming to power. The effects of this opposition group constraint have been studied extensively in the electoral rules literature. The logic is that incumbent governments advocate power-

concentrating rules when likelihood of the opposition coming to power is low; and conversely, they support power-sharing rules when this likelihood is high. For instance, Poland's decision to employ single-member districts (SMD) in 1989 was strictly the product of a high (albeit erroneous) certainty on the part of the Polish United Workers' Party over remaining in power (Benoit and Hayden 2004; Kaminski 1999). Conversely, high uncertainty on the likelihood of the incumbent Government remaining in power resulted in the adoption of two-member districts (2MD) in 1980 Chile (Rabkin 1996; Schedler 2002), proportional representation (PR) in 1949 Germany (Bawn 1993), and mixed systems in 1989 Hungary (Benoit and Schiemann 2001) and 1993 Russia (Remington and Smith 1996).

The second type of uncertainty is over the stability of the state. State destabilization is characterized by enduring violence, disorder, and/or the limited ability of the government to provide basic political goods. War (civil or international) is state destabilization at the most extreme. For a host of different reasons, some countries are more prone to state destabilization than others. The argument commonly found in the state-building development literature is that governments facing high uncertainty over the stability of the state are more likely to establish "encompassing linkages" (Doner et al. 2005) and other types of developmental institutions (Campos and Root 1996; Waldner 1999). For instance, in Europe, the threat of war necessitated strong revenue-extracting institutions (Downing 1992; Ertman 1997; Tilly 1975, 1989, 1992), while in Africa border stability has translated into little incentive to create states with strong capacity (Herbst 2000; Jackson 1992; Jackson and Rosberg 1982, 1986). Similar arguments have been made about the effects of scarce resources and/or coalitional pressures on development.

Clearly, the two types of uncertainty matter as well for language regime choice. For instance, we would expect less linguistic “SMDs” (power-concentrating language regimes) as the uncertainty of the dominant group remaining in power increased. Also, we would expect more “encompassing linkages” (power-sharing language regimes) as the uncertainty of state stability increased. Since there are two types of uncertainty, it is important that we keep these two constraints distinct. One type suggests a *relative* weakness: The dominant group is relatively weak vis-à-vis a non-dominant group. The other type suggests an *absolute* weakness: Both the dominant and non-dominant groups are weak. In this dissertation, I take this distinction into consideration when I model the bargaining over language regime choice.

2.4.2. Effects of Socioeconomic Hierarchy

The socioeconomic hierarchy also matters for institutional choice. Senator Webster once warned of the dangers of great inequality for democracy: “When this class [those who have not property] becomes numerous, it grows clamorous. It looks on property as its prey and plunder, and is naturally ready, at all times, for violence and revolution” (Webster 1820). Other studies have supported Webster’s claim. High levels of inequality can discourage the rich from choosing to extend suffrage rights to the poor (Acemoglu and Robinson 2006; Boix 2003). In contrast, the presence of a large middle-class can constrain a government to consent to democratic rules (Lipset 1959).¹²

¹² In democracies high levels of inequality can also lead to increased pressures for redistributive policies (Acemoglu and Robinson 2006; Alesina and Rodrik 1994; Persson and Tabellini 1994).

I argue this socioeconomic constraint exists as well for language regime choice. Tensions become increasingly salient when linguistic groups evaluate and compare their socioeconomic status with other groups. In response, the leaders of the socioeconomically non-dominant group may champion the need to “catch up” and to “emulate” the socioeconomically dominant group (Horowitz 1985). The ability to catch up and emulate depends on how the wealth is distributed. There are two types of distribution. In the first type, the socioeconomically non-dominant group is also the politically non-dominant group. Under such conditions, calls for self-improvement can fall on deaf ears due to psychological and sociological reasons (bin Muhammad 1970; Kassim 1974; Rahim 1998). In contrast, in the second type, the socioeconomically non-dominant group is the politically dominant group. In this non-convergent hierarchy scenario, the politically dominant group has the political capacity to incite change, whether via expropriation, nationalization of assets, or affirmative action (Esman 1987).

2.5. CONCLUSION

In this chapter, I reviewed several different bodies of literature and discussed the theoretical and methodological contributions of this dissertation. First, I questioned the common assumption that languages are simply linguistic instruments of non-political agents. I also noted the emphasis on the effects of language policies. I argued instead languages are political instruments of political agents and that we should focus as well on the political origins of language regimes. Second, I introduced a third, distinct institutional design for ethnic conflict resolution. I argued power-neutralizing institutions are as prevalent and as viable as power-concentrating (majoritarian) and power-sharing (consociational) institutions.

Third, I highlighted the importance of language regimes for state-building, which has focused exclusively on war and money. Extending Laitin (1988), I argued language regime choice is the product of strategic bargaining between different groups.

At the end of this chapter, I presented the foundations of my theoretical argument. I argued language regimes are political institutions, and language regime choice is the product of two constraints: the second-period uncertainty and the socioeconomic hierarchy. Specifically, when the socioeconomic hierarchy does not converge and the likelihood of the non-dominant group coming to power is low, we are most likely to see a power-concentrating language regime. In contrast, under the same socioeconomic conditions (non-convergent), if the likelihood of the non-dominant group coming to power is high, we are most likely to see a power-neutralizing language regime. And finally, we are most likely to see a power-sharing language regime when the socioeconomic hierarchy converges. In the next chapter, I model this argument formally. While simplistic, the model captures the bargaining dynamics, the strategic interactions, and the constraints facing each group.

3. ARGUMENT

Theory of Language Regime Choice

Language regimes delineate which languages can be used when and where. This delineation suggests not all languages are considered or treated equal by the government. This de jure recognition of languages not only suggests some groups are more “valuable”, but it also has implications for civic development, conflict resolution, economic growth, and state-building. Given the importance of language regimes, we need to pause and ask: What explains a government’s language regime choice? Under what conditions are language regimes power-concentrating, power-sharing, and power-neutralizing?

Drawing heavily from the political institutions literature, I argue language regime choice is a bargain between linguistic groups over institutional design. While language regimes are fundamentally political institutions, their nature warrants the bargaining process slightly different from other institutions’. Traditionally, institutional designs fall on a spectrum with complete power-concentration and complete power-sharing at the two extremes. This classification reflects the competing tension between accountability and representativeness, and by extension between decisiveness and resoluteness (Cox and McCubbins 2001; Tsebelis 1995, 2002). However, with language regimes, there is a third distinct option: power-neutralization via a lingua franca.

In this chapter, I formally lay out this argument. I demonstrate language regime choice is the product of two factors: the second-period uncertainty and the socioeconomic hierarchy. The second-period uncertainty refers to the likelihood of future events happening should be there no immediate agreement on a language regime. There are three possible

developments: the dominant group remains in power, a non-dominant group comes to power, and the state destabilizes. The socioeconomic hierarchy is about which group is socioeconomically advantaged. If the politically dominant group is the socioeconomically advantaged group, then the hierarchy is considered “convergent”; otherwise, “non-convergent”.

Solving the model and taking the comparative statics suggests when the socioeconomic hierarchy does not converge and the likelihood of the non-dominant group coming to power is low, then we are most likely to see a power-concentrating language regime. In contrast, under the same non-convergent hierarchy, if the likelihood of the non-dominant group coming to power is high, then we are most likely to see a power-neutralizing language regime. And finally, we are most likely to see a power-sharing language regime when the socioeconomic hierarchy converges.

I begin this chapter by describing the components that underpin the model—the assumptions, the outcomes, the actors and the sequence of moves, and the utilities and payoffs. I then present the language accepting equilibrium, followed by a section on comparative statics. I conclude by highlighting the implications of the model on language regime choice. All proofs are given in Appendix 1.

3.1. THE MODEL

3.1.1. Assumptions

I make four assumptions to characterize the dynamics behind the choice of language regimes. First and foremost, language regime choice is constrained by an efficiency element. There is a cost when it is necessary to communicate across more than one language. This

cost is by no means trivial (Pool 1991). From a physical capital standpoint, for instance, all government bills, court-rulings, and tax-related paperwork have to be translated and be available in multiple languages. This cost is clearly evident in the case of the Persian Empire. During the reign of Xerxes the Great (486-465 BCE), court official Mordecai sent out official decrees in 127 translations (Paulston and Tucker 2003)! From a social capital standpoint, languages bond and identify social networks. As the number of social networks increases, the degree of connectivity of individuals, the norms of reciprocity, and the levels of trust across the state decreases. This is problematic since a “society characterized by generalized reciprocity is more efficient than a distrustful society, for the same reason that money is more efficient than barter” (Putnam 2000: 19, 21). Thus:

Assumption 1: *Communication between languages is costly.*

Second, I assume languages differ in their socioeconomic values. While speakers of each language may consider their language culturally priceless, some languages are simply more important than others on the international front. For example in Somalia, although English and Italian had both been colonial languages, it was English and not Italian that remained a viable alternative during the decade-long language debate precisely because it was viewed as having considerable economic benefits (Laitin 1977). The story is the same in Singapore. The choice to promote English the language of “wider communication” was motivated to ensure Singapore’s continued survival following the withdrawal of the British troops (Gopinathan et al. 1998; Kaplan and Baldauf 2003). Hence:

Assumption 2: *Languages differ in their socioeconomic values.*

Third, I do not assume state destabilization is an outcome to always avoid. In the international conflict literature, for example, while war may be an inefficient outcome, it happens because one (if not both) of the bargaining parties believes its utility is greater post-fighting than sans fighting (Chiozza and Goemans 2004; Fearon 1995; Powell 2006; Wolford 2007). Similarly, in bargaining over language regimes, a non-dominant group may prefer state destabilization over accepting the proposed division of linguistic powers. This dynamic is evident in the case of Pakistan. Disagreements between West and East Pakistan over language regimes (amongst other issues) eventually led to the ultimate state failure: military fighting and the secession of the Eastern half, nowadays known as Bangladesh (Leclerc 2007; Mohsin 2003). Taken altogether, the third assumption is as follows:

Assumption 3: *State destabilization is not an outcome to always avoid.*

Finally, in line with other rational choice institutionalist arguments (see Hall and Taylor 1996; Koelble 1995; Peters 1999), I assume bargaining over language regimes are most likely to happen after there has been a shock to the political system. Seismic events, such as political independence and democratic transitions, can change the distribution of political powers between the previous haves and have-nots. This shifting distribution introduces uncertainty over the likelihood of the dominant group remaining in power, a non-dominant group coming to power, and the state destabilizing. We see similar bargaining dynamics over electoral rule choice in the wake of a democratic transition: An incumbent dictatorial party is more likely to advocate mixed or proportional-like electoral systems as a way to guarantee its future survival despite a changing political arena (Bawn 1993; Benoit

and Hayden 2004; Benoit and Schiemann 2001; Blais et al. 2005; Diaz-Cayeros and Magaloni 2001; Remington and Smith 1996). Accordingly:

Assumption 4: *Bargains over language regime choice happen most often after a political shock.*

3.1.2. Outcomes

Language regimes institutionalize the distribution of linguistic powers. How these powers are distributed determines the type of language regime. There are three types of language regimes. A *power-concentrating* language regime is characterized by the concentration of linguistic powers in the dominant group language. Bangladesh (Mohsin 2003), Bhutan (Leclerc 2007), Burma (Callahan 2003), Nepal (Eagle 2000), and Thailand (Keyes 2003; Leclerc 2007; Noss 1984) are a few instances of countries with linguistic power-concentration. In contrast, a *power-sharing* language regime is defined by the sharing of linguistic powers across multiple groups. Examples of power-sharing language regimes include Finland (Latomaa and Nuolijarvi 2005), India (Das Gupta 1970; Stuligross and Varshney 2002), Pakistan (Alyres 2003), Peru (Leclerc 2007; Mar-Molinero 2000), and Sri Lanka (DeVotta 2003). And finally, a *power-neutralizing* language regime is characterized by the neutralization of linguistic powers via a lingua franca. We see linguistic power-neutralization with the use of French in Cote d'Ivoire (Albaugh 2005; Leclerc 2007), Malay in Indonesia (Bertrand 2003; Kee 1973; Montolalu and Suryadinata 2007), English in Papua New Guinea (Kaplan and Baldauf 2003), and Portuguese in Timor-Leste (Leclerc 2007).

In addition to the three language regime types, there is a fourth distinct outcome: state destabilization. The most extreme form of state destabilization is civil war. Fortunately,

the occurrences of civil war are rare and few, as noted in the civil war literature (Collier and Hoeffler 1998, 2004; Fearon and Laitin 2003; Sambanis 2004). Unfortunately, however, less extreme forms of state destabilization, characterized by enduring violence, disorder, and the limited ability of the government to provide political goods, are much more prevalent. While state destabilization clearly not a language regime choice per se, it is still, however, an outcome in the model. The 1969 military coup in Somalia (Laitin 1977) and the sixteen-year civil war in Mozambique (Lopes 1999), for instance, are examples of failed bargaining.

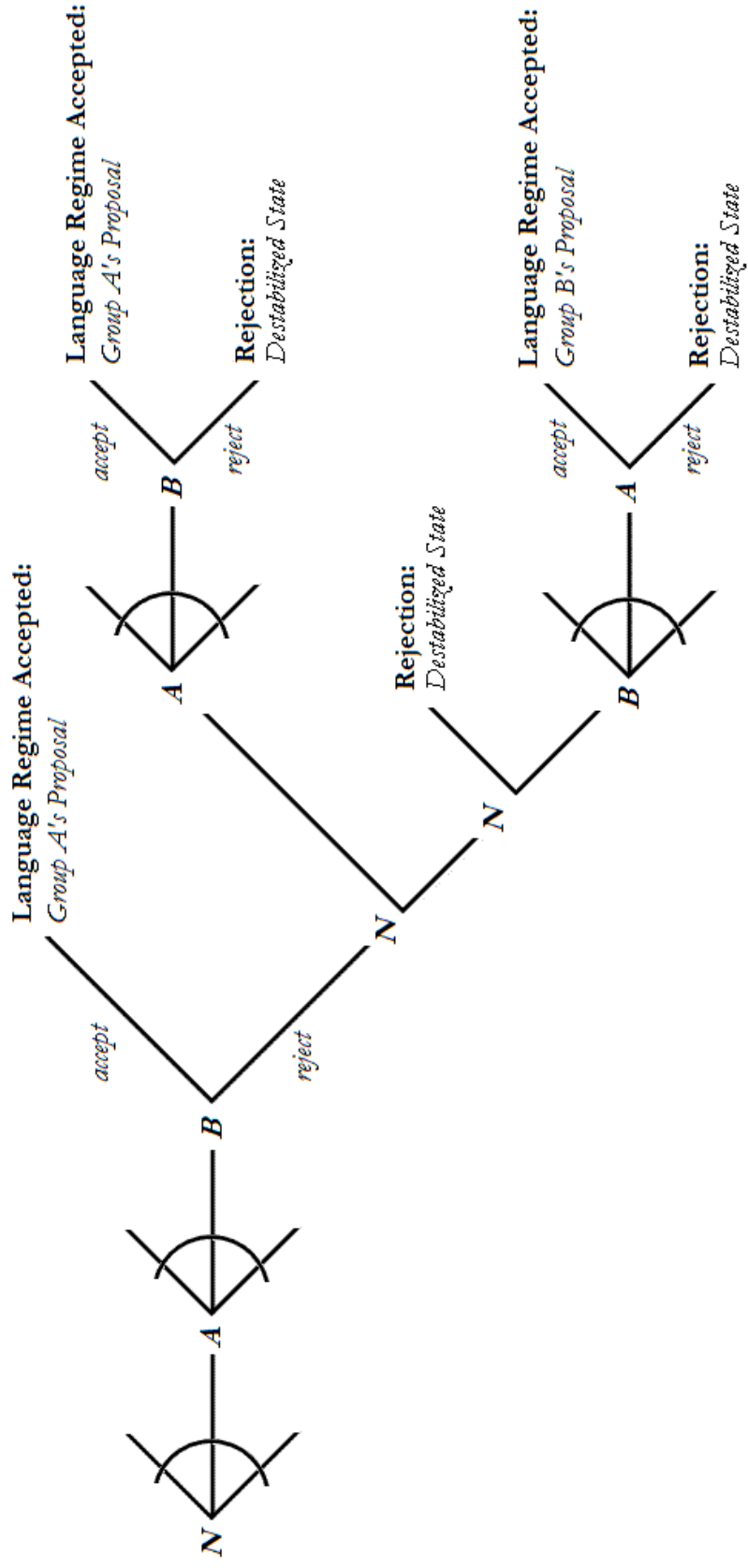
3.1.3. Actors and Sequence of Moves

To characterize the dynamics over the choice of language regimes, I employ a Rubenstein bargaining model. As illustrated in Figure 3.1, in the model there are two groups (A and B)¹³ interacting over two periods.¹⁴ The bargain is over the division of linguistic powers, specifically, the proportion of the number of years each of the three languages (Group A 's language, Group B 's language, and the lingua franca) is offered in public primary and secondary education. One linguistic group is in political power (hereafter referred to as the “dominant group”). For the sake of simplicity, I denote Group A as the dominant group of Period 1.

¹³ To include additional groups does not alter the fundamental structure of the game. Whether it is two or twenty, groups bargain over the distribution of linguistic powers. However, to remove one group from the model is slightly problematic. By definition, a bargain is between multiple actors. When there is only one actor (group), the model is no longer game theoretic but rather decision theoretic.

¹⁴ Group A and Group B can also interact in an infinite horizon game instead of just two periods. To model the game as such would not change any of the substantive findings.

FIGURE 3.1: The Game



In Period 1 following a shock to the political system,¹⁵ nature (N) determines exogenously the socioeconomic value of the two indigenous languages relative to each other: Group A 's language ($\lambda_A: \lambda_A \in [-1,1]$) and Group B 's language ($\lambda_B: \lambda_B \in [-1,1]$). Nature also determines the economic importance of the lingua franca ($\tau: \tau \in [0,1]$). Group A proposes a division of linguistic powers, mathematically denoted as $(n_{A1}, n_{B1}, n_{LF1})$, where n_{jk} represents the proportion of the number of years the j -th language is publicly offered as a language of instruction in primary and secondary education in the k -th period.¹⁶ Note that since n_{jk} is a proportion, it must be bounded mathematically between 0 and 1. Furthermore, as the only available options of languages in this game are the aforementioned languages, the three proportions must add up to a value of 1.

¹⁵ It is not my intention to explain why these initial shocks happen; rather, I take them as given. Shocks can be country-specific, such as political independence or democratic transitions. They can also be non-country specific. Examples of non-country specific shocks include the end of the Cold War in 1991 or the East Asian economic crisis in 1997. Regardless of the source, shocks create uncertainty in the political landscape and can shift the distribution of power—whether actual or perceived—between the different groups. It is during these shocks that there is a moment for groups to reinforce, renovate, or replace the existing language regime choice.

¹⁶ Using the proportion of the number of years the j -th language is offered—as opposed to the raw number of years the j -th language is offered—allows for the measurement of relative differences in linguistic powers between the different groups. Using a proportion also allows for the normalization of differences in the total number of years between primary and secondary education. Some countries, for example Estonia, have eleven years of schooling; others, such as Romania, have twelve years; and still others, most notably Macedonia, have as many as sixteen years!

As an illustrative example, consider the United States where the only available language of public instruction is English. While English is a lingua franca in some countries, for instance, Malaysia, Namibia, and Papua New Guinea, the fact that English is associated as the mother tongue of a significant language group living within the United States by definition renders it a dominant group language. So in terms of coding, n_A has a value of 1; n_B , a value of 0; and n_{LF} , a value of 0. In contrast in Canada, English and French have equal recognition in the education system. As such, both n_A and n_B have values of $\frac{1}{2}$, while n_{LF} has a value of 0.

After Group A has made a proposal, Group B —the group not in power (hereafter referred to as the “non-dominant group”) decides whether to accept or reject this proposal. If Group B accepts, the game ends in Period 1 with Group A ’s proposal as the language regime. However, if Group B rejects, the game continues to Period 2.

In Period 2, nature moves first. Group A remains in power with some probability $\{\alpha:\alpha\in[0,1]\}$. If Group A remains the dominant group, it again proposes a division of linguistic powers $(n_{A2}, n_{B2}, n_{LF2})$, and Group B again decides whether to accept or reject the proposal. The outcome of an acceptance is a language regime based on Group A ’s proposal; in contrast, the consequence of a rejection is state destabilization.

In Period 2, however, there is also some probability that Group A is removed from power $\{1-\alpha:\alpha\in[0,1]\}$. Instead, Group B comes to power with a probability of $\{\beta:\beta\in[0,1]\}$ and the state destabilizes with a probability of $\{1-\beta:\beta\in[0,1]\}$. If Group B is the new dominant group, it proposes a division of linguistic powers $(n_{A3}, n_{B3}, n_{LF3})$, which Group A then decides whether to accept or reject. Acceptance of the proposal yields a language regime; rejection of the proposal, state destabilization.

In this model, state destabilization is a possible outcome on three different occasions: after Group B 's rejection in Period 1 (with a probability of $\{(1-\alpha)(1-\beta):\alpha,\beta\in[0,1]\}$); after Group B 's rejection in Period 2; and after Group A 's rejection in Period 2. While the sequence of events leading up to each instance is different, consistent in all three is the absence of a dominant group. As such, no proposal is made.

3.1.4. Utilities and Payoffs

Let me begin with the utility for the dominant group D . Recall Group A is always the dominant group of Period 1 and the dominant group of Period 2 with probability α . The utility is (1) the proportion of the number of years the dominant group language is offered multiplied by the relative socioeconomic value of the language plus (2) the proportion of the number of years the lingua franca is offered multiplied by the economic importance of the lingua franca minus (3) the cost of inter-group communication. Mathematically, all this is denoted as follows:

$$U_D(n_A, n_B, n_{LF} | d = \text{accept}) = n_D(1 + \lambda_D) + n_{LF}(1 + \tau) - C(n_A, n_B, n_{LF}) \quad (3.1)$$

The cost of inter-group communication is a function of the proportion of the number of years each language is offered. This function is expressed as $C(n_A, n_B, n_{LF}) = 1 - (n_A^2 + n_B^2 + n_{LF}^2)$. The use of a Herfindahl-Hirschman Index here is appropriate as it captures the relative weight of and variance between each language in the regime. With this function, the dominant group incurs no cost when only one language is offered. From a cost standpoint, the dominant group is indifferent between concentrating linguistic powers in its own language and neutralizing linguistic powers via a lingua franca. The function,

however, does discriminate over how many years each language is proposed and over the number of languages proposed. For example, consider the following two language regimes:

	# Years (A)	# Years (B)	# Years (LF)	n_A	n_B	n_{LF}	Cost
1	12	12	0	$\frac{12}{24}$	$\frac{12}{24}$	$\frac{0}{24}$	0.50
2	12	6	6	$\frac{12}{24}$	$\frac{6}{24}$	$\frac{6}{24}$	0.63

The first language regime is exclusively indigenous and accords the two languages equal recognition. Both Group A and Group B languages are offered for twelve years, for a total of 24 language-years. In the second language regime, all three languages are used in the classrooms. However, the distribution is slightly different. While Group A language is still offered for 12 years, both Group B language and the lingua franca are offered for 6 years each, for a total of 24 language-years. Although the total number of language-years is the same in both language regimes (24), the costs are actually higher in the second one. What this suggests is that there is a diminishing cost: Adding one additional year to a language that is already offered is less costly than adding one year to a language that is not being offered.

The utility for the non-dominant group d is similar. Again, remember Group B is always the non-dominant group of Period 1 and the non-dominant group of Period 2 with probability $\alpha + (1-\alpha)(1-\beta)$.¹⁷ The utility is the (1) the proportion of the number of years the non-dominant group language is offered multiplied by the relative socioeconomic value of the language plus (2) the proportion of the number of years the lingua franca is offered

¹⁷ When possible, I use the notations A and B . Since there is some uncertainty over which group will be the dominant group in the second period, I use the notations D to denote the dominant group and d to denote the non-dominant group. While the introduction of additional notations may seem unnecessary, I do so to simplify the discussions and mathematical proofs.

multiplied by the economic importance of the lingua franca. Mathematically, I express this as follows:

$$U_d(n_A, n_B, n_{LF} | d = \text{accept}) = n_d(1 + \lambda_d) + n_{LF}(1 + \tau) \quad (3.2)$$

Two additional comments warrant further discussion. First, each group receives a positive utility only for the proportion of the number of years its own language is offered *and* the proportion of the number of years the lingua franca is offered. This is not to say that groups are indifferent over the proportion of the number of years the other group's language is offered. On the contrary, both groups are interested in the other group's proportion for several reasons. First, from a relative standpoint, recall the proportions of all three languages are interconnected such that $n_A + n_B + n_{LF} = 1$. Thus, as the proportion of the number of years Group *A*'s language is offered increases, Group *B*'s utility decreases because the proportion of the number of years Group *B*'s language and/or the lingua franca is offered decreases. Also, from a cost standpoint, as the dominant group bears the cost of inter-group communication, its utility decreases as the proportion of the number of years the non-dominant group language is offered increases.

Second, while inter-group communication is costly and has implications for the entire polity, I argue the majority of the cost bears on the dominant group. Remember that language regime choice is the product of bargaining over an institutional design—a design first proposed by the dominant group. All language regimes at the most basic level necessitate money. By extension, the burden of raising and collecting revenues, developing a viable curriculum and training teachers, and maintaining some general fluidity between languages, between the state and society, and between the different levels of education (for

example, primary and secondary) falls on the dominant group. Even if the dominant group delegates such responsibilities to independent bodies or decentralizes some of the decision-making processes (such as education) to the non-dominant group, it is still the dominant group that must ensure the maintenance of the language regime. Failure to do so could lead to the dominant group's removal from office.¹⁸

The two utilities in Equations 3.1 and 3.2 are conditioned on the non-dominant group accepting a proposed division of linguistic powers. In contrast, if the non-dominant group rejects the proposal, the state destabilizes. The utility of a destabilized state for each linguistic group is denoted as follows:

$$U_A(n_A, n_B, n_{LF} | B = \text{reject}) = \phi_A \quad (3.3)$$

$$U_B(n_A, n_B, n_{LF} | A = \text{reject}) = \phi_B \quad (3.4)$$

The value of ϕ , bounded from 0 to 1, is exogenously determined. A low value of ϕ suggests little utility—if any—is accrued from a destabilized state. Under such conditions, linguistic groups have greater incentives to make linguistic concessions. Dominant groups with low utilities for a destabilized state are constrained to minimize linguistic concentration. Similarly, non-dominant groups with low values of ϕ are more likely to accept a less-than-ideal division of linguistic powers. In contrast, a high value of ϕ indicates the utility from a destabilized state is high. The higher this utility, the less likely a linguistic group is to offer and/or accept a proposal short of its most preferred outcome.

¹⁸ There are also non-financial costs. For example, to build public and legislative support for the new language regime can require substantial political capital. Failure to build this support can lead to the removal of the dominant group from power.

3.2. LANGUAGE REGIME ACCEPTED EQUILIBRIUM

The following strategies—the *Language Regime Accepted Equilibrium*—form a subgame perfect equilibrium when the following two conditions hold. In both periods, the dominant group offers a division of linguistic powers and the non-dominant group accepts. The two conditions are as follow:

$$\phi_A \leq \frac{2\phi_B^2 + (1+\tau)\phi_B(-2+\tau-\lambda_A) + (1+\tau)^2(1+\lambda_A)}{(1+\tau)^2} \quad (3.5)$$

$$\phi_B \leq \frac{2\phi_A^2 + (1+\tau)\phi_A(-2+\tau-\lambda_B) + (1+\tau)^2(1+\lambda_B)}{(1+\tau)^2} \quad (3.6)$$

Equations 3.5 and 3.6 suggest both groups have an incentive to agree on a language regime when the utility from a destabilized state is low. Using backwards induction, the dominant group of Period 2 will always offer zero years in the non-dominant group language ($n_d=0$). There are two reasons for this. First, offering zero years in *any language* minimizes the costs of inter-group communication incurred by the dominant group. Second, recall the dominant group receives no positive utility for offering *any years* in the non-dominant group language. In fact, the dominant group receives indirectly a negative utility as the proportion of its own language and/or the lingua franca decreases.

If the number of years in the non-dominant group language is 0, then the proportion in the lingua franca must be the non-dominant group's indifference point between accepting (outcome: dominant group's proposal) and rejecting (outcome: destabilized state). This indifference point is mathematically expressed as $n_{LF} = \frac{\phi_d}{1+\tau}$. The remaining proportion of linguistic powers is concentrated in the dominant group language.

Taken altogether, the optimal division of linguistic powers in Period 2 is as follows:

$$n_{D2}^*, n_{d2}^*, n_{LF2}^* = \left(1 - \frac{\phi_d}{1+\tau}; 0; \frac{\phi_d}{1+\tau} \right).$$

In Period 1, Group \mathcal{A} —the dominant group of Period 1—will propose a division of linguistic powers such that Group \mathcal{B} —the non-dominant group of Period 1—will be indifferent between accepting in Period 1 and playing the lotteries of Period 2. Recall that in Period 2, there are three possible outcomes: Group \mathcal{A} remains in power with a probability of α , Group \mathcal{B} comes to power with a probability of $(1-\alpha)\beta$, and the state destabilizes with a probability of $(1-\alpha)(1-\beta)$.

In equilibrium, the optimal division of linguistic powers is equal to Group \mathcal{B} 's indifference point. When Group \mathcal{A} makes such proposals, Group \mathcal{B} will accept. The optimal division of linguistic powers is as follows:

$$\begin{aligned} n_{\mathcal{A}1}^\circ &= \frac{1}{4(1+\tau)^2(1+\tau+\tau^2 - (-1+\tau)\lambda_B + \lambda_B^2)} \\ &\quad * (4(-1+\alpha)\beta\phi_{\mathcal{A}}^2(2+\tau+\lambda_B) + 2(-1+\alpha)\beta(1+\tau)\phi_{\mathcal{A}}(-4+\tau^2 - 4\lambda_B - \lambda_B^2) \\ &\quad + (1+\tau)^2(4-4\beta+4\alpha\beta+3\tau-2\beta\tau+2\alpha\beta\tau - \lambda_{\mathcal{A}}(\tau-\lambda_B)^2 + 5\lambda_B \\ &\quad - 6\beta\lambda_B + 6\alpha\beta\lambda_B + 2\tau\lambda_B - 2\beta\tau\lambda_B + 2\alpha\beta\tau\lambda_B - \tau^2\lambda_B + 2\lambda_B^2 - 2\beta\lambda_B^2 \\ &\quad + 2\alpha\beta\lambda_B^2 + \tau\lambda_B^2 + 2(1+\alpha(-2+\beta)-\beta)\phi_{\mathcal{B}}(2+\tau+\lambda_B))) \\ n_{\mathcal{B}1}^\circ &= \frac{1}{20(1+\tau)(\tau+\lambda_{\mathcal{A}})(1+\tau+\tau^2 - (-1+\tau)\lambda_B + \lambda_B^2)} \\ &\quad * (-20(\alpha-1)\beta\phi_{\mathcal{A}}^2(2+\tau+\lambda_B) - 10(\alpha-1)\beta(1+\tau)\phi_{\mathcal{A}}(-4+\tau^2 - 4\lambda_B - \lambda_B^2) \\ &\quad + (1+\tau)(-4+20\beta-20\alpha\beta+\tau+30\beta\tau-30\alpha\beta\tau+21\tau^2+10\beta\tau^2 \\ &\quad - 10\alpha\beta\tau^2+20\tau^3+5(1+\tau)\lambda_{\mathcal{A}}(\tau-\lambda_B)^2 - 9\lambda_B+30\beta\lambda_B \\ &\quad - 30\alpha\beta\lambda_B - 31\tau\lambda_B+40\beta\tau\lambda_B - 40\alpha\beta\tau\lambda_B - 25\tau^2\lambda_B+10\beta\tau^2\lambda_B \end{aligned}$$

$$\begin{aligned}
& -10\alpha\beta\tau^2\lambda_B + 5\tau^3\lambda_B + 6\lambda_B^2 + 10\beta\lambda_B^2 - 10\alpha\beta\lambda_B^2 + 5\tau\lambda_B^2 \\
& + 10\beta\tau\lambda_B^2 - 10\alpha\beta\tau\lambda_B^2 - 5\tau^2\lambda_B^2 \\
& - 10(1 + \alpha(-2 + \beta) - \beta(1 + \tau)\phi_B(2 + \tau + \lambda_B))
\end{aligned}$$

$$n_{LF1}^{\circ} = \frac{1}{5(\tau + \lambda_A)}$$

$$\begin{aligned}
& *(-4 + 5\lambda_B - \frac{1}{4(1 + \tau)^2(1 + \tau + \tau^2 - (-1 + \tau)\lambda_B + \lambda_B^2)} - 5(-1 + \lambda_A) \\
& *(4(-1 + \alpha)\beta\phi_A^2(2 + \tau + \lambda_B) + 2(-1 + \alpha)\beta(1 + \tau)\phi_A(-4 + \tau^2 - 4\lambda_B - \lambda_B^2) \\
& + (1 + \tau)^2(4 - 4\beta + 4\alpha\beta + 3\tau - 2\beta\tau + 2\alpha\beta\tau - \lambda_A(\tau - \lambda_B)^2 \\
& + 5\lambda_B - 6\beta\lambda_B + 6\alpha\beta\lambda_B + 2\tau\lambda_B - 2\beta\tau\lambda_B + 2\alpha\beta\tau\lambda_B - \tau^2\lambda_B \\
& + 2\lambda_B^2 - 2\beta\lambda_B^2 + 2\alpha\beta\lambda_B^2 + \tau\lambda_B^2 + 2(1 + \alpha(-2 + \beta) - \beta)\phi_B(2 + \tau + \lambda_B))).
\end{aligned}$$

Recall the three language proportions must collectively add up to 1 ($n_{A1}^* + n_{B1}^* + n_{LF1}^* = 1$). And while each individual language proportion can mathematically take on an infinite range of values $(-\infty, \infty)$ such that the collective constraint still holds, this makes no theoretical sense whatsoever. It is not possible for any language to be offered less than 0 per cent or more than 100 per cent of the total number of language years. Given this individual constraint, I impose corner solutions. Since there are no temporal restrictions, that is, all three language proportions ($n_{A1}^*, n_{B1}^*, n_{LF1}^*$) are determined independently and simultaneously, I adopt a sequential approach. Specifically, the optimal division of linguistic powers with corner constraints is as follows:

$$\begin{aligned}
n_{A1}^* &= \begin{cases} 0 & \text{if } n_{A1}^\circ < 0 \\ n_{A1}^\circ & \text{if } 0 < n_{A1}^\circ < 1 \\ 1 & \text{if } 1 < n_{A1}^\circ \end{cases} \\
n_{B1}^* &= \begin{cases} 0 & \text{if } n_{B1}^\circ < 0 \\ n_{B1}^\circ & \text{if } 0 < n_{B1}^\circ < 1 \\ 1 - n_{A1}^* & \text{if } 1 - n_{A1}^\circ < n_{B1}^\circ \end{cases} \\
n_{LF1}^* &= \begin{cases} 0 & \text{if } n_{LF1}^\circ < 0 \\ n_{LF1}^\circ & \text{if } 0 < n_{LF1}^\circ < 1 \\ 1 & \text{if } 1 - n_{A1}^\circ - n_{B1}^\circ < n_{LF1}^\circ \end{cases} .
\end{aligned}$$

In this equilibrium, it is not rational for Group A to offer Group B a “reject-able” proposal in Period 1. From Group A ’s standpoint, while Period 2 provides a potential opportunity to propose a language regime subject to less constraint from Group B , this gain is offset by some inherent risks. Let us assume first a worst case scenario where group A ’s utility for a destabilized state is 0. If the state destabilized (recall with a probability of $(1-\alpha)(1-\beta)$), Group A is left with a disutility of 0. Even if the state does not destabilize and instead Group B comes to power, the optimal offer from the new dominant group is bound to yield a utility less than the initial one—0. In contrast, in a best case scenario where the likelihood of Group A remaining in power is absolutely certain ($\alpha=1$), the optimal division of linguistic powers in Periods 1 and 2 are identical. As such, there is no incentive for either group to delay the game into Period 2.

3.3. COMPARATIVE STATICS

What happens to language regime choice when parameter values change? In the model, there are several sets of parameters. In this section, I am interested primarily in the second-period uncertainty $\{(\alpha, (1-\alpha)\beta, (1-\alpha)(1-\beta))\}$ and the socioeconomic hierarchy (λ_A, λ_B) . For instance, how does the increasing likelihood of the dominant group remaining in power (α) affect the division of linguistic powers? Or, what happens to a language regime choice as the relative socioeconomic value of Group A 's language (λ_A) decreases?

The comparative statics suggest there is an interactive effect between the second-period uncertainty and the socioeconomic hierarchy. Broadly speaking, there are two types of socioeconomic hierarchy. The *convergent* socioeconomic hierarchy is characterized by a politically dominant group that is also socioeconomically advantaged. In contrast, when the politically dominant group is socioeconomically disadvantaged, the socioeconomic hierarchy is considered *non-convergent*.¹⁹ The type of socioeconomic hierarchy is mathematically expressed with a positive value for the parameter λ_j where the j -th group is

¹⁹ Technically, there are two types of non-convergent socioeconomic hierarchies. One is distinguished by the politically non-dominant group being socioeconomically advantaged. The other is characterized by neither groups being socioeconomically advantaged. While there may be theoretical reason to classify this latter type as its own hierarchy, I consider it as non-convergent to capture the general lack of power consolidation by the politically dominant group. This distinction is not necessary for the three case studies. In the statistical test, however, I take this into consideration when coding the socioeconomic hierarchy. I use an alternate scheme of divergent versus non-divergent socioeconomic hierarchy for robustness. The results do not change.

socioeconomically advantaged and with a negative value for the parameter λ_k , where the k -th group is socioeconomically disadvantaged.²⁰

Let me begin with the convergent socioeconomic hierarchy ($\lambda_A > 0$; $\lambda_B < 0$). When the politically dominant group is also socioeconomically advantaged—or in other words, when the dominant group language is relatively socioeconomically valuable—the language regime is power-sharing. This is true regardless of the values of the second-period uncertainty: the likelihood of the dominant group remaining in power (α), the likelihood of the non-dominant group coming to power $(1-\alpha)(\beta)$, and the likelihood of the state destabilizing $(1-\alpha)(1-\beta)$.

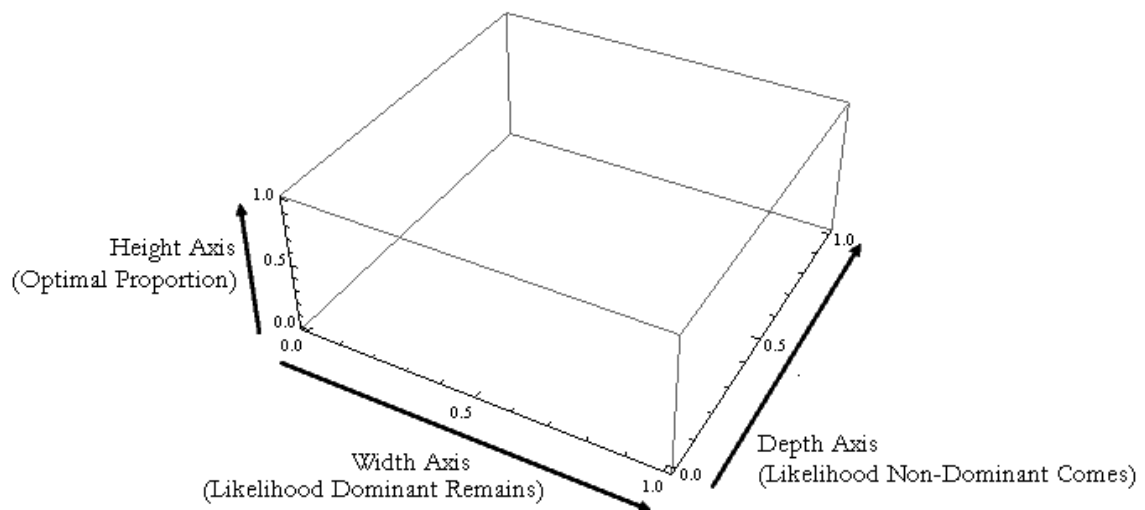
A clarification merits quick discussion. Just because the language regime choice in a convergent socioeconomic hierarchy is power-sharing regardless of the second-period uncertainty does not mean the values of the second-period uncertainty do not matter. For instance, as the likelihood of the dominant group remaining in power (α) changes, the

²⁰ I make the assumption that the socioeconomic advantage of a given group derives from—and translates into—a relatively high socioeconomic value of that group's language. Or in other words, as the socioeconomic advantage of the politically dominant group increases, the relative socioeconomic value of the dominant group language vis-à-vis the other indigenous languages should also increase. In this case, as there are only two indigenous languages in the model, and since we are interested in the relative value, I substitute the socioeconomic value of Group B 's language as the negative socioeconomic value of Group A 's language. Mathematically, this is expressed as $\lambda_B = -\lambda_A$. Recall that the relative socioeconomic value of each language (λ_A and λ_B) is bounded from a minimum of -1 to a maximum of 1. As such, a large difference between the two relative socioeconomic values (a maximum of 2) would indicate one group with complete socioeconomic advantage; conversely, a small difference between the two relative socioeconomic values (a minimum of 0) would suggest neither group is significantly socioeconomically advantaged over the other.

proposed division of linguistic powers also changes. The same mathematical properties apply as well to the likelihood of the non-dominant group coming to power $(1-\alpha)(\beta)$ and the likelihood of the state destabilizing $(1-\alpha)(1-\beta)$. What this suggests is the following: While the *type* of language regime remains the same (power-sharing), the *degree* of power sharing changes. This differentiation will become evident in the three case studies in Chapters 5-7.

All this is reflected in the four simulated 3D plots in Figure 3.2. In each plot, hypothetical values have been assigned to all the parameters except for the second-period uncertainty. This visualization allows us to grasp (1) broadly the language regime choice and (2) specifically how the optimal proportion for each language changes as the second-period uncertainty changes.

But before turning to the individual 3D plots in Figure 3.2, let me first discuss the general setup of these plots. All 3D plots are characterized by three axes: width, depth, and height. The location of each axis with respect to the 3D plot is as follows:

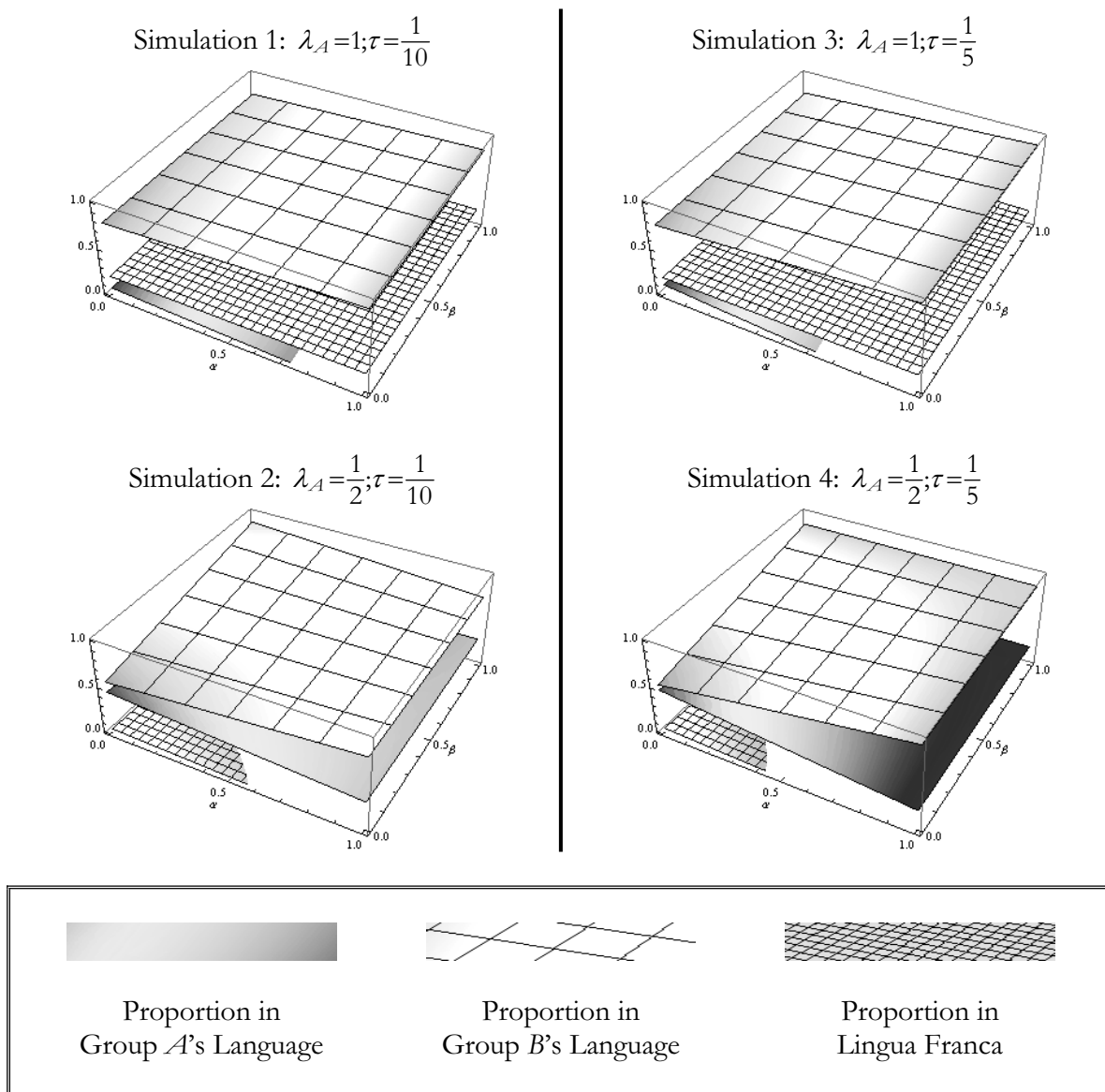


In the 3D plots of Figure 3.2, the “width axis” is the likelihood of the dominant group remaining in power (α), and the “depth axis” is the likelihood of the non-dominant group coming to power (β). Both likelihoods increase in the direction of their respective arrows. The third axis, the “height axis”, represents the optimal proportion for each of the three languages ($n_{A1}^*, n_{B1}^*, n_{LF1}^*$). Since the division of linguistic powers always adds up to a value of 1, the height axis is bounded from 0 to 1. Increasing proportions are also represented in the direction of the arrow.

There are three planes in each 3D plot, some more noticeable than others. Each plane is the optimal proportion for each language. The grey, non-meshed (non-gridded) plane represents Group A 's language; the larger-meshed plane, Group B 's language; and the smaller-meshed plane, the lingua franca.²¹

In all four 3D plots, the larger-meshed plane (proportion in Group B 's language) has the largest proportion, as indicated by the fact that it lies on top of the other two planes. Note that while this plane is always the largest, the values of each plane differ both within and across simulations. For instance, the proportion in Group B 's language in Simulation 1 is close to a value of 1 and generally constant across all values of (1) the likelihood of the dominant group remaining in power and (2) the likelihood of the non-dominant group coming to power. The same cannot be said for Simulation 4, where the slopes of the same plane along both the width and depth axes change quite drastically.

²¹ Recall that I had to impose corner solutions such that no individual proportion can be less than 0 or greater than 1. While these planes do not plot the corner solutions, the disappearance of a plane at either height less than 0 or greater than 1 suggests a corner solution.

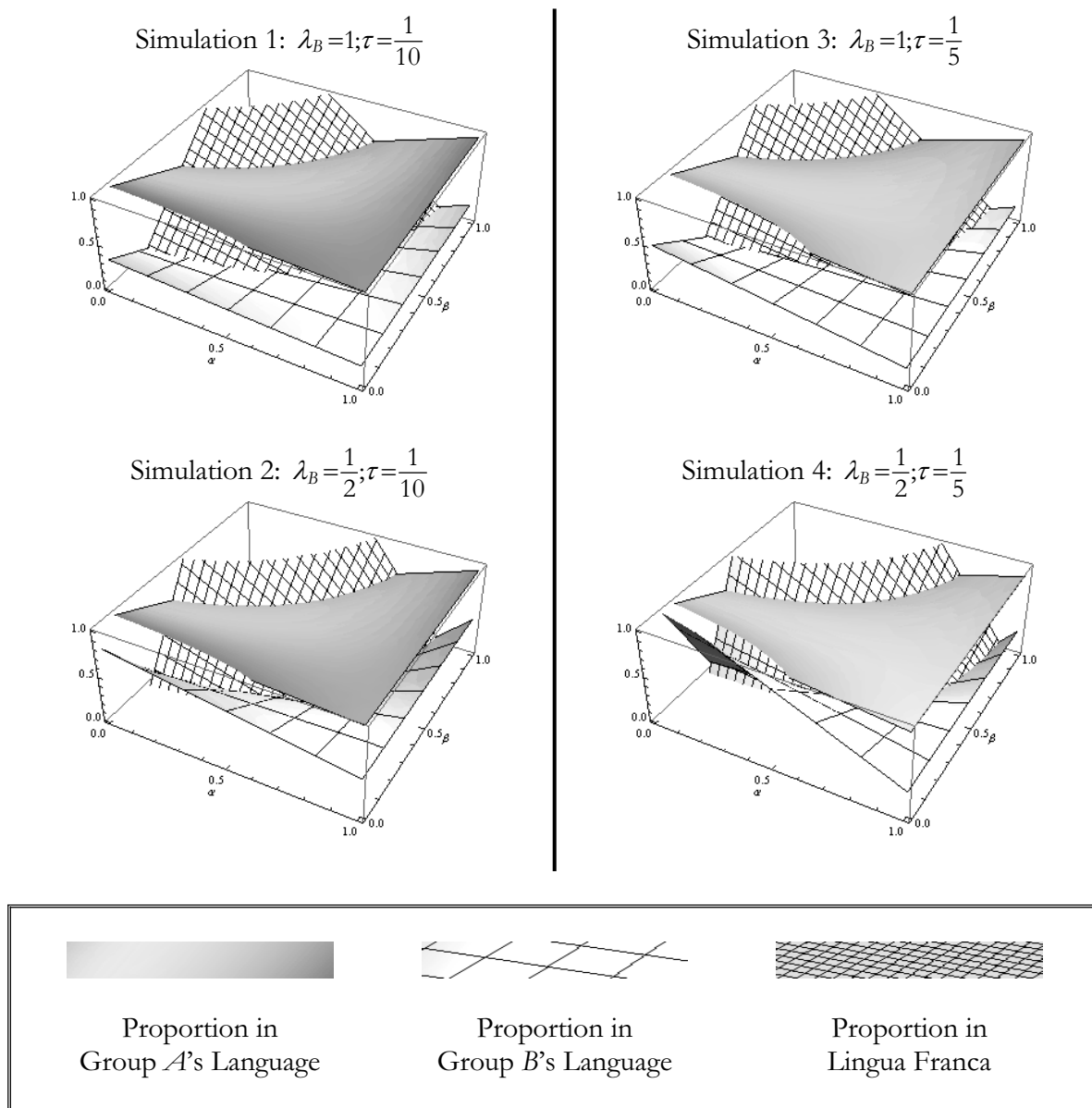
FIGURE 3.2: Convergent Socioeconomic Hierarchy and Language Regimes

All this suggests that under a convergent socioeconomic hierarchy, the politically dominant group, who is also socioeconomically advantaged, has an incentive to propose a power-sharing language regime (*type*), although the precise distribution of linguistic powers can vary (*degree*).

Proposition 1: In a convergent socioeconomic hierarchy, the dominant group proposes a *power-sharing* language regime regardless of the second-period uncertainty.

So what happens when the socioeconomic hierarchy is non-convergent, such that the politically non-dominant group is the socioeconomically advantaged group? Figure 3.3 presents four 3D plots using the same parameter specifications as those in Figure 3.2. The setup for each 3D plot remains the same: The width axis is the likelihood the dominant group remains in power (α); the depth axis, the likelihood the non-dominant group comes to power (β); and the height axis, the optimal proportion for each of the three languages ($n_{A1}^*, n_{B1}^*, n_{LF1}^*$). The only mathematical difference is that in these four plots, Group B 's language (λ_B) has been assigned a positive value to reflect the group's socioeconomic advantage.

In all four 3D plots in Figure 3.3, the largest-proportioned, larger-meshed plane (proportion in Group B 's language) from Figure 3.2 is now the smallest-proportioned plane. Instead, the non-meshed plane (proportion in Group A 's language) has the largest proportions. What this suggests is that when the politically dominant group is not the socioeconomically advantaged group, there is little incentive to share linguistic powers. Rather, the incentive is to concentrate linguistic powers solely in the dominant group language so as to change the socioeconomic status quo.

FIGURE 3.3: Non-Convergent Socioeconomic Hierarchy and Language Regimes

Of course, there is one notable exception. In all four simulations in the same back corner, the smaller-meshed plane (proportion in lingua franca) is actually the plane with the largest proportion. This exception happens when the likelihood of the non-dominant group coming to power is high (and the socioeconomic hierarchy is non-convergent). The rationale is that under such conditions, the dominant group cannot simply choose a power-

concentrating language regime. The high likelihood of the non-dominant group coming to power constrains the dominant group such that it chooses a power-neutralizing language regime.

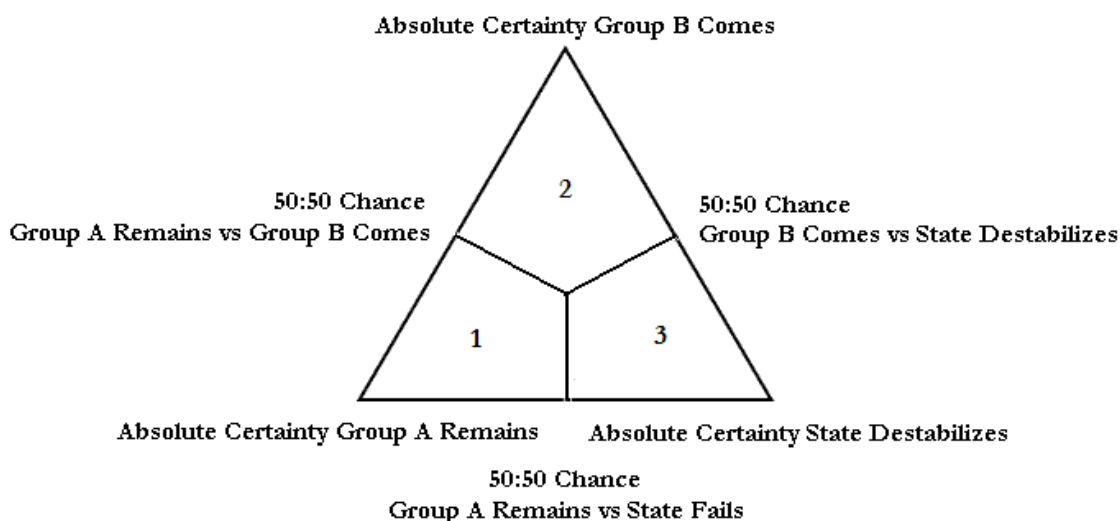
Taken together, all this suggests the following two propositions:

Proposition 2: In a non-convergent socioeconomic hierarchy, the dominant group proposes a *power-concentrating* language regime when the likelihood of the non-dominant group coming to power is low.

Proposition 3: In a non-convergent socioeconomic hierarchy, the dominant group proposes a *power-neutralizing* language regime when the likelihood of the non-dominant group coming to power is high.

In Figures 3.2 and 3.3, the value of Group A 's language (λ_A) was assigned while the values of the second-period uncertainty $\{\alpha, (1-\alpha)\beta, (1-\alpha)(1-\beta)\}$ were allowed to vary so as to measure their effects on language regime choice. What happens to language regime choice when the values of the second-period uncertainty $\{\alpha, (1-\alpha)\beta, (1-\alpha)(1-\beta)\}$ are fixed but the values of the socioeconomic hierarchy (λ_A, λ_B) varies?

To gauge this effect, I construct a triangle as illustrated in Figure 3.4. Each “vertex” of the triangle represents one second-period uncertainty: likelihood Group A remains in power; likelihood Group B comes to power; and likelihood of state destabilizes.

FIGURE 3.4: Second-Period Uncertainty and Language Regime Triangle

All possible combinations of the second-period uncertainty can be fixed and represented within this triangle. There are three types of “combinations”. The first type of combination is the 100 per cent likelihood an event happening. This includes the 100 per cent likelihood of Group *A* remaining in power $\{\alpha=1; (1-\alpha)(\beta)=0; (1-\alpha)(1-\beta)=0\}$; the 100 per cent likelihood of Group *B* coming to power $\{\alpha=0; (1-\alpha)(\beta)=1; (1-\alpha)(1-\beta)=0\}$; and the 100 per cent likelihood of the state destabilizing $\{\alpha=0; (1-\alpha)(\beta)=0; (1-\alpha)(1-\beta)=1\}$. Mathematically, each of these combinations has one—and only one—probability with the value of 1 while the other two have values of 0. When plotted on the triangle, these extreme combinations compose the three vertices. Not surprisingly, this combination is by far the rarest.

The second type of combination is characterized by the 0 per cent likelihood of an event happening such that one—and only—one the following three statements is true:

- (1) There is *no* likelihood that Group *A* will remain in power $\{\alpha=0\}$;

- (2) There is *no* likelihood that Group *B* will come to $\{(1-\alpha)(\beta)=0\}$; or
- (3) There is *no* likelihood that the state will destabilize $\{(1-\alpha)(1-\beta)=0\}$.

All plots of this second combination type fall on one of the three “edges” of the triangle. Each straight edge connects two vertices. As such, when one event is guaranteed to not occur, the plot will fall somewhere on the opposite edge. For example, if it is absolutely certain the state will not destabilize, the plot will be on the edge connecting the vertex “Absolute Certainty Group *A* Remains” and the vertex “Absolute Certainty Group *B* Comes”. If the combination is a 50-50 chance of Group *A* remaining in power versus Group *B* coming to power, the plot is on the edge at the midpoint between the two vertices. Increasing likelihood of Group *A* remaining in power and a decreasing likelihood of Group *B* coming to power shifts the plot along the edge closer to the vertex “Absolute Certainty Group *A* Remains”; and vice versa.

The third combination type, by far the most common, involves all three values of the second-period uncertainty. Here, there is no absolute certainty of an event happening (first combination) or not happening (second combination). Plots of this combination fall strictly within the triangle. A plot at the center of the triangle denotes all three probabilities—Group *A* remaining in power, Group *B* coming to power, and state destabilizing—have equal likelihood of happening. And as one probability increases, the plot shifts in the direction of the respective vertex.

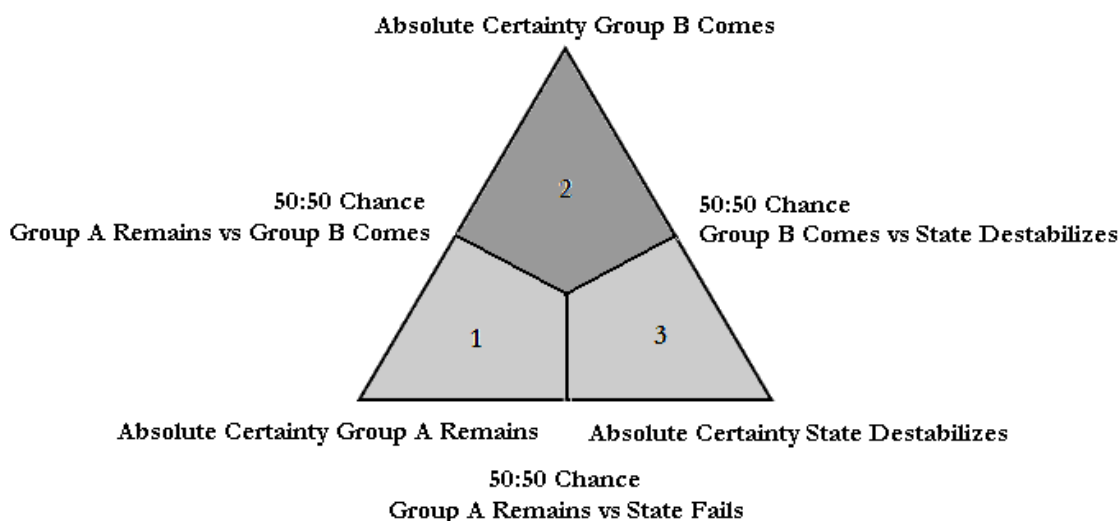
The triangle is divided into three regions, with each region representing a high likelihood of a given event happening. For example, for any second-period uncertainty within the region marked 1 in the above triangle, the likelihood of Group *A* remaining in power is always the highest. Similarly, for any second-period uncertainty within Regions 2

and 3, the likelihood of Group B coming to power and the likelihood of the state destabilizing are also the highest, respectively.

TABLE 3.1: Fifteen Sample Combinations of Second-Period Uncertainty

Vertex Combinations	Edge Combinations
1. $\alpha=1; (1-\alpha)\beta=0; (1-\alpha)(1-\beta)=0$	7. $\alpha=0; (1-\alpha)\beta=\frac{1}{3}; (1-\alpha)(1-\beta)=\frac{2}{3}$
2. $\alpha=0; (1-\alpha)\beta=1; (1-\alpha)(1-\beta)=0$	8. $\alpha=0; (1-\alpha)\beta=\frac{1}{2}; (1-\alpha)(1-\beta)=\frac{1}{2}$
3. $\alpha=0; (1-\alpha)\beta=0; (1-\alpha)(1-\beta)=1$	9. $\alpha=0; (1-\alpha)\beta=\frac{2}{3}; (1-\alpha)(1-\beta)=\frac{1}{3}$
Inside Combinations	10. $\alpha=\frac{1}{3}; (1-\alpha)\beta=0; (1-\alpha)(1-\beta)=\frac{2}{3}$
4. $\alpha=\frac{1}{5}; (1-\alpha)\beta=\frac{2}{5}; (1-\alpha)(1-\beta)=\frac{2}{5}$	11. $\alpha=\frac{1}{2}; (1-\alpha)\beta=0; (1-\alpha)(1-\beta)=\frac{1}{2}$
5. $\alpha=\frac{2}{5}; (1-\alpha)\beta=\frac{1}{5}; (1-\alpha)(1-\beta)=\frac{2}{5}$	12. $\alpha=\frac{2}{3}; (1-\alpha)\beta=0; (1-\alpha)(1-\beta)=\frac{1}{3}$
6. $\alpha=\frac{2}{5}; (1-\alpha)\beta=\frac{2}{5}; (1-\alpha)(1-\beta)=\frac{1}{5}$	13. $\alpha=\frac{1}{3}; (1-\alpha)\beta=\frac{2}{3}; (1-\alpha)(1-\beta)=0$
	14. $\alpha=\frac{1}{2}; (1-\alpha)\beta=\frac{1}{2}; (1-\alpha)(1-\beta)=0$
	15. $\alpha=\frac{2}{3}; (1-\alpha)\beta=\frac{1}{3}; (1-\alpha)(1-\beta)=0$

To understand how the optimal language regime choice changes as the values of the socioeconomic hierarchy change, I first assign a series of mathematical values (a total of fifteen) representing a sample of possible combinations of second-period uncertainty. These combinations are listed in Table 3.1. With each of the fifteen sample combinations, I then allow the socioeconomic hierarchy to range from non-convergent ($\lambda_A = -1$) to convergent ($\lambda_A = 1$), thereby solving for the optimal language regime choice. Plotting the results into Figure 3.4 yields the following Figure 3.5.

FIGURE 3.5: Filling in Language Regime Triangle

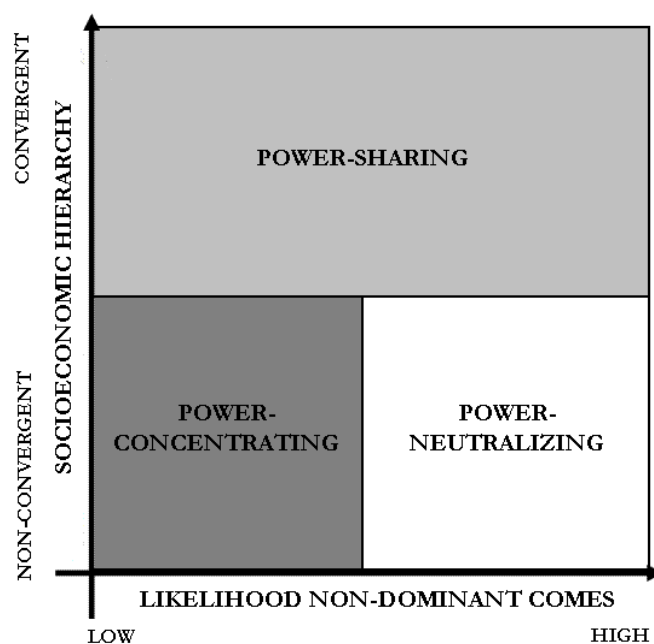
	<i>Power-Sharing</i> if Convergent Socioeconomic Hierarchy <i>Power-Neutralizing</i> if Non-Convergent Socioeconomic Hierarchy
	<i>Power-Sharing</i> if Convergent Socioeconomic Hierarchy <i>Power-Concentrating</i> if Non-Convergent Socioeconomic Hierarchy

These results are consistent with the previously stated propositions. Consistent with Proposition 1, when Group *A* is socioeconomically advantaged such that the socioeconomic hierarchy converges, the language regime choice is power-sharing regardless of the second-period uncertainty. In contrast, when there is a non-convergence of the socioeconomic hierarchy, the second-period uncertainty matters. As illustrated in Figure 3.5, language regimes are power-concentrating when the likelihood of Group *B* coming to power is low (Regions 1 and 3). This is true even when state destabilization is the largest likelihood. However, if the likelihood of Group *B* coming to power is high, then we are most likely to see a power-neutralizing language regime (Region 2). Note that Region 2 corresponds to the far corners of the four 3D plots in Figure 3.3.

3.4. DISCUSSION

Throughout this dissertation, I have argued language regime choice is the product of institutional bargaining, and the nature of this bargaining is heavily influenced by several factors. One such factor is the likelihood of certain events happening should there be no immediate agreement on a language regime: the dominant group remains in power, a non-dominant group comes to power, and the state destabilizes. The effects of these events, known as the second-period uncertainty, on language regime choice depend on a second factor: the socioeconomic hierarchy. The relationship between these two factors and language regime choice was illustrated in Figures 3.2, 3.3, and 3.5. To make sense of this interaction so as to allow for easier hypothesis testing in subsequent chapters, I rearrange the triangle scheme from Figure 3.5 into a two-by-two-table (Figure 3.6).

Figure 3.6 suggests that when the politically dominant group is also the socioeconomically advantaged group—such that the socioeconomic hierarchy converges—Group A —the dominant group of Period 1—actually has an incentive to offer a power-sharing language regime. This seems counter-intuitive. However, recall state destabilization is not always an outcome to avoid at all costs. And most certainly for a politically non-dominant, socioeconomically-disadvantaged group, there may be certain conditions when state destabilization is preferred over an unfavorable language regime. The dominant group knows this, and as a strategic actor, will make just enough linguistic concessions such that the non-dominant group participates in the state-building process.

FIGURE 3.6: Propositions and Language Regime Choice

However, the story is different if the socioeconomic hierarchy does not converge. If the likelihood of the politically non-dominant group coming to power is low, the dominant group has an incentive to concentrate all linguistic powers in the dominant group language. The logic is that the dominant group accrues a positive utility for having its own language recognized. Furthermore, the use of one and only one language is efficient, meaning there are no transaction costs needed for inter-group communication. However, under the same socioeconomic hierarchy conditions, if the likelihood of the non-dominant group coming to power is high, then we are most likely to see a power-neutralizing language regime. Fundamentally, the rationale is still the same except now the dominant group is constrained. As such, there is an incentive to neutralize all linguistic powers via a third-party, *lingua franca*.

I test the effects of the second-period uncertainty and the socioeconomic hierarchy in the next chapters. In Chapter 4, I test these hypotheses quantitatively on a cross-sectional

sample that includes all instances of political independence and democratic transitions. Doing so will allow me to establish *whether* language regime choice is the product of the variables of interest. Then in Chapters 5-7, I test the hypotheses on three case studies (Indonesia, Malaysia, and Singapore) to ascertain not just *whether* but *why* language regime choice is the product of the second-period uncertainty and the socioeconomic hierarchy.

4. EMPIRICAL TEST #1

Statistical Analysis

Language regimes are political institutions. In the previous chapters, I argued language regime choice is the product of institutional bargaining between groups. This bargaining is the interactive product of two factors. One factor is what I call the second-period uncertainty, which includes the likelihood of the dominant group remaining in power, the likelihood of the non-dominant group coming to power, and the likelihood of the state destabilizing. The second factor is the socioeconomic hierarchy. Specifically, what matters is whether the hierarchy converges such that the politically dominant group is also the socioeconomically advantaged group.

The effect of these two factors on language regime choice was presented in a two-by-two table in Figure 3.6. To recount, when the socioeconomic hierarchy converges, we are most likely to see a power-sharing language regime. This choice is made regardless of the values of the second-period uncertainty. However, when the socioeconomic hierarchy does not converge, such that the politically non-dominant group is the socioeconomically advantaged group, then the second-period uncertainty matters. If the likelihood of the non-dominant group coming to power is low, we are most likely to see a power-concentrating language regime; otherwise, a power-neutralizing language regime.

In this chapter, I test these propositions. I test these propositions on a cross-sectional sample that includes all instances of political independence and democratic transitions between 1945 and 2000. I focus on these two political shocks not because they are the only ones that matter, but because they allow for a systematic analysis of language

regime choice across a large sample of countries. But before I test the generated propositions from the model, I first test Assumption 4 underlying the model: Bargains over language regime choice happen most often after a political shock. If the evidence suggests changes in language regimes are indeed more likely to happen after a political shock, this would lend support to the subsequent use of the cross-sectional sample—and to the choices of observations in the case studies.

This chapter is divided into three sections. Sections 1 and 2 are empirical tests. The first is the test of Assumption 4; the second, the test of the effect of the second-period uncertainty and socioeconomic hierarchy on language regime choice. In both sections, I begin with a research design: the characteristics of the sample, the operationalization of the key variables, and the sources of the data. I then present the empirical evidence, followed by a discussion of the results and robustness of the findings. In Section 3, I conclude by drawing attention to how the statistical evidence relates back to the formal model in the previous chapter and how it sets the stage for the case studies in the following three chapters.

4.1. POLITICAL SHOCKS AND LANGUAGE REGIME CHANGE

To test the relationship between political shocks and language regime change, I code the educational language regime for all Asian countries between 1950 and 2000 ($N=1794$). In line with Brown and Ganguly (2003), I focus on Asia given the diversity of language regimes, government types, economic models, demographic settings, and colonial legacies. I also go one step further. I supplement Brown and Ganguly's sample by including the states they omitted to increase variance. These include the homogeneous states (Japan, North Korea, and South Korea), the communist-legacy countries (Mongolia and the former Soviet

states), the micro states (Bhutan and Brunei), and those in the Middle East. The unit of analysis is *country-year*.

4.1.1. Dependent Variable: Language Regime Change

To determine whether there is a change, I must first have a measurement of the language regime in both years $k-1$ and k . To start, I code for the degree of power-concentration of the educational language regime of country j in year k . Concentration ($n_D: n_D \in [0,1]$) is measured as a proportion: The number of years the dominant group language is available as a language of instruction ($x_D: x_D \in \mathbb{Z}$) over the total number of years all languages (dominant, non-dominant, and lingua franca) are offered as languages of instruction ($x_D + \sum_{i=1}^{g-1} x_{di} + x_{LF}$), where g is the number of linguistic groups in the country. Mathematically, this is expressed as:

$$n_D = \frac{x_D}{x_D + \sum_{i=1}^{g-1} x_{di} + x_{LF}}.$$

For example, in *Bangladesh 1972*, the government promoted Bengali—and only Bengali—in the primary and secondary schools (Leclerc 2007; Mohsin 2003). In this observation, using the above mathematical equation, we would code the degree of power-concentration as $n_D = \frac{12}{12+0+0} = 1.000$. In contrast, in *Sri Lanka 1950*, the government chose a multilingual arrangement for primary education (English, Sinhalese, and Tamil, all five years each) but a monolingual arrangement for secondary education (English for seven years total) (Deighton 1971). Again, using the above mathematical equation, we would code the degree of power-concentration in this *Sri Lanka 1950* observation as $n_D = \frac{5}{5+5+12} = 0.227$.

Theoretically and mathematically, the possible values for n_D range from a minimum of 0 (no power-concentration whatsoever) to a maximum of 1 (complete power-concentration). In line with Albaugh's dissertation (2005) on language policies in Africa, the data for the dependent variable was drawn from a mix of different sources. Leclerc's website on language management in the world (<http://www.tfq.ulaval.ca/axl/>) provided the initial information for most entries, which I then supplemented with the *Encyclopedia of Education* (Deighton 1971), the *International Handbook of Education Systems* (Cowen and McLean 1983) and other secondary sources specific to each country.

A language regime is considered to have changed in year k if the degree of power-concentration of that year is different from that of the previous year. Roughly speaking, there are two types of language regime changes. The more common type is a quick change with a major overhaul. In *Afghanistan 1979*, for example, the overnight expansion of primary education from two languages (Dari and Pashto) to five languages (Baluchi, Dari, Pashto, Turkmen, and Uzbek) was the product of one single education policy (Cowen and McLean 1983). In contrast, the second type of change is slow and gradual, over a longer period of time. Often, these changes are a part of a larger phasing project, where one school year of one language is added or removed one year at a time. For instance, this was the case in Malaysia, first between 1958 and 1964 when Malay was gradually expanded (Kaplan and Baldauf 2003) and then later between 1972 and 1979 when English was slowly phased out (Burhanudeen 2006; Ganguly 2003).

I operationalize language regime choice using two different schemes. In the first scheme, I code the variable *Language Regime Change (Dichotomous)* as 1 if there is *any* change. The variable is dichotomous. Since language regimes are political institutions, all changes to

the status quo regardless of the size of the change should be considered equally as a positive outcome. Of course with this coding scheme, no differentiation is made between the *Afghanistan 1979s* where changes were drastic and took place overnight and the *Malaysia 1958-1964s* where changes were introduced incrementally. To take account of this, I use a second coding scheme. The variable *Language Regime Change (Continuous)* measures the degree of change in power-concentration. This variable is continuous and bounded between -1 and 1. A negative value would indicate a decrease in power concentration; a positive value, an increase.

In all, there were 44 instances (2.5%) of an educational language regime change in Asia between 1950 and 2000.

4.1.2. Independent Variable: Political Shock

A shock is an event that introduces new levels of uncertainty. This uncertainty is over the likelihood of the dominant group remaining in power, a non-dominant group coming to power, and the state destabilizing. In this dataset, I code for four types of political shocks: formation of an independent state, creation of a democratic government, transition from one authoritarian regime to another, and implementation of a significant economic reform. If any—or any combination—of the shocks happens in year k , I assign the variable of interest (shock) with a value of 1.

Since it is expected that there is a time lag between the political shock and the language regime change, I code the nine subsequent years ($k+1, k+2 \dots k+9$) after the shock in year k also as part of the initial shock. I use two different coding schemes for these subsequent nine years. The first scheme assigns all nine subsequent years a value of 1 as

well. This scheme is identified by *Shock (Dichotomous)*. So for instance, South Korea became a democracy in 1988. Under this coding scheme, all ten observations from *South Korea 1988* through *South Korea 1997* have a value of 1 for *Shock (Dichotomous)*. In contrast, the second scheme, identified as *Shock (Count: 1-10)* is ordinal: Each of the subsequent nine years is coded according to the number of years since the shock has happened, with the year of the shock k taking on a value of 1. So in the previous example of South Korea, the observation *South Korea 1988* has a value of 1 for *Shock (Count: 1-10)*; *South Korea 1989*, a value of 2; and so forth, up through *South Korea 1997* with a value of 10. The observation *South Korea 1998* is assigned a value of 0 as ten years had passed since the democratic shock.

As a robustness check, I also disaggregate the shock into four dichotomous variables. Each variable represents one type of shock (political independence, democratic transition, regime change, and economic reform). Data for the formation of an independent state and the creation of a democratic government are from the POLITY IV dataset; data for the transition from one dictatorial government to another, from Geddes (1999); and data for the implementation of a significant economic reform, from Banks et al (2007).

4.1.3. Control Variables

There may be other variables confounding the effects of political shock on language regime change. To test for this, I include cultural factors (Arab culture and British colonialism), structural constraints (number of languages and non-dominant group size), and the degree of power-concentration. I also control for temporal and spatial autocorrelation.

Arab Culture

The use of classical Arabic as the sole language of instruction in the Middle East is unique.²² While necessary for reading the Koran, classical Arabic is not the mother tongue of any Arab. This is an extreme case of what sociolinguistics call diglossia. Diglossia is the situation where two dialects, sometimes mutually unintelligible, operate simultaneously in a society. The dialect of higher prestige is used most often by the government, in the education system, and in formal texts. In contrast, the dialect of lower prestige is generally spoken by the broader populace (Ferguson 1959). Other examples include Chinese and Greek. However, Arabic is arguably the only present case of such extremity.²³ For instance, while Mandarin Chinese is the dialect of higher prestige, it is still the mother tongue for some Chinese (Kaplan and Baldauf 2003). The same cannot be said for classical Arabic (Ibrahim 1985; Matthews 2007).²⁴ Given the prestige of and the need for classical Arabic,

²² There are two exceptions: Israel and Lebanon.

²³ Prior to 1976, the dialect of higher prestige in Greek was Katharevousa, a version more in line with ancient Greek than the dialect of lower prestige, Dhymotiki. The incompatibility of the two severely limited the social mobility for the majority of the population. It was not until 1976 that Dhymotiki was made the official language (Stephany 1997).

²⁴ While the use of classical Arabic in an Arab society may suggest an environment of linguistic neutralization, this is only the case among Arabs. The exclusive use of any Arabic dialect—classical or vernacular—can also be viewed as power-concentrating when there is a large population of non-Arabs. To differentiate between these two instances, I code a monolingual classical Arabic language regime as power-neutralizing if all the major groups are Arabic. However, if any sizable group (more than 2%) is not Arabic, I code the language regime as power-concentrating. Aside from Lebanon, no Arab country has a power-sharing language regime.

Arab governments are less likely to introduce language regime change. The variable *Arab Culture* is assigned a value of 1 if the majority of the population is Arab.

British Colonialism

One argument is that colonial legacy matters. For example, democracy is more likely to survive in British colonies (Przeworski et al. 2000). British colonies are also more likely to have higher quality governments, where quality is measured by government intervention, public sector efficiency, public good provision, size of the government, and political freedom (La Porta et al. 1999).

We see differences in education policies as well. Although colonial powers were interested in assimilation, the British and French adopted different language regimes to achieve this end goal. The British favored power-sharing: Initial teaching in an indigenous language and then a switch to English-medium instruction in the later years of primary education. In contrast, in French (and other non-British) colonies, the colonial government offered French—and only French—from the outset.

There is reason to believe the type of language regime during colonialism mattered. In Africa, many of the colonies maintained strong ties with their colonial power. In British colonies where indigenous languages were already used prior to independence, it was common to elevate at least one indigenous language to the same level as English for state-building purposes. In many instances, the British supported this change. In contrast, in French colonies where no indigenous language was used during colonial times, there was an incentive for both the French government and the French-educated local elites to maintain the status quo post-independence (Albaugh 2005). Extending the logic, I expect language

regime changes are more likely in British colonies. I code a country as a British colony (*British Colonialism* assigned a value of 1) if it is identified by La Porta et al (1999) as having an English legal origin.

Number of Languages

I expect language regime change decreases as the number of languages increases. This relationship resonates with the veto player argument: Stability increases as the number of veto players increases (Cox and McCubbins 2001; Tsebelis 1995, 2002). Any changes to the status quo language regime, whether it is incremental or a complete overhaul, is bound to face resistance. This resistance can come from language groups who expect to lose under the new proposed regime. The resistance can even come from the expected “winners” who are interested in maximizing their future benefits. The data for this variable is from Ethnologue (Gordon 2005).

Non-Dominant Group Size

The non-dominant group size can also matter for language regime change. A large non-dominant group is more likely to be a political threat than a small non-dominant group. If the non-dominant group is large, the predicted direction of change can go either way; it depends on the status quo. The non-dominant group can be either the engine driving the change or the roadblock to the change. However, with regard to the degree of change, I expect as the non-dominant group size increases, the change in the level of power-concentration decreases.

*Degree of Power Concentration*_{*t-1*}

The pre-existing degree of power-concentration can constrain the degree of change. For instance, a complete power-concentrating language regime cannot be more power-concentrating. As such, I expect as the degree of power-concentration in the previous period increases, the likelihood and the degree of change decreases.

*Language Regime Change*_{*t-1*}

Since language regimes are political institutions, the absence of change in a given year is most likely to affect the absence of change in the following year. To control for temporal autocorrelation, I lag the dependent variable.

Changes in Neighbors

It is possible that language regime change is the product of larger regional developments. Exogenous international events can affect multiple countries simultaneously. The 1954 Battle of Dien Bien Phu, for instance, led to the withdrawal of the French from Indochina. The Cambodian, Laotian, and Vietnamese governments suddenly had political independence and an inherited power-neutralizing language regime. Another example is the 1991 collapse of the Soviet Union. Overnight, fourteen newly independent states had to reckon with a sizeable Russian minority population. To control for this spatial autocorrelation, I use Gleditsch and Ward's (2001) Minimum Distance dataset. I measure for whether there has been any language regime change in a neighboring (defined as no further than 500 kilometers) state. If there has been a change, I assign the variable *Changes in Neighbors* with the value of 1.

4.1.4. Model Estimator

Recall, I have two different coding schemes for the dependent variable (language regime change) *and* two the independent variable (political shock). As such, I run several different regressions. The model specification is as follows:

$$\text{Language Regime Change} = \alpha + \beta_1 (\text{Political Shock}) + \Gamma \mathbf{Z} + \varepsilon,$$

where *Political Shock* is the variable measuring whether there has been a shock to the political system. \mathbf{Z} is the vector of control variables described above, and ε is the error term. α , β_1 , and Γ are parameters to be estimated, where I expect $\beta_1 > 0$.

I use logit to estimate the model when the dependent variable is dichotomous; otherwise, I use general least squares (GLS). With both estimators, I take into consideration that my data is not only cross-sectional but also time-series.

The results are presented in Tables 4.1 and 4.2.

4.1.5. Discussion

Shocks have a positive effect on language regime change. This finding is highly significant at the 0.010 level. The finding is also robust across model specifications. The inclusion of cultural factors, structural constraints, and other control variables from Model 1 to Model 2.1 does not alter the substantive finding. Regressions using alternative methods of specifying shock (Model 2.2) or language regime change (Model 3) yield similar findings. The coefficients are positive and significant.

TABLE 4.1: Political Shocks and Language Regime Change (1)Dependent Variable: *Language Regime Change*

	Model 1: Baseline	Model 2.1: Change=1	Model 2.2: Change=1	Model 3: Degree
<i>Political Shock (Dichotomous)</i>	2.1715*** (0.3884)	1.5526*** (0.4560)		0.0052** (0.0027)
<i>Political Shock (Count: 1-10)</i>			0.1765*** (0.05675)	
<i>Arab Culture</i>		-1.8711 (1.2143)	-2.1247* (1.1540)	-0.0012 (0.0028)
<i>British Colonialism</i>		0.8079 (0.6155)	0.6929 (0.5391)	0.0004 (0.0024)
<i>Number of Languages</i>		-0.0016 (0.0012)	-0.0017 (0.0011)	0.0000 (0.0000)
<i>Non-Dominant Group Size</i>		-0.2960 (2.7197)	-0.8116 (2.5252)	-0.0024 (0.0072)
<i>Degree of Power Concentration_{t-1}</i>		-2.9087*** (0.9337)	-2.7877*** (0.8909)	-0.0087*** (0.0032)
<i>Language Regime Change_{t-1}</i>		3.2524*** (0.4938)	3.3105*** (0.4982)	0.0301 (0.0250)
<i>Changes in Neighbors</i>		0.9603 (0.6174)	0.8049 (0.6031)	0.0007 (0.0035)
<i>Constant</i>	-5.9931*** (0.3568)	-4.0188*** (0.8359)	-3.4643*** (0.7210)	0.0071** (0.0033)
<i>N</i>	1733	1557	1557	1556
<i>Wald χ^2</i>	31.25***	74.26***	81.92***	14.59**

Note: Robust standard errors in parentheses

* $p \leq 0.100$. ** $p \leq 0.050$. *** $p \leq 0.010$.

TABLE 4.2: Political Shocks and Language Regime Change (2)Dependent Variable: *Language Regime Change (Dichotomous)*

	Model 4.1: Shock 1	Model 4.2: Shock 2	Model 4.3: Shock 3	Model 4.4: Shock 4
<i>Political Independence</i>	1.1949*** (0.4568)			
<i>Democratic Transition</i>		-0.3162 (0.8652)		
<i>Regime Change</i>			1.7117*** (0.5856)	
<i>Economic Reform</i>				5.6332*** (1.8068)
<i>Arab Culture</i>	-2.4900* (1.3430)	-2.91260** (1.3977)	-2.0829* (1.2453)	-3.0495** (1.2168)
<i>British Colonialism</i>	1.3212* (0.7284)	1.2169* (0.7410)	0.6055 (0.6400)	1.1739** (0.5719)
<i>Number of Languages</i>	-0.0022 (0.0014)	-0.0026 (0.0016)	-0.0016 (0.0012)	-0.0074* (0.0039)
<i>Non-Dominant Group Size</i>	-1.0680 (3.1796)	-1.0976 (3.3050)	-1.2985 (3.0759)	1.4712 (2.2410)
<i>Degree of Power Concentration_{t-1}</i>	-3.1860*** (1.0469)	-4.1066*** (1.0589)	-3.2594*** (0.9653)	-3.8304*** (0.9751)
<i>Language Regime Change_{t-1}</i>	-7.4821** (3.6975)	-6.4021* (3.8540)	3.3918*** (0.4822)	3.4306*** (0.4972)
<i>Changes in Neighbors</i>	1.2982** (0.5720)	1.3409** (0.5670)	0.9134 (0.6301)	1.0144* (0.6142)
<i>Constant</i>	-3.5902*** (0.9500)	-2.6825*** (0.9002)	-3.1384*** (0.7930)	-2.7959*** (0.7257)
<i>N</i>	1556	1556	1557	1557
<i>Wald χ^2</i>	32.40***	24.33***	75.81***	85.78***

Note: Robust standard errors in parentheses

* $p \leq 0.100$. ** $p \leq 0.050$. *** $p \leq 0.010$.

In general, the findings hold even when we disaggregate shocks. Language regimes are more likely to change following political independence, (dictatorial) regime changes, and significant economic reforms. The coefficients in all these models are positive and highly significant. The one exception is Model 4.2. Democratic transitions are not more likely to yield language regime changes.

Not all shocks produce a language regime change, and most certainly not all language regime changes happen following a shock. However, the predicted probabilities suggest the likelihood of change can increase quite drastically when there has been a shock within the last ten years. Specifically, this change is 18 per cent more likely following political independence, 21 per cent more likely following (dictatorial) regime changes, and 60 per cent more likely following the implementation of economic reforms. As for the specific degree of change, the presence of a shock can increase the degree of power-concentration by 2 per cent.

In this dissertation, I argue language regimes are political institutions. The formal model rests on an assumption that language regime changes are most likely to happen after there has been a shock to the political system. The empirical evidence suggests changes are indeed more likely after political independence, (dictatorial) regime changes, and economic reforms. Another way to test this assumption is to measure the stability of language regimes over time. To do this, we need to assess how likely the absence of change in one period affects the likelihood of change in the subsequent period. The lagged dependent variable *Language Regime Change*_{*t-1*} measures this. This variable is highly significant in Models 2.1 and 2.2. The positive coefficients in the two models (as well as in Model 3) indicate that when there is no language regime change in a given period, the likelihood of a change in the

subsequent period decreases. In fact, a language regime is 50 per cent less likely to change when there was no change in the previous period. All this highlights the stickiness of language regimes specifically and political institutions broadly.

The empirical evidence suggests other factors matter for language regime change as well. Changes are less likely in Arab countries. This matches our *ex ante* expectation. In Arab countries, classical Arabic is considered both a language of prestige and a language of necessity. There is little incentive for an Arab government to change the language regime. Hence, if we were to observe a language regime change, this change would most likely take place in a non-Arab country. In contrast, language regime changes are more likely to happen in British colonies. The British, unlike the other European powers, generally encouraged power-sharing language regimes during colonial times. And following independence, the British often advocated the increasing emphasis on indigenous languages for state-building purposes.

The degree of power-concentration in the previous period is also highly significant. The negative coefficients suggest we are less likely to see language regime changes as the linguistic powers held by the dominant group increases. In fact, the likelihood of change can decrease by 3.5 per cent when the degree of power-concentration increases by as little as 0.2 per cent. This relationship is expected. Under most conditions in the absence of a constraint, a politically advantaged group has no incentive to make changes to the status quo.

The spatial control for language regime changes in neighboring states is significant but sensitive to model specification. The positive coefficients in Models 4.1, 4.2, and 4.4 indicate changes can also be driven by regional developments. Exogenous international events can affect multiple countries simultaneously. Decolonization and democratization,

for instance, happened in waves. Another example was the 1991 collapse of the Soviet Union. Overnight, fourteen newly independent countries had to reckon with a sizeable Russian minority population.²⁵

Quite surprisingly, the structural constraints in general have little effect on language regime change. With one exception, the number of languages is not significant in any of the models. In Model 4.4, the coefficient is negative and significant at the 0.100 level. This weakly confirms our expectation: Changes are less likely when the number of languages is large. The other structural constraint is the non-dominant group size. The coefficient is not significant in any of the models. Even the direction of the coefficient fluctuates across models.

The empirical evidence suggests language regimes are more likely to change after a shock. In the next section, I test the effect of the second-period uncertainty and the socioeconomic hierarchy on language regime choice.

4.2. LANGUAGE REGIME CHOICE

Having demonstrated the effects of political shocks on language regime change, I now focus on the cross-sectional sample. In this sample, I include every instance of political independence between 1945 and 2000, as noted in the POLITY IV dataset. I include states that no longer exist (East and West Germany, North and South Vietnam, and South Yemen)

²⁵ In a separate regression, the lag of the spatial control was not significant. This suggests there is no policy diffusion effect at play. Governments do not change language regimes in response to changes in a neighboring country. Most certainly, there are lags in changes between countries. But the results from Model 4.1, 4.2, and 4.4 suggest these changes are being driven simultaneously by an exogenous event.

and states that disappeared pre-1945 but later reappeared (the Baltic States, Morocco, and Russia).²⁶ I also include every instance of democratic transition in the same time period. I consider a regime to be democratic when its POLITY IV score is at least a 6.²⁷ Note that with this dataset, while cross-sectional in nature, some countries appear multiple times. The unit of analysis is *country-shock.year*. There is a total of 163 observations.

4.2.1. Dependent Variable: Language Regime Choice

The dependent variable is trichotomous. Specifically, it identifies whether the educational language regime of country j in year k is power-concentrating, power-sharing, or power-neutralizing. The variable *Language Regime Choice* is coded as power-concentrating (assigned a value of 0) if the education system is monolingual in the dominant group language; power-sharing (assigned a value of 1) if multilingual; and power-neutralizing (assigned a value of 2) if monolingual in a lingua franca. As with the dependent variable in the previous section, the data is from a mix of sources, with Leclerc (2007) providing the initial information for most entries.

Since language regimes are political institutions, a lag is to be expected between the political shock and the actual choice of language regime. Some lags are short. In Brunei, for example, the National Program of Education was passed within one year of independence

²⁶ For these latter cases, I consider this second round of political independence as a new observation. Anecdotal evidence suggests that even within the same country, dominant groups behave differently during the two periods given a different likelihood of remaining in power (see for example, Raun 2001).

²⁷ I exclude all democratic periods that survived for less than five years. The rationale is that in short-lived democratic governments, bargains over language regimes may not have materialized.

(Leclerc 2007). In contrast, other lags are longer. Israel, for instance, did not pass the Law on Official Education until six years after it got its independence from the British-administered League of Nations mandate (Leclerc 2007). To account for these differences, I allow for a ten-year lag.

Table 4.3 shows the distribution of language regimes across regions.

TABLE 4.3: Language Regimes Post-Independence

	<i>Power- Concentrating</i>	<i>Power-Sharing</i>	<i>Power- Neutralizing</i>	TOTAL
<i>West Hemisphere</i>	15	6	4	25
<i>West Europe</i>	9	2	0	11
<i>East Europe & Eurasia</i>	18	15	0	33
<i>Africa</i>	3	25	23	51
<i>Near East</i>	9	1	5	15
<i>South Asia</i>	7	2	0	9
<i>East Asia & Pacific</i>	11	4	4	19
TOTAL	72	55	36	163

4.2.2. Independent Variables

Recall, the argument is that language regime choice is the product of the second-period uncertainty and the socioeconomic hierarchy. Specifically, when the socioeconomic hierarchy does not converge and the likelihood of the non-dominant group coming to power is low, then we are most likely to see a power-concentrating language regime. In contrast, under the same socioeconomic hierarchy conditions, if the likelihood of the non-dominant group coming to power is high, then we are most likely to see a power-neutralizing language regime. And finally, when the socioeconomic hierarchy converges, we are most likely to see a power-sharing language regime regardless of the values of the second-period uncertainty.

So in this section, I discuss in depth how I construct each component of the interaction. I begin with the second-period uncertainty.

Second-Period Uncertainty

The likelihood of certain events happening in the future can heavily affect the outcome of any institutional bargaining, including those over language regime choice. A high likelihood of the dominant group remaining in power will produce a different language regime than one where the likelihood of a non-dominant group coming to power is high. In the model, the groups take into consideration three values of the second-period uncertainty: (1) the likelihood the dominant group remains in power; (2) the likelihood a non-dominant group comes to power; and (3) the likelihood the state destabilizes. Let me begin with the likelihood of state destabilization.

Likelihood of State Destabilization

To code for these variables, it is important to remember that the three probabilities together add up to a total of 1. I begin with the likelihood of the state destabilizing ($(1-\alpha)(1-\beta)$). An extreme form of a destabilized state is the complete breakdown of authority. Under such conditions, fighting becomes inevitable. Recent works have produced several different models of civil war onset (Collier and Hoeffler 1998, 2004; Fearon and Laitin 2003; Sambanis 2004). Here, I use the predicted probabilities for civil war (War) from the Fearon and Laitin model to capture this extreme component of a state destabilizing.

Clearly, the likelihood of civil war is low. We see this in the Fearon and Laitin dataset: Out of 6610 observations, only 110 are coded as a civil war. At a less extremity, a destabilized state is characterized by enduring violence, disorder, and limited ability of the government to provide political goods. I argue this general chaos is exacerbated when a country had to fight, whether against a colonial power for independence or against another domestic group prior to democratization. Colonial powers are often—if not always—better equipped militarily and have more capital. As such, any legacy of colonial fighting is bound to handicap a newly independent state; and this handicap increases as the length of fighting increases. Similarly, if a democratic transition happens after a lengthy period of civil conflict, the handicap bears heavily on the new democratic government as it tries to keep all the relevant parties at the negotiating table and away from the battle fields. To code for this general handicap, I use data from Gleditsch et al (2002). The variable *Handicap* measures the number of consecutive years the country was engaged in an armed conflict prior to the political shock.

To compute the likelihood of a state destabilizing, I use the following equation:

$$(1-\alpha)(1-\beta)=\Pr(War)*Z^{\log(Handicap+1)}$$

where Z is a positive integer.²⁸ With this equation, a country that becomes independent without fighting would have a likelihood of state destabilization equal to that of a civil war:

²⁸ I log *Handicap* because the detrimental effects of the handicap are more noticeable in the earlier years of fighting than the later years. In other words, there is a diminishing effect when it comes to fighting. I also use a base multiplier, represented as Z , because the effects of handicaps are more likely to be felt

$(1-\alpha)(1-\beta)=\Pr(War)*Z^{\log(1)}=\Pr(War)*1$. In contrast, for a country like Madagascar that fought for one year prior to independence, the likelihood of state destabilization is slightly higher. But still, this likelihood is much lower than a place like Angola's, whose likelihood is extremely high after fourteen years of fighting.

Likelihood Non-Dominant Group Comes to Power

I next code for the likelihood of a non-dominant group coming to power $(1-\alpha)\beta$. Here, I take into consideration the numerical size of the largest non-dominant group (*Size_d*). The rationale is that the threat posed by a non-dominant group—both at the polling stations via voting or on the streets via demonstrations—increases as the size of the group also increases. Remember, not all dominant groups are the numerical majority. In Taiwan, for instance, the politically dominant Mandarin-speakers are only 20 per cent of the population. In contrast, the Taiwanese-speakers are 67 per cent (Leclerc 2007). Similarly, in Pakistan, at least three non-dominant groups are numerically larger than the dominant group. The Punjabi- (47 per cent), Pashtu- (16 per cent), and Sindhi-speakers (13 per cent) each outnumber the 7 per cent Urdu-speakers (Leclerc 2007). Data for the numerical size of the largest non-dominant linguistic group is from both Fearon and Laitin (2003) and Leclerc (2007).

The likelihood of a non-dominant group coming to power is constructed as follows:

$$(1-\alpha)\beta=(1-(1-\alpha)(1-\beta))*Size_d.$$

immediately than those from a civil war. The results are robust for any value of Z between 2 and 10. The results in the following tables use $Z=4$.

Having calculated the likelihoods of the state destabilizing and a non-dominant group coming to power, I can now code the residual likelihood as the likelihood of the dominant group remaining in power.

For robustness, I also construct the second-period uncertainty using an alternative algorithm. Again, I begin with the same arrangement for calculating the likelihood of state destabilization. I then take the likelihood of the state *not* destabilizing and multiple that by the numerical size of the dominant group ($Size_D$) to compute the likelihood of the dominant group remaining in power. The residual likelihood is now the likelihood of the non-dominant group coming to power. Mathematically, the likelihood of the non-dominant group coming to power using this alternative algorithm is expressed as follows:

$$(1-\alpha)\beta = ((1-(1-\alpha)(1-\beta)) * Size_D) + Pr(War) * Z^{\log(Handicap+1)}.$$

Table 4.4 lists the descriptive statistics for the three probabilities.

TABLE 4.4: Descriptive Statistics of Probabilities

	<i>Mean</i>	<i>Minimum</i>	<i>Maximum</i>
<i>Likelihood Dominant Group Remains in Power</i>	0.552	0.002	0.991
<i>Likelihood Non-Dominant Group Comes to Power</i>	0.406	0.001	0.991
<i>Likelihood State Destabilizes</i>	0.042	0.006	0.589

Socioeconomic Hierarchy

Socioeconomically, not all languages are considered equal. Some languages have more worth than others. This is especially true in the socioeconomic hierarchy. For instance, schooling and proficiency in the “right” language can pave the way for upward mobility; and in contrast, knowledge of the “wrong” language can limit the opportunities for

socioeconomic advancement. Fundamentally, this socioeconomic inequality reflects Horowitz's (1985) argument regarding relative group status.

It is important to identify which group is socioeconomically advantaged. Esman (1987) notes disproportional wealth in the hands of a non-dominant group has elicited varying responses from the politically dominant, socioeconomically disadvantaged group. Some, the Vietnamese, for example, have taken drastic actions such as expropriation and nationalization of assets; others, such as the Thais, have done little out of fear that any serious attempt to change the situation would encourage capital flight; and still, others, the Malays, for instance, have adopted affirmative action programs aimed at promoting the socioeconomic standing of the dominant group without infringing on the socioeconomic control of the non-dominant group.

To code for whether the socioeconomic hierarchy is non-convergent—such that the non-dominant political group is socioeconomically advantaged—I construct a dichotomous variable using the Minority at Risk (MAR) dataset. The MAR dataset identifies the economic inequalities for each group (ECDIFXX). This inequality index includes differentials in income, land/property, higher education, presence in commerce, professions, and official positions. This index ranges from -2 (the minority is advantaged compared to the dominant group) to 4 (the minority is extremely disadvantaged compared to the dominant group) (Dataset Users Manual 030703 2005).²⁹

²⁹ The MAR dataset includes the relative economic differential for each at-risk minority for each biennium starting with 1980. With a few exceptions, economic differentials do not change over time. In the few cases where there were minor changes (such as Malaysia), I take this into account when coding.

A country is considered to have a non-convergent hierarchy when any of the linguistically-at-risk minority is assigned a value of -2 (advantaged), -1 (somewhat advantaged), or 0 (no socially significant differences). When this is the case, I code the variable *Socioeconomic Hierarchy* as 1.³⁰

4.2.3. Control Variables

I include several control variables to ensure there are no confounded effects. Several of the controls are from the previous test. These include Arab culture, British colonialism, the number of languages, and the median neighboring language regime. I also control for other non-contiguity and population.

Arab Culture

Arab governments are more likely to concentrate or neutralize linguistic powers with classical Arabic. As mentioned in the previous section, classical Arabic is both a dialect of prestige and a language of necessity for studying the Koran. We also know Arab governments are less likely to change language regimes. As such, we would expect anything but a power-sharing language regime when the country is Arab.

³⁰ It is possible that political and socioeconomic cleavages do not overlap whatsoever. In such cases, because the politically dominant group is no more socioeconomically advantaged, I assign the variable *Socioeconomic Hierarchy* a value of 1. The two cleavages can fail to overlap because the country is not included in the MAR dataset or because none of the at-risk groups for a given country are linguistically-defined. For robustness, I re-code the variable *Socioeconomic Hierarchy* as 0 for these few cases. The empirical results do not change.

British Colonialism

During colonial times, the British (unlike the French) were less likely to pursue assimilation via the sole use of the colonial language. In contrast, the British often supported power-sharing language regimes. The evidence in the previous tests highlights this relationship. In this section, I argue British colonies are (1) less likely to choose a power-neutralizing language regime but (2) more likely to choose a power-sharing language regime.

Number of Languages (Squared)

One commonly-held assumption is that language politics are by far fewer in linguistically homogeneous countries (Brown and Ganguly 2003; Kaplan and Baldauf 2003). The rationale is that in countries such as Cuba, Japan, and the two Koreas, the language regime is monolingual precisely because only one language—the language of the dominant group—is needed. While this is true, the same can be said for extremely heterogeneous countries. When there are hundreds of linguistic groups—742 in Indonesia and 820 in Papua New Guinea—the language regime needs to be monolingual as well. However, in this situation, the monolingual regime is often power-neutralization. In Indonesia, the language of education (starting in the fourth grade) is Bahasa Indonesian; and in Papua New Guinea, English. In short, the relationship between the number of languages and the choice of language regimes is negative quadratic.

Non-Contiguity

Geography should also matter for language regime choice. Unforgiving geography, such as non-contiguity, can make the use of one language that much more important. One language, whether it is the dominant group language or a lingua franca, can unite a diverse population. Hence, I expect power-sharing language regimes to be the least likely choice in non-contiguous states. As for the likelihood of power-concentrating versus power-neutralizing language regimes, I argue we are more likely to see the latter because of the delicate nature of holding on to separate territories. Data is from Fearon and Laitin (2003).

Logged Population

The use of multiple languages is simply inefficient. Imagine if every individual in a tiny state spoke a different language. The sheer volume of translations and transaction costs would be nearly unmanageable. Now, imagine a state with a large population. This inefficiency renders the use of one language a necessity. Since a proportion of this large population is already speakers of the dominant group language, it would undoubtedly be more efficient to choose a power-concentrating over a power-neutralizing language regime. Simply put, educating the non-dominant group population in the dominant group language is less costly than reeducating the entire population in a third-party language. I expect we are most likely to see a power-concentrating language regime when the population is large. Data is also from Fearon and Laitin (2003).

Neighboring Language Regime

I also control for region-specific effects. As we saw in the previous section, exogenous international shocks, such as decolonization or democratization, can

simultaneously affect a group of countries. This effect can drive a similar pattern of language regime choice. To control for this spatial autocorrelation, I compute for the median language regime in neighboring countries. I assign the variable *Neighboring Language Regime* with the value of 1 if the median is a power-concentrating language regime; 2, if power-sharing; and 3, if power-neutralizing.

4.2.4. Model Estimator

I run two models. The first model is the baseline model. In the baseline model, I test the effect of second-period uncertainty and socioeconomic hierarchy on language regime choice without any of the controls. I include the controls in the second model. I estimate the sample using a multinomial logit. There should be no temporal autocorrelation given the cross-sectional nature of the sample. The results are presented in Table 4.5.

4.2.5. Discussion

Overall, the empirical evidence supports the argument that language regime choice is the product of the second-period uncertainty and the socioeconomic hierarchy. Because of the interaction variable, it is important we proceed with caution and that we “refrain from interpreting the constitutive elements...as unconditional or average effects—they are not” (Brambor et al. 2006: 71). While the coefficients for *Likelihood Non-Dominant Comes* and *Socioeconomic Hierarchy* are in the expected directions and statistically significant, we need to take into consideration their interactive effects as well.

TABLE 4.5: Political Shocks and Language Regime ChoiceDependent Variable: *Language Regime Choice (Trichotomous)*

	Model 5.1		Model 5.2	
	Power-Sharing	Power-Neutralizing	Power-Sharing	Power-Neutralizing
<i>Likelihood Non-Dominant Comes</i>	1.1607 (2.1632)	1.4077 (3.0435)	1.3819 (2.3362)	0.0045 (5.6078)
<i>Socioeconomic Hierarchy</i>	-1.4122** (0.6788)	2.4986*** (0.8614)	-1.2856** (0.7030)	2.3148* (1.2969)
<i>Likelihood Non-Dominant Comes</i> <i>* Socioeconomic Hierarchy</i>	-4.0161 (3.9354)	5.1034*** (0.4496)	-3.2147 (4.0990)	4.7629*** (0.6966)
<i>Arab Culture</i>			-2.1731* (1.1481)	0.2152 (0.8577)
<i>British Colonialism</i>			-0.0557 (0.5483)	-1.4376* (0.7517)
<i>Number of Languages</i> ²			0.0049** (0.0025)	0.0074*** (0.0027)
<i>Non-Contiguity</i>			-0.3710 (0.6863)	1.9397** (1.0011)
<i>Logged Population</i>			-0.4204** (0.1728)	-1.3208*** (0.3095)
<i>Neighboring Language Regime</i>			0.5678 (0.3653)	2.1229*** (0.4928)
<i>Constant</i>	-0.4538 (0.4079)	-1.4321** (0.56861)	2.4532 (1.5888)	5.3864** (2.7582)
<i>N</i>		163		154
χ^2		18.24***		103.85***
R^2		0.0526		0.3153

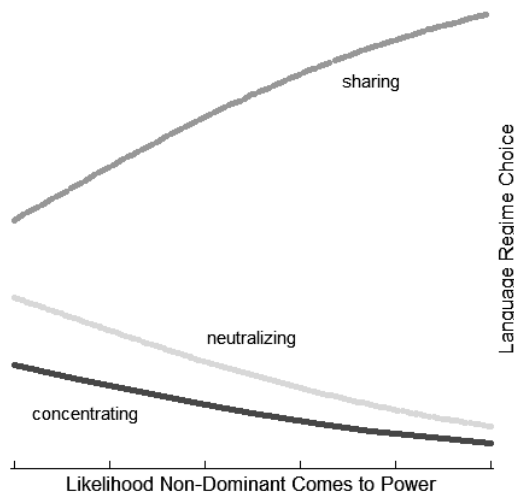
Note: Robust standard errors in parentheses

* $p \leq 0.100$ ** $p \leq 0.050$ *** $p \leq 0.010$

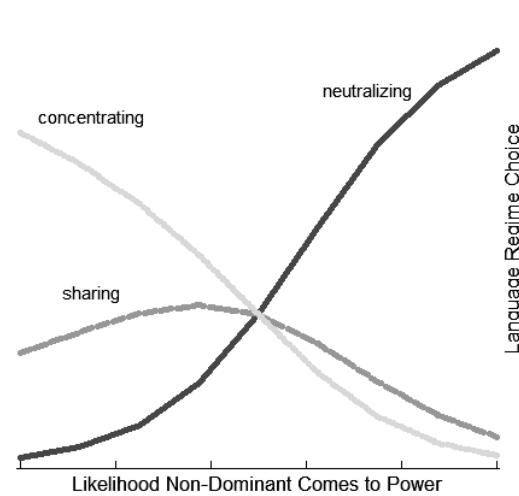
Base Category = 1 "Power-Concentrating Language Regime"

Figures 4.1 and 4.2 illustrate the marginal effects of the likelihood of a non-dominant group coming to power on language regime choice. The figure on the left (4.1) represents a scenario where the socioeconomic hierarchy converges, such that the politically dominant group is also the socioeconomically advantaged group. In contrast, the figure on the right (4.2) depicts a non-convergent socioeconomic hierarchy, where the politically non-dominant group is the socioeconomically advantaged group. In both figures, the variable *Likelihood Non-Dominant Comes* is plotted along the x axis, ranging from a minimum value of 0 to a maximum value of 1. The likelihood of each language regime is plotted along the y axis.

**FIGURE 4.1: Marginal Effects
(Convergent)**



**FIGURE 4.2: Marginal Effects
(Non-Convergent)**



As predicted, a power-sharing language regime is most likely when the socioeconomic hierarchy converges, such that politically dominant group is also the socioeconomically advantaged group (Figure 4.1). However, we are least likely to see this same choice when there is a non-convergent hierarchy (Figure 4.2). Under such conditions, if the likelihood of the non-dominant group coming to power is low, we are most likely to

see a power-concentrating language regime; otherwise, a power-neutralizing language regime. The results are robust across model specifications.

Cultural factors matter for language regime choice. First, we are less likely to see a power-sharing than a power-concentrating language regime when the country is Arab. This is in line with our predictions. Given the prestige for and necessity of classical Arabic, Arab governments are not likely to share linguistic powers with other languages. We are not able to make any assessment about whether we are more likely to see power-concentrating or power-neutralizing language regimes. The coefficient, although positive for power-neutralizing, is not statistically significant.

Second, in British colonies we are more likely to see a power-concentrating than a power-neutralizing language regime. Again, this matches our ex-ante expectations. The British were the least likely of the Europeans to impose a power-neutralizing language regime on the colonies. The results indicate this had an effect on post-colonial language regime choice. Quite interestingly, at first glance, the coefficient for the power-sharing model is negative. This would seem to suggest British colonies were more likely to choose power-concentration. However, as this coefficient is not statistically significant, we cannot draw any definite conclusions.

All three structural constraints matter as well: number of languages, non-contiguity, and logged population. The positive and highly statistically significant coefficients ($\beta = 0.0049$ and $\beta = 0.0074$) indicate—again, as expected—as the number of languages increases, we are least likely to see a power-concentrating language regime. Further comparison and tests of the two coefficients support the second half of our predictions. After a certain threshold, as the number of languages increases, we are less likely to see a power-sharing

language regime and more likely a power-neutralizing language regime.

The effects of non-contiguity are noticeable in that non-contiguous states are more likely to choose a power-neutralizing language regime than one that is power-concentrating. This is not surprising. The need to hold together a territorially separated country requires some common denominator, such as the use of one language. The one language is also more likely to be a lingua franca as its use is politically less contentious than the use of the dominant group language. The coefficient in the power-sharing model ($\beta = -0.3710$) is not statistically significant, but its direction gives a slight affirmation that non-contiguous states are less likely to choose a power-sharing language regime.

The empirical evidence also supports the claim that as population size increases, we are most likely to see a power-concentrating language regime ($\beta = -0.4204$ and $\beta = -1.3208$). With a large population, power-concentrating language regimes are the most efficient for two reasons. First, it is more efficient than a power-sharing language regime because everyone can communicate with everyone else directly. There are no transaction costs whatsoever. Second, it is more efficient than a power-neutralizing language regime because the resources required to educate the non-dominant language speakers are significantly less than what would be needed to reeducate the entire population in a lingua franca.

Finally, the median language regime in neighboring countries also matters. We can draw two conclusions from the highly significant and positive coefficient ($\beta = 2.1229$) in the power-neutralizing model. First, when the language regime in neighboring countries is generally power-concentrating, a country is more likely to also have a power-concentrating language regime. Similarly, when the language regime in neighboring countries is generally power-neutralizing, a country is also more likely to choose a power-neutralizing language

regime. This relationship would be consistent with decolonization in non-British areas, where the colonial power advocated power-neutralization. Although the coefficient in the power-sharing model is not statistically significant, its positive sign ($\beta = 0.5678$) further supports the argument that there is spatial autocorrelation.³¹

4.2.6. Robustness Check: Linguistic Power Distribution

As a robustness check, I recode the dependent variable as a distribution of three proportions. The first proportion is the degree of linguistic powers concentrated in the dominant group language; the second proportion, the degree of linguistic powers shared with the non-dominant group language; and the third proportion, the degree of linguistic powers neutralized via a lingua franca. In sum, the three proportions must add up to 1.

I run the same two regression models from the previous test. One is the baseline without the control variables; the other includes the cultural factors, structural constraints, and spatial control. I estimate both models by fitting a Dirichlet distribution using maximum likelihood.³²

³¹ Other controls that I looked at included the type of shock (political independence or democratic transition), civilization conflict, democracy level, Communist legacy, and logged GDP per capita. These variables were not significant in various regressions. Hence, I omit them from the regression presented in Table 4.5.

³² The Stata command for this estimator is `—dirifit—`. With this estimator, each proportion must range *between* 0 and 1. Given this mathematical constraint, I recode all proportions of 0 as 0.01 and all proportions of 1 as 0.99.

TABLE 4.6: Political Shocks and Linguistic Power DistributionDependent Variable: *Linguistic Power Distribution (Proportion)*

	Model 6.1		Model 6.2	
	Non-Dominant	Lingua Franca	Non-Dominant	Lingua Franca
<i>Likelihood Non-Dominant Comes</i>	-1.6727 (1.2434)	-0.1757 (1.6830)	-1.7453 (1.4652)	-0.6215 (2.8211)
<i>Socioeconomic Hierarchy</i>	-0.6440*** (0.0419)	1.4350** (0.6091)	-0.9044** (0.3884)	1.1560** (0.5137)
<i>Likelihood Non-Dominant Comes * Socioeconomic Hierarchy</i>	-3.7048* (2.2226)	6.5252** (2.9359)	-4.2340** (2.0612)	5.8774** (2.7488)
<i>Arab Culture</i>			-0.2062 (0.5995)	1.3281 (0.9422)
<i>British Colonialism</i>			-0.0878 (0.2730)	-0.1723 (0.7076)
<i>Number of Languages²</i>			0.0011* (0.0004)	0.0003 (0.0006)
<i>Non-Contiguity</i>			0.9228** (0.3781)	0.9030 (0.7253)
<i>Logged Population</i>			-0.14497 (0.1063)	-0.0279 (0.1033)
<i>Neighboring Language Regime</i>			-1.3668 (1.1886)	-2.0067 (1.5598)
<i>Constant</i>	-1.1518*** (0.2844)	-1.0795*** (0.3955)	0.42856 (0.9224)	-0.1876 (0.8496)
<i>N</i>		46		45
<i>χ²</i>		18.77***		337.87***

Note: Robust standard errors in parentheses

* $p \leq 0.100$ ** $p \leq 0.050$ *** $p \leq 0.010$

Base Category = 1 "Proportion of Dominant Group Language"

Given practicality constraints, I test the model on a sample of the observations from the previous cross-sectional dataset. I still include instances of political independence and democratic transition, but I only focus on Asian countries. In all, there are 46 observations.

The results are presented in Table 4.6.

Quite surprisingly, the control variables are no longer statistically significant. Many of the significant coefficients from the previous test are also now in the opposite direction. There are two exceptions. One is the number of languages (squared) in the non-dominant language proportion model. The coefficient ($\beta = 0.0011$) is significant only at the 0.100 level. However, the direction of the coefficient is the same as the previous test. Simply put, as the number of languages increases, we are less likely to see a power-concentrating language regime (as a *type*) and/or linguistic powers concentrated in the dominant group language (as a *proportion*).

The other statistically significant coefficient is non-contiguity in the non-dominant language proportion model. The highly significant and positive coefficient ($\beta = 0.9228$) seems a far cry from the non-significant and negative coefficient from the previous model ($\beta = -0.3710$). There are two possible explanations for this divergence. First, given the fact that the previous coefficient was not statistically significant, we cannot conclude whether we are more likely to see a power-concentrating or a power-sharing language regime when there is non-contiguity. However, with the coefficient from this model, we can now conclude that we are more likely to see a power-sharing language regime in non-contiguous states. Second, recall the previous model tested for the *type* of language regime. This model, in contrast, tested for the *proportion* of linguistic powers. So while it is still possible that power-

concentrating language regimes are more prevalent in non-contiguous states, the degree of power-concentration within these language regimes is less than in a contiguous state.

Despite the general changes among the control variables, the three variables of interest—the second-period uncertainty, the socioeconomic hierarchy, and the interaction of the two—suggest robustness across coding schemes and model estimators. Again, I refrain from interpreting the coefficients independently of the interaction term. Plots of the marginal effects of the likelihood of a non-dominant group coming to power on the distribution of linguistic powers yield very similar figures as those in Figures 4.1 and 4.2.

4.3. IMPLICATIONS FOR CASE STUDIES

The empirical evidence in this chapter lends general support to the argument that language regime choice is the product of the second-period uncertainty and the socioeconomic hierarchy. Specifically, when the socioeconomic hierarchy is non-convergent and the likelihood of the non-dominant group coming to power is low, we are most likely to see a power-concentrating language regime. However, under the same socioeconomic hierarchy conditions, if the likelihood of the non-dominant group coming to power is high, then we are most likely to see a power-neutralizing language regime. And finally, we are most likely to see a power-sharing language regime when the socioeconomic hierarchy is convergent, regardless of the values of the second-period uncertainty.

As a robustness check, I differentiated between different degrees of a language regime. This is important if we are interested in *de jure* and *de facto* language regimes. For instance, consider two hypothetical observations. The first is a power-sharing language regime, where the power-sharing is very symmetrical. All languages are offered an equal

number of years. The second is also a power-sharing language regime, but the linguistic sharing is very asymmetrical. The dominant group language is a language of instruction for more years than any other language. It also receives more government aid than the other languages.

The language regimes in both observations would be coded as power-sharing if we are strictly interested in type. And while this is technically true, it does not differentiate between the degree of power-sharing and the de facto language regime. One way to parse out the difference is through careful coding of the large N samples. This is extremely difficult, and is evident by the limited sample of just Asia. Another way to parse out the difference between type and proportion, and between de jure and de facto proportion is through in-depth case study analyses. In the next three chapters, I turn my attention to three countries in Southeast Asia: Indonesia, Malaysia, and Singapore. While the language regime is de jure power-sharing in all three cases, the degree of power-sharing and the de facto outcome is quite different. We see this difference not only between the three cases but within each case as well.

5. INDONESIA

Unity in Diversity: Power-Sharing and Power-Concentrating with a Lingua Franca

In Chapter 3, the formal model generated several testable propositions about language regime choice. To recount, when the socioeconomic hierarchy converges, such that the politically dominant group is also the socioeconomically advantaged group, we are most likely to see a power-sharing language regime. This choice is made regardless of the values of the second-period uncertainty: the likelihood of the dominant group remaining in power, the likelihood of a non-dominant group coming to power, and the likelihood of the state destabilizing. The rationale is that under such conditions, the dominant group has an incentive to make linguistic concessions to the non-dominant group because it is constrained by the fear of a destabilized state.

However, if the politically dominant and socioeconomically advantaged groups are not the same, then the second-period uncertainty matters. Specifically, if the likelihood of the non-dominant group coming to power is low, we are most likely to see a power-concentrating language regime; and conversely, if the likelihood of the non-dominant group coming to power is high, we are most likely to see a power-neutralizing language regime.

In Chapter 4, I tested these propositions on a cross-sectional sample that included all instances of political independence and democratic transition between 1945 and 2000. The empirical evidence lent general support to the claim that there is correlation between language regime choice and the interaction between the second-period uncertainty and the socioeconomic hierarchy. However, as correlation is not a sufficient substitute for investigating causation, it is imperative that I supplement the statistical analysis with in-depth

process tracing as it is the only method for asserting causal mechanisms (George and Bennett 2005).

In the following three chapters, I focus on the language regime choice in Indonesia, Malaysia, and Singapore. While all three countries had a de jure power-sharing education system following political independence, the de facto language regime was different. In Indonesia, the prevalence of the lingua franca (Malay)³³ rendered linguistic powers neutralized; in Malaysia, the bias in favor of the dominant group language (Malay) shifted the linguistic power distribution into something much more concentrating; and in Singapore, government efforts to promote multiple languages, especially a lingua franca, meant the language regime was truly the most power-sharing of the three cases.

This chapter is divided into three sections. The first section is the research design. Here, I discuss case selection, the unit of analysis, the conceptualization of dominant group, and the operationalization of the key variables (language regime choice, second-period uncertainty, and socioeconomic hierarchy). While there are only three cases in this part of the study, each case has several causal-process observations (Brady et al. 2004). Sections 2,

³³ The origin of the Indonesian language (*Bahasa Indonesia*) is from Malay. The language was first introduced by Mohammad Yamin as Indonesian at the 1926 Youth Congress to reflect the desire of the people to have an indigenous national language. By the 1928 Youth Congress the majority of the speeches were delivered in Malay. Since then, Indonesian has evolved with its own distinct characteristics. The switch from Jawi characters to Latin script, a Dutch colonial legacy, and the social dominance of the Javanese have made Indonesian slightly different from Malay. Since the 1970s, however, there have been coordinated efforts by the Indonesian and Malaysian language agencies to standardize the lexicon, especially for scientific and technical terminologies (Kaplan and Baldauf 2003). By some linguistic accounts, the difference between present day Indonesian and Malay is less than the difference between Iberian Spanish and Portuguese.

3, and 4 discuss in detail the two observations for the Indonesian case (*1945-1968 Sukarno Era* and *1968-1998 Suharto Era*). I conclude in Section 5 with a brief discussion of language regime choice in the post-Suharto years.

5.1. RESEARCH DESIGN

There are two parts to the qualitative empirical test. The first component, the congruence method, examines whether the value of the independent variable matches the value of the dependent variable as predicted by the propositions generated from the theoretical model. The second component, process tracing, aims “to identify the intervening causal process—the causal chain and the causal mechanism—between an independent variable (or variables) and the outcome of the dependent variable (George and Bennett 2005: 206) through an in-depth analysis of individual cases and is used to establish whether a congruent relationship is likely to be causal or spurious.

5.1.1. Case Selection

These countries were selected for both theoretical and practical reasons. Theoretically, these three cases were natural candidates for a most similar design, both cross-nationally and over-time within the same case (Przeworski and Teune 1970). Many of the control variables have similar values. Some of the commonalities are worth noting. The *cultural* heterogeneity today, for instance, is the result of the region’s history. Southeast Asia was a destination for different influences: religious expansion from the Middle East and India; commodity traders from Europe; and immigration from China and India (Osborne 1997). From colonialism to Japanese occupation, all three cases underwent similar *political*

developments: independence in the aftermath of WW2; semblance of democracy for a short period of time; the eventual dominance of one single individual; and the political shock in the wake of the 1997 economic crisis. The three countries also faced severe challenges to state stability, including communalism, communism, imperialism, and/or regionalism. *Economically*, all three countries witnessed unprecedented development. This growth would later spark a debate on whether it was a “miracle” or simply the result of “getting the basics right” (Campos and Root 1996; Krugman 1994; Pack and Nelson 1999; Pack and Westphal 1986; Page 1994).

At the same time, the dependent and independent variables differed. As previously mentioned, the de facto educational language regime was often a far cry from the de jure power-sharing education system. There were also variations in the second-period uncertainty. In some cases, the threat of the non-dominant group coming to power was much more salient than in other cases. Similarly, the likelihood of the state destabilizing was much higher at certain moments than in other moments. And finally, the socioeconomic hierarchy converged in some cases but not in others.

These cases were also selected for practical reasons. Chinese, English, and Malay are the most commonly-spoken languages in this part of the world. As a native speaker of the first two languages and a student of the third language, I knew I had the ability to access and utilize a large number of archival materials and conduct interviews with politicians and government officials from different racial backgrounds.

5.1.2. Unit of Analysis

The unit of analysis is *country-period*. The temporal starting point of an observation is determined by a significant political shock such as—but not limited to—political independence or regime change. The temporal ending point for this same observation is defined by the starting point of a subsequent observation. In all, there are seven observations: two for Indonesia (*1945-1968 Sukarno Era* and *1968-1998 Subarto Era*); two for Malaysia (*1957-1969 Democracy Period* and *Post-1969 Non-Democracy Period*); and three for Singapore (*1959-1963 Pre-Merger Period*, *1965-1971 Immediate Post-Merger Period*, and *Post-1971 Post-British Withdrawal Period*).

5.1.3. Conceptualization: Dominant Group

Central to the argument is the bargaining between two groups: one dominant and one non-dominant. Dominance is politically defined. The dominant group is the group with the majority of political power. Here, I identify groups based on linguistic divisions. In some instances linguistic group boundaries run parallel with other boundaries. For example, linguistic identification coincided with regional identification in the *1945-1968 Sukarno Era*. Similarly, in another observation (Singapore's *1959-1963 Pre-Merger Period*) linguistic, ideological, and class cleavages overlapped.

I focus on the chief executive when coding for the dominant group. The linguistic affiliation of the chief executive is a good indicator of the political relations between groups. Presidents (in Indonesia) and Prime Ministers (in Malaysia and Singapore) are more likely to hail from a dominant group. In fact, this has always been the case in both Malaysia and Singapore. In Indonesia, with the exception of one (BJ Habibie), all Indonesian presidents

have been Javanese. This constancy further lends validity to the use of the chief executive as a proxy.³⁴

5.1.4. Dependent Variable: Language Regime Choice

For the dependent variable, *Language Regime Choice*, I consider both the de jure and de facto distribution of linguistic powers. I code the de jure language regime based on the official laws governing languages of instruction. In some instances, these laws were the product of executive orders. In others, they developed under the jurisdiction of the Ministry of Education and/or a centralized language institute. Preliminary information on these laws is from various secondary sources including the *International Handbook of Education Systems* (Cowen and McLean 1983), Kaplan and Baldauf's (2003) survey of language-in-education policies in the Pacific Basin, and Leclerc's (2007) website on language management in the world. Where and when possible, I back this preliminary information with primary evidence. I do so to ensure proper interpretation and/or translation.

In principle, all languages of instruction should be equal in a power-sharing language regime. Yet this is rarely the case. I focus on the different language curriculums when I

³⁴ Of course it is possible to tell a different story where a barely dominant group needs the cooperation of the barely non-dominant group. As a part of the political bargaining package, the dominant group actually offers the top political office to the non-dominant group, in exchange for the rest of the cabinet being staffed by members of the dominant group. While such political concessions are hypothetically possible, there is evidence that this was not case in Indonesia, Malaysia, or Singapore. The highest offices held by a member of the non-dominant group have been the Vice Presidency in Indonesia, the Ministry of Finance in Malaysia, and the Ministry of Foreign Affairs and also the Presidency in Singapore.

code for the de facto language regime. I take two factors into consideration. First, whether a de jure power-sharing language regime is more concentrating or neutralizing depends on which language is the first among equals. I ascertain this by (1) examining which language is used as a language of instruction for the most number of years; and (2) identifying the compulsory language of study in all curriculums. When the emphasized language is the dominant group language, the language regime is de facto more power-concentrating. And conversely, when the emphasized language is a lingua franca, the de facto language regime is more power-neutralizing.

A de facto language regime is also characterized by which language is last among equals. One indication is the distribution of government funds across curriculums. Schools that receive fewer resources are often those operating in the last among equals language. Another indication is the nature of the grievances. Speakers of a language that has legal but little actual recognition are more likely to voice their discontent. The nature of these grievances is well-documented *directly* in newspaper editorials, radio commentaries, and public demonstrations; and *indirectly* in government rhetoric and responses.

I operationalize *Language Regime Choice* as a categorical variable and code it as power-concentrating, power-sharing, or power-neutralizing.

5.1.5. Independent Variable: Second-Period Uncertainty

The second-period uncertainty is the likelihood of certain events happening should there be no immediate agreement on a language regime. There are three such events. First, the dominant group remains in power; second, the non-dominant group comes to power; and third, the state destabilizes. These three likelihoods affect the bargaining dynamics in

the first period. The rationale is as follows. A dominant group is expected to behave differently if its anticipated tenure in power is long term versus short term.

In all three cases, dominant group behavior reflected strategic calculations to elicit cooperation from the non-dominant group. The arena in which this bargaining played out differed slightly, however. In pre-1969 Malaysia, for instance, the Alliance Party dominated the Government. The Alliance Party was a coalition of three parties: the United Malays National Organization (UMNO), the Malaysian Chinese Association (MCA), and the Malaysian Indian Congress (MIC). Given this arrangement, any form of linguistic bargaining between these three groups was strictly *inter-party*. In contrast, in Singapore the PAP was a non-coalition inter-racial³⁵ left-wing party³⁶ that held monopolistic powers in the Government. All negotiations over language regime choice were *intra-party*.

As mentioned previously, state destabilization is characterized by enduring violence, disorder, and the limited ability of the government to provide political goods. In all three cases, the threat of state destabilization was most certainly present. Communism, for instance, was a no trivial matter. I code the likelihood of state destabilization based on Government perceptions. Specifically, I measure the frequency and the intensity of the rhetoric regarding state survival.

Recall, should there be no immediate agreement on a language regime, one—and only one—of the following three events *must* happen: the dominant group remains in power,

³⁵ Based on paternal ancestry, the majority of the PAP members were of Chinese descent, although a sizeable number (especially the leaders) was English-educated.

³⁶ Prior to 1961, the PAP was roughly fifty per cent communist and fifty per cent left-leaning non-communist.

the non-dominant group comes to power, or the state destabilizes. Furthermore, these three events are the *only* events that can possibly happen. No other event can occur. This is the second-period uncertainty.

Each of the three likelihoods is an ordinal variable: low, moderate, or high. When coding, I take into consideration that the three quantities stand in relation to one another such that their proportions must sum to unity. If one is bigger in size, one or both of the others must be smaller. There are two types of coding combinations. In the first type, one of the three events is most likely to happen. I code this likelihood as “high”. Of the remaining two events, I code the one least likely to occur as “low” and the third event as “moderate”. In contrast, the second coding combination is characterized by all three events having equal likelihood of occurring. The likelihood of the dominant group remaining in power is “moderate”; the likelihood of the non-dominant coming to power, “moderate”; and the likelihood of the state destabilizing, “moderate”. Of the two types of coding combinations, the first type is much more common.

5.1.6. Independent Variable: Socioeconomic Hierarchy

The socioeconomic hierarchy also matters for language regime choice. When the socioeconomic hierarchy is non-convergent, the dominant group has an incentive to use language regime as a political instrument to change the socioeconomic status quo. Which language regime is used to bring about this change is a function of the likelihood of the non-dominant group coming to power. In contrast, when the socioeconomic hierarchy converges, the dominant group is constrained to offer linguistic concessions to ensure the non-dominant group participates in the state-building process.

Here, I measure the socioeconomic hierarchy using a dichotomous classification scheme: convergent and non-convergent. I consider a socioeconomic hierarchy as convergent when the politically dominant group is systematically advantaged from a socioeconomic standpoint; otherwise, I code the socioeconomic hierarchy as non-convergent. To measure this systematic advantage, I compare multiple indicators including—but not limited to—income, unemployment, and education figures *within* each group (versus at the aggregate national level).

5.2. INDONESIA: OVERVIEW

“Satu Nusa, Satu Bangsa, Satu Bahasa”

(“One Nation, One People, One Language”)

1928 Youth Congress Proclamation

Indonesia, an archipelago of more than 13,000 islands, was a Dutch colony dating back to 1602 (Leclerc 2007). Like most of Southeast Asia, Indonesia fell into Japanese hands during WW2. With the defeat of the Japanese in 1945, under the leadership of Sukarno and Mohammad Hatta, Indonesia declared its independence. However, the Netherlands tried to reestablish its rule. The subsequent armed and diplomatic struggles did not cease until December 1949, when in the face of international pressure, the Dutch formally recognized Indonesian independence.

More than 742 languages are spoken throughout the archipelago (Gordon 2005). The largest linguistic groups are the Javanese (40.5 million in 1968), Sundanese (15.0 million), Madurese (8.0 million), Malay (7.5 million), Minangkabau (3.5 million), Balinese (2.5

million), Batak (2.5 million), Makassar (2.0 million), and Acehnese (2.5 million) (Mohr 1984). Despite the numerical majority and the political dominance of the Javanese, Indonesia opted for a power-neutralizing language regime. Malay, the mother tongue of a small subset of the population, was also the language of trade throughout Southeast Asia (Montolalu and Suryadinata 2007).

TABLE 5.1: Language Regime Choice in Indonesia

	<i>1945-1968 Sukarno Era</i>	<i>1968-1998 Subarto Era</i>
LINGUISTIC GROUP		
Dominant Group	Javanese	Indonesian
Non-Dominant Group	Sumatran	Chinese
INDEPENDENT VARIABLE		
Dominant Remains in Power	Moderate	High
Non-Dominant Comes to Power	Low	Low
State Destabilizes	High	Moderate
Socioeconomic Hierarchy	Convergent	Non-Convergent
DEPENDENT VARIABLE		
Predicted Language Regime	Share	Concentrate
Actual Language Regime	Neutralize	Concentrate

Table 5.1 summarizes the coding for the variables of interest for the two observations. The second observation, *1968-1998 Subarto Era*, is consistent with the generated propositions. The same, however, cannot be said for the *1945-1968 Sukarno Era*. It seems the language regime choice in the *1945-1968 Sukarno Era* (power-sharing) does not match the actual language regime (power-neutralizing). In the remainder of this chapter, I process trace both observations. In the *1945-1968 Sukarno Era*, I focus on why there is a

difference between the predicted and actual language regime. Is this observation simply an outlier? Did the model fail to take into consideration an important variable of interest? Or was there a measurement error in one of the variables? And in the *1968-1998 Subarto Era*, I examine how the second-period uncertainty and the socioeconomic hierarchy affected the language regime choice.

5.3. INDONESIA: 1945-1968 SUKARNO ERA

5.3.1. Bargaining Groups

Unlike Malaysia and Singapore, the linguistic bargaining in Indonesia took place in the context of regionalism. This is not surprising given the country's diversity and size. The politically dominant group was the Javanese. The Javanese people, roughly fifty per cent of the Indonesian population, reside on the island of Java. The founding father of Indonesia, the first chief executive—Sukarno—was of Javanese descent. In fact, every chief executive since Sukarno, save BJ Habibie, has been of Javanese descent (Suharto, Abdurrahman Wahid, Megawati Sukarnoputri, and Susilo Bambang Yudhoyono). In addition to the linguistic affiliation of the chief executive, it is also fair to characterize the Javanese as the politically dominant group given the fact that (1) they were—and still are—the numerical majority; and (2) the capital, Jakarta (and Yogyakarta, the capital 1946-1950) is located on the island of Java. As summed up by Anderson, “the main focus will be on the Javanese, since a combination of political power, numbers, and strength of cultural identity has made them the single most creative force in developing the new Indonesia” (2006: 126).

The role of regionalism cannot be underestimated when studying Indonesian politics. Indonesian regionalism is highly unusual. Because of geography, regionalism is generally

island-based. There is both *intra-island* and *inter-island* regionalism. For example, not all inhabitants of the Java island are culturally Javanese. Java is also home to the Sundanese. Culturally, Javanese and Sundanese are very similar, but there are still some differences. For instance, Sundanese people are more overtly Islamic. Also, the Sundanese social hierarchy is less rigid (Taylor 2003). So in terms of *intra-island* regionalism, there is a difference between the Javanese and the Sundanese. This difference is further highlighted by locale. The Javanese are located predominantly in the middle and eastern parts of the island; and the Sundanese, in the western half.

The Sundanese are the second largest group in Indonesia, making Java—not the largest island—the most populated island. The capital, Jakarta, is also situated in Java. All this has created an image of Java-dominance in Indonesian politics. From this, we see *inter-island* regionalism.

This inter-island regionalism is especially evident from the island of Sumatra. Although no Sumatran has ever been president, Sumatrans—roughly 20 per cent of the country's population—have held many positions of power. For instance, Hatta, the first Vice President of Indonesia, was from West Sumatra. The first five Prime Ministers (Sutan Sjahir, Amir Sjarifoeddin, Hatta, Abdul Halim, and Mohammad Natsir) were also Sumatrans. Even Mohammad Yamin, the man behind the 1928 Youth Congress Proclamation, was from Sumatra.

Most certainly, the Javanese-Sumatran inter-island regionalism is salient. However, it is important to recognize the heterogeneity of Sumatra. Sumatra, the largest island in Indonesia, is divided into ten administrative regions (compared to four in Java). It is also home to over fifty ethnic groups. Culturally, however, many of these groups share similar

traditions and the different languages are linguistic cousins of Malay (Reid 2005; Taylor 2003).

5.3.2. Language Regime

Following independence, the Indonesian government inherited a language regime that had undergone turbulent times in a matter of ten or fifteen years. During colonial times, Dutch was the primary language of instruction (Drake 1989). As a part of the divide-and rule-strategy, the Dutch did allow some indigenous languages to be used for three years in some primary schools (Reid 1974). However, during the Japanese occupation, Dutch was banned and Japanese became the mandatory language of learning. Malay was permitted inasmuch as it was an instrument for the Japanese to mobilize the local population to meet the needs of the war campaign (Drake 1989; Kaplan and Baldauf 2003). Then following the defeat of the Japanese, during the Dutch attempts to re-conquer its former colony, Dutch was re-instated, regional languages were promoted, and Malay was given an elevated status in the schools. Malay was eventually designated the second official language (Kaplan and Baldauf 2003).

Despite a tumultuous, topsy-turvy linguistic past, Indonesia opted for a power-neutralizing language regime in the Malay language instead of (1) neutralizing linguistic powers via Dutch or (2) concentrating linguistic powers in the Javanese language. The Malay language is unusual. On the one hand, it is technically a non-dominant group language. It is the mother tongue of a small subset of the population. But on the other hand, its prevalence throughout Southeast Asia as a trading language makes it also a lingua franca (Anderson 2006; Bertrand 2003; Mohr 1984; Montolalu and Suryadinata 2007).

The process at choosing a language regime was quick and non-contentious. This is surprising since the Javanese are the numerical majority and the politically dominant group (Montolalu and Suryadinata 2007; Narajau, interview in Mohr 1984). Strong anti-imperial, anti-colonial sentiments made the decision not to neutralize linguistic powers via Dutch trivial (Montolalu and Suryadinata 2007). Furthermore, as Sutan Alisjahbana, the Director of the Office for Modernization of the National Language 1942-1945, noted, “It was easier for us to develop our national language so rapidly because the Dutch language had no world prestige or usefulness... [and] the Dutch were not generous in providing higher education for us during the colonial period” (Alisjahbana, interview in Mohr 1984: 232-233).

Similarly, the choice to shy away from a Javanese power-concentrating language regime was based on practicality considerations (Anderson 2006; Bertrand 2003). First, Javanese was “so difficult to learn” (Djohan, interview in Mohr 1984: 152; also see Alisjahbana, interview in Mohr 1984). Javanese, the language of a feudalistic society, is divided into multiple—as many as sixteen—levels, with each level used in accordance with the position and rank of the individual in society. This hierarchy would have rendered the language nearly impossible to learn and use for the non-Javanese.

There was a second practicality consideration. The linguistic hierarchy was simply non-democratic (Montolalu and Suryadinata 2007). Since the Javanese “did not want to continue under the colonial power, [they] therefore did not want to perpetuate the feudalistic concepts inherent in the Javanese culture, hence in the language” (Alisjahbana, interview in Mohr 1984: 232). This was true for many of the other regional languages. In contrast, the Malay language was much more democratic (Soebadio, interview in Mohr 1984). The democratic nature of Malay was extremely important. Surastri Trimurti, the Minister of

Labor 1947-1948, noted, “We had a visionary concept of the tremendous need for unity and intuitively felt that [the Malay] language was an essential tool to bring about this hope and dream” (Trimurti, interview in Mohr 1984: 37).

It is important to recognize that while the choice of a Malay power-neutralizing language regime was non-contentious, the choice was still political (Groeneboer 1998). Given the generated propositions, we would expect this choice to be the product of (1) a high likelihood of the Sumatrans coming to power and (2) the Javanese being socioeconomically disadvantaged.

5.3.3. Second-Period Uncertainty (Moderate—Low—High)

The absolute failure of the state was the biggest threat facing the Javanese-led Government. Between 1945 and 1949, Indonesia was involved in a protracted conflict with the Netherlands. Given the Dutch military aggression and the sheer difficulties of building—and sustaining—“unity in diversity”, the likelihood of state destabilization was seriously high. Anderson describes this period as follows:

“[T]here were really two states functioning in the archipelago—that of the infant republic and that of the returning Netherlands Indies. Gravely weakened by wartime Nazi occupation and economic devastation, Holland still disposed of far greater military and financial resources than the Indonesian nationalists. By the end of 1946 it had resumed control of the entire eastern half of the archipelago, and a year later it had occupied virtually all the major export-commodity-producing zones in Java and Sumatra. As its power grew, it was able to reassemble many segments of the old

beamtenstaat [the administrative structure of the state]... The rival Republican state was weak from the state and got weaker as the years passed. The political reliability of much of its inherited personnel was suspect; many of its new members entered it laterally, and as revolutionaries with utterly un-beamtenstaat visions, experience, and skills. Not a few assumed offices within the state without long-term official careers in mind. The state's low inner coherence was accentuated by its poverty" (2006: 100-101).

The threat of state destabilization remained high even after the Dutch formally recognized Indonesian independence in 1949. In discussing this "struggle for survival", Sukarno notes:

"Our economy, government administration, transportation systems, communications media, methods of production were all damaged. Even morally and mentally we needed repairs... [T]ypical of my whole country [c]hallenges overwhelmed us on all sides. With industry completely undeveloped, with insufficient foodstuffs and insufficient confidence, with a people scarred by feudalism, colonialism and Fascism, most of whom couldn't read or write—we still had to pick ourselves up and make order out of chaos. We very nearly sank" (Sukarno, quoted in Adams 1966: 264).

During this "struggle for survival", the Sumatrans held sizeable political stock. Like the Javanese, the Sumatrans fought the Dutch to counter the establishment of the Dutch East India Company (VOC). The relationship between the two islands dated back to the first inter-island youth movement *Java Sumatraenen Bond*. This joint youth movement was significant at the time. Recall, "the Netherlands Indies was still too premature, because

regional nationalism was still too strong” (Hatta, quoted in Penders 1981: 45). In short, the cooperation of the Sumatrans was necessary for the creation of *any* semblance of an Indonesian state. Ignoring Sumatra would send a signal to the other islands that the Indonesian state would be simply an arena for Javanese hegemony.

Although the Sumatrans were important vis-à-vis the likelihood of the state destabilizing, the actual threat of them coming to power was low. In government documents, interviews with members of the independence movement, and the memoirs of Sukarno, Hatta, and other political leaders, there was never *any* rhetoric about Javanese concerns over the political strength of the Sumatrans. Rather there was *some* rhetoric bemoaning Java-dominance. For instance, Bahder Djohhan, the Minister of Education 1950-1953, recalled, “In 1958, we had serious internal problems. In Sumatra, in the area where I grew up as a child, there were strong protests against Sukarno and his government politics. [We] felt that not enough was being done for the people in the outer islands... [T]hey were dissatisfied with the lack of attention given to the people outside of Java” (Djohan, interview in Mohr 1984: 154).

Sukarno was clearly aware of this rhetoric. He noted, “[M]y Cabinet informed me, ‘A few discontented regional leaders claim three-fourths of all revenue comes from Sumatra, but only a fraction returns there because most of the money stays in Java. They complain the country suffers from Djakartaism. They demand a greater division economically’” (Sukarno, quoted in Adams 1966: 268).

Aside from the rhetoric of discontent, the *majority* of rhetoric during this period was about the need for “unity in diversity”. The biggest concern among the Javanese—and among the Sumatrans—was squarely the threat of the state destabilizing. For instance,

Suharto, the second Indonesian president who was then an army colonel, wrote, “I was not attracted to ideas that would only make the situation [national disunity] worse. I felt we had to stand firm and be loyal to the legitimate government. We had to be dedicated. My thinking was that the unity of the Republic should not be jeopardized... As a result, my operational territory, Central Java, was saved from the currents that deviated from the aspirations to preserve national unity” (Soeharto 1991: 74).

Recall the three proportions of the second-period uncertainty stand in relation to one another and must sum up to one. In the case of the *1945-1968 Sukarno Era*, since the likelihood of the Sumatrans coming to power is low and the likelihood of the Indonesian state destabilizing is high, I code the remaining third likelihood—the likelihood of the Javanese remaining in power—as moderate.

5.3.4. Socioeconomic Hierarchy (Convergent)

In Indonesia, the socioeconomic hierarchy was based more on social and cultural dimensions than on strictly economics. For instance, Malay was the language of trade. Its status as a regional lingua franca should have rendered the language greater socioeconomic advantage. Yet, the “Malays generally acknowledge Javanese culture to be superior” (Lee 1998: 494).

The Dutch also implemented policies that “fossilized” the Javanese ruling class (Anderson 2006: 206). Java’s economic importance during colonial times—and even during the Japanese occupation—would further elevate the socioeconomic advantage of the Javanese.

5.3.5. Discussion

The evidence suggests the Malay power-neutralizing language regime was *not* the product of (1) a high likelihood of the Sumatrans coming to power and (2) the socioeconomic disadvantage of the Javanese. On the contrary, the likelihood of the Sumatrans coming to power was low *and* the socioeconomic hierarchy converged (in favor of the Javanese).

Here, we are faced with a scenario where the generated predictions fail to match the evidence. There are three possible explanations. First, the Indonesian case is simply an outlier. Second, the bargaining dynamics in the formal model and those that actually happened in the Indonesian case are not the same. And third, it is also possible that there was a measurement error.

Admittedly, the Indonesian case is highly unusual: A country of such size and diversity was able to pick a language regime so non-contentiously. And to all intents and purposes, there has been no conflict over the use of Malay. But at the same time, there is little reason to believe the politics surrounding this choice was so unique and somehow so different from other post-colonial countries. Surely, the Javanese-led Government, the Malay-led Government of Malaysia, and the Chinese-led Government of Singapore all faced similar constraints.

In pursuing this line of argument, we must return to the model. Recall that in the model, two groups bargain over the division of linguistic powers from a menu of three—and only three—languages: the dominant group language, the non-dominant group language, and the lingua franca. This is the case in both Malaysia and Singapore. The same cannot be said for Indonesia. While the bargain centered around three languages—Dutch, Javanese, and

Malay, it seems the menu of options did not include a non-dominant group language but rather two *linguas franca*.

The option of two *linguas franca* is highly unusual, perhaps an attribute of the uniqueness of the Indonesian case. Some countries have two *linguas franca* because of a history that involved two colonial powers. For instance, English and French are both considered a *lingua franca* in Cameroon (Todd 1983). Similarly, English and Spanish at one time were both *linguas franca* in the Philippines (Gonzalez 1999). But for a country to have two *linguas franca*—one foreign and one indigenous—is very rare. Indonesia is one such example; Tanzania, another. Tanzania is like Indonesia: One of the *linguas franca* is a colonial language (English); the other, a regional trading language (Swahili) (Harries 1983).

It is tempting to point to the two *linguas franca* as the reason for the divergence between predicted expectations and empirical evidence. But before accepting this explanation, we need to verify we have no measurement error. Given the unique status of Malay as an indigenous *lingua franca*, this is especially important.

Let me begin with the origins of the language. Although Malay is a regional trading language, there are many different dialects. The dialect chosen by the Indonesian Government originated from central Sumatra (Riau). Recall Sumatrans are the non-dominant group in the Indonesian case. This would lend some validity to the argument that Malay, instead of being considered solely as a *lingua franca*, can also be coded as a non-dominant group language.

If Malay is the non-dominant group language, then this would suggest the language regime was actually power-sharing. Given the prevalence of power-sharing in other

institutions,³⁷ there is reason to believe the same would be true for the language regime. I argue this was the case. Specifically, the educational language regime was fundamentally power-sharing. First and foremost, given the number of languages spoken in the archipelago, it would have been administratively impossible to allow all the languages to be used in schools. Nonetheless, a handful of regional languages—in addition to Malay—were permitted as languages of instructions in grades 1-3. These included Balinese, Batak, Javanese, Madurese, Makassar, and Sundanese (Mohr 1984).³⁸ (Mandarin) Chinese was also used in Chinese schools (Handoko 2008). While Malay was the sole language of instruction starting in the fourth grade, this education arrangement demonstrated some semblance of a power-sharing language regime.

Second, given the linguistic diversity, the use of one—and only one—language was necessary for efficient and effective communication. While either lingua franca could have

³⁷ For the Javanese-led Government, trying to build an Indonesian state was no trivial task. “Unity in diversity” was often found via some power-sharing arrangement. Pancasila, for instance, was a power-sharing state ideology. By spelling out a belief in “the one and only God”, humanitarianism, nationalism expressed in the unity of Indonesia, consultative democracy, and social justice, Sukarno was able to resolve the competing preferences between the Christians, Muslims, and nationalists (Titaley 2006). There are other examples of power-sharing. For example, the many—and often short-lived—cabinets were all ideologically heterogeneous. This diversity was evidence of power-sharing between the nationalists, Communists, and the Muslims. Also, Sukarno and Hatta’s joint announcement for independence was meant to create a power-sharing, unified image (Adams 1966; Penders 1981).

³⁸ The number of regional languages allowed differs across author accounts: At a minimum, six other regional languages are used (Mohr 1984); and at a maximum nine other regional languages (Kaplan and Baldauf 2003).

served this purpose, what elevated Malay was that for the Indonesians, it was “our language” (Narajau, interview in Mohr 1984: 96). The recognition of Malay as the language of the archipelago was evident as early as 1926. At the First Youth Congress, Yamin said, “I know the Malay language will bring the opportunity to each one of us to communication with the Javanese, [Malays], the Arabs, our friends with whom we speak every day... For myself, I firmly believe that the [Malay] language will gradually become the language for general communication, in other words, the language that will unify the Indonesian people” (Yamin, quoted in Mohr 1984: 236-237).

What this suggests is that while Malay may have been by definition a lingua franca, from a symbolic standpoint, its use was representative of a power-sharing language regime. Recall that a power-sharing language regime is one where linguistic powers are shared among the different groups. In contrast, a power-neutralizing language regime is one where linguistic powers are neutralized via a third party language. In Indonesia, the use of Malay is clearly more about the sharing than about the neutralization of powers. There is a collective sense of “us”. This claim is further supported when Tamzil Narajau, the Secretary of Foreign Affairs 1947 compares the language regime choice to the spirit of the Pancasila, which in itself was a power-sharing institution: “The language reality in our nation expresses the essence of the *Panca Sila*” (Narajau, interview in Mohr 1984: 96).

So what happens if we code Malay as a power-sharing language regime? Given the generated predictions, we are most likely to see a power-sharing language regime when the politically dominant group is also the socioeconomically advantaged group. And recall, a dominant group under such conditions has an incentive to make linguistic concessions

because it is constrained by the fear of a destabilized state. A destabilized state can happen when the non-dominant group chooses not to participate in the state-building process.

This mechanism matches what happened in Indonesia. As mentioned previously, the Javanese were both the politically dominant and socioeconomically advantaged group. A previously strong sense of regionalism—the result of a colonial divide and rule approach, the diversity throughout the archipelago, and a lack of consensus on the geographical scope of the Indonesian state³⁹ all made the efforts at “unity in diversity” that much harder. Without a doubt, the likelihood of the state destabilizing was high. In fact, Sukarno’s recount of phrases used to describe Indonesia, such as “not ripe enough for independence”, “can’t stabilize”, “no chance for survival”, “heading towards chaos” and “facing doom” (Sukarno, quoted in Adams 1966: 267) are evidence of the vulnerability faced by the Javanese—and the Indonesian Government—following independence.

By coding the choice of Malay as a power-sharing language regime, we are able to reconcile what was perceived initially as a discrepancy between the expected outcome and the empirical evidence. In doing so, we recognize the uniqueness of the Indonesian case. It is one of the few cases where there are two *linguas franca*. It is also one of the even rarer cases where one of the *linguas franca* is indigenous.

³⁹ From early on, there were disagreements over the geographical border of the Indonesian state. While Hatta wanted to limit Indonesia to the former Dutch Indies without New Guinea but possibly including Malaya, Yamin and Sukarno demanded the whole New Guinea, Portuguese Timor, the British possessions in Borneo, and Malaya as far as the frontier with Thailand. Furthermore, a third group consisting of mostly former civil servants, just wanted to preserve the status quo (Drake 1989).

Indonesia is highly unusual given its extreme diversity, both linguistically and geographically. This uniqueness has implications for how to interpret the model setup. The model traditionally has two groups bargaining from a menu of three languages: the dominant group language, the non-dominant group language, and the lingua franca. I argue in Indonesia, Malay—the indigenous lingua franca—is also a non-dominant group language and is symbolically the language of the collective Indonesian identity. And in making this argument, we are able to explain why the Javanese-led Government chose not to power-concentrate in the Javanese language or power-neutralize via Dutch.

5.4. INDONESIA: 1968-1998 SUHARTO ERA

In 1968 Suharto legally assumed power. The transfer of power from Sukarno to Suharto was neither peaceful nor constitutional. On September 30, 1965, the Indonesian Communist Party (PKI) allegedly executed six military generals in an attempted coup. In response, Suharto took control of the army and launched a counteraction. Under the lead of the army—and with international support—the anti-Communists went on a violent purge. An estimated one and half million were killed. The PKI was also destroyed (Kingsbury 2001).

During his rule, Sukarno was known as the puppet master. He balanced the competing demands of the military, communists, and religious groups. However, with the removal of the PKI from the political formula, the compromised Sukarno was forced to transfer key powers to Suharto—and the military—beginning in 1966.

Once in power, Suharto established several security agencies. One of the more clandestine bodies was the State Intelligence Coordinating Body (Bakin). Bakin was

responsible for intelligence assessment and action aimed at the non-military population, namely the Chinese community (Kingsbury 2001). The Chinese community, generally wealthier and with alleged ties to China, was targeted because of a fear of communist revival (Soekarno 1991). The delicate relationship between the larger Indonesian state and the Chinese community was reflected in the language politics.

5.4.1. Bargaining Groups

Recall in the previous observation, two indigenous groups (Javanese and Sumatrans) bargained over language regime. In contrast, in this second observation, the bargaining is between the “indigenous” Indonesians and the “alien” Chinese. Historically, the Chinese community can be divided into two groups. The *peranakan* (“children of Indonesian soil”) are the descendents of Chinese men who traveled from Fujian province to the archipelago hundreds of years ago. The *peranakan* men married local women, and the children learned to speak Malay with a distinct Hokkien variant (Skinner 1958). In contrast, the *totok* (“of pure blood”) are the Chinese immigrants that relocated to Indonesia in a more contemporary period, often between the late 1800s and early 1900s. Unlike the *peranakan*, the *totok* came from a variety of provinces in China, where the dialects spoken were other than Hokkien. These included Cantonese, Hakka, and Teochew. In many instances, children of the *totok* communities did not linguistically assimilate (Skinner 1963).

Despite the differences between the *peranakan* and *totok* communities, the two communities were rendered into the same classification when Suharto assumed power. From a political standpoint, the only distinction—not just for the Chinese but for all of

Indonesia—was whether one was considered an Indonesian citizen or an alien. The at-large Chinese community was less than five per cent of the Indonesian population.

5.4.2. Language Regime

While the choice of Malay in the first observation was an example of a symbolic power-sharing language regime, this exact same language regime in the second observation is coded as power-concentrating. The language regime is considered power-concentrating for three reasons. First, by 1968 Malay had assumed a role such that it was the mother tongue of the Indonesian people. The fact that “Indonesian” is a linguistic derivative of Malay lends support to this claim. Second, a language is considered a lingua franca when it is not the language of any group in question. With this definition, Malay is anything but a neutral language when the bargain is between Indonesians and Chinese. Third, (Mandarin) Chinese was legally banned. By definition, no language regime can be power-sharing if the non-dominant group language is proscribed.

What explains this power-concentrating language regime choice? Given the predictions, a language regime is most likely to be power-concentrating when (1) the likelihood of the Chinese coming to power is low and (2) the socioeconomic hierarchy is non-convergent (in favor of the Chinese).

5.4.3. Second-Period Uncertainty (High—Low—Moderate)

The likelihood of the Chinese coming to power was low. It was low simply because of the small group size. The Chinese were a threat—actual or perceived—when it came to supporting the Communist movement. There was always the “possibility of subversion and

infiltration” (Soekarno 1991: 239). However, since the PKI had been banned, there was no major political vehicle for representing Chinese interests. By extension, the likelihood of the Indonesians remaining in power was high.

The likelihood of state destabilizing was still a concern. This was especially true in the aftermath of the coup. However, compared to the first observation, the frequency and the intensity of Government rhetoric was significantly less. Instead, the bulk of attention focused on economic growth and social development. For instance, in his presidential acceptance speech, Sukarno contemplated, “We [can] not possibly just adopt and practice any [type of democracy] when our country is still seeking political stability and implementing economic development... [W]e should all realize the seriousness of the economic decline. In the meantime, we should also remember that development knows no magical formulate. The development road [is] not smooth and easy. It require[s] hard work, funds, effort and even sacrifices” (Soekarno 1991: 193-194). Since there was still some rhetoric on state stability, I I code this likelihood as moderate.

5.4.4. Socioeconomic Hierarchy (Non-Convergent)

As was often the case throughout Southeast Asia, the Chinese were socioeconomically advantaged. Their share of socioeconomic power was much larger than their numerical and political strength. The case of the Indonesian Chinese was no different. MacIntyre describes the nature of this socioeconomic hierarchy well:

“[T]he local business community (such as it was) was overwhelmingly made up of Chinese rather than indigenous Indonesians. As in other parts of Southeast Asia the

immigrant Chinese trading communities were the focus of disdain and resentment by the indigenous population, almost all of whom worked either as peasants or in the colonial and feudal bureaucracies. In Indonesia, indigenous mistrust of the ‘alien’ immigrant Chinese was heightened by the wide gulf between Confucianism and Islam, as well as by the fact that the Chinese were popularly perceived to have been commercial middlemen for the Dutch during the colonial period. Consequently, although the Chinese dominated local commercial activity they were political outcasts. Indigenous resentment of Chinese Indonesians (who amount to less than 5 per cent of the population) has been a fundamental and enduring factor shaping the relationship between business and government in Indonesia. Political leaders have long believed that the state must intervene in the operations of the marketplace to ensure that a satisfactory share of economic benefits is enjoyed by the indigenous majority.” (1994: 246)

5.4.5. Discussion

Given the generated predictions, we expect a power-concentrating language regime when (1) the likelihood of the Chinese coming to power is low and (2) the Chinese are the socioeconomically advantaged group. The evidence suggests this was the case. The Indonesian Government wanted to address the non-convergent socioeconomic hierarchy. The change in executive power provided the opportunity to change the status quo. One such way was via the language regime. While the use of Malay was a continuation from the previous period, the subsequent proscription of the (Mandarin) Chinese language was a deviation.

Are these results being driven by the claim that the “indigenous” Indonesians and the “alien” Chinese bargained over language regime? To ensure the changing identities of the bargaining agents are not driving my results, I rephrase the research question: Why did the (Javanese-led) Government ban (Mandarin) Chinese in this period? Asking this question is highly appropriate. Sometimes we must ask the same question differently given the method of inquiry (Mahoney and Goertz 2006).

Let me begin by disaggregating “Indonesians” so that we now have three groups: Javanese, Sumatrans, and Chinese. Recall, Javanese and Sumatrans are the two groups in the first observation. In that observation, the language regime was power-sharing. Malay was the first language among equals, but other languages including (Mandarin) Chinese and Javanese were also used. In the second observation, everything remained the same except (Mandarin) Chinese was suddenly banned. By definition, the language regime became less power-sharing.

We are least likely to see a power-sharing language regime when the politically dominant group is not the socioeconomically advantaged group. This is the case in Indonesia. The Javanese are socioeconomically advantaged to the Sumatrans but socioeconomically *disadvantaged* to the Chinese. When given the political opportunity, the Javanese had no incentive to make any linguistic concessions to the Chinese.

All this suggests whether the bargain is between Indonesians and Chinese—or between Javanese, Sumatrans, and Chinese—the power-concentrating language regime in this second observation is the product of (1) the low likelihood of the Chinese coming to power and (2) the socioeconomic advantage of the Chinese. I noticed this theme when I interviewed members of the Chinese community. Many of the interviewees noted that the

Indonesian Government needed a “scapegoat” for explaining the poor economic performance during Guided Democracy (1955-1965). And since anti-Chinese “xenophobia” was high and the political threat of the Chinese was low, it was “only rational” for the finger pointing to be on the Chinese community (Interview Group #0102).

5.5. CONCLUSION

In this chapter, I continued with the empirical tests. In Chapter 4 I tested the predictions. The results suggested language regime choice is the product of the second-period uncertainty and the socioeconomic hierarchy. Here, I further test this claim using both congruence testing and process tracing.

In the case of Indonesia, I identified two observations. The congruence test for the first observation (*1945-1968 Sukarno Era*) indicated a divergence between predicted and actual language regimes. However, a careful analysis of the observation suggested there was a coding measurement error. This error was the result of the high linguistic diversity *and* two *linguas franca* (one of which is indigenous). Correction of this error resulted in the matching up of the congruence test. The second observation (*1968-1998 Suharto Era*) was more straightforward. The predicted language regime matched the actual choice. Process tracing via archival research and interviews further lent support this claim.

Indonesian specialists are likely to note the omission of the events of 1998. In that year, the economic crisis not only induced the dramatic collapse of Suharto’s New Order regime but also ushered in a wave of democratic reforms (Martinez Kuhonta et al. 2008). Most certainly, from a research design standpoint, there is reason to argue 1998 was the temporal onset of a new observation (*Post-1998 Post-Suharto Era*).

Decentralization levels have increased in the *Post-1998 Post-Suharto Era*. The Ministry of Education and Culture, for instance, requires all schools to allocate twenty per cent of total instructional hours to local languages and other “locally designed matter” (Bjork 2003: 184). Yet, the language regime has remained unchanged. Malay continues to be the sole language of instruction. Perhaps the result of—using a normative word—successful nationalist state-building, we see very little—if any—bargaining over language regime in this third observation.

It is important to note the absence of bargaining in the post-Suharto period is conceptually *very* different from the non-contentious bargaining post-independence. In the first observation, there was still a decision to be made over the distribution of linguistic powers. The decision may have been simple and obvious, but fundamentally it was still a decision. In contrast, in the *Post-1998 Post-Suharto Era*, there was only one group—the Indonesians. The absence of a second group renders the application of the game theoretic model futile. Recall the model is a bargaining model. Such models necessitate multiple actors (groups) bargaining over some good (linguistic power distribution). By definition, bargaining cannot happen with one and only one actor.⁴⁰

⁴⁰ In the fifty plus years since independence, the number of Malay speakers has increased exponentially—and at the expense of the other local languages, including Acehnese, Balinese, Batak, Javanese, Madurese, Minankabau, and Sudanese (see Bertrand 2003; Kaplan and Baldauf 2003). The same can also be said for the Chinese community, which has become Indonesianized. Frequently nowadays, colloquial Malay is used in Chinese homes (Handoko 2008). Admittedly, with increasing decentralization, there has been a renewed interest in regionalism and the preservation of Chinese heritage. However, to characterize the language regime in the post-Suharto period as the product of bargaining between multiple groups (whether between Javanese and Sumatrans or between Indonesians and Chinese) is simply not valid.

I continue with the qualitative tests in the next two chapters. In the Malaysian case, there is one instance of divergence between predicted and actual language regime. Like the *1945-1968 Sukarno Era*, a detailed analysis of this observation suggests there may be some measurement issue. However, unlike the *1945-1968 Sukarno Era*, the measurement issues are not necessarily the result of other case-specific variables (such as linguistic diversity and the presence of two *linguas franca*). Rather, these issues arise because of a divergence between *de jure* and *de facto* language regimes.

6. MALAYSIA

Language Regime Choice under Non-Convergent Socioeconomic Hierarchy

Previous tests in this dissertation—statistical and the Indonesian case—showed language regime choice is the product of the second-period uncertainty and the socioeconomic hierarchy. In this chapter I continue with the second of the three case studies: Malaysia. I begin with an overview of the political developments of Malaysia. In Sections 2 and 3 I discuss in depth the language regime choice in the two observations (*1957-1969 Democracy Period* and *Post-1969 Non-Democracy Period*). I conclude in the final section.

6.1. MALAYSIA: OVERVIEW

“It shall be the responsibility of the Yang di-Pertuan Agong [King of Malaysia] to safeguard the special position of the Malays...and the legitimate interests of other communities in accordance with the provisions of this Article.”

Malaysian Federal Constitution, Article 153:1

“A ‘seditious tendency’ is a tendency...to question any matter, right, status, position, privilege, sovereignty or prerogative established or protected by the provisions of... Article 153 of the Federal Constitution.”

Laws of Malaysia Act 15: Sedition Act 1948

Present day Malaysia—a federation of thirteen states and three territories—is the product of multiple rounds of political bargaining between Britain and the indigenous rulers.

As early as 1786, the British established three types of colonies in *British Malaya*: Strait Settlements, Federated Malay States, and Unfederated Malay States. In the aftermath of WW2, the British proposed the *Malayan Union* so as to unify the eleven colonies (excluding Singapore) under one single government administration and to grant common citizenship to all races. However, widespread opposition from the Malay nationalists forced the British to replace the Malayan Union with the *Malayan Federation* in 1948. Under this new arrangement, the sultans retained their symbolic positions (Simandjuntak 1969). Full-fledged independence for the Malayan Federation happened in 1957. The Federation would, however, continue to evolve. In 1963 Sabah, Sarawak, and Singapore joined Malaya to form the *Malaysian Federation*. It was not until Singapore's expulsion from the Federation in 1965 that present day boundaries finally solidified.

Malay has long been recognized as the language of the indigenous population (Shaw 1976). The 1948 Federation Agreement officially sanctioned Malay as the sole national and one of the official languages (Heng 1988). Aware of the dominance and prevalence of the English language, post-WW2 Malay nationalists insisted that Malay be given equal usage and application. Such demands would lead to a highly politicized, contentious process. The pre-WW2 power-sharing education system was slowly transformed into one concentrated in the Malay language despite the chagrin of the Chinese community (Lee 2007).

The Malaysian case can be divided into a large—and practically unmanageable—number of observations simply based on the frequency of name changes, boundary changes, and other institutional changes. To make things more tractable, I focus on two significant periods. I begin in 1957 with independence. In the *1957-1969 Democracy Period*, the political arena was characterized by the democratic, majoritarian rule of the Alliance Party. The

temporal end of the first period—and the temporal start of the subsequent period—was the 1969 Emergency. In the *Post-1969 Non-Democracy Period*, government rule shifted to one more non-democratic in nature where the powers of the United Malays National Organization (UMNO) increased relative to other political parties in the Barisan Nasional (National Front).

TABLE 6.1: Language Regime Choice in Malaysia

	<i>1957-1969 Democracy Period</i>	<i>Post-1969 Non-Democracy Period</i>
LINGUISTIC GROUP		
Dominant Group	Malays	Malays
Non-Dominant Group	Chinese	Chinese
INDEPENDENT VARIABLE		
Dominant Remains in Power	Moderate	High
Non-Dominant Comes to Power	Moderate	Low
State Destabilizes	Moderate	Moderate
Socioeconomic Hierarchy	Non-Convergent	Non-Convergent
DEPENDENT VARIABLE		
Predicted Language Regime	Neutralize	Concentrate
Actual Language Regime	DJ: Share DF: Neutralize	Concentrate

Table 6.1 presents the coding for the variables of interest. In the first observation (*1957-1969 Democracy Period*), the predicted and actual de facto language regimes match. However, we see a divergence over the de jure language regime. Although the prediction was power-neutralizing, the legal choice was power-sharing. We do not observe this divergence in the second observation (*Post-1969 Non-Democracy Period*). Both de jure and de facto language regimes (power-concentrating) are in accordance with the expected

prediction. In the remainder of this chapter, I process trace. I explain not just the language regime choice but why there is a divergence between the de jure and de facto language regimes.

6.2. MALAYSIA: 1957-1969 DEMOCRACY PERIOD

Independence from Britain happened after a series of negotiations (August 31, 1957). Unlike Indonesia, the transfer of power was “gentlemanly, smooth, and cultured. No upheavals, no power grabbing, no nationalization of foreign-owned companies” (Abd. Samad 1998: 32). The vacuum left by the British civil servants and troops was quickly replaced by British traders and businessmen.

6.2.1. Bargaining Groups

The Malays have always been the numerical majority and the politically dominant group. During colonial times, the British recognized the Malays as the indigenous population and bestowed upon them an advantaged position as employees of the British uniformed and civil services. The Malays were approximately sixty per cent of the country’s population.⁴¹

⁴¹ This number differs depending on the source. There are two reasons for this discrepancy. First, Singapore’s merger meant the inclusion of a large Chinese population. This would bring down the proportion of the Malay population. Second, the subsequent classification of “bumiputras” (indigenous population, literally “prince of the earth”) grouped Malays and the tribal people of Sabah and Sarawak into the same category. This would artificially increase the proportion of the Malay population.

The Chinese—roughly thirty per cent of the Malaysian population—were the non-dominant group. The Chinese were a politically relevant minority. UMNO initially opposed Singapore’s inclusion in the Federation because of its large Chinese population. The Malaysian Prime Minister, Tunku Abdul Rahman (hereafter referred to as “Tunku”), later supported Singapore’s merger because he believed its inclusion was the only way to control the Communist insurgency. Even with such beliefs, the Tunku would only consent to a merger if the Sabah and Sarawak—two other British colonies that had sizable “indigenous” populations—were included into the Federation.

The relationship between the two groups has been historically tenuous. Dr. Mahathir, the fourth Prime Minister, discussed this issue extensively:

“[W]hen the British returned, the Sino-Malay relationship was anything but cordial, and when the Communists (mostly Chinese) tried to set up a Government for each of the Malay states, bloody Sino-Malay clashes were precipitated. These clashes would have developed into a racial war, but for the arrival and imposition of the British Military Administration backed by the full weight of the British Armed Forces. The communists were frustrated in their attempt to take over Malaya...”
(bin Muhammad 1970: 7).

Undoubtedly, Communism affected Malay-Chinese relations negatively. Between 1945 and 1957 there were seventeen racial incidents. The riots continued even after independence (Abd. Samad 1998). Despite the pledge at Baling to lay down their arms post-independence, the Malaya Communist Party’s (MCP) failed to honor its word. All this would convince the Tunku that the MCP was predominantly Chinese and receiving

directions from China. It would also plant a “deep-rooted fear of Chinese domination” (Lee 1988: 37).

6.2.2. Language Regime

Prior to its independence, Malaysia experienced a significant increase in the number of immigrants. The poor Chinese migrated from southern China to work in the cities. The British also brought in Tamil-speaking Indians to work on the rubber estates (Heryanto and Mandal 2003). Linguistically, the British practiced “divide and rule”. This was similar to the other British colonies. So on the one hand, Malay was retained as an official language. (Mandarin) Chinese, Malay, and Tamil were all permitted as languages of primary education. But on the other hand, English was the working language of the Government. In fact, English quickly became the default official language as the colonial administration expanded in size and function. The recruitment of non-Malay speakers into the civil service also rendered the colonial language more important than Malay. The number of English-only official communications and documents was a testament to how in practice, the status of Malay was no different from that of (Mandarin) Chinese and Tamil (Lee 2007).

The British government’s differential involvement with each medium of instruction, economic considerations, and the “prevailing Orientalist view” resulted in a bilingual state and multilingual education system (Lee 2007). For the Malays, the Government supported only the primary secular morning classes. The Malay community bore the costs for the afternoon Koran instruction. The British supported Tamil-medium education in full. However, as most Indians resided in the rural areas, and many did not complete their primary education, Tamil education was available only at the primary level. Chinese-medium

schools existed in communities where there were Chinese children. Unlike their Malay and Tamil counterparts, the Chinese schools relied on donations from businessmen and merchants. This would allow the Chinese community to establish secondary and tertiary education (Burhanudeen 2006; Lee 2007).

From the outset, UMNO, the Malayan Chinese Association (MCA), and the Malayan Indian Congress (MIC)⁴² coordinated their electoral efforts. Although the MCA wanted (Mandarin) Chinese as an official language, it “refrained from pushing this issue because of the overriding ‘common objective of wanting an end to British rule’” (Tan 1997 in Lee 2007: 128). Hence, there was little opposition to the recognition of Malay as a national *and* official language.

As the Tunku observed, the subsequent language controversies would not be over the status of Malay, *per se*, but rather it would be over Malay as the “*sole* official language and *main* medium of instruction” (Lee 2007: 118; italicized emphasized). For instance, the Chinese vehemently opposed the Barnes Report. The Report recognized English and Malay as the only two official languages. It also set forth a bilingual education system. Recall, the Communist insurgency was in full force. The British, “afraid of pushing the Chinese into the arms of the [C]ommunists, agreed to the Chinese demands to look into their educational needs” (Lee 2007: 125). The result was the Fenn-Wu Committee. The Committee recommended, after evaluating the Chinese education system, the continuation of the pre-existing multilingual arrangement.

⁴² With the inclusion of Sabah, Sarawak, and Singapore in 1963, MCA was renamed the Malaysian Chinese Association and MIC, the Malaysian Indian Congress.

Following independence the Reid Constitutional Commission proposed a comprehensive power-sharing language regime. (Mandarin) Chinese and Tamil would be accepted along with English and Malay as official languages of the country for a period of ten or more years after Independence. UMNO and Malay nationalists adamantly opposed this arrangement. Naturally, they were strictly interested in a Malay power-concentrating language regime (Lee 2007; Simandjuntak 1969).

At the end the British, UMNO, and MCA reached a compromise. Malay was designated the national language in the Constitution (Article 152). The logic was as follows: Malay was an indigenous language; it was the language of the numerical majority; and it was the administrative language of the region prior to colonialism. Malay was also declared an official language, as outlined by the National Language Act of 1963/1968.

English would remain an official language—but not necessarily permanently. The Constitution stated, “For a period of ten years after Independence Day, and thereafter until Parliament otherwise provides, the English language may be used in both houses of Parliament, in the legislative assembly of every state, and for all other official purposes” (Legislative Council Debates July 10, 1957, quoted in Haji Omar 1979: 27; also see Lee 2007; Shaw 1976).⁴³

Within education there was first the 1956 Razak Report. The Report called for the standardization and compulsory teaching of Malay at all levels of education. This would become the Education Ordinance of 1957. The Ordinance established two types of schools.

⁴³ It is also important to mention another reason why there was little opposition to the promotion of Malay as an official language: Members of the MCA and even the MIC believed English would remain an official language even after the ten-year period (Noss 1984).

In the Standard Primary Schools, Malay—the national language—would be the medium of instruction. English would be a compulsory subject and (Mandarin) Chinese or Tamil would be taught if there was a demand. Demand was defined as at least fifteen students whose parents wished for their children to learn the language. In contrast, in the Standard-type Primary Schools, the chief teaching medium would be (Mandarin) Chinese, English, or Tamil. In these schools, Malay and English would be compulsory subjects, regardless of the principal language of instruction (Ganguly 2003; Kaplan and Baldauf 2003; Shaw 1976). The arrangement was different at the secondary level. Since secondary schools were funded with Government monies, the language of instruction had to be in one of the two official languages. Although English-medium secondary schools had existed during colonial times, the first Malay secondary school was not established until 1962 (Kaplan and Baldauf 2003; Shaw 1976).

Chinese concerns over language-in-education use heightened following the 1960 Talib Report. Although the Report reiterated a support for the provision of primary education in the four main languages, there was one specific Article (18) which could be construed as setting forth an objective of having a Malay-only national education system. As the movement for (Mandarin) Chinese education picked up steam, this challenge alarmed the Malays. The Malays responded by establishing the National Language Action Front (NLAF). The NLAF unequivocally demanded for Malay to be the sole national and official language after 1967 (Lee 2007).

After Singapore's expulsion in 1965—thereby ridding the Federation of a sizable Chinese population and the “chauvinist” Lee Kuan Yew—the Malay-dominated Government pressed ahead with a policy of entrenching the Malay language (Lee 2000). For

instance the 1967 National Language Bill rejected Chinese demands for (Mandarin) Chinese to be recognized as an official language. It also denied (Mandarin) Chinese to be used in the national secondary school system. Then in 1968 a Malaysian Government White Paper stated there was evidence of Communist subversion in the independent privately-funded (Mandarin) Chinese schools. Such “evidence” did little to alleviate Chinese fears that their schools would be closed (Lee 2007). All in all, the increasingly communal positions adopted by the Malay leaders did little to ease the also increasing Chinese resentment.

In this period the language regime was power-sharing. Based on the generated predictions, we expect this choice because the Malays—who are politically dominant and socioeconomically advantaged—are constrained by the threat of state destabilization. This would be not the case. The threat of state destabilization was most certainly present. The socioeconomic hierarchy, however, was actually non-convergent: The Chinese were the socioeconomically advantaged group. I now turn to a detailed discussion of the second-period uncertainty and the socioeconomic hierarchy.

6.2.3. Second-Period Uncertainty (Moderate—Moderate—Moderate)

The likelihood of the Chinese coming to power was neither high nor low. It was not high because of an agreed-upon arrangement that would tie the Chinese hands politically. In 1946 the UMNO-led Alliance Party emerged as a coalition of interests united against British rule. The British initially favored other Malay parties. However, failure of other parties to mobilize Malay support forced the British to back UMNO. UMNO further secured its position in Malayan politics when the British banned many of the anti-imperialist and leftist parties (Jomo 1986). MCA and MIC also emerged during this time. Cooperation was

possible after three round-table talks in 1952 when the MCA “agreed to regard the Malays as the indigenous people of Malaya, and therefore had first claim to the country” (Rahman Putra 1986: 35).

All three members of the Alliance Party believed that it was necessary to present a united front in order to secure Malaya’s independence. They believed the British would have terminated negotiations at any signs of potential conflict. As a part of this cooperation, UMNO “owed [the MCA and the MIC] their support, first because they had lost that of their own communities mainly through backing the multi-racial coalition” (Shaw 1976: 120-121). The cooperation was in the form of “politics for the Malays, the economy for the Chinese”. The Malays would grant the Chinese immediate Malaysian citizenship. This was a major development for a Chinese community in Southeast Asia at the time. The Malays would also guarantee little interference in the Chinese economic sphere as long as the Chinese were willing (1) to concede the majority of political power to the Malays and (2) to allow for the development of a Malaysian entrepreneurial class (Heng 1988). The Chinese agreed. Dr. Mahathir, then a backbencher in UMNO, described the nature of the coalition as follows:

“The Government of newly independent Malaya undoubtedly had the backing of the great majority of Malaysians of all races. The [non-Alliance] opposition was weak and divided, with only one representative in the highest legislative body. The racial partners within the governing Alliance were aware of the recent history of conflict and were careful to avoid thorny racial problems. Besides, they were committed to the promises and agreements which had been reached prior to the achievement of

Independence specifically to minimize racial antagonism” (bin Muhammad 1970: 8).⁴⁴

Although the likelihood of the Chinese coming to power was not high, it was also not low. This was due to their size and wealth. Numerically, the Chinese accounted for approximately thirty per cent of the country’s population. The presence of the Chinese was most notable in the urban centers including Johor, Kuala Lumpur, Penang, Perak, and Selangor. Financially, the Chinese also held a disproportional amount of resources.

The Malays believed it was necessary to include the Chinese in the decision-making process. This reflected the political threat posed by the Chinese. The Tunku wrote, “I have right through the campaigns defended...the friendship of the Chinese is the only guarantee for the happiness, peace, and prosperity of country” (Rahman Putra 1978: 91). What the Tunku called “friendship” was trepidation for others. Dr. Mahathir, for instance, noted, “UMNO came into being because of the Malay fear of losing out to the Chinese. The honeymoon period immediately before and after Independence lessened this fear, but it was never really absent” (bin Muhammad 1970: 10).

The likelihood of the state destabilizing was also moderate. This threat was present on three levels. At the *intra-governmental* level, as mentioned previously, the British had granted independence on the condition of some semblance of inter-racial agreement. This

⁴⁴ While Tunku Abdul Rahman and Tun Razak believed a multi-racial Alliance was the key to future political stability, some saw the “Chinese and Indians...more of an embarrassment than a help in the country’s first general election. This was because Malays formed nearly eighty-five per cent of the one and a quarter million persons then eligible to vote, while non-Malays made up a majority of electors in only two of the fifty-two constituencies to be contested (Shaw 1976: 95).

was simply a temporary arrangement—and all parties knew the situation was precarious. Crises were frequent (Shaw 1976; Simandjuntak 1969). For instance:

“[One crisis] arose as a result of a change of leadership and change of heart in the MCA. A new group of young MCA leaders took over the party from (Tun) Tan Cheng Lock; and with that they also introduced a new MCA policy which was to acquire more rights for the Chinese, and to end—what they imputed—UMNO control of the Alliance of the country, and to make the Chinese language one of the official languages of the country. The party’s new leader, Dr. Lim Chong Eu, sent [the Tunku] an ultimatum in which he set out the new MCA demands...” (Rahman Putra 1986: 70).

The threat of state destabilization was also evident at the *intra-national* level. The Communist presence was latent. Although the fighting against the Communist officially ended in 1957, there were still “spasmodic outbreaks of urban attacks, area curfews north and south of the capital, [and] the enemy was infiltrating all levels of society, including the Chinese triads (Secret Societies) and drug trade” (Abd. Samad 1998: 134).

Third, at the *inter-national* level, Malaysia faced threats from neighboring Indonesia and the Philippines. The two countries opposed the formation of the Malaysian Federation. The Federation was viewed as British colonialism in the form of regional imperialism. Confrontation with Indonesia in Brunei and the Philippine’s claim on Sabah were all credible threats. The vastness of the threats facing Malaysia is summarized well in the following quote by the Tunku:

“Malaysia is a vast territory stretching from the Malay peninsula across the sea into...Borneo...bordering Kalimantan Indonesia, to the coast of North Borneo facing the Philippines; both these countries laid claim to Malaysia. And within our borders the communists, who failed to overthrow the Government, were making preparations for a come-back” (Rahman Putra 1986: 82).

Since the three proportions of the second-period uncertainty must sum up to unity, I code the likelihood of the Malays remaining in power as moderate. Recall both the likelihood of the Chinese coming to power and the likelihood of the Malaysian state destabilizing were moderate. This measurement is appropriate. Compared to the later *Post-1969 Non-Democracy Period*, the Malays in the *1957-1969 Democracy Period* were less certain over remaining in power. However, unlike the English-educated in Singapore’s *1959-1963 Pre-Merger Period* (as we will see in Chapter 7), this likelihood was not low.

6.2.4. Socioeconomic Hierarchy (Non-Convergent)

The Chinese have always enjoyed significant economic advantages over the Malays. This was true even in pre-colonial times. The economic differential was partly the result of the Chinese playing the middlemen between British businesses and the Malay peasantry (Esman 1987; Osborne 1997). It was also partly the result of economic activities pursued during colonial times. The Chinese went from basic wholesale and retail trade to controlling and owning commercial businesses. Living in urban centers meant the Chinese could take advantage of educational opportunities to learn English. This qualified them for skilled labor and clerical occupations in the British administration and in private firms. In contrast,

aside from some civil service jobs, the Malays were predominantly confined to the agrarian sector. Under such conditions, when colonialism ended the socioeconomic inequality had been entrenched both occupationally and spatially (Rasiah 1997).

The census highlights this difference. According to the official 1957 figures, although the Chinese community amounted to thirty-nine per cent of the total population, they were sixty-eight per cent of the work force in commerce, industry, mining, and quarrying. In contrast, among the employed Malays, only seven per cent were engaged in commerce and industry. A shocking seventy-three per cent earned their living from peasant agriculture (Rasiah 1997).

The income differential between the Chinese and Malays was also significant. The mean income of the Chinese in 1963 was 2.4 times greater than that of the Malays (T.H. Silcock in Abd. Samad 1998). According to the Mid-Term Review of the Second Malaysian Plan, twenty-six per cent of the households on Peninsular Malaysia earned below RM \$200 a month. And “[w]hile it is not true that every single Chinese is rich, it is true that the Malays are generally poorer than the Chinese. The patterns of Malaysian class structure, where the poor are the Malays whether they are situated in urban or rural areas, and the rich are Chinese, became clear in the 1960s. The Malays had virtually no economic strength on their own land. All they had was ownership of paddy fields and rubber small holdings in the rural areas” (Abd. Samad 1998: 65).

6.2.5. Discussion

In this period the likelihood of the Chinese coming to power was moderate. The Chinese were also the socioeconomically advantaged group (non-convergent socioeconomic

hierarchy). Given the generated predictions, we are most likely to see a language regime that is power-neutralizing. However, it seems this was not the case. Recall in the congruence test the education system was power-sharing. (Mandarin) Chinese, English, Malay, and Tamil were all languages of instruction. What does this mean for the application of the model?

Here, I argue the importance of differentiating between de jure and de facto language regimes. The de jure language regime was most certainly power-sharing. However, the same cannot be said when we examine the de facto regime. In Singapore (which we will see in more detail in Chapter 7) the power-sharing language regime was symmetrical across all four languages. In contrast in Malaysia, the distribution of linguistic powers was asymmetrical. For some time during this period, English was the *only* language available at both the primary *and* secondary levels.

To be fair, during this period the number of Malay schools did increase and the Malay curriculum did expand. However, it is important to recall the English-Malay dual-emphasis power-sharing language regime was the product of a strategic inter-racial bargaining. The result was a compromise between the Malay nationalists who wanted a power-concentrating language regime and the Chinese educationalists who wanted an arrangement that was truly power-sharing. English would continue to be recognized as an official language for ten years.

This choice highlights two important factors. First and foremost, the Chinese were a political threat. Again, the likelihood of them coming to power was neither high nor low, but they were still a political constraint. The Tunku's memoirs continuously repeated this theme (Rahman Putra 1986, 1978). Second, and more importantly, a power-neutralizing

language regime was the only viable choice given the circumstances. It provided semblance of power being removed from all relevant actors and neutralized. I say “semblance” because the Chinese were willing to make some concessions over the use of the Malay language as long as English remained present.

The politics in 1967 is also evidence that the language regime in this period was (1) power-neutralizing in nature and (2) the product of strategic bargaining. As the ten years of English as an official language was about to expire, the Tunku passed the 1967 National Language Act. The Act extended the official use of English. So while English was no longer an official language per se, there was still the “unwritten rule observed by the government sector and institutions such as universities that every official document or report ha[d] to have an English version besides the master version which [was] in [Malay]” (Omar 1992, quoted in Hashim 2003). The NLAFA vehemently opposed this arrangement. In fact, the NLAFA “considered the concessions [extension of English and preservation of (Mandarin) Chinese and Tamil primary schools] betrayal of the Malay cause and accused the Tunku of having sold the Malays down the drain” (Kua 1999 in Lee 2007: 131).

In line with the generated predictions, the language regime was de facto power-neutralizing because of two considerations. The likelihood of the Chinese coming to power and the non-convergent socioeconomic hierarchy both constrained the Malays. In fact, this strategic dynamic was reflected twice in this period: In 1957 at the time of independence and again in 1967 when UMNO had a chance to renegotiate the regime.⁴⁵

⁴⁵ It is possible to argue this English-emphasized, power-neutralizing language regime was simply the product of colonialism. While we cannot discount the importance of colonialism, this explanation cannot answer the following questions. First, why did UMNO, MCA, and MIC agree to the ten-year agreement over

6.3. MALAYSIA: POST-1969 NON-DEMOCRACY PERIOD

The 1957-1969 years have at times been noted as an example of successful coalition building (see Horowitz 1985; Lijphart 1977). The reality, however, was that during this period, racial discontent between the Malays and Chinese were escalating. The culmination of this discontent was the May 1969 riots.

The 1969 election was “vicious”. The Pan Malaysian Islamic Party (PAS) accused UMNO of having given in to Chinese demands. They wanted an exclusive power-concentrating linguistic arrangement. The MCA was also attacked. The Democratic Action Party (DAP) charged the MCA of selling the Chinese to the Malays. They were interested in a “Malaysian Malaysia” where the Malays would no longer be beneficiaries of the constitutionally-recognized special rights (Rahman Putra 1978).

Although the Alliance Party won the May 10 election, there were several notable “setbacks”. These included (1) the significantly reduced margin of victory; (2) the Alliance Party and the Opposition winning the same number of seats in the Selangor—the seat of the Federal capital—state legislature; and (3) the failure of MCA to win representation. On May 12 thousands of Chinese marched through Kuala Lumpur parading the electoral victories of the largely Chinese opposition parties. In response UMNO decided to host its own victory counter-procession. On May 13 as UMNO members gathered for the parade, news broke out that some Malays had been attacked as they were en route to the UMNO gathering. When news of a Malay army officer having been killed by Chinese hooligans broke out, the

the use of English signed in 1957? Second, why were there such intense conflicts between the Chinese and the Malays? And third, why did UMNO choose to maintain the status quo language regime in 1967, even though English was no longer an official language?

Malays swiftly sought revenge by killing two Chinese passers-by. The riots subsequently began. The chaos would spread throughout the capital and the greater Selangor within 45 minutes (Means 1991; Shaw 1976).

The Government responded by declaring a State of Emergency, suspending Parliament, and ordering an immediate curfew throughout Selangor. On May 16 the Yang di-Pertuan Agong (King of Malaysia) established the National Operations Council (NOC) headed by Razak. With Parliament suspended the NOC became the de facto supreme decision-making body for the next eighteen months. And as Director of Operations, Razak had almost unlimited executive power. By extension it was also during this time that the powers of the chief executive were “transferred” from the Tunku to Razak. Parliamentary rule was reestablished in February 1971 (Abd. Samad 1998; Means 1991; Rahman Putra 1978; Shaw 1976).

6.3.1. Bargaining Groups

The coding for the dominant and non-dominant groups remains consistent in this period. The Malays were the dominant group; the Chinese, the non-dominant group. There were some changes, however. The emergence of splinter Chinese parties, which performed well at the 1969 election, meant the MCA—UMNO’s Chinese partner in the Alliance—was no longer able to unify Chinese interests. This would alter the UMNO-MCA arrangement. Previously, the political relationship was horizontal. UMNO and the other Alliance Party members were collegial. However, post-1969, the political relationship became vertical. While UMNO and MCA remained partners, the former now dominated the new coalition called the National Front. This change reflected the circumstances from which the

coalition/front emerged. The Alliance Party was “born out of necessity for the three major races (Chinese, Indians, and Malays) to work together to fulfill the prerequisite set by the British for negotiating independence for Malaya. The National Front, on the other hand, came to life as the savior of a nation on the brink of collapse” (Abd. Samad 1998: 118). The National Front was composed of nine component parties, including the previous Alliance Party members UMNO, MCA, and MIC.

6.3.2. Language Regime

In this period the language regime visibly shifted to one more power-concentrating in character. Shortly after the riots, in July 1969 Razak announced a plan to introduce Malay as the main medium of instruction in Peninsular Malaysia. This would be done gradually in stages, starting with primary one. The goal was to have all secondary education taught solely in Malay by 1982. Tertiary education was also included. English, the previous other official language, would be relegated to being a second language (Abd. Samad 1998).

Not wholly surprising, the Chinese opposed this conversion. Their demands for a power-sharing language regime were viewed by the Malays as a direct challenge. The Malays argued they had the legal right to establish a power-concentrating language regime as stipulated in Article 152 of the Constitution. In response, in 1971 the Government amended the Sedition Act to make it an offense to question the status of Malay as the *sole* official language (Lee 2007).

At the same time, the Government recommended the New Economic Policy (NEP). The NEP was the Government’s strategy for eradicating poverty and restructuring society. Under the NEP the Government would not expropriate Chinese assets. The Government,

however, would redirect the benefits of rapid economic growth disproportionately to the Malays. Examples of this included (1) a Malay preference in government employment; (2) the aggressive government interventions in major (state and private) enterprises; and (3) the law that required all banks—even those privately owned—to earmark a significant portion of their business loans (about twenty per cent) to Malays (Esman 1987). In addition to the aforementioned economic policies, there was also an emphasis on the Malay language. This was evident in two respects.

First, the Malay language became strictly enforced in schools. Under the NEP all English-medium schools were converted into Malay. (Mandarin) Chinese and Tamil language primary schools were allowed to stay open (Ganguly 2003). The final year of full English-medium education was in 1972. In 1973 English-medium education was slowly phased out over a period of fourteen years (Kaplan and Baldauf 2003). By 1975 all English-medium primary schools were fully converted into Malay-medium schools (Burhanudeen 2006; Cowen and McLean 1983). In 1976 the phasing continued at the lower secondary level (Burhanudeen 2006). In 1978 bilingual programs in upper secondary ended (Burhanudeen 2006). And by 1979 all secondary education was exclusively in the Malay language (Cowen and McLean 1983). Table 6.2 presents the evolution in the medium of instruction in Malay schools.

Second, educational opportunities for Malays greatly increased under the NEP. This was most notable at the tertiary level. Between 1971 and 1980 enrollment quadrupled. In 1968 university admissions to the University of Malaya—the only university at that time—were based strictly on an objective competitive criteria. Under such conditions two-thirds of the student population were non-Malay. However, by the late 1970s with affirmative action

over seventy per cent of the students were Malays (Esman 1987; Lee 2007). Expansion of educational opportunities for Malays was boosted in 1970. In that year the Government established the National University of Malaysia, the country's first Malay-medium university (Kaplan and Baldauf 2003).

TABLE 6.2: English vs. Malay in Schools

Year	Status of English	Status of Malay
1957	Available in primary & secondary	Available only in primary
1962		Malay secondary school established
1967	No longer "official" language	
1972	Final year of full-English education	
1973	English primary phasing begins	
1975	No English primary	
1976	Secondary phasing begins	
1978	Final year of English secondary	
1979	No English secondary	Malay-only secondary

Concurrent to these NEP developments, the (Mandarin) Chinese and Tamil primary schools were required to teach Malay as a compulsory course starting in the first year and English in the third year. Students from these schools who wished to continue their studies (about thirty per cent in 1983) were required to attend a one-year Malay medium transition school before proceeding to the Malay-language secondary schools where (Mandarin) Chinese and Tamil were optional subjects (Kaplan and Baldauf 2003).

As we will see shortly, the socioeconomic hierarchy in this period remained unchanged from the previous period (non-convergent). Given the theoretical predictions,

we would expect the increasing linguistic concentration to be the product of a decreasing likelihood of the Chinese coming to power. I now turn to a discussion of this matter.

6.3.3. Second-Period Probabilities (High—Low—Moderate)

Following the riots the likelihood of the Chinese coming to power had significantly diminished to marginal at best. A series of events—internal and external—made it very clear that by this point the Chinese, and especially the MCA, were no longer a political threat. Internally, as mentioned previously, several opposition Chinese parties had emerged to challenge the previously dominant MCA. These parties fought for greater parity in linguistic rights between the Chinese and the Malays—both in government services and in public schools. This was in contrast to the MCA. On paper, the MCA stood behind the previously-agreed arrangement for Malay to be the sole national and official language. Despite its status as the largest partner in the Alliance Party and supposedly *the* Chinese party, the MCA was not able to secure any seats in the 1969 Federal Cabinet. By implication this “raised the specter of no inter-ethnic bargaining mechanisms being in place in the new government” (Means 1991: 7).

The intense fractionalization and the de facto weakness of the MCA would prove again and again to be a source of political frustration for the MCA. Since MCA leaders were “relatively powerless in shaping policy, they were often subject to competition from aspiring middle-level leaders who could easily generate a following at the grass-roots levels by articulating some of the accumulated grievances of the Chinese community” (Means 1991: 176). Furthermore, the inclusion of other Chinese-representing parties—Gerakan, People’s Progressive Party (both from Peninsular Malaysia), the Sabah Chinese Association, the

Sarawak Chinese Association, and the Sarawak United People's Party—into the National Front meant the MCA was no longer the sole representative of the Chinese community (Means 1991). This intense fractionalization would suggest the *potential* weakness of the Chinese community in the *coming* years.

In addition to the internal problems, there were external factors that diminished the political strength of the Chinese community. The Tunku had long believed the Chinese were electorally powerful. The inclusion of the Chinese in the decision-making process was absolutely necessary for state survival. In contrast, some Malay leaders felt curbing the increasing displays of Chinese and Indian chauvinism was a necessity for maintaining harmony. Such tasks, however, were not feasible with the Tunku in power. For instance, around 1967 some UMNO members, led by Tan Sri Syed Nasir, demanded Malay should be the sole medium of official communications (Abd. Samad 1998). Yet the Tunku would not budge from his position. As noted previously, although English was no longer an official language after 1967, it continued to be used in all official manners. Simply put, the Malay language was still far from being entrenched. Even Dr. Mahathir disagreed with the Tunku. After the 1969 riots, Dr. Mahathir “openly attacked [the Tunku] in a widely circulated letter...for having sold out the country to the Chinese” (Lee 2000: 265).

Whether the Tunku overestimated the political clout of the Chinese community, and if he did, why, are subject to debate. However, the fact remains that once Razak replaced the Tunku as Prime Minister, the Chinese community lost its biggest supporter. UMNO also grew increasingly fractionalized as well during this time (Means 1991). Hence, Razak's number one priority during his tenure was winning Malay electoral support. To do this required implementing and upholding the NEP (Lee 2007). As a part of the NEP, the

language regime shifted to one concentrated in the Malay language, to the chagrin of the Chinese community.

As an inverse relationship, as the likelihood of the Chinese coming to power decreased, the likelihood of the Malays remaining in power increased. The intensity and frequency of any rhetoric about the need to cooperate with the Chinese had significantly decreased by this period. This was evident in government minutes and in the newspapers. Rather, the majority of attention during this period was directed at the larger national economic plans. The foci were promoting development broadly and decreasing the inequality gap between the Malays and the Chinese specifically. The aforementioned NEP policies are evidence of the power consolidation by the dominant group.

Compared to the *1957-1969 Democracy Period*, the likelihood of state destabilization had decreased. The urgency of this matter was less noticeable. However, this is not to say it ceased to exist. For instance, when Confrontation with Indonesia ended there was a wave of apprehension among the Chinese and Indian communities as politicians again began raising the idea of Malphilindo (MALaysia-PHILippines-INDONESIA) (Shaw 1976). When compared to the other likelihoods in this specific observation, the likelihood of state destabilization was less than the likelihood of the Malays remaining in power but greater than the likelihood of the Chinese coming to power. As such, I code this likelihood as moderate.

6.3.4. Socioeconomic Hierarchy (Non-Convergent)

As mentioned previously, by 1969 the Chinese were still the socioeconomically advantaged group. The “politics for the Malays, the economy for the Chinese” arrangement

had only widened the gap between the Malays and the Chinese. In 1970 fifty per cent of all households in Peninsular Malaysia lived below the poverty line (Means 1991). Government data also showed that in 1971, the ownership of capital shares was divided such that the Malays were a disproportional minority: sixty-six per cent foreign, thirty-three per cent non-Malay, and one per cent Malay (Kingsbury 2001).

In response, the government set forth a series of ambitious economic goals. These included raising the Malay share to thirty per cent, reducing foreign share to thirty per cent, but allowing the Chinese share to increase to forty per cent (Esman 1987; Rahman Putra 1986). While the socioeconomic advantage of the Chinese would continue, the NEP was successful in poverty eradication. By 1975, for instance, the figure had been reduced to forty-four per cent (Means 1991).

6.3.5. Discussion

Given the generated predictions, we would have expected to see a power-concentrating language regime for this period. This choice would have been the direct result of two variables: (1) a low likelihood of the Chinese coming to power and (2) a non-convergent socioeconomic hierarchy. The congruence test supported this claim. A historical analysis of the case highlighted the mechanisms in further detail. To address this socioeconomic inequality between the races, the Malay-led National Front implemented the NEP. The NEP set forth sweeping economic reforms. Many of these reforms would take place under a Malay-concentrating language regime. This language regime choice was possible because the political threat of the Chinese had decreased to marginal at best during this time.

In Malaysia the political bargaining arena was heavily shaped by the non-convergent socioeconomic hierarchy. The “politics for the Malays, economics for the Chinese” arrangement was merely a temporary bandage to a much more severe problem. In his biography on Razak, Abd. Samad noted, “The problem of economic disparities between the Malays and Chinese posed a high threat to the political order of the country. The very poor participation among the Malays in the economic opportunities in their own land superimposed with the attempts of the Chinese to achieve greater political power in the country was in reality the very root of the racial disharmony” (Abd. Samad 1998: 62-63).

6.4. CONCLUSION

In this chapter I examined in depth the language regime choice in two distinct periods in Malaysian history. In the first observation, *1957-1969 Democracy Period*, the language regime was de jure power-sharing but de-facto power-neutralizing. In contrast in the second observation, *Post-1969 Non-Democracy Period*, the language regime was power-concentrating.

I argued the language regime choice was the interactive product of two constraints: the likelihood of the non-dominant Chinese coming to power and the socioeconomic advantage of the Chinese. In both observations, the socioeconomic hierarchy was non-convergent. When the likelihood of the Chinese coming to power was not low, as was the case in the first period, the Malays were constrained from implementing a Malay-dominant language regime. However, by the second period the political landscape had changed. These changes allowed the Malays to launch the NEP, which included a power-concentrating regime.

Recall the language regime choice was a part of the NEP. It is interesting to examine how the power-concentrating language regime has helped the Malay-led Government eradicate poverty and restructure society. Although the Chinese continue to dominate the private sector (Esman 1987), the broader changes have been impressive. There has been a significant increase in Malay ownership of assets, coupled with a decrease in foreign shares. There has also been an increase in the proportion of administrative and managerial positions held by Malays (Esman 1987). Despite these changes as envisioned broadly under the NEP, by the 1990s Malaysia found itself lagging in international competitiveness (Lee 2007; Rahman Embong 2004). With increasing globalization, the Government has been forced to scale back the Malay-concentrating education curriculum. In the most ironic twist, the Government has reintroduced English as a medium of instruction for science and technical subjects and is again promoting (Mandarin) Chinese language and culture (Lee 2007).

The Malaysian case, more so than either Indonesia or Singapore, emphasizes two important points. First, it highlights the interaction between the two parameters. In Indonesia and in Singapore, the politically dominant group and the socioeconomically advantaged group were the same. The constraint in those instances was state destabilization. The dominant group had an incentive to make linguistic concessions to ensure the non-dominant group participated in the state-building process. In contrast, in Malaysia the politically non-dominant Chinese held a disproportional amount of wealth. This led to resentment—as opposed to just fear—among the Malays. And it was this resentment that would drive the desire to change the socioeconomic hierarchy. Change was possible via a power-concentrating language regime—but only when the likelihood of the Chinese coming to power was low.

Second, the Malaysian case calls attention to the difference between de jure and de facto. We need to take this difference into account when coding language regimes specifically or *any* political institutions more broadly. In the *1957-1969 Democracy Period*, the language regime was de jure. On paper the Chinese had agreed to a power-sharing language regime that would maintain English as an official language for ten years and recognize (Mandarin) Chinese and Tamil in schools. However, in reality, the language regime was more power-neutralizing. English would continue to be used even after the ten year agreement expired in 1967. In the next chapter I examine the language regime choice in Singapore. In one of the observations (*Post-1971 Post-British Withdrawal Period*), we will again see the need to distinguish between de jure and de facto language regimes.

7. SINGAPORE

Power-Neutralizing with Different Linguae Franca in a Power-Sharing Language Regime

In Chapter 3 I argued language regime choice is the product of the second-period uncertainty and the socioeconomic hierarchy. Specifically, when the socioeconomic hierarchy is non-convergent and the likelihood of the non-dominant group coming to power is low, we are most likely to see a power-concentrating language regime. But—under the same non-convergent socioeconomic hierarchy—if the likelihood of the non-dominant group coming to power is high, then we are most likely to see a power-neutralizing language regime. We are most likely to see a power-sharing language regime when the socioeconomic hierarchy converges.

I have found evidence supporting these propositions. I go beyond the code and correlate nature of large N statistical analysis and small N congruence testing. I also process traced the events in Indonesia and Malaysia. In this chapter, I present the third and final case study. I begin with an overview of the Singapore case, followed by a discussion of the language regime choice in each observation. I conclude in the final section.

7.1. SINGAPORE: OVERVIEW

“Come friends let us learn Malay, our National Language.

Surely it isn’t hard, if there is a will. In no time we will learn it.

Chinese, Tamils, and Malays, so that we will quickly unite.

And become the people of one state, a progressive and successful State of Singapore.

One language, one culture. That is the aspiration throughout Malaya.

Surely Singapore will prosper and succeed as long as we do not disunite.

One motherland and one nation. Oh, peaceful Malaysia.

Come learn quickly, the common language of Malaysia.”

1962 City Council Anthem

Singapore is a city-state island in Southeast Asia. It was in the British sphere of influence as early as 1819 when Sir Thomas Stamford Raffles landed on the island and developed a trading post. In 1824 Singapore became an official British colony when John Crawford signed a treaty with Sultan Hussein Shah, which handed the whole island to the British East India Company. The island remained a crucial member of the British Empire until 1942 when the Japanese defeated the British forces in six days (Kingsbury 2001).

The first General Election was in 1959. The election, however, took place within a framework of limited independence, also known as “three quarters independence” (Lee 1998). In August 1963 Singapore declared independence from Britain; less than one month later, Singapore joined the Federation of Malaysia (along with Sabah and Sarawak). Two years later, disagreements over a host of issues led to Singapore’s “separation” from the Malaysian Federation. Singapore officially gained full-fledged independence on August 9, 1965 (Kingsbury 2001).

With the international economic crisis and the defeat of the British Conservative Party in the 1964 election, Singapore suddenly faced an inevitable crisis: withdrawal of British troops from the island. The British military spending accounted for around twenty per cent of Singapore’s GDP. Furthermore, the British military base—which occupied

eleven per cent of the island's total area—provided over 30,000 jobs in direct employment and another 40,000 in support services (Lee 2000). The British withdrew in 1971.

In the case of Singapore, there are three distinct observations. The *1959-1963 Pre-Merger Period* is defined from the time of the First General Election through the successful merger into Malaysia. The *1965-1971 Immediate Post-Merger Period* is characterized from the time of Singapore's "separation" from Malaysia up to the point of British withdrawal. And finally, the *Post-1971 Post-British Withdrawal Period* represents the years since the British withdrew, thereby thrusting upon Singapore complete economic and military independence.

Table 7.1 summarizes the result of the congruent tests for the three observations. In all three observations the predicted and actual language regimes match (power-sharing). So while there is a congruent relationship between the variables of interest—language regime, second-period uncertainty, and socioeconomic hierarchy—it is important that we also have an understanding of the causal process. We need to understand why the Government chose a power-sharing language regime. This necessity is especially important in the third observation when there is a difference between de jure and de facto language regimes. In the remainder of this chapter I conduct a historical analysis for each observation.

TABLE 7.1: Language Regime Choice in Singapore

	<i>1959-1963 Pre-Merger Period</i>	<i>1965-1971 Immediate Post-Merger Period</i>	<i>Post-1971 Post-British Withdrawal Period</i>
LINGUISTIC GROUP			
Dominant Group	English	Chinese	Chinese
Non-Dominant Group	Chinese	Malay	Malay
INDEPENDENT VARIABLE			
Dominant Remains in Power	Low	Moderate	Moderate
Non-Dominant Comes to Power	High	Low	Low
State Destabilizes	Moderate	High	High
Socioeconomic Hierarchy	Convergent	Convergent	Convergent
DEPENDENT VARIABLE			
Predicted Language Regime	Share	Share	Share
Actual Language Regime	Share	Share	DJ: Share DF: Neutral

7.2. SINGAPORE: 1959-1963 PRE-MERGER PERIOD

7.2.1. Bargaining Groups

In the pre-merger period, the bargaining took place between two groups divided linguistically, ideologically, and socioeconomically. The politically dominant group was English-educated, non-Communist, and upper/middle class (hereafter referred to as “English-educated”). This group was most certainly a numerical minority (Rajakumar 2001). During this period, the English-educated were barely a majority in the Government, although many of the key portfolios were held by the English-educated. These included the office of the Prime Minister (Lee Kuan Yew), the Ministry of Finance (Goh Keng Swee), the Ministry of Culture (Sinnathamby Rajaratnam), the Ministry of Education (Lee Khoo Choy), the Ministry of Home Affairs (Ong Pang Boon), and the Ministry of Labor and Law (Kenneth Byrne).

In contrast, the non-dominant group was Chinese-educated, frequently of the Communist persuasion, and often of the lower class (hereafter referred to as “Chinese-educated”). By conservative estimates, the size of the non-dominant group was at least fifty per cent of the island’s population. The leaders of this group, Lee Siow Cho and Lim Chin Siong (Rajakumar 2001; Tan 2001), were able to mobilize the masses at will. For instance, Lim Chin Siong was the undisputed leader of both the trade unions and the Chinese school students.

The strength of the Chinese-educated was evident on numerous occasions. This was true even before 1959. Two notable events were the 1955 Hock Lee bus and the 1956 Chinese Middle School riots. The Hock Lee bus riots happened when workers from the Hock Lee Amalgamated Bus Company and some Chinese students—all members of the

Singapore Bus Workers' Union (SBWU)—went on strike. The workers protested against the poor working conditions, the long work hours, and the low pay. These strikes crippled the country's entire transportation system. When the police attempted to break up a 2000-person mass demonstration, riots broke out. At the end, three people were killed and thirty-one were injured (Lee 1998).

Similarly, the Chinese Middle School riots happened when the Government deregistered, dissolved, and banned three pro-communist organizations. One of the three organizations was the Singapore Chinese Middle School Students Union. In protest, students camped at two different schools and demonstrated for two weeks. When the government's ultimatum for the schools to be vacated went unanswered, riots broke out across the island. The five-day riots left thirteen dead, 123 injured, 70 cars burnt or battered, two schools razed, and two police stations damaged (Lee 1998).

7.2.2. Language Regime

The PAP maintained the de jure power-sharing education system that first emerged during British colonial times. This decision to maintain the status quo was anything but non-contentious. The PAP believed it was “political[ly] imperative [and urgent] to create an indigenous and integrated national school system united by a common language policy” (Tan 2007a: 79). With a goal of standardization, the PAP was forced to restructure the Chinese and the Malay curriculums.

To receive a High School Certificate, a student in the Chinese curriculum had to complete four years of primary, two years of senior primary, three years of junior middle, and another three years of senior middle—for a total of twelve years. In contrast, a student

in the English system had to complete only ten years (six years of primary and four years of secondary) to receive the same Certificate. Clearly, students in the Chinese schools were at a disadvantage.

Yet, efforts by the English-educated-led-Government to introduce greater parity faced strong resistance from the Chinese community (Fong 1979). For instance, one measure was the requirement that all students—regardless of curriculum—must pass their junior middle school exams before moving on to senior middle school. The Chinese-educated vehemently opposed this. The opposition stemmed from the fact that previously, Chinese-educated students could continue their studies without passing their exams (Lee 1998).

Another standardization attempt was the development of the first Malay secondary school (San Nila Utama). This was significant. It was the first time in Singapore history that the Malay curriculum was available from primary through pre-university (Gopinathan 1974). These efforts to introduce parity clearly demonstrated a *de jure* and *de facto* commitment to a power-sharing language regime.

What motivated this choice? According to the generated propositions, we are most likely to see a power-sharing language regime when the politically dominant English-educated is also the socioeconomically advantaged group. The English-educated have an incentive to make linguistic concessions not because of the likelihood of the Chinese-educated coming to power but rather because of the fear of state destabilization. Recall that a destabilized state is always a possible outcome.

7.2.3. Second-Period Uncertainty (Low—High—Moderate)

The likelihood of the Chinese-educated coming to power was high. This is not surprising given its numerical size and its ability to mobilize on such short notice. The English-educated most certainly perceived this threat on numerous occasions. Even though the PAP won the 1959 General Election, Lee Kuan Yew “expected trouble” (Lee 1998: 328). Recall, the aforementioned 1955 Hock Lee bus riots and the 1956 Chinese Middle Schools riots happened under the guidance of the Chinese-educated leaders.

The political arrangement between the English-educated and the Chinese-educated was very unusual. The PAP was founded in 1954 by English-educated individuals who believed in the principle of “interracial unity”. Many of the PAP leaders had long opposed Communism. However, to gain the support of the broad Chinese population, the English-educated knew they had to cooperate with the Chinese-educated (and recall, of the Communist persuasion). This cooperation was by no means collegial. Both groups were suspicious of the other group. Aware of the dangers of this arrangement, the English-educated tried to tie the hands of the Chinese-educated through legal means. What all this amounted to was a public image of cooperation but a private reality of conflict.

The conflicts were continuous and on numerous fronts. Lee Kuan Yew recalled that “at the end of the first six months, the build-up of the communist united front was still continuing. Lim Chin Siong and his Chinese-educated comrades were attracting more unions...and once they were the majority, the Trade Union Congress, to which both pro- and non-communist unions belonged, broke off from the Western-sponsored International Confederation of Free Trade Unions” (Lee 1998: 350). As the “clash with the communists [came] to a head” (Lee 1998: 362), Lee Kuan Yew saw it as “a matter of life and death” (Lee 1998: 355).

The preparation for the “inevitable showdown” (Lee 1998: 355) with Lim Chin Siong and the Chinese-educated picked up steam on the eve of the 1961 election when Lee Kuan Yew publicly demanded Lim Chin Siong, Fong Swee Suan, and Sidney Woodhull’s resignation from the PAP. The charge was their commitment to “overthrow the leadership and capture the party to use it for their purposes... What is clear is that in order to stop merger [with Malaya], [they] are prepared to go to any lengths—even to destroying the party with which they are ostensibly associated” (Lee 1998: 371).

When the PAP lost the Anson election, Lee Kuan Yew became “preoccupied with the coming battle” as he realized the Chinese-educated had “demonstrated once again that they had penetrated the higher ranks of the trade unions and the party so effectively that they could split the PAP vote at short notice, switching popular support to someone known to be unstable and undependable” (Lee 1998: 371). In response, he made sure every PAP assemblyman and party member were loyal and supported his cause. He purged the party of any non-committed individuals in an attempt to force the bargaining to shift from a private, intra-party sphere to a public, inter-party domain (Lee 1998: 372).

This shift from intra-party to inter-party was characterized by the motion of confidence, the defection of thirteen Assemblymen, and the subsequent formation of the Barisan Sosialis (Barisan). Barisan, a left-wing party, was led by the Chinese-educated Lee Siew Choh and Lim Chin Siong. The strength of the Barisan was anything but trivial. Its popular support superseded that of the PAP. It also took away from the PAP 35 of the 51 branches and 19 of the 23 organizing secretaries.

Undoubtedly, the perceived likelihood of the Chinese-educated-led Barisan coming to power was high. The threat was the most salient during the motion of confidence in

1961. The English-led PAP barely won with 26 of the 51 votes. Many individuals, including the parliamentary secretary for the Minister of Home Affairs, voted against the motion precisely because they believed the Chinese-educated Communists were bound to win on the long run (Lee 1998). Had the PAP lost the vote, Lee Kuan Yew and the Government would have had to resign, thereby setting the stage for the Chinese-educated to form a Government of their own.

Even the British recognized the critical nature of this moment. In a 1961 report to Ian Wallace (who was then the British Permanent Undersecretary in the Colonial Office), Philip Moore (who would later become the British Deputy Commissioner to Singapore) wrote, “The opportunity of overthrowing Lee Kuan Yew and achieving a communist-manipulated government in Singapore seemed, in July, to be so golden that Lim Chin Siong could not resist it” (Lee 1998: 383).

The threat of state destabilization was also a concern. The ability of the Chinese-educated to bring the transportation system to a standstill was an indication of the impending chaos. In 1961 alone, there were 116 strikes: 84 of them came after the PAP split. And in the fifteen months from July 1961 to September 1962, there were 153 strikes—a record-breaking number (Lee 1998: 389).

In his first speech as Prime Minister, Lee Kuan Yew warned, “If the PAP government fails, it will not be the opposition that will be returned to power. They will be fleeing for their lives. Because behind us there is no alternative that is prepared to work the democratic system. In the last analysis, if we fail, brute force returns” (Lee 1998: 319).

Lee Kuan Yew—and later Malayan Prime Minister Tunku Abdul Rahman—understood an electoral victory for the Chinese-educated in Singapore meant the

Communists would have a base to extend their logistical operations further north into the Malayan Peninsula. This would spell state failure for both Singapore and Malaya. I code the likelihood of state destabilization as moderate.

To summarize, in this period, the likelihood of the Chinese-educated coming to power was high, and the likelihood of the Singapore state destabilizing was moderate. If two of the values of the second-period uncertainty are high and moderate, by extension, the third value must be low. Indeed, the likelihood of the English-educated remaining in power was low. The frequency of fears, insecurities, and general vulnerabilities expressed in Lee Kuan Yew's, Goh Keng Swee's, and Rajaratnam's memoirs support this coding. For example, Goh Keng Swee recalled, "What shook us was not that we had lost the fight [defection of the 13 Assemblymen] but it was done with such contemptuous ease: one flick of the hand, and we were down on the floor" (Bloodworth 1986).

7.2.4. Socioeconomic Hierarchy (Convergent)

The English-educated were also the socioeconomically advantaged group. Many were of the middle class. In contrast, the Chinese-educated were often of the lower class. This distinction was noted by many. In detailing how he perceived the Plen [a leader of the Communist movement in Southeast Asia] to have perceived the PAP, Lee Kuan Yew wrote, "He thought that we were soft, bourgeois, English-educated, pleasure-loving middle-class types, beer-swilling, golf-playing, working and sleeping in air-conditioned rooms and traveling in air-conditioned cars" (Lee 1998: 384).

7.2.5. Discussion

In Singapore the choice of a power-sharing language regime was not the maintenance of a colonial institution. Rather, it was the product of the strategic calculation on the part of the English-educated. Even before 1959, Lee Kuan Yew had decided that “whether or not it was practical, the only politically defensible policy was trilingualism, with Malay as the lingua franca and the future national language of Malaya, English as the language of international commerce and science, Mandarin as the mother tongue of the Chinese, and Tamil, Hindi, or Punjabi for the Indians” (Lee 1998: 216).

What figured into this strategic, “only politically defensible policy”? Recall, a politically dominant and socioeconomically advantaged group is most likely to choose a power-sharing language regime because it is constrained by the threat of a destabilized state. This constraint forces the dominant group to make linguistic concessions to the non-dominant group so that the latter participates in the state-building process. We see this precise mechanism at play in two different ways in this *1959-1963 Pre-Merger Period*.

First, the English-educated understood they had to maintain the Chinese curriculum. Education was one of the two hot issues for the Chinese-educated. There were two reasons for this salience. First, the Chinese culture was important to parents who saw Chinese schools as a necessary vehicle for carrying on the tradition of classical Chinese scholarship. Second, the Chinese schools were traditionally a breeding ground for Communism. There was concern with declining enrollment rates. In 1950, there were 25,000 more students in the Chinese schools than in the English schools. However, by 1955, things had changed: There were 5,000 more students in the English schools than in the Chinese schools (Lee 1998). Not surprisingly, the Chinese-educated fought to preserve the education system.

The Chinese-educated branded Lee Kuan Yew as “an enemy and a destroyer of Chinese culture” (Lee 1998: 409). They also “encourage[d] Chinese chauvinism by playing on Chinese fears of Malay domination if there were merger” (Lee 1998: 360). Given the cultural and political importance of the Chinese curriculum, the English-educated treaded carefully. Simply put, they refused to let the opposition group exploit Chinese language, education, and culture.

Second, the English-educated promoted Malay as the first language among equals in direct response to the fear of state destabilization. For the English-educated, there was a commonly-held belief that merger with Malaya was the only way to ensure Singapore’s survival. In a series of twelve public broadcasts, Lee Kuan Yew explained why Singapore needed Malaya:

“Everyone knows the reasons why the Federation is important to Singapore. It is the hinterland which produces the rubber and tin that keeps our shop-window economy going. It is the base that made Singapore the capital city. Without this economic base, Singapore would not survive. Without merger, without a reunification of our two governments and an integration of our two economies, our economic position will slowly and steadily get worse. Your livelihood will get worse. Instead of there being one unified economic development for Malaya, there will be two. The Federation, instead of cooperating with Singapore, will compete against Singapore for industrial capital and industrial expansion. In this competition, both will suffer” (1998: 397).

As noted in Chapter 1, during this period, the English-educated-led Government spent considerable energy promoting Malay as the first language among equals. The evidence included the development of an Institute of Malayan culture for popularizing and synthesizing the Malayan culture (The Sunday Times: August 23, 1959); the promotion of a national language awareness week (The Sunday Times: March 25, 1959); and the legislation mandating the compulsory learning of Malay in all schools (Tan 2007a).

What all this suggests is that despite their political dominance during this period, the English-educated, led by Lee Kuan Yew, were forced to make linguistic concessions. This choice of a power-sharing language regime was the product of strategic calculations given the high likelihood of the Chinese-educated coming to power and the moderate likelihood of state destabilizing. To allow Chinese continued use while simultaneously promoting Malay as the first language among equals gave the English-educated-led Government the necessary tool for ensuring state stability.

7.3. SINGAPORE: 1965-1971 IMMEDIATE POST-MERGER

The exact details of Singapore's "separation" from the Federation are still debated. One version is a story of expulsion driven by racial considerations. When the Tunku returned from London on August 8, 1965, he was shocked to find a mass demonstration held by UMNO youths carrying signs that read "Lee Kuan Yew Malaysia Enemy 1" and "We suffer under the PAP Government". In response, the top officials of the Alliance Party held emergency consultations, agreed upon Singapore's expulsion, and then informed the Singapore Ministers of the decision. It was not easy for Lee Kuan Yew and Goh Keng Swee to accept this matter, as they both "tried to convince the Tunku of other possible

alternatives, perhaps even a looser arrangement—a confederation” (Fong 1979: 166-167). But the Tunku was “adamant that there was no other way, or in his words, ‘it will lead to bloodshed’” (Lee 1988: 80).

In contrast, another version is an account of secessionism fueled by economic disagreements. The PAP had long worked to develop a common market. However, continued frustrations over Singapore’s expected—and highly disproportional—contributions towards the national treasury eventually forced Goh Keng Swee, the Singapore Minister of Finance, to present to Razak, the Acting Prime Minister while Tunku was in London, a proposal outlining Singapore’s secession (Tan 2007b). Razak responded with little trepidation (Kwok 1999). Three rounds of negotiations later, with minimal PAP involvement,⁴⁶ on August 9, 1965, Lee Kuan Yew wept as he announced Singapore’s sovereignty and his assumed role as the Prime Minister of the new nation (Lee 1988).

7.3.1. Bargaining Groups

In the immediate years following the separation, the same key individuals occupied the PAP apparatus, most notably Toh Chin Chye as Party Chairman, Lee Kuan Yew as Prime Minister, Goh Keng Swee as Defense Minister, Rajaratnam as Foreign Affairs Minister, and Ong Pang Boon as Education Minister. Despite the similar faces, the

⁴⁶ Despite the magnitude of the event, there is evidence that suggests only Lee Kuan Yew and Goh Keng Swee knew of this matter. The day the separation papers were to be signed, Ong Pang Boon, Rajaratnam, and Toh Chin Chye—the other members of the inner PAP circle—were hastily summoned to Kuala Lumpur. However, arrangement had been made where the men traveled separately so that they could not speculate on the nature of the urgent matter (Chew 1996).

bargaining actors were now different. Previously, it was between the English-educated and the Chinese-educated. The differences were linguistic, ideological, and socioeconomic. In this period, however, the cleavages were strictly linguistic and socioeconomic. The Chinese were the politically dominant and socioeconomically advantaged group. They were roughly 75 per cent of the island's population. In contrast, the Malays were politically non-dominant, socioeconomically disadvantaged, and a numerical minority (20 per cent).

Can a party founded by the English-educated bargain on behalf of the Chinese population? I argue yes. Between 1959 and 1965, group identification was based on the language of one's primary socialization, or one's 'native speech' (Tan 2007a: 79). With this classification, individuals like Lee Kuan Yew and Goh Keng Swee often saw themselves as more English than Chinese.⁴⁷ All this changed in 1966. In the post-merger period, "mother tongue" was defined strictly as "the symbolic language of the group of one's paternal ancestry" (Tan 2007a:79). With this new definition, Lee Kuan Yew and Goh Keng Swee became "Chinese" overnight.

There is another reason to argue the newly "Chinese-dominated" Government represented the Chinese community. The ideological cleavage was politically less salient in the post-merger period. After Singapore's separation, the Barisan (recall, the Communist party)—which had been in "political paralysis"—was left "in a state of confusion" (Fong

⁴⁷ For Lee Kuan Yew, early on there was very little identification with being Chinese. Personally, he recalled feelings of alienation while studying at Cambridge. He was aware that he did not share the same sentiments as the other Chinese students. Socially, his (nearly) non-existent Chinese made him a target for being branded as non-Chinese. This latter issue was quickly resolved once the campaign trail started (Lee 1998).

1979: 174). The Barisan not only chose to boycott the “phony” election (Fong 1979: 174), they also “abandoned the field [in the 1968 General Election]” to the PAP because “Singapore’s future looked so bleak” (Lee 2000: 133). With no other party contesting the election, the PAP “straddle[d] as broad a middle ground as possible” (Lee 2000: 133). In doing so, the PAP became the Chinese community’s default voice.

I argue the Malays were the non-dominant group. They are a group because their paternal ancestry is distinctly different from the Chinese ancestry. And they are non-dominant because of their weak political powers. I code the threat of the Malays coming to power as “low”. I assign this value after doing a comparison of Government rhetoric. For instance, in the pre-merger period, discussions of the Chinese-educated coming to power were frequent and intense. In contrast, the rhetoric on Malays has been minimal. Not only that, the positions held by Malays in the Government have been few and of less prestige. One exception merits mention: Othman Wok. Othman was the only Malay member of the Cabinet since 1963. Yet, he was never truly in the inner circle of the leadership (Ibrahim 1999). This glass ceiling reflected the bargaining dynamics between the Chinese and Malays.

7.3.2. Language Regime

In this period the language regime remained nominally power-sharing. All four languages—(Mandarin) Chinese, English, Malay, and Tamil—continued to be languages of instruction. In fact, the (Mandarin) Chinese and English curriculums shared equal prominence (Lee 1988). As for Malay, the rhetoric from the Government was that there was “no language issue” over the continued status of Malay as the national language (The Sunday Times: November 22, 1966). From a *de jure* standpoint, Government action matched the

rhetoric. Little was done to change the status quo. This inaction, however, was not necessarily indicative of an absence of politics. Instead, this was the result of a pressing need to stabilize other concerns. These included building an independent defense (the British had decided to withdraw in the early, mid 1970s) and establishing some strategy for economic survival. In the midst of these concerns, the language regime remained unchanged. Put differently, the continued recognition of the Malay language was merely an “instrumental political act during the throes of Singapore’s turbulent separation from Malaysia” (Tan 2007a: 89).

In line with the generated predictions, we are most likely to see a power-sharing language regime. The logic is as follows: The politically dominant and socioeconomically advantaged Chinese were forced to make linguistic concessions to the Malays in response to the imminent threat of Singapore’s destabilization. I now turn to a detailed discussion of this mechanism.

7.3.3. Second-Period Uncertainty (Moderate—Low—High)

The likelihood of the state destabilizing was high. It was absolutely high (Doner et al. 2005). Many in the Government had this perception. When Lee Kuan Yew announced the separation, his much-publicized tears were an indication of the expected collapse (Lee 1998). Similarly, Rajaratnam noted,

“What I propose...is to explain to you why we harp on the survival theme and what it is we really mean when we talk of survival... It is also, I assure you, not a political gimmick to rally support for the government... Our only possible opponents are the

Barisan Socialist and they are in such a state of confusion that they are devoting all their energies to winning the war in Vietnam rather than the next elections in Singapore. So you see when we talk of survival, it is not with a view of rallying support for a tottering government... We are not thinking about the next elections or even the elections after that. We are thinking of how Singapore can survive during the next two, three or four decades” (Rajaratnam, quoted in Chan and ul Haq 1987).

Even outsiders worried about Singapore’s future. The British, who had backed the PAP for merger, were concerned. Lee Kuan Yew replied to British Prime Minister Harold Wilson, “Do not worry about Singapore. My colleagues and I are sane, rational people even in our moments of anguish. We weigh all possible consequences before we make any move on the political chessboard” (Lee 2000: 25).

Dr. Albert Winsemius, a Dutch economist who led the United Nations team to examine Singapore’s potential in industrialization, expressed similar concerns: “Singapore is walking on a razor’s edge” (Winsemius, quoted in Lee 2000: 66). Winsemius was especially bothered by the unemployment figures. Unemployment had risen because of Confrontation with Indonesia. He believed if this was to continue, and in the absence of (1) a common market with Malaysia and (2) any trade with Indonesia, unemployment would exceed fourteen per cent by the end of the 1966. This was a recipe for social unrest (Lee 2000).

Economic considerations aside, Barisan (Communist) activities guaranteed a high likelihood of state destabilization was high. Even though the Barisan had boycotted the election, it continued to participate in public demonstrations. Several of these

demonstrations included hit-and-runs. The most sizable demonstration took place on May Day 1967 when five hundred protesters took to the streets and clashed with the police. Numerous injuries were recorded, and forty-six rioters were arrested including the vice chairman of the Barisan (Fong 1979).

In contrast to the high likelihood of state destabilization, the likelihood of the Malays—the non-dominant group—coming to power was low. Compared to how the Chinese-educated were “an albatross around the necks [of the English-educated]” (Lee 1998: 373) during the pre-merger period, there was now little threat from the Malays. This weak threat was most certainly not the result of the Chinese-led Government successfully building a multicultural base. In fact, PAP leaders have on numerous occasions admitted a weak electoral support from the Malays. This can be “attributed to the community’s perception of the PAP as a Chinese-based party whose multiracial ideology was little more than rhetoric” (Rahim 1998: 73). Clearly, the low likelihood of the Malays coming to power is not the result of successful incorporation. On the contrary, this low threat was due to the absence of strong leadership among the Malays. For instance, dissatisfaction with the Government was expressed privately. Rarely, were these grievances noted publicly (Kassim 1974).

Not surprisingly, by this period, the frequency and intensity of Government rhetoric about the political threats of a non-dominant group coming to power had significantly decreased. The little discussion that did exist about the Malays often touched on the “deliberate and conscious policy of the Government...to recognize the special position of the Malays who are the indigenous people and who are in most need of assistance” (Constitution of the Republic of Singapore, Section 152; also see Li 1989). These policies included the establishment of the Mosque Building Fund (Ibrahim 1999), exemption of full

school fees (Li 1989), and expansion of Malay secondary education, (Ibrahim 1999). All in all, these policies were not unfavorable. However, the prevailing attitude among the Malays was that the special position granted by the Constitution was merely symbolic (Kassim 1974).

In addition to the Constitution, there were other issues that provoked controversies between the Chinese and Malays during this period. One was the Malay Teachers Union's proposal for a National System of Education. The proposal was rejected (Kassim 1974). Another issue was the alleged discrimination in the national service (Kassim 1974). The Chinese-led Government was actively excluding Malays from recruitment into the armed forces and law enforcement services. This would in turn deny Malays the necessary expertise for future employment. The Government rationalized this policy based on security considerations. The Malays could not be trusted to protect Singaporean interests in the event of a domestic racial riot or an external aggression from a Muslim state (Li 1989).

The concern over Malay allegiance in the event of conflict with a Muslim state was not unfounded. Relations between Singapore and Malaysia were highly contentious. Simply put, "the pressures following separation were relentless [and] there was never a dull moment in our relations with Malaysia" (Lee 2000: 261). There were economic pressures. Despite efforts to retain the common currency, the two Governments were resigned to issue separate currencies in 1967. The split came as a shock to business interests, including the Singapore International Chamber of Commerce (which represented British companies), the Council of the Association of Banks in Malaysia, and the Singapore Chinese Chamber of Commerce.

There were also racial pressures. Although the Malays were not an electoral threat, there was still the threat of riots. Racial riots were by no means confined strictly to the

Singapore state border. In fact, the riots were often spillovers from those in Malaysia. Examples included the 1967 November Riots (in Butterworth and Penang) and then in the 1969 May Riots (Lee 2000).

To summarize, (1) the likelihood of a non-dominant group (Communists or Malays) coming to power was low and (2) the likelihood of Singapore destabilizing was high. Recall, the three proportions must sum up to one. I code the third likelihood—that of the Chinese remaining in power—as moderate.

7.3.4. Socioeconomic Hierarchy (Convergent)

During this *1959-1963 Pre-Merger Period*, the Government actively promoted Malay education in what “appeared to be a pawn in the government’s political machinations with the Malay dominated federal government” (Rahim 1998: 191). Once separated, however, the Government quickly demoted Malay education. This meant overnight thousands of Malays had educational credentials that were rendered economically unmarketable (Rahim 1998).

So while the Malay language decreased in its socioeconomic value, the Chinese language remained the same—if not increased. To make matters worse, the Malays were socioeconomically depressed compared to the Indians as well. All this would have important political ramifications between the Chinese-dominated Government and the Malays (Kassim 1974).

7.3.5. Discussion

Recall, under a convergent socioeconomic hierarchy, the dominant group makes linguistic concessions to the non-dominant group. The dominant group does this because it

is constrained by the threat of a destabilized state. An analysis of the power-sharing choice suggests the Government maintained the status quo language regime as a direct (albeit instrumental) response to state survival considerations. The more the Chinese-led Government insisted on the absence of any politics over language use, the more the Malays decried the nominal use of Malay.

7.4. SINGAPORE: POST-1971 POST-BRITISH WITHDRAWAL

7.4.1. Bargaining Groups

The two bargaining groups in this period remain the same as the previous period. The Chinese have been the dominant group; the Malays, the non-dominant group. This is not wholly surprising. The Chinese-led PAP continues to win the majority of seats in the Government. In fact, for a period of time, there was little change in the Government. With the exception of a few portfolios swapping, the inner core of the PAP—and hence the Government—remained the same. It was not until the mid-1980s when the torch was passed to the second generation of PAP members that there were major changes.

7.4.2. Language Regime

From a *de jure* standpoint, the language regime has remained unchanged. (Mandarin) Chinese, English, Malay, and Tamil are still languages of instruction. The same cannot be said, however, from a *de facto* standpoint. Not only was Malay swiftly demoted, even the equal prominence of Chinese and English in the 1960s was replaced. English quickly became *the* dominant language (Lee 1988).

The emphasis on English as the first language among equals was undisputable by the late 1970s with Goh Keng Swee as the Education Minister. During this time, the Ministry's priority was strictly social efficiency. In fact, the "Goh Report was a key document in marking the PAP's clear ideological shift towards meritocracy" (Kwok 1999: 62). Social efficiency trumped social equity. This was evident in the fact that "the [education] system initiated by Goh did not substantially address the roots of social inequality" (Kwok 1999: 62).

This English emphasis was in stark contrast to the early nation-building days,. Then, the Government went to greater lengths to ensure equal treatment of all four languages. However, as the political and economic landscape slowly stabilized (relatively), the Government began to promote aggressively the use of English in schools. English was believed to be necessary for strengthening manpower, technical, and vocational training programs (Doshi and Coclanis 1999).

Not surprisingly, this increasing emphasis on English and away from Malay has bred discontent. Malays voiced their dissatisfaction over a number of issues. These included the proposed closing down of the Malay Studies Department at Nanyang University, the lack of Higher School Certificate classes in the Malay stream in 1972, and the lack of facilities in Malay medium schools despite Malay's status as the National Language (Kassim 1974).

In this observation, we see a visible divergence between the *de jure* and *de facto* language regime. Although officially power-sharing, the language regime is in reality more neutralizing. What explains this difference? And more importantly, what explains this language regime choice? According to the model, we are most likely to see a power-neutralizing language regime when (1) the likelihood of the Malays coming to power is high

and (2) the socioeconomic hierarchy is non-convergent. But as we saw in the congruence test—and we will see shortly—this is not the case.

7.4.3. Second-Period Uncertainty (High—Low—Moderate)

Undoubtedly, the withdrawal of British troops was a political and economic shock. It was, however, expected. The Chinese-led Government and the British had been negotiating the terms of the withdrawal. These negotiations allowed the Government—and the general Singapore population—to prepare for the military and economic changes. This was important to ensure the future stability of the state. As Lee Kuan Yew noted, “[T]he deep sense of crisis that prevailed made it possible for me to turn around union attitudes in a few years. The danger of an economic collapse because British forces were about to leave altered people’s moods and attitudes. They realized that unless we made a U-turn from strikes and violence towards stability and economic growth, we would perish” (Lee 2000: 109). By the 1970s, the rhetoric had visibly shifted from angst and anxiety to an aggressive articulation of national development.

Just as important was the restoration of regional relations. Trade between Singapore and Indonesia, for instance, had resumed to pre-Confrontation levels. Similarly, Singapore-Malaysia relations were strong and healthy. This was especially true when the matter involved security considerations. For instance, in 1973 “Razak said he anticipated troubles for both Singapore and Malaysia from the uncertainties in Thailand and Indochina, and so [Malaysia and Singapore] should not add to [their] difficulties by creating problems between [them]selves... [Razak] was uneasy and concerned about his Chinese support in Malaysia and the lack of support for the MCA in the next election and asked if [Lee Kuan Yew] could

help. [Lee Kuan Yew] agreed.” (Lee 2000: 270). With popular support for the national development and amicable foreign relations, the likelihood of state destabilization in this period was comparably moderate.

By this point, there was little threat of a non-dominant group coming to power. The Chinese-led Government had proscribed Communist activities. Many of the pro-Communist Chinese, including Eu Chooi Yip, had fled to China. Similarly, while the Malays continued to have a nominal voice in the Government, they have had minimal political stock.

If the likelihood of a non-dominant group coming to power is low and the likelihood of the state destabilizing is moderate, the third likelihood must be high. By comparing the three periods, we can easily see how the likelihood of the Chinese remaining in Government has been the highest since post-1971. The tone in Lee Kuan Yew’s autobiographies, in Goh Keng Swee’s memoirs, in government documents, and in interviews with other PAP members is one of consistent confidence (see Chan and ul Haq 1987; Lee 2000; Tan 2007b).

7.4.4. Socioeconomic Hierarchy (Convergent)

The advantaged position of the Malays as employees of the British uniformed services was lost once the British withdrew completely. The Chinese-led Government “did not take over, or renew, the contracts of Malay uniformed personnel, and this is probably a major factor in the decline in Malay incomes during the 1970s. Large numbers of Malays who had built up their pay through years of seniority in the uniformed services were thrown on to the job market with little formal education and irrelevant skills” (Li 1989: 108). Tables 7.2 and 7.3 highlight the socioeconomic inequality between the Chinese and the Malays.

TABLE 7.2: Monthly Income of Employed Male and Chinese (Percent)

Year	Earning < \$400 per Month		Earning > \$1000 per Month	
	<i>Chinese</i>	<i>Malay</i>	<i>Chinese</i>	<i>Malay</i>
1975	67.1	62.6	7.0	0.8
1978	53.3	75.8	8.9	1.8
1980	41.8	64.1	12.9	2.7

Source: Li 1989

TABLE 7.3: Age Cohort and Linguistic Group

Education Level	20-24 Years		25-29 Years		30-39 Years	
	<i>Chinese</i>	<i>Malay</i>	<i>Chinese</i>	<i>Malay</i>	<i>Chinese</i>	<i>Malay</i>
Primary	64.6	77.2	68.2	80.4	72.0	83.7
Secondary	18.6	18.6	15.8	15.8	12.9	11.6
Upper Secondary	11.7	3.1	9.8	3.2	9.2	3.8
Tertiary	1.0	0.1	5.8	0.5	5.9	0.8
Still in School	4.1	0.9	0.4	0.2	—	—

Source: Li 1989

Another comment merits discussion. Because of the severe systemic vulnerability (Doner et al. 2005) from the 1965-1971 *Immediate Post-Merger Period*, the relative socioeconomic value of the English language had increased exponentially. The Chinese-led Government believed a high level of human capital well-endowed in English was an important—if not necessary—key for attracting foreign investment, building a military, and developing meritocratic bureaucracies (Interview Group #0301). All this suggests that while

the socioeconomic hierarchy technically remained convergent, the importance of English rendered the socioeconomic value of (Mandarin) Chinese and Malay somewhat limited.

7.4.5. Discussion

The language regime choice in this period reflects the drastic changes in the Chinese-led Government's approach to national development. The contrast is captured well in the following excerpt from Sai and Huang:

“One of the changes in reworking PAP Malayan nationalism was a shift from multiculturalism based on the Malay language as the lingua franca to one where English came to predominate after 1965. Separation from Malaysia, portrayed by the PAP as a national catastrophe in Singapore, forced an almost fanatic obsession with economic survival. On one hand, educational policies were swung towards the learning of technical and professional subjects; on the other hand, the special attention paid to Malay language education was discontinued. With the role of Malay language as the basis of a model of multiculturalism dwindling while the priority was given to the pursuit of economic development... The 1970 was an environment where ‘the rhetoric of multiracialism was overlaid by the politics of survival’ and nationalism became a philosophy of national development’ (1999: 152).

Not surprisingly, the continued de jure power-sharing language regime in this period again reflects what we saw in the other periods: The dominant group makes linguistic concessions because it is constrained by the threat of a destabilizing state. However, from

the above discussion, we know the de facto language regime was not truly power-sharing. English—the lingua franca—was undoubtedly the first language among equals.

Here, we have a scenario where the de jure and de facto language regimes do not match. The model can explain language regime choice from a de jure standpoint but not de facto. What explains this discrepancy? To answer this question, it is helpful to recall why English became prominent, or more specifically, why the Chinese-led Government promoted English in the first place.

In the *1965-1971 Immediate Post-Merger Period*, the language regime was de jure and de facto power-sharing. The Chinese-led Government promoted the learning of both the mother tongue and English. The emphasis on English was in response to the severe systemic vulnerability (Doner et al. 2005). *Economically*, the country had just lost its hinterland. Trade with Indonesia had also been cut. A workforce competent in the English language was viewed as a necessity to develop trade and encourage foreign investment quickly. *Militarily*, the British had made it clear troop withdrawal was on its agenda. That impending event plus an indigenous military force that could not communicate with another because of linguistic (and sometimes even dialectical) difficulties made learning English all that much more important. And finally, *racially*, the frequent riots between the Chinese and the Malays—not only in Singapore, but in Malaysia as well—made it pragmatic for the Government to articulate national interests in English without the Government being seemingly captured by the Chinese (Lee 2000; Tan 2007a).

As Singapore entered the *Post-1971 Post-British Withdrawal Period*, the systemic vulnerability from the previous period was no longer so daunting. However, since English had proven fundamentally important for weathering the turbulent storm, the Chinese-led

Government continued to emphasize the lingua franca for national development purposes despite the fact that the political landscape had changed (Lee 2000; Tan 2007a).

This divergence in predicted and actual language regimes highlights a bigger issue about the limitations of the game theoretic model. Recall, the logic is that the dominant group—who knows the second-period uncertainty and the socioeconomic hierarchy—proposes a distribution of linguistic powers such that non-dominant group is indifferent between accepting and rejecting. An acceptance yields the language regime.

In this model, however, the dominant group only *knows* the second-period uncertainty. However, as we saw in the *1965-1971 Immediate Post-Merger Period*, the Chinese-led Government not only *knew* the second-period uncertainty (moderate—low—high), it also chose a language regime so that it could *change* it. The emphasis on English, even while concurrent with Chinese, was instrumental in reducing the very high threat of state destabilization. The success of this language regime choice meant in the following period—*Post-1971 Post-British Withdrawal Period*—the Chinese-led Government chose a language regime that deviated from the expected predictions.

Three case-specific comments merit mention. First, this is the only observation where the temporal start of the period was *not* the product of an unexpected shock. Political independence and executive changes in all three cases were seismic and *unanticipated*.⁴⁸ In contrast, there was no uncertainty over the British withdrawal. This was clear from Day 1. And while this event was considered seismic in 1965, by 1971 its effects had been

⁴⁸ Clearly, the nature of the British troop withdrawal was very different from political independence and executive changes. However, given the significance of this event in Singapore history, I include it in the observation.

significantly reduced. Put differently, British withdrawal would have had different effects on language regime choice if the event happened unannounced and overnight.

Second, institutional genesis and institutional reproduction are not always driven by the same political considerations (Thelen 2003). For instance, it seems the preference for English—although encouraged by the Chinese-led Government—was reinforced by popular demand. Table 7.4 tracks the changes in student enrollment figures in the (Mandarin) Chinese, English, Malay, and Tamil schools from the early 1940s through the late 1970s. In the 1940s the number of students in the (Mandarin) Chinese schools was significantly greater than those in the other three languages, with almost 60 per cent in 1949. By the late 1950s, the numbers in the (Mandarin) Chinese and English schools were roughly equal. However, by 1968—in the midst of the *1965-1971 Immediate Post-Merger Period*—the number of students in the English schools was almost double of those in the Chinese schools (32 per cent versus 60 per cent).

TABLE 7.4: Student Enrollment Figures for Each Language

Year	Chinese	English	Malay	Tamil	Total
1941	38,000 (53%)	27,000 (38%)	5,800 (8%)	1,000 (1%)	71,800
1949	68,065 (59%)	38,302 (33%)	7,862 (7%)	1,315 (1%)	11,5544
1957	115,374 (44%)	127,853 (49%)	13,419 (5%)	1,351 (1%)	259,997
1968	122,368 (32%)	232,376 (60%)	27,980 (7%)	1,668 (0.4%)	384,392
1972	115,991 (32%)	236,072 (65%)	12,527 (3%)	1,016 (0.2%)	365,606
1978	60,123 (19%)	249,676 (80%)	1,581 (1%)	130 (0%)	311,510

Source: Rabim 1998; Author's Calculations

One interviewee noted that given the frequent changes in the education curriculum in a matter of fifteen years (from Chinese to Malay to English), it made “sense” that the Government stabilized the “preferred language”. Although the circumstances that had made English a necessity are no longer an issue, it is simply “not practical” to change the language regime. And from a sociological standpoint, as parents have come to appreciate the value of the English language, they have also wanted their children to be educated in English (Interview Group #0302).

Third, given its situation, Singapore was exposed to globalization several decades before either Indonesia or Malaysia. Globalization—the borderless nature of economic properties—inherently contradicts nation-building. The language of development is not necessarily the same as the language of national solidarity (Wang 2007). Early on, countries such as Indonesia and Malaysia emphasized nation-building. In fact, recall Malaysia aggressively phased out English and promoted Malay. It was not until the 1990s that both countries started to encourage English learning. We see this change as well in other Asian countries, such as China, Japan, Korea, and Taiwan (Kaplan and Baldauf 2003). Clearly, this is not specific to just Indonesia or Malaysia. In contrast, Singapore chose global development over national solidarity. This was not necessarily the product of strategic calculations per se, but rather, the lack of options given the factors beyond the immediate control of the Government. In short, what the Chinese-led Government chose in 1971 was simply a preview of what was to come a few decades later.

7.5. CONCLUSION

In this chapter, I examined the language regime choice in Singapore. I identified three distinct observations. The *1959-1963 Pre-Merger Period* was characterized by intense bargaining between the English-educated and the Chinese-educated. The cleavage between the two groups was linguistic, ideological, and socioeconomic. The former saw the state's only hope of survival via the Malayan Federation. The second observation was the *1965-1971 Immediate Post-Merger Period*. This period was defined almost exclusively by the extreme fear of state failure. The threat was present on every front: economically, militarily, and racially. And finally, in the *Post-1971 Post-British Withdrawal Period*, the colonial forces departed. This rendered the Chinese-led Government with complete autonomy.

The language regime choice in all three periods consistently reflected a dominant group strategically responding to a threat of Singapore's failure. As predicted by the model, a politically dominant and socioeconomically advantaged group is constrained to make linguistic concessions to ensure the stability of the state. This was true in Singapore. The language regime remained power-sharing. However, the degree of power-sharing changed between the periods. There was a gradual shift from Malay to Chinese and English to solely English. These minor shifts reflected the Chinese-led Government's perception of the likelihood of state destabilization.

There is a divergence with the choice to emphasize English in the *Post-1971 Post-British Withdrawal Period*. This choice, I argued, was the continued legacy from the *1965-1971 Immediate Post-Merger Period* when the Government faced severe systemic vulnerability. The choice of English then—concurrent with mother tongues—was a response to dire economic, military, and racial conditions. As Singapore emerged relatively unscathed from the *1965-1971 Immediate Post-Merger Period*, the Government chose to maintain the de jure

status quo language regime (power-sharing) while “layering” (Thelen 2003) the de facto language regime into something more power-neutralizing.

To have a language regime—or any political institution—differ between its de jure and de facto forms is not wholly surprising. That was the case with the Malaysian observation *1957-1969 Democracy Period*. What is more interesting is to see how Singapore’s Chinese-led Government has long maintained a de jure power-sharing language regime while gradually changing the de facto regime. The power-neutralizing language regime in the *Post-1971 Post-British Withdrawal Period* is a good example of how institutional genesis and reproduction are not always the same. Without an understanding of the historical context, it would be easy—but wrong—to attribute Singapore’s current English-dominant language regime as the product of British colonialism. Such explanations overlook the challenges from the Chinese-educated, the role of Malay as a lingua franca, and the systemic vulnerability.

Finally, another topic warrants comment: the language regime choice during the *1963-1965 Merger Period*. This is undoubtedly a distinct observation for Singapore. However, I excluded this observation because the Chinese-led PAP did not have the autonomy to participate in the bargaining over language regime during this time.⁴⁹ As discussed in Chapter 6, language bargaining between the Malays and the Chinese took place within the Alliance Party framework: UMNO represented the former; and MCA, the latter.

⁴⁹ Note that during the merger years, Singapore was able to retain *some* autonomy over education policies (Lee 1998).

I dropped this observation for another reason. Despite the expansion that included “too many leftists and too many Chinese” (Tunku, quoted in Tan 2001), the fundamental political structure in Malaysia remained unchanged. The Malay-led Alliance Party continued to dominate the Government. Furthermore, the bargaining dynamics remained strictly along linguistic lines. The language regime was also rendered untouched. English and Malay were still recognized as official languages. The ten-year agreement over the status of English was still in effect during these years. Similarly, (Mandarin) Chinese, English, Malay, and Tamil remained languages of the education curriculum.

8. CONCLUSION

What explains language regime choice? Under what conditions do governments concentrate linguistic powers in the dominant group language, share linguistic powers across several different languages, and neutralize linguistic powers via a third party, *lingua franca*? Why did the Indonesian Government choose Malay—and not Dutch or Javanese—as its national language? Why did the Malaysian Government agree to an English-emphasized, power-sharing language regime only to concentrate linguistic powers in the Malay language twelve years later? And why did the Singapore Government promote first Malay and then later English despite a sizeable Chinese population?

I answer these questions in this dissertation. Employing a Rubenstein bargaining model, I argue language regime choice is the product of two independent variables. One is the second-period uncertainty. This is the likelihoods of three specific events happening should there be no immediate agreement on a language regime. The three events are the dominant group remains in power, a non-dominant group comes to power, and the state destabilizes. The logic is that dominant groups behave differently if their expected tenure is long term versus short term. The second independent variable is the socioeconomic hierarchy. While all languages are culturally important, the harsh reality is that not all languages carry the same worth when it comes to socioeconomic considerations. What matters here is who holds the socioeconomic powers. A socioeconomic hierarchy is considered convergent if the politically dominant group is also the socioeconomically advantaged group. Otherwise, I code the socioeconomic hierarchy as non-convergent.

Three testable propositions emerge from the model. First, we are most likely to see a *power-concentrating* language regime when the politically non-dominant group is socioeconomically dominant but the likelihood of it coming to power is low. The logic is as follows: The dominant group is driven to change the socioeconomic status quo. Language regimes are a vehicle for achieving this objective. Since the likelihood of the non-dominant coming to power is low, the dominant group will choose a power-concentrating language regime. Simply put, the dominant group has no incentive to share linguistic powers. Recall there are communication and transaction costs associated with any multilingual arrangement.

Second, we are most likely to see a *power-neutralizing* language regime under the same socioeconomic hierarchy conditions but when the likelihood of the non-dominant group coming to power is high. Fundamentally, the rationale is still the same. Again the dominant group wants to address the socioeconomic status quo. But unlike the previous scenario, it is now constrained by the non-dominant group. Linguistic concentration is no longer a feasible option. A power-sharing language regime is also not ideal. Such choices incur communication costs and can actually widen the socioeconomic gap. This leaves only one option: power-neutralization via a lingua franca.

Third, we are most likely to see a *power-sharing* language regime when the politically dominant group is also the socioeconomically advantaged group. This argument seems counter-intuitive: Why would a group that has all the power have any incentive to share? To answer this, recall that a destabilized state is always a possible outcome. I do not assume state destabilization is to always be avoided. Under such conditions, there is little incentive for non-dominant groups to participate in the state-building process. It is easy to fathom that if the situation were dire enough, a non-dominant group would prefer state

destabilization over acceptance of a non-favorable language regime. This clearly runs counter to the dominant group preferences. Under such conditions, the dominant group is constrained to offer a power-sharing language regime. Linguistic concessions give the non-dominant group an incentive to participate in the state-building process.

In setting up this model, I draw on the political institutions literature. Language regimes are political institutions. They are political because they determine which languages can be used when and where (Lasswell 1936). And they are institutions because they allow individuals to act in a predictable manner, ensure stability to some degree, affect individual behaviors, and create some sense of shared value and meaning among the members (Peters 1999). So if language regimes are political institutions, then by extension, language regime choice is simply a story of institutional choice. And since we know institutional choice never happens in a political vacuum, I argue language regime is the product of institutional bargaining between different groups. The outcomes of this bargaining have been discussed above.

In arguing language regime choice is the product of institutional bargaining, I make contributions to three bodies of literature. First, in the language policy literature, the approach has been predominantly apolitical. The working assumption is that bureaucrats in a Center for Language Development or the Ministry of Education review pedagogical reports, make recommendations, and these recommendations become policies. But we know policies are never created in a political vacuum. Rather, policies are shaped given the institutional constraints. I argue we need to take into consideration the political and institutionalized nature of language regimes when studying language policies.

Second, my dissertation makes a contribution to studies of ethnic conflict. In the ethnic conflict literature, a dichotomous distinction—majoritarian (power-concentrating) versus consociational (power-sharing) has long dominated discussions of institutional designs. This systematically overlooks a third institutional design. By modeling the strategic bargaining in a political context, I highlight power-neutralizing institutions are as viable of an alternative as power-concentrating and power-sharing institutions. This is important since ignoring power-neutralizing institutions will most certainly affect our understanding of conflict onset and resolution.

Third, the state-building literature has long focused on the importance of war and money. The now famous statement, “war made the state, and the state made war” (Tilly 1975) is an example of the war-centric focus. While war and money are important, I argue language is just as necessary for state-building. No state or government can effectively launch a military campaign or successfully extract revenues in the absence of a language regime. Language regime choice mattered for state-building in all three Southeast Asian cases. Malay helped achieve “unity in diversity” in Indonesia. Malay played an important role in the success of the NEP in Malaysia. And in Singapore, first Malay ensured the Government’s survival via the Federation and then later English guided the country through severe systemic vulnerability (Doner et al. 2005). By ignoring the role and importance of language regimes, the literature has at best a truncated understanding of state-building.

In the remainder of this conclusion, I address the implications of this study. Specifically, I focus on the theoretical, methodological, and policy implications.

8.1. THEORETICAL IMPLICATION

In the Singapore *Post-1971 Post-British Withdrawal Period*, there was a divergence between the predicted and actual language regimes. We expected a power-sharing language regime because the Chinese were both politically dominant and socioeconomically advantaged. This was the case from a de jure standpoint. However, an in-depth analysis indicated the de facto language regime was power-neutralizing. According to the model, we are most likely to see a power-neutralizing language regime when (1) the likelihood of the Malays coming to power was high and (2) the socioeconomic hierarchy was non-convergent in favor of the Malays. Neither condition was true.

In explaining this divergence, I acknowledged the power-sharing language regime with an English emphasis from the previous *1965-1971 Immediate Post-Merger Period* played a role in changing the second-period uncertainty. For instance, because the likelihood of state destabilization had been very high, the Government chose English. The hope was that English would increase state stabilization by the *Post-1971 Post-British Withdrawal Period*. When given a chance to evaluate this language regime choice in 1971, the Government approved of the success. The response was the “layering” (Thelen 2003) of the language regime. English became the undisputed first language among equals. If language regime choice can affect the second-period uncertainty, what are the implications for the model?

As noted in the previous chapter (7.4.5: Discussion), there are limitations to the game theoretic model. In the model both the dominant and non-dominant groups *know* the second-period uncertainty and the socioeconomic hierarchy. In the first period the dominant group proposes a distribution of linguistic powers to make the non-dominant group indifferent between accepting and rejecting. As a result, the accepted distribution becomes the language regime choice.

Although the game is a two-period bargaining game, the bargaining takes place over one interaction, and the values of the second-period uncertainty are exogenously fixed. In other words groups “inherit”—as opposed to “choose”—the likelihood of x event happening should there be no immediate agreement on a language regime choice. The same can be said for the socioeconomic hierarchy. I make this assumption because language regimes are political institutions. They institutionalize the distribution of linguistic powers. As such language regimes are most likely to be contested following a political shock. The statistical tests in Chapter 4 validate this assumption.

Shocks can shift the distribution of political powers and introduce uncertainty into the bargaining arena. For instance, in the *1965-1971 Immediate Post-Merger Period*, the political shock was the separation. This forced the Singapore Government to reconsider the distribution of linguistic powers. The second-period uncertainty the Singapore Government faced—including the high likelihood of state destabilization—was not the result of a language regime choice from the *1963-1965 Merger Period*.

But clearly not all the observations are temporally independent of one another. Most notably the language regime choice in the *1965-1971 Immediate Post-Merger Period* affected the second-period uncertainty of the *Post-1971 Post-British Withdrawal Period*. This relationship highlights a future avenue of research. In addition to iterating the game over multiple (if not infinite) periods, I can set the values of the second-period uncertainty to be a function of the language regime choice of the previous period.

For the *Post-1971 Post-British Withdrawal Period*, I noted three possible explanations for the divergence in predicted and actual outcomes. One was the unique nature of the shock marking the start of the temporal period and sociological trends. I posited that since the

Chinese-led Government knew the shock was forthcoming, they were able to respond differently than in, say, the *1959-1963 Pre-Merger Period*. Another explanation was the sociological trends. The number of students enrolled in English schools had significantly increased. To change the language regime would have rendered a large population at a linguistic disadvantage.

The third explanation for the divergence was the effect of globalization. Globalization forces governments to choose between a language of development (frequently English) and the language of national solidarity. This is a phenomenon facing many countries today. Singapore is no exception, except it made the choice several decades earlier. A future avenue of research would be to examine under what conditions governments choose English over the language of national solidarity.

8.2. METHODOLOGICAL IMPLICATION

I empirically tested the propositions using mixed methods. In the statistical analysis I used a cross-sectional dataset that included all instances of political independence and democratic transitions post-WW2. The evidence supported the claim: Language regime choice is the product of the second-period uncertainty and the socioeconomic hierarchy. As a supplement I also tested the assumption that language regime changes are most likely to happen after there has been a shock. The results from a time-series cross-sectional dataset that included all Asian countries post-WW2 justified this assumption and the use of the aforementioned cross-sectional dataset.

I supported the statistical tests with three case studies (Indonesia, Malaysia, and Singapore). Each case study had several causal-process observations (Brady and Collier

2004). I did a congruence test and process traced each observation. The generated predictions could explain the language regime choice in five of the seven observations. The model could also explain the sixth one (*1945-1968 Sukarno Era*) after I corrected for a measurement error. The error arose due to the uniqueness of the case (high linguistic diversity and the presence of two *linguas franca*). The model could not explain the seventh one (*Post-1971 Post-British Withdrawal Period*) for reasons already mentioned.

Whether it is qualitative-quantitative (Brady and Collier 2004; Greif and Laitin 2004; King et al. 1994; Lieberman 2005; Mahoney and Goertz 2006) or formal-quantitative (Ali Bas et al. 2008; Carrubba et al. 2007; Signorino 2007), in political science there has been a growing consensus on the value added of mixed methods—methods being either theory-generating or theory-testing. What has been missing, however, is an active dialogue on the qualitative testing of formal models. This is not to say there is an absence of such works, but rather there has been very little (see Bawn 1993; Goemans and Fey 2008; Helmke 2005; Vanberg 2005).

This dissertation contributes to this methodological gap. I process trace to test whether the expected mechanisms are truly at play. This testing is much more than comparative statics and congruence tests. If it were, we would not have been able to understand the language regime choice in the *1945-1968 Sukarno Era*. In that observation, the predicted and actual language regime did not seem to match.

While an understanding of the cases can help us in applying a simplified model, the converse is also true. A simplified model can also help us identify a common denominator in multiple cases. Oftentimes the complexity of each case can render it difficult to make logically-consistent comparisons. For example the likelihood of state destabilization was

high in both the *1945-1967 Sukarno Era* and the *1965-1971 Immediate Post-Merger Period*. This threat constrained the dominant group in both instances to make linguistic concessions. These linguistic concessions in turn became an important part of the state-building process. Without the model, it would be easy to focus on the linguistic diversity for Indonesia and the systemic vulnerability for Singapore, without realizing the two factors constrained the Government in a very similar manner.

8.3. POLICY IMPLICATION

At the most basic level, languages are important because they are a vehicle of communication. They structure social interactions. And from a political standpoint, languages are important because they bond communities together from the inside and they identify the community boundaries from the outside. Since languages bond and identify groups, and since states are often an aggregation of several of these groups, the question quickly becomes which language—or languages—will be used to bond the state from the inside and identify the state boundaries from the outside.

Language regime choice can imply which groups have greater worth and importance than others—and which groups do not. Furthermore such choices can have implications for civic development, economic growth, ethnic conflict, and state-building. We saw this in Indonesia, Malaysia, and Singapore. All this suggests that at the end of the day, the process of choosing a language regime is highly political.

Language regimes matter. This argument is perhaps less fatalistic than those found in the likes of Boix (2003) and Easterly and Levine (1997) that suggest states with higher fractionalization levels are more prone to conflict outbreaks and poor economic growth.

Most certainly there are reasons to believe fractionalization can make state-building more difficult. But at the same time, the examples of Singapore and Switzerland indicate demographic diversity is not a sufficient condition.

I argue what matters are the institutions that arise from this fractionalization. We see this with electoral rules (Reynolds 2002) in whether diverse preferences are aggregated in pre-electoral (Horowitz 1985) or post-electoral (Lijphart 1999) coalitions. One avenue of further research is to study which language regimes—given a country’s fractionalization—are the most “ideal”. Of course “ideal” depends on the end objective: minimizing conflict, encouraging growth, or spurring civic awareness.

This is not to endorse any certain language regime as being optimal. In an era of increasing globalization and border openings, there have been increasing calls for the protection of minority rights on the one hand (Albaugh 2005) and the need for one language to unify the world on the other hand (Mohr 1984). It is important that advocates in both camps based their arguments with an understanding of why a language regime is the best alternative given the political and socioeconomic conditions. No language regime is always the “right” choice.

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II. PROOFS

EQUILIBRIUM

The following strategies—the *Language Regime Accepted Equilibrium*—form a subgame perfect equilibrium when the following two conditions hold. In both periods, the dominant group offers a division of linguistic powers and the non-dominant group accepts. The two conditions are as follow:

$$\phi_A \leq \frac{2\phi_B^2 + (1+\tau)\phi_B(-2+\tau-\lambda_A) + (1+\tau)^2(1+\lambda_A)}{(1+\tau)^2} \quad (3.5)$$

$$\phi_B \leq \frac{2\phi_A^2 + (1+\tau)\phi_A(-2+\tau-\lambda_B) + (1+\tau)^2(1+\lambda_B)}{(1+\tau)^2} \quad (3.6)$$

Proof

Using backwards induction, let us start with Period 2. The dominant group of Period 2—Group A with a probability of α and Group B with a probability of $(1-\alpha)\beta$ —chooses a language regime with only one constraint: the non-dominant group's utility from a failed state (ϕ_d). To make the non-dominant group indifferent between accepting and rejecting, the dominant group offers the following:

$$\begin{aligned} U_{d2}(n_{D2}, n_{d2}, n_{LF2} | d = \text{accept}) &\geq U_{d2}(n_{D2}, n_{d2}, n_{LF2} | d = \text{reject}) \\ (n_{d2})(1+\lambda_d) + (n_{LF2})(1+\tau) &\geq \phi_d \\ n_{LF2} &\geq \frac{\phi_d - n_{d2}(1+\lambda_d)}{1+\tau} \end{aligned} \quad (A.1)$$

Substituting $n_{d2}=0$ into Equation A.1 yields the following division of linguistic powers:

$$n_{D2}^*, n_{d2}^*, n_{LF2}^* = \left(1 - \frac{\phi_d}{1+\tau}; 0; \frac{\phi_d}{1+\tau} \right).$$

While the non-dominant group prefers the optimal division of linguistic powers over a failed state (ϕ_d), the same may not necessarily be true for the dominant group. It is in the interest of the dominant group to propose the above division of linguistic powers if and only if its utility from this division is also greater or equal to its utility from a failed state (ϕ_D). Specifically, when the following condition holds:

$$U_{D2}(n_{D2}^*, n_{D2}^*, n_{LF2}^* | d=accept) \geq U_{D2}(n_{D2}^*, n_{D2}^*, n_{LF2}^* | d=reject)$$

$$U_{D2} \left(1 - \frac{\phi_d}{1+\tau}; 0; \frac{\phi_d}{1+\tau} \right) \geq \phi_D$$

$$\frac{2\phi_d^2 + (1+\tau)\phi_d(-2+\tau-\lambda_D) + (1+\tau)^2(1+\lambda_D)}{(1+\tau)^2} \geq \phi_D \quad (\text{A.2})$$

So when the above Equation A.2 holds for both groups, we know the proposed optimal division of linguistic powers yields greater utility for both linguistic groups than that of a failed state.

In Period 1, Group \mathcal{A} 's proposed division of linguistic powers is subject to several additional constraints, including the probability of Group \mathcal{A} remaining in power (α), the probability of Group \mathcal{B} coming to power $(1-\alpha)\beta$, and the probability of the state failing $(1-\alpha)(1-\beta)$. As we already know from the Period 2 subgame equilibrium, both groups' utility from a failed state (ϕ_A, ϕ_B) also matter. To make Group \mathcal{B} indifferent between

accepting and rejecting in Period 1, Group \mathcal{A} must offer some division of linguistic powers subject to the following constraints:

$$\begin{aligned}
 U_{B1}(n_{A1}, n_{B1}, n_{LF1} | B = \text{accept}) &\geq U_{B1}(n_{A1}, n_{B1}, n_{LF1} | B = \text{reject}) \\
 (n_{B1})(1 + \lambda_B) + (n_{LF1})(1 + \tau) &\geq \alpha((n_{B2})(1 + \lambda_B) + (n_{LF2})(1 + \tau)) \\
 &\quad + (1 - \alpha)(\beta((n_{B3})(1 + \lambda_B) + (n_{LF3})(1 + \tau)) \\
 &\quad - 1 + (n_{A3})^2 + (n_{B3})^2 + (n_{LF3})^2) - (1 - \beta)(\phi_B) \\
 n_{LF1} &\geq \frac{1}{\tau - \lambda_B} \\
 &\quad *(-1 + \alpha\phi_B - \lambda_B + n_{A1}(1 + \lambda_B)) \\
 &\quad - \frac{(-1 + \alpha)(2\beta\phi_A^2 + \beta(1 + \tau)\phi_A(-2 + \tau - \lambda_B))}{(1 + \tau)^2} \\
 &\quad + \frac{(1 + \tau)^2((-1 + \beta)\phi_B + \beta(1 + \lambda_B))}{(1 + \tau)^2}
 \end{aligned} \tag{A.3}$$

We know the utility for Group \mathcal{A} is as follows:

$$U_{A1}(n_{A1}, n_{B1}, n_{LF1} | B = \text{accept}) = n_{A1}(1 + \lambda_{A1}) + n_{LF1}(1 + \tau) - C(n_{A1}, n_{B1}, n_{LF1}).$$

Since we also know $n_{A1} + n_{B1} + n_{LF1} = 1$ and Group B 's indifference point between accepting and rejecting, we can substitute for both n_{B1} and n_{LF1} ; take the derivative with respect to n_{A1} ; and solve for n_{A1} . This yields the optimal proportion of the number of years in Group \mathcal{A} 's language (n_{A1}^*). Substituting n_{A1}^* back into Equation A.3 yields the following *theoretical* optimal proportions for each of the three languages:

$$n_{A1}^\circ = \frac{1}{4(1 + \tau)^2(1 + \tau + \tau^2 - (-1 + \tau)\lambda_B + \lambda_B^2)}$$

$$\begin{aligned}
&*(4(-1+\alpha)\beta\phi_A^2(2+\tau+\lambda_B)+2(-1+\alpha)\beta(1+\tau)\phi_A(-4+\tau^2-4\lambda_B-\lambda_B^2)) \\
&+(1+\tau)^2(4-4\beta+4\alpha\beta+3\tau-2\beta\tau+2\alpha\beta\tau-\lambda_A(\tau-\lambda_B)^2+5\lambda_B \\
&-6\beta\lambda_B+6\alpha\beta\lambda_B+2\tau\lambda_B-2\beta\tau\lambda_B+2\alpha\beta\tau\lambda_B-\tau^2\lambda_B+2\lambda_B^2-2\beta\lambda_B^2 \\
&+2\alpha\beta\lambda_B^2+\tau\lambda_B^2+2(1+\alpha(-2+\beta)-\beta)\phi_B(2+\tau+\lambda_B))) \\
n_{B1}^{\circ} = &\frac{1}{20(1+\tau)(\tau+\lambda_A)(1+\tau+\tau^2-(-1+\tau)\lambda_B+\lambda_B^2)} \\
&*(-20(\alpha-1)\beta\phi_A^2(2+\tau+\lambda_B)-10(\alpha-1)\beta(1+\tau)\phi_A(-4+\tau^2-4\lambda_B-\lambda_B^2)) \\
&+(1+\tau)(-4+20\beta-20\alpha\beta+\tau+30\beta\tau-30\alpha\beta\tau+21\tau^2+10\beta\tau^2 \\
&-10\alpha\beta\tau^2+20\tau^3+5(1+\tau)\lambda_A(\tau-\lambda_B)^2-9\lambda_B+30\beta\lambda_B \\
&-30\alpha\beta\lambda_B-31\tau\lambda_B+40\beta\tau\lambda_B-40\alpha\beta\tau\lambda_B-25\tau^2\lambda_B+10\beta\tau^2\lambda_B \\
&-10\alpha\beta\tau^2\lambda_B+5\tau^3\lambda_B+6\lambda_B^2+10\beta\lambda_B^2-10\alpha\beta\lambda_B^2+5\tau\lambda_B^2 \\
&+10\beta\tau\lambda_B^2-10\alpha\beta\tau\lambda_B^2-5\tau^2\lambda_B^2 \\
&-10(1+\alpha(-2+\beta)-\beta(1+\tau)\phi_B(2+\tau+\lambda_B))) \\
n_{LF1}^{\circ} = &\frac{1}{5(\tau+\lambda_A)} \\
&*(-4+5\lambda_B-\frac{1}{4(1+\tau)^2(1+\tau+\tau^2-(-1+\tau)\lambda_B+\lambda_B^2)}5(-1+\lambda_A) \\
&*(4(-1+\alpha)\beta\phi_A^2(2+\tau+\lambda_B)+2(-1+\alpha)\beta(1+\tau)\phi_A(-4+\tau^2-4\lambda_B-\lambda_B^2)) \\
&+(1+\tau)^2(4-4\beta+4\alpha\beta+3\tau-2\beta\tau+2\alpha\beta\tau-\lambda_A(\tau-\lambda_B)^2 \\
&+5\lambda_B-6\beta\lambda_B+6\alpha\beta\lambda_B+2\tau\lambda_B-2\beta\tau\lambda_B+2\alpha\beta\tau\lambda_B-\tau^2\lambda_B \\
&+2\lambda_B^2-2\beta\lambda_B^2+2\alpha\beta\lambda_B^2+\tau\lambda_B^2+2(1+\alpha(-2+\beta)-\beta)\phi_B(2+\tau+\lambda_B))).
\end{aligned}$$

It is important to emphasize that this is the *mathematical* optimal division of linguistic powers, which may or may not be the same as the *theoretical* optimal division of linguistic powers. Since each individual language proportion must also be bounded between the values [0,1], we need to impose a corner solutions. As there are no temporal restrictions, that is, all three language proportions $(n_{A1}^*, n_{B1}^*, n_{LF1}^*)$ are determined independently and simultaneously, I adopt a sequential approach. Specifically, the *theoretical* optimal division of linguistic powers with corner constraints is the following:

$$n_{A1}^* = \begin{cases} 0 & \text{if } n_{A1}^\circ < 0 \\ n_{A1}^\circ & \text{if } 0 < n_{A1}^\circ < 1 \\ 1 & \text{if } 1 < n_{A1}^\circ \end{cases}$$

$$n_{B1}^* = \begin{cases} 0 & \text{if } n_{B1}^\circ < 0 \\ n_{B1}^\circ & \text{if } 0 < n_{B1}^\circ < 1 \\ 1 - n_{A1}^* & \text{if } 1 - n_{A1}^\circ < n_{B1}^\circ \end{cases}$$

$$n_{LF1}^* = \begin{cases} 0 & \text{if } n_{LF1}^\circ < 0 \\ n_{LF1}^\circ & \text{if } 0 < n_{LF1}^\circ < 1 \\ 1 & \text{if } 1 - n_{A1}^\circ - n_{B1}^\circ < n_{LF1}^\circ \end{cases} .$$

As with the Period 2 subgame equilibrium, while a proposed division of linguistic powers may be acceptable to Group B, it does not necessarily imply Group A is better off with the proposed division versus letting the state fail. Group A is always better off when the following condition is met:

$$\begin{aligned}
U_{A1}(n_{A1}^*, n_{B1}^*, n_{LF1}^* | B=accept) &\geq U_{A1}(n_{A1}^*, n_{B1}^*, n_{LF1}^* | B=reject) \\
U_{A1}(n_{A1}^*, n_{B1}^*, n_{LF1}^* | B=accept) &\geq \alpha \left(U \left(1 - \frac{\phi_B}{1+\tau}; 0; \frac{\phi_B}{1+\tau} \right) \right) \\
&\quad + (1-\alpha) \left(\beta \left(U \left(0; 1 - \frac{\phi_A}{1+\tau}; \frac{\phi_A}{1+\tau} \right) \right) + (1-\beta) \phi_A \right) \\
U_{A1}(n_{A1}^*, n_{B1}^*, n_{LF1}^* | B=accept) &\geq \phi_A \tag{A.4}
\end{aligned}$$

Again, ultimately the decision to not let the state fail is constrained by the benefits from the state failing. This is not surprising. We know from Equations 3.4 and 3.5 that the utility of a failed state are low. So when the utility of having an accepted language regime is greater than that of a failed state, we should see both groups play the game.

EQUILIBRIUM: FAILED STATE

The following strategies—the *Rejection: Failed Stated Equilibrium*—form a subgame perfect equilibrium when neither Equation 3.5 nor Equation 3.6 hold. In Period 1, Group *A* offers a division of linguistic powers, and Group *B* rejects; in Period 2, the dominant group offers a division of linguistic powers, and again, the non-dominant group rejects.

Proof

When Equations 3.5 and 3.6 both fail to hold, this suggests the utility for both groups is high from a failed state. Such benefits provide little—if any—incentive for (1) a dominant group to make significant linguistic concessions and (2) a non-dominant group to accept a less-than-favorable proposal.

For example, in Period 2, the non-dominant group is indifferent between rejecting and accepting the proposal:

$$\begin{aligned}
 U_{d2}(n_{D2}, n_{d2}, n_{LF2} | d = \text{reject}) &\geq U_{d2}(n_{D2}, n_{d2}, n_{LF2} | d = \text{accept}) \\
 \phi_d &\geq (n_{d2})(1 + \lambda_d) + (n_{LF2})(1 + \tau) \\
 \phi_d &\geq (0)(1 + \lambda_d) + \left(\frac{\phi_d}{1 + \tau}\right)(1 + \tau)
 \end{aligned} \tag{A.5}$$

The dominant group is also better off letting the state fail than to ensure its proposed language regime is accepted:

$$\begin{aligned}
 U_{D2}(n_D^*, n_D^*, n_{LF}^* | d = \text{reject}) &\geq U_{D2}(n_D^*, n_D^*, n_{LF}^* | d = \text{accept}) \\
 \phi_D &\geq U_D\left(1 - \frac{\phi_d}{1 + \tau}; 0; \frac{\phi_d}{1 + \tau}\right) \\
 \phi_D &\geq \frac{2\phi_d^2 + (1 + \tau)\phi_d(-2 + \tau - \lambda_D) + (1 + \tau)^2(1 + \lambda_D)}{(1 + \tau)^2}
 \end{aligned} \tag{A.6}$$

The outcome in Period 2 is always a failed state, whether Group \mathcal{A} remains in power, Group \mathcal{B} comes to power, or the state fails. Since both groups know this, any proposal in Period 1 will reflect this as well.

What happens when only Equation 3.5 holds? Here, while the outcome is still an accepted language regime, the strategies are slightly different. When Equation 3.6 fails to hold, this suggests the benefit of a failed state yields a large utility for Group \mathcal{B} , while the same cannot be said for Group \mathcal{A} . So when Group \mathcal{B} becomes the dominant group of Period 2 with a probability of $(1 - \alpha)\beta$, it will not propose an “acceptable” division of linguistic powers. Knowing this, in Period 1, Group \mathcal{A} ’s proposal will take this into

consideration. The optimal division of linguistic powers in Period 1 will be slight permutation of the above *Language Regime Accepted Equilibrium*.

In contrast, when it is Equation 3.6 that holds, it is Group A that has the incentive to let the state fail while Group B does not. The outcome from this scenario is complex. The rational is that Group A would propose “reject-able” division of linguistic powers whenever it is the dominant group. However, when Group B is the dominant group of Period 2, its proposal will be to make Group A indifferent between accepting and rejecting. So whether the strategies yield an accepted language regime or a failed state depends on the Period 2 probabilities. A larger probability of Group A remaining in power is more likely produce a failed state; whereas a larger probability of Group B coming to power, an accepted language regime.

Taking a step back from the model, this condition where only Equation 3.6 holds makes little theoretical sense. It is hard to imagine an arrangement where a politically dominant group is more interested than a politically non-dominant group to see the state fail. Another way to understand the rarity of this situation is to consider the extreme scenario: A politically dominant group prefers conflict and civil war while the politically non-dominant group prefers peace.

PROPOSITION 1

In a convergent hierarchy, Group A proposes a *power-sharing* language regime regardless of the period 2 probabilities.

Proof

The following two equations must hold for the optimal language regime to be power-sharing:

$$n_{B1}^* - n_{A1}^* \geq 0 \quad (\text{A.7})$$

$$n_{B1}^* - n_{LF1}^* \geq 0 \quad (\text{A.8})$$

Let us first test these equations when the relative socioeconomic value of the Group \mathcal{A} language is high. Setting $\lambda_{\mathcal{A}} = 1$ yields the following optimal choices:

$$n_{A1}^* = \frac{(-1+\alpha)\beta(-1+\tau^2)\phi_{\mathcal{A}} + 2(-1+\alpha)\beta\phi_{\mathcal{A}}^2 + (1+\alpha(-2+\beta)-\beta)(1+\tau)^2\phi_{\mathcal{B}}}{2(1+\tau)^3}$$

$$n_{B1}^* = \frac{-5(\alpha-1)\beta(-1+\tau^2)\phi_{\mathcal{A}} - 10(\alpha-1)\beta\phi_{\mathcal{A}}^2 + (1+\tau)^2(8+10\tau-5(1+\alpha(-2+\beta)-\beta)\phi_{\mathcal{B}})}{10(1+\tau)^3}$$

$$n_{LF1}^* = \frac{1}{5+5\tau}$$

Using the above values, we can now test for both Equations A.7 and A.8:

$$n_{B1}^* - n_{A1}^* \geq 0$$

$$\begin{aligned} n_{B1}^* - n_{A1}^* &= \frac{1}{5(1+\tau)^3} (-5(-1+\alpha)\beta(-1+\tau^2)\phi_{\mathcal{A}} - 10(-1+\alpha)\beta\phi_{\mathcal{A}}^2 \\ &\quad + (1+\tau)^2(4+5\tau-5(1+\alpha(-2+\beta)-\beta)\phi_{\mathcal{B}}) \end{aligned} \geq 0 \quad \blacksquare$$

$$n_{B1}^* - n_{LF1}^* \geq 0$$

$$\begin{aligned} n_{B1}^* - n_{LF1}^* &= \frac{1}{10(1+\tau)^3} (-5(-1+\alpha)\beta(-1+\tau^2)\phi_{\mathcal{A}} - 10(-1+\alpha)\beta\phi_{\mathcal{A}}^2 \\ &\quad + (1+\tau)^2(6+10\tau-5(1+\alpha(-2+\beta)-\beta)\phi_{\mathcal{B}}) \end{aligned} \geq 0 \quad \blacksquare$$

Both Equation A.7 and A.8 hold when the relative socioeconomic value of the Group \mathcal{A} language is high. Now setting the Group \mathcal{A} language to a lower socioeconomic value while still under a convergent hierarchy ($\lambda_{\mathcal{A}}=0$) yields the following optimal choices:

$$n_{\mathcal{A}1}^* = \frac{1}{4(1+\tau)^2(1+\tau+\tau^2)}$$

$$\begin{aligned} & * (2(-1+\alpha)\beta(1+\tau)(-4+\tau^2)\phi_{\mathcal{A}} + 4(-1+\alpha)\beta(2+\tau)\phi_{\mathcal{A}}^2 \\ & + (1+\tau)^2(4+3\tau+2(-1+\alpha)\beta(2+\tau)+2(1+\alpha(-2+\beta)-\beta)(2+\tau)\phi_{\mathcal{B}})) \end{aligned}$$

$$n_{\mathcal{B}1}^* = \frac{1}{20\tau(1+\tau)(1+\tau+\tau^2)}$$

$$\begin{aligned} & * (-10(-1+\alpha)\beta(1+\tau)(-4+\tau^2)\phi_{\mathcal{A}} - 20(-1+\alpha)\beta(2+\tau)\phi_{\mathcal{A}}^2 + (1+\tau) \\ & * (-4+20\beta-20\alpha\beta+\tau+30\beta\tau-30\alpha\beta\tau+21\tau^2+10\alpha\beta\tau^2+20\tau^3 \\ & -10(1+\alpha(-2+\beta)-\beta)(1+\tau)(2+\tau)\phi_{\mathcal{B}})) \end{aligned}$$

$$n_{LF1}^* = \frac{1}{5\tau} \left(-4 + \frac{1}{4(1+\tau)^2(1+\tau+\tau^2)} \right)$$

$$\begin{aligned} & * 5(2(-1+\alpha)\beta(1+\tau)(-4+\tau^2)\phi_{\mathcal{A}} + 4(-1+\alpha)\beta(2+\tau)\phi_{\mathcal{A}}^2 \\ & + (1+\tau)^2(4+3\tau+2(-1+\alpha)\beta(2+\tau)+2(1+\alpha(-2+\beta)-\beta)(2+\tau)\phi_{\mathcal{B}})) . \end{aligned}$$

Testing again for Equations A.7 and A.8:

$$n_{\mathcal{B}1}^* - n_{\mathcal{A}1}^* \geq 0$$

$$n_{\mathcal{B}1}^* - n_{\mathcal{A}1}^* = \frac{1}{20\tau(1+\tau)^2(1+\tau+\tau^2)}$$

$$* (-10(-1+\alpha)\beta(-2+\tau)(1+\tau)(2+\tau)(1+2\tau)\phi_{\mathcal{A}})$$

$$\begin{aligned}
& -20(-1+\alpha)\beta(2+\tau)(1+2\tau)\phi_A^2 \\
& +(1+\tau)^2(-4-10(-1+\alpha)\beta(2+\tau)(1+2\tau)+\tau(-19+6\tau+20\tau^2)) \\
& -10(1+\alpha(\beta-2)-\beta)(2+\tau)(1+2\tau)(\phi_B) \geq 0 \quad \blacksquare
\end{aligned}$$

$$n_{B1}^* - n_{LF1}^* \geq 0$$

$$\begin{aligned}
n_{B1}^* - n_{LF1}^* &= \frac{1}{20\tau(1+\tau)^2(1+\tau+\tau^2)} \\
& *(-10(-1+\alpha)\beta(-2+\tau)(1+\tau)(2+\tau)^2\phi_A - 20(-1+\alpha)\beta(2+\tau)^2\phi_A^2 \\
& +(1+\tau)^2(-10(-1+\alpha)\beta(2+\tau)^2 + (-2+5\tau)(4+\tau(9+4\tau))) \\
& -10(1+\alpha(-2+\beta)-\beta)(2+\tau)^2\phi_B) \geq 0 \quad \blacksquare
\end{aligned}$$

PROPOSITION 2

In a non-convergent hierarchy, Group A proposes a *power-concentrating* language regime when the probability of Group A remaining in power is equal or greater than the probability of Group B coming to power ($\alpha \geq \beta$).

Proof

The following two equations must hold for the optimal language regime to be power-concentrating:

$$n_{A1}^* - n_{B1}^* \geq 0 \quad (\text{A.9})$$

$$n_{A1}^* - n_{LF1}^* \geq 0 \quad (\text{A.10})$$

Let us first test the two above equations by setting $\lambda_A = -1$:

$$n_{A1}^* = \frac{1}{4(1+\tau)^2(3+\tau^2)}$$

$$*(2(-1+\alpha)\beta(1+\tau)(-9+\tau^2)\phi_A + 4(-1+\alpha)\beta(3+\tau)\phi_A^2$$

$$+ 2(1+\tau)^2(3+\tau)(2+2(-1+\alpha)\beta+(1+\alpha(-2+\beta)-\beta)\phi_B))$$

$$n_{B1}^* = \frac{1}{20(-3+2\tau^2+\tau^4)}$$

$$*(10(-1+\alpha)\beta(1+\tau)(-9+\tau^2)\phi_A - 20(-1+\alpha)\beta(3+\tau)\phi_A^2$$

$$+ (1+\tau)(-4(3+5\tau+\tau^2-5\tau^3+5(-1+\alpha)\beta(3+4\tau+\tau^2))$$

$$- 10(1+\alpha(-2+\beta)-\beta)(3+4\tau+\tau^2)\phi_B))$$

$$n_{LF1}^* = \frac{1}{5(-1+\tau)2(1+\tau)^2(3+\tau^2)}$$

$$*(-9(2(1+\tau)^2(3+\tau^2)+5(2(-1+\alpha)\beta(1+\tau)(-9+\tau^2)\phi_A)+4(-1+\alpha)\beta$$

$$*(3+\tau)\phi_A^2+2(1+\tau)^2(3+\tau)(2+2(-1+\alpha)\beta+(1+\alpha(-2+\beta)-\beta)\phi_B)))$$

Testing for Equations A.9 and A.10 using the above values for $n_{A1}^*, n_{B1}^*, n_{LF1}^*$ yields the following:

$$n_{A1}^* - n_{B1}^* \geq 0 | \alpha \geq \beta$$

$$n_{A1}^* - n_{B1}^* = \frac{1}{5(-1+\tau)(1+\tau)^2(3+\tau^2)}$$

$$*(-1(1+\tau)^2(12+\tau(-15-10(-1+\alpha)\beta(3+\tau)+\tau(-6+5\tau)))$$

$$+ 5\tau(3+\tau)((-1+\alpha)\beta\phi_A((-3+\tau)(1+\tau)+2\phi_A)$$

$$+ (1+\alpha(-2+\beta)-\beta)(1+\tau)^2\phi_B)) \geq 0 | \alpha \geq \beta \quad \blacksquare$$

$$n_{A1}^* - n_{LF1}^* \geq 0 \mid \alpha \geq \beta$$

$$\begin{aligned} n_{A1}^* - n_{LF1}^* &= \frac{1}{10(-1+\tau)(1+\tau)^2(3+\tau^2)} \\ &\quad * (5(-1+\alpha)\beta(-3+\tau)^2(1+\tau)(3+\tau)\phi_A + 10(-1+\alpha)\beta(-9+\tau^2)\phi_A^2 \\ &\quad + (1+\tau)^2(2(5(-1+\alpha)\beta(-9+\tau^2) + 2(-9+7\tau^2) \\ &\quad + 5(1+\alpha(-2+\beta)-\beta)(-9+\tau^2)\phi_B)) \geq 0 \mid \alpha \geq \beta \quad \blacksquare \end{aligned}$$

Equations A.9 and A.10 both hold when the relative socioeconomic value of the Group A language is low *and* the probability of Group A remaining in power is greater or equal to the probability of Group B coming to power. Now setting the Group A language to a higher socioeconomic value while still under a non-convergent hierarchy ($\lambda_A = -\frac{1}{5}$) yields the following optimal choices:

$$\begin{aligned} n_{A1}^* &= \frac{1}{4(1+\tau)^2} \left(\frac{25}{31} + \frac{5}{4\tau} + \frac{1}{\tau^2} \right) \\ &\quad * (-2(-1+\alpha)\beta(1+\tau)\left(-\frac{121}{25} + \tau^2\right)\phi_A + 4(-1+\alpha)\beta\left(\frac{11}{5} + \tau\right)\phi_A^2 \\ &\quad + \frac{2}{125}(1+\tau)^2(6(53+35\tau+5(-1+\alpha)\beta(11+5\tau)) \\ &\quad + 25(1+\alpha(-2+\beta)-\beta)(11+5\tau)\phi_B)) \\ \\ n_{B1}^* &= \frac{1}{4(1+\tau)(-1+5\tau)(31+20\tau+25\tau^2)} \\ &\quad * (25(-10(-1+\alpha)\beta(1+\tau)\left(-\frac{121}{25} + \tau^2\right)\phi_A - 4(-1+\alpha)\beta(11+5\tau)\phi_A^2 \\ &\quad + \frac{2}{25}(1+\tau)(2(-35+29\tau+95\tau^2+125\tau^3-15(-1+\alpha)\beta(11+16\tau+5\tau^2)) \\ &\quad - 25(1+\alpha(-2+\beta)(11+16\tau+5\tau^2)\phi_B))) \end{aligned}$$

$$\begin{aligned}
 n_{LF1}^* &= \frac{1}{5(-\frac{1}{5}+\tau)2(1+\tau)^2(\frac{31}{25}+\frac{4\tau}{5}+\tau^2)} \\
 &\quad *(-5(2(1+\tau)^2(\frac{31}{25}+\frac{4\tau}{5}+\tau^2))+3(2(-1+\alpha)\beta(1+\tau)(-\frac{121}{25}+\tau^2)\phi_A) \\
 &\quad +4(-1+\alpha)\beta(\frac{11}{5}+\tau)\phi_A^2+\frac{2}{125}(1+\tau)^2(6(53+35\tau+5(-1+\alpha)\beta(11+5\tau)) \\
 &\quad +25(1+\alpha(-2+\beta)-\beta)(11+5\tau)\phi_B)))
 \end{aligned}$$

Again, testing for Equations A.9 and A.10:

$$n_{A1}^* - n_{B1}^* \geq 0 \mid \alpha \geq \beta$$

$$\begin{aligned}
 n_{A1}^* - n_{B1}^* &= \frac{1}{5(1+\tau)^2(-1+5\tau)(31+5\tau(4+5\tau))} \\
 &\quad *(5(-1+\alpha)\beta(1+\tau)(-11+5\tau)(2+5\tau)(11+5\tau)\phi_A \\
 &\quad +50(\alpha-1)\beta(2+5\tau)(11+5\tau)\phi_A^2+(1+\tau)^2(16+30(\alpha-1)\beta(2+5\tau)(11+5\tau) \\
 &\quad +5\tau(167+5(2-25\tau)\tau) \\
 &\quad +25(1+\alpha(-2+\beta)-\beta)(2+5\tau)(11+5\tau)\phi_B)) \geq 0 \mid \alpha \geq \beta \quad \blacksquare
 \end{aligned}$$

$$n_{A1}^* - n_{LF1}^* \geq 0 \mid \alpha \geq \beta$$

$$\begin{aligned}
 n_{A1}^* - n_{LF1}^* &\geq \frac{1}{10(1+\tau)^2(1+5\tau)(31+5\tau(4+5\tau))} \\
 &\quad (5(-1+\alpha)\beta(1+\tau)(-11+5\tau)(-7+5\tau)(11+5\tau)\phi_A \\
 &\quad +50(-1+\alpha)\beta(-7+5\tau)(11+5\tau)\phi_A^2 \\
 &\quad +(1+\tau)^2(30(\alpha-1)\beta(-7+5\tau)(11+5\tau)+4(-169+5\tau(56+115\tau)) \\
 &\quad +25(1+\alpha(-2+\beta)-\beta)(-7+5\tau)(11+5\tau)\phi_B)) \geq 0 \mid \alpha \geq \beta \quad \blacksquare
 \end{aligned}$$

PROPOSITION 3

In a non-convergent hierarchy, Group \mathcal{A} proposes a *power-neutralizing* language regime when the probability of Group \mathcal{A} remaining in power is less than the probability of Group \mathcal{B} coming to power ($\alpha < \beta$).

Proof

The following two equations must hold for the optimal language regime to be power-concentrating:

$$n_{LF1}^* - n_{A1}^* \geq 0 \quad (\text{A.11})$$

$$n_{LF1}^* - n_{B1}^* \geq 0 \quad (\text{A.12})$$

Let us first test the two above equations when the relative socioeconomic value of the Group \mathcal{A} language is low. Setting $\lambda_{\mathcal{A}} = -1$ yields the following optimal choices:

$$n_{A1}^* = \frac{1}{4(1+\tau)^2(3+\tau^2)}$$

$$\begin{aligned} & * (2(-1+\alpha)\beta(1+\tau)(-9+\tau^2)\phi_{\mathcal{A}} + 4(-1+\alpha)\beta(3+\tau)\phi_{\mathcal{A}}^2 \\ & + 2(1+\tau)^2(3+\tau)(2+2(-1+\alpha)\beta + (1+\alpha(-2+\beta)-\beta)\phi_{\mathcal{B}})) \end{aligned}$$

$$n_{B1}^* = \frac{1}{20(-3+2\tau^2+\tau^4)}$$

$$\begin{aligned} & * (10(-1+\alpha)\beta(1+\tau)(-9+\tau^2)\phi_{\mathcal{A}} - 20(-1+\alpha)\beta(3+\tau)\phi_{\mathcal{A}}^2 \\ & + (1+\tau)(-4(3+5\tau+\tau^2-5\tau^3+5(-1+\alpha)\beta(3+4\tau+\tau^2)) \\ & - 10(1+\alpha(-2+\beta)-\beta)(3+4\tau+\tau^2)\phi_{\mathcal{B}})) \end{aligned}$$

$$n_{LF1}^* = \frac{1}{5(-1+\tau)2(1+\tau)^2(3+\tau^2)}$$

$$*(-9(2(1+\tau)^2(3+\tau^2)+5(2(-1+\alpha)\beta(1+\tau)(-9+\tau^2)\phi_A)+4(-1+\alpha)\beta$$

$$*(3+\tau)\phi_A^2+2(1+\tau)^2(3+\tau)(2+2(-1+\alpha)\beta+(1+\alpha(-2+\beta)-\beta)\phi_B)))$$

Again, let us substitute the above values into Equations A.11 and A.12:

$$n_{LF1}^* - n_{A1}^* \geq 0 | \alpha < \beta$$

$$n_{LF1}^* - n_{A1}^* = \frac{-1}{10(-1+\tau)(1+\tau)^2(3+\tau^2)}$$

$$*(5(-1+\alpha)\beta(-3+\tau)^2(1+\tau)(3+\tau)\phi_A+10(-1+\alpha)\beta(-9+\tau^2)\phi_A^2$$

$$+(1+\tau)^2(2(5(-1+\alpha)\beta(-9+\tau^2)+2(-9+7\tau^2)$$

$$+5(1+\alpha(-2+\beta)-\beta)(-9+\tau^2)\phi_B)) \geq 0 | \alpha < \beta \quad \blacksquare$$

$$n_{LF1}^* - n_{B1}^* \geq 0 | \alpha < \beta$$

$$n_{LF1}^* - n_{B1}^* \geq \frac{1}{10(-1+\tau)(1+\tau)^2(3+\tau^2)}$$

$$*(5(\alpha-1)\beta(-3+\tau)(1+\tau)(3+\tau)^2\phi_A+10(\alpha-1)\beta(3+\tau)^2\phi_A^2+(1+\tau)^2$$

$$*(2(6+5(-1+\alpha)\beta(3+\tau)^2+\tau(15-\tau(8+5\tau)))$$

$$+5(1+\alpha(-2+\beta)-\beta)(3+\tau)^2\phi_B)) \geq 0 | \alpha < \beta \quad \blacksquare$$

What happens as the Group A language increases in its relative socioeconomic value? Assigning the Group A language a higher value under a non-convergent hierarchy yields the following optimal choices:

$$n_{A1}^* = \frac{1}{4(1+\tau)^2} \left(\frac{25}{31} + \frac{5}{4\tau} + \frac{1}{\tau^2} \right)$$

$$\begin{aligned}
& *(-2(-1+\alpha)\beta(1+\tau)(-\frac{121}{25}+\tau^2)\phi_A+4(-1+\alpha)\beta(\frac{11}{5}+\tau)\phi_A^2 \\
& +\frac{2}{125}(1+\tau)^2(6(53+35\tau+5(-1+\alpha)\beta(11+5\tau)) \\
& +25(1+\alpha(-2+\beta)-\beta)(11+5\tau)\phi_B)) \\
n_{B1}^* & =\frac{1}{4(1+\tau)(-1+5\tau)(31+20\tau+25\tau^2)} \\
& *(25(-10(-1+\alpha)\beta(1+\tau)(-\frac{121}{25}+\tau^2)\phi_A-4(-1+\alpha)\beta(11+5\tau)\phi_A^2 \\
& +\frac{2}{25}(1+\tau)(2(-35+29\tau+95\tau^2+125\tau^3-15(-1+\alpha)\beta(11+16\tau+5\tau^2)) \\
& -25(1+\alpha(-2+\beta)(11+16\tau+5\tau^2)\phi_B))) \\
n_{LF1}^* & =\frac{1}{5(-\frac{1}{5}+\tau)2(1+\tau)^2(\frac{31}{25}+\frac{4\tau}{5}+\tau^2)} \\
& *(-5(2(1+\tau)^2(\frac{31}{25}+\frac{4\tau}{5}+\tau^2))+3(2(-1+\alpha)\beta(1+\tau)(-\frac{121}{25}+\tau^2)\phi_A) \\
& +4(-1+\alpha)\beta(\frac{11}{5}+\tau)\phi_A^2+\frac{2}{125}(1+\tau)^2(6(53+35\tau+5(-1+\alpha)\beta(11+5\tau)) \\
& +25(1+\alpha(-2+\beta)-\beta)(11+5\tau)\phi_B)))
\end{aligned}$$

Lastly, testing for Equations A.11 and A.12:

$$\begin{aligned}
n_{LF1}^* - n_{A1}^* & \geq 0 \mid \alpha < \beta \\
n_{LF1}^* - n_{A1}^* & \geq \frac{-1}{10(1+\tau)^2(1+5\tau)(31+5\tau(4+5\tau))} \\
& (5(-1+\alpha)\beta(1+\tau)(-11+5\tau)(-7+5\tau)(11+5\tau)\phi_A \\
& +50(-1+\alpha)\beta(-7+5\tau)(11+5\tau)\phi_A^2)
\end{aligned}$$

$$\begin{aligned}
& +(1+\tau)^2(30(\alpha-1)\beta(-7+5\tau)(11+5\tau) \\
& +4(-169+5\tau(56+115\tau)) \\
& +25(1+\alpha(-2+\beta)-\beta)(-7+5\tau)(11+5\tau)\phi_B)) \geq 0 | \alpha < \beta \quad \blacksquare
\end{aligned}$$

$$n_{LF1}^* - n_{B1}^* \geq 0 | \alpha < \beta$$

$$\begin{aligned}
n_{LF1}^* - n_{B1}^* &= \frac{1}{10(-1+5\tau)(1+\tau)^2(31+5\tau(4+5\tau))} \\
& * (5(-1+\alpha)\beta(1+\tau)(-11+5\tau)(11+5\tau)^2\phi_A \\
& + 50(-1+\alpha)\beta(11+5\tau)^2\phi_A^2 - 50\tau(-11+\tau(44+25\tau)) \\
& + (1+\tau)^2(708+30(-1+\alpha)\beta(11+5\tau)^2 \\
& + 25(1+\alpha(-2+\beta)-\beta)(11+5\tau)^2\phi_B)) \geq 0 | \alpha < \beta \quad \blacksquare
\end{aligned}$$

III. DOCUMENTATION

Language Regime Change in Asia 1950-2000

In Chapter 4 I tested the effects of political shocks on language regime change. The sample is all Asian countries 1950-2000. Language regime change is a dichotomous variable (“1” if there is a change; “0”, otherwise). I code a language regime as having changed in year k if the degrees of power-concentration in years k and $k-1$ differ. This appendix provides the basis for the coding of the degree of power-concentration.

I focus on the educational language regime of country j in year k . Concentration is measured as a proportion ($n_D : n_D \in [0,1]$). Specifically, it is the number of years the dominant group language is available as a language of instruction ($x_D : x_D \in \mathbb{Z}$) over the total number of years all languages (dominant, non-dominant(s), and lingua franca) are offered as languages of instruction ($x_D + \sum_{i=1}^{g-1} x_{di} + x_{LF}$), where g is the number of linguistic groups in the country. Mathematically, this is expressed as:

$$n_D = \frac{x_D}{x_D + \sum_{i=1}^{g-1} x_{di} + x_{LF}}.$$

The implication of this mathematical expression is twofold. First, as the number of years the dominant group language is available decreases vis-à-vis the other languages ($x_D \rightarrow 0$; $x_D + \sum_{i=1}^{g-1} x_{di} + x_{LF} \rightarrow 1$), the degree of power-concentration approaches the minimum value of 0. We see this in places like India ($n_D = 0.030$), Indonesia ($n_D = 0.059$), and the Philippines ($n_D = 0.067$). Second, in contrast, as the availability of the dominant group language increases relative to the other languages ($x_D \rightarrow 1$; $x_D + \sum_{i=1}^{g-1} x_{di} + x_{LF} \rightarrow 1$), the degree of power-concentration approaches the maximum value of 1. Examples of complete power-concentration ($n_D = 1.000$) include Burma, Laos, and Taiwan.

AFGHANISTAN

Duration of Education: *Before 1975*: 6 +3+3 = **12**¹
Between 1975-1979: 8+4 = **12**¹
Since 1979: 4+4+2 = **10**¹

Language of Dominant Group: **Pashto**

Year	Concentration	Comments
1950-1978	12/24 = 0.500	Prior to 1979, the medium of instruction at both the primary and secondary levels is either Pashto or Dari depending on the locality. The other language is a compulsory subject (at least at the primary level). ¹
1979	10/32 = 0.313	Implementation of the 1975 Education Policy, including reduction of education from 12 years to 10 years to accommodate expansion in the numbers in the first grade; education is also now available through five Afghan languages (Pashto, Dari, Uzbek, Turkmen, and Baluchi). Pashto and Dari remain the languages of instruction at the secondary level. ¹
1980-1983	10/32 = 0.313	No evidence of change. ¹
1984-1994	10/32 = 0.313	No evidence of change. ²
1995-2000	<i>Minimum:</i> 0/0 = 0.000 <i>Maximum:</i> 10/32 = 0.313	The Taliban comes to power in 1995 and bans the 1990 Constitution. Girls are prohibited from going to school and many schools are forced to close. Those that remain open continue to teach in the regional language. ²

Sources:

¹ Cowen, Robert and Martin McLean, eds. 1983. *International Handbook of Education Systems: Asia, Australasia, and Latin America*. Chichester: John Wiley & Sons.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/afghanistan.htm> (8 October 2007).

ARMENIA

Duration of Education: 4+6= **10**¹

Language of Dominant Group: **Armenian**

Year	Concentration	Comments
1991-1992		Transition.
1993	10/10 = 1.000	While the 1993 Law on the Language grants linguistic minorities the opportunity to study in their mother tongue, the Armenian government has devoted minimal resources. There are only 3 Russian schools. ²
1994	10/10 = 1.000	No evidence of change. ²
1995	10/10 = 1.000	1995 Constitution (Article 2) states that the language of teaching in Armenia must be Armenian. ²
1996-2000	10/10 = 1.000	No evidence of change. ²

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asiie/armenie.htm> (8 October 2007).

AZERBAIJAN

Duration of Education: 4+7= **11**¹

Language of Dominant Group: **Azeri**

Year	Concentration	Comments
1991		Transition.
1992	11/26 = 0.423	1992 Law on Education (Article 3) provides ethnic groups living together the right to having educational establishments in their mother tongues. ² For example, provisions are being made to offer instruction in the first four years in Georgian in Goragan. ³
1993-2000	11/26 = 0.423	No evidence of change. The 1995 Constitution (Article 45) grants citizens the right to receive language of instruction in their mother tongue. While this is the case, two caveats warrant mention: (1) All children must still learn Azerbaijan civics; and (2) the Russian population is the only population that can receive education in their mother tongue at all levels. ²

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asia/azerbaidjan.htm> (8 October 2007).

³ Landau, Jacob M. and Barbara Kellner-Heinkele. 2001. *Politics of Language in the ex-Soviet Muslim States*. Ann Arbor: The University of Michigan Press.

BAHRAIN

Duration of Education: 6+3+3 = **12**¹

Language of Dominant Group: **Arabic**

Year	Concentration	Comments
1971-2000	12/12 = 1.000	The language of public education in Bahrain is Classical Arabic. Even local private schools are by law (since 1998) to teach in Arabic; and while foreign private schools are allowed to teach in their local languages, education in Arabic is still mandatory. ¹

Source:

¹ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/bahrein.htm> (9 July 2007).

BANGLADESH

Duration of Education: 5+3+2+2 = 12¹

Language of Dominant Group: **Bengali**

Year	Concentration	Comments
1972	12/12 = 1.000	Following independence, the government promotes the use of Bengali via the Bangla Academy and refuses to recognize the existence of non-Bengali people as distinct cultural communities. ²
1973-2000	12/12 = 1.000	No evidence of change: Bengali is the language of instruction at both the primary and secondary levels. ¹ Furthermore, there have been no official attempts to give instruction to non-Bengali communities in their own languages, even at the primary level. ²

Sources:

¹ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tfq.ulaval.ca/axl/asie/bangladesh.htm> (9 July 2007).

² Mohsin, Amena. 2003. "Language, Identity, and the State in Bangladesh," in *Fighting Words: Language Policy and Ethnic Relations in Asia*, Michael E. Brown and Sumit Ganguly, eds. Cambridge: The MIT Press.

BHUTAN

Duration of Education: 7+4 = 11¹

Language of Dominant Group: **Dzongkha**

Year	Concentration	Comments
1950-1951	0/11 = 0.000	See 1952-1972.
1952-1972	7/11 = 0.636	In an attempt to weaken the influence of the Nepalese immigrants, King Jigme Dorji Wangchuk and King Jigme Singye Wangchuk impose Dzongkha as the language of instruction at the primary level. English remains the language of secondary education. ²
1973-1989	7/11 = 0.636	No evidence of change. ^{2,3}
1990-2000	7/11 = 0.636	Nepalese community launches violent oppositions against the authorities for the use of Dzongkha. As a result, all schools in the south close. While some schools have reopened, priority goes first to the Dzongkha children, leaving few openings for the Nepalese children. There is no instruction in Nepali. ³ At the primary level, Dzongkha is the language of instruction and English is gradually introduced. At the secondary level, English becomes the language of instruction and Dzongkha is a required class. ²

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/bhoutan.htm> (11 October 2007).

³ Human Rights Watch. 2007. *Discrimination against Ethnic Nepali Children in Bhutan*. New York: Human Rights Watch. <http://hrw.org/backgrounders/crd/2007/bhutan1007> (11 October 2007).

BRUNEI

Duration of Education: 6+5 = **11**¹

Language of Dominant Group: **Malay**

Year	Concentration	Comments
1984		Transition.
1985-2000	11/19 = 0.579	1985 National Program of Education integrates the English and Malay education systems. Since then, in the first three years of primary education, the language of instruction is Malay, and English is a school subject. Starting in the fourth grade, there is a bilingual curriculum where both Malay and English are used as languages of instruction. Malay is used to Malay, Islamic education, culture, and arts; English is used to teach English, sciences, math, geography, and history.

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asiie/brunei.htm> (11 October 2007).

BURMA

Duration of Education: 5+6 = **11**¹

Language of Dominant Group: **Burmese**

Year	Concentration	Comments
1950-1962	11/11 = 1.000	During the “parliamentary era”, Burmese becomes the sole language of instruction in primary and secondary schools, thereby undercutting Chinese and Hindi influences. ²
1963-2000	11/11 = 1.000	While the 1974 Constitution (Article 152) states the equality of minority language, Burmese remains the only language of instruction. ³ In 1998, the government shuts down 120 Mon schools; and while negotiation allows the schools to reopen, teaching Mon is still not allowed. ²

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Callahan, Mary P. 2003. “Language Policy in Modern Burma,” in *Fighting Words: Language Policy and Ethnic Relations in Asia*, Michael E. Brown and Sumit Ganguly, eds. Cambridge: The MIT Press.

³ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/birmanie.htm> (6 July 2007).

CAMBODIA

Duration of Education: 6+6 = **12**¹

Language of Dominant Group: **Khmer**

Year	Concentration	Comments
1953-1974	<i>Minimum:</i> $6/23 = 0.207$ <i>Maximum:</i> $6/17 = 0.353$	“[Primary] instruction is in Khmer and also in French, which is introduced in the second year.” French is the language of secondary instruction. ² Vietnamese is also used as a language of instruction. ³
1975	$12/12 = 1.000$	Khmer Rouge bans Vietnamese and Chinese from schools
1976-2000	$12/12 = 1.000$	No evidence of change. ³

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Deighton, Lee C., ed. 1971. “Cambodia,” in *The Encyclopedia of Education*. New York: The Macmillan Company & The Free Press.

³ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asi/cambodge.htm> (6 July 2007).

CHINA

Duration of Education: 4+2+3+3= 12¹

Language of Dominant Group: **Putonghua**

Year	Concentration	Comments
1950	12/96 = 0.125	See 1951-1957.
1951-1957	12/96 = 0.125	The 1951 All-China Minorities Education Conference advocates the teaching of all minority languages (with a written system) at the primary and secondary levels; those without written languages would be given help to reform their language. The Chinese Communist Party realizes that its consolidation of power could only come after learning more about the minorities, there is significant interest in Beijing in minority languages in the early 1950s and there is no compulsion to learn Putonghua. <i>Note:</i> Government documents are regularly translated into seven minority languages (Kazakh, Korean, Mongolian, Tibetan, Uygur, Yi, and Zhuang). ²
1958-1965	<i>Minimum:</i> 12/96 = 0.125 <i>Maximum:</i> 12/12 = 1.000	While language issues are not the driving force behind the Great Leap Forward, the government's toleration of ethnicity diversity decreases and Beijing requires ethnic minorities to learn Putonghua. ²
1966-1971	12/12 = 1.000	Cultural Revolution begins and launches attack on minority languages. Beginning in 1967, Mongol, Tibetan, Uygur, and Zhuang books began to disappear from bookstores. ²
1972	12/19 = 0.632	By 1972 the number of primary and secondary schools using minority languages increases. ²
1973	<i>Minimum:</i> 12/26 = 0.462 <i>Maximum:</i> 12/19 = 0.632	See 1972.
1974	<i>Minimum:</i> 12/33 = 0.364 <i>Maximum:</i> 12/19 = 0.632	See 1972.
1975	<i>Minimum:</i> 12/40 = 0.300 <i>Maximum:</i> 12/19 = 0.632	See 1972.

1976	<i>Minimum:</i> $12/40 = 0.300$ <i>Maximum:</i> $12/19 = 0.632$	See 1972.
1977	<i>Minimum:</i> $12/40 = 0.300$ <i>Maximum:</i> $12/19 = 0.632$	See 1972.
1978	<i>Minimum:</i> $12/40 = 0.300$ <i>Maximum:</i> $12/26 = 0.462$	See 1972.
1979	<i>Minimum:</i> $12/40 = 0.300$ <i>Maximum:</i> $12/33 = 0.364$	See 1972.
1980-2000	$12/40 = 0.300$	By 1980, it was standard for minorities to learn both their language and Putonghua. Schools in minority areas would start teaching children in their native languages starting in kindergarten or first grade, and Putonghua would be introduced gradually until it became the main and exclusive language of instruction at the secondary levels. ^{2,3}

Sources:

- ¹ Cowen, Robert and Martin McLean, eds. 1983. *International Handbook of Education Systems: Asia, Australasia, and Latin America*. Chichester: John Wiley & Sons.
- ² Dreyer, June Teufel. 2003. "The Evolution of Language Policies in China," in *Fighting Words: Language Policy and Ethnic Relations in Asia*, Michael E. Brown and Sumit Ganguly, eds. Cambridge: The MIT Press.
- ³ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asia/chine.htm> (8 October 2007).

CYPRUS

Duration of Education: 6+6 = **11**¹

Language of Dominant Group: **Greek (Hellenic)**

Year	Concentration	Comments
1960		The 1960 Constitution made no provisions for the language of instruction. ²
1961-2000	11/11 = 1.000	Greek is the primary language of instruction; and English, the second language. ²

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asia/chypresud.htm> (10 October 2007).

GEORGIA

Duration of Education: 4+7= **11**¹

Language of Dominant Group: **Georgian (Kartuli)**

Year	Concentration	Comments
1991-1996		Transition.
1997	<i>Minimum:</i> $11/66 = 0.167$ <i>Maximum:</i> $11/38 = 0.289$	1997 Law on Education states that Georgians have the right to choose the language of instruction at both the primary and secondary levels. If Georgian is not the mother tongue, students can receive instruction in their mother tongue as long as Georgian is a second language. The purpose of this emphasis is to decrease the number of minority students in Russian schools. Primary education is available in Georgian, Russian, Abkhazian, Ossetian, Armenian, and Azeri.
1998-2000	<i>Minimum:</i> $11/66 = 0.167$ <i>Maximum:</i> $11/38 = 0.289$	No evidence of change. ²

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfg.ulaval.ca/axl/asiel/georgie.htm> (8 October 2007).

INDIA

Duration of Education: 5+3+3= **11**¹

Language of Dominant Group: **Hindi**

Year	Concentration	Comments
1950	$11/363 = 0.030$	1950 Constitution (Article 345) states that each state can choose one or more languages for its school system. ² Groups that do not speak the state language are protected constitutionally as all children may receive primary education in their mother tongue (Article 350A). ^{2,3}
1951-2000	$11/363 = 0.030$	No evidence of change: While constitution provides for English for only a period of 15 years, every 15 years Parliament reinstates English as an official language. ³ As such, Hindi and English continue to remain as the two languages at the top of the linguistic hierarchy: the former is the language of the ruling class and the majority, while the latter is considered the neutral language of communication. ²

Sources:

- ¹ Cowen, Robert and Martin McLean, eds. 1983. *International Handbook of Education Systems: Asia, Australasia, and Latin America*. Chichester: John Wiley & Sons.
- ² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/inde.htm> (9 July 2007).
- ³ Stuligross, David and Ashutosh Varshney. 2002. "Ethnic Diversities, Constitutional Designs, and Public Policies in India," in *The Architecture of Democracy: Constitutional Design, Conflict Management, and Democracy*, Andrew Reynolds, ed. Oxford: Oxford University Press.

INDONESIA

Duration of Education: 6+3+3= **12**¹

Language of Dominant Group: **Javanese**

Year	Concentration	Comments
1950	<i>Minimum:</i> $3/51 = 0.059$ <i>Maximum:</i> $3/42 = 0.714$	1950 Law Number 4 states that Indonesian is the language of communication in all the schools. In kindergartens and in the first three years of primary schools, the regional languages can be used as languages of instruction. The number of regional languages also used as language of instruction differs across author accounts; but at a minimum, 6 other regional languages are used, and at a maximum, 9 other regional languages. ²
1951	<i>Minimum:</i> $3/51 = 0.059$ <i>Maximum:</i> $3/42 = 0.714$	No evidence of change. ^{2,3}
1952	<i>Minimum:</i> $3/39 = 0.077$ <i>Maximum:</i> $3/30 = 0.100$	Indonesian government takes over all Dutch medium schools. ²
1953-2000	<i>Minimum:</i> $3/39 = 0.077$ <i>Maximum:</i> $3/30 = 0.100$	No evidence of change: Subsequent laws maintain the status quo, including 1954 Law Number 12, 1989 Law Number 2, and 2003 Law Number 20. ^{2,3}

Sources:

¹ Cowen, Robert and Martin McLean, eds. 1983. *International Handbook of Education Systems: Asia, Australasia, and Latin America*. Chichester: John Wiley & Sons.

² Kaplan, Robert B. and Richard B. Baldauf, Jr. 2003. *Language and Language-in-Education Planning in the Pacific Basin*. Dordrecht: Kluwer Academic Publishers.

³ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfg.ulaval.ca/axl/asie/indonesie.htm> (6 July 2007).

IRAN

Duration of Education: *Before 1964*: $6+3+3 = 12$ ¹
Since 1964: $5+3+3+1 = 12$ ¹

Language of Dominant Group: **Persian (Farsi)**

Year	Concentration	Comments
1950-1978	$12/24 = 0.500$	Language of instruction in Persian and English. ²
1979	$12/12 = 1.000$	1979 Constitution (Article 15) states that all textbooks must be published in Persian. ³ The sole language of instruction is Persian. ⁴
1980-2000	$12/12 = 1.000$	No evidence of change. ³

Sources:

- ¹ Deighton, Lee C, ed. 1971. "Iran," in *The Encyclopedia of Education*. New York: The Macmillan Company & The Free Press.
- ² Knowles, Asa S, ed. 1977. "Iran," in *The International Encyclopedia of Higher Education*. San Francisco: Jossey-Bass Publishers.
- ³ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/iran.htm> (11 October 2007).
- ⁴ Husen, Torsten and T. Neville Postlethwaite, eds. 1985. "Iran: System of Education," in *The International Encyclopedia of Education*. Oxford: Pergamon Press.

IRAQ

Duration of Education: 6+6 = **12**¹

Language of Dominant Group: **Arabic**

Year	Concentration	Comments
1950-1969	<i>Minimum:</i> $12/24 = 0.500$ <i>Maximum:</i> $12/12 = 1.000$	Arabic and English are both the languages of instruction at the university level. ² Uncertain over the language of instruction at the pre-university levels.
1970-2000	$12/12 = 1.000$	From a de jure standpoint, the 1970 Constitution (subsequently modified on several occasions) recognizes two nations (Arab and Kurdish) and the official use of the two languages; from a de facto standpoint, it has been about forced Arabization. Classical Arabic is the only language of the schools. While Kurdish is taught within the Kurdish zone, this is strictly the result of American and British military presence. ³

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Knowles, Asa S, ed. 1977. "Iraq," in *The International Encyclopedia of Higher Education*. San Francisco: Jossey-Bass Publishers.

³ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/irak.htm> (11 October 2007).

ISRAEL

Duration of Education: 6 +3+3= **12** ¹

Language of Dominant Group: **Hebrew**

Year	Concentration	Comments
1950-1952		Transition.
1953	12/24 = 0.500	1953 Law on Official Education creates two types of schools: religious and secular. In practice, this law has resulted in two sets of schools, one for the Jewish children and one for the Arab children. ²
1980-1983	12/24 = 0.500	No evidence of change. ²
1996	12/24 = 0.500	Memo from the Minister of Education preserves the dual system. ²
1997-2000	12/24 = 0.500	No evidence of change. ²

Sources:

¹ Holmes, Brian, ed. 1983. *International Handbook of Education Systems: Europe and Canada*. Chichester: John Wiley & Sons.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asia/israel.htm> (9 July 2007).

JAPAN

Duration of Education: 6+3+3 = **12**¹

Language of Dominant Group: **Japanese**

Year	Concentration	Comments
1952	12/12 = 1.000	In 1947, Ministry of Education develops a core structure in which Japanese is taught across the curriculum. In 1948, Ministry of Education establishes Japanese National Language Research Institute for the “rationalization of the Japanese language.” Primary responsibility is “to make recommendations to the Ministry of Education with respect to language planning only for Japanese.” (20) ²
1953-2000	12/12 = 1.000	No evidence of change. ^{2,3}

Sources:

- ¹ Cowen, Robert and Martin McLean, eds. 1983. *International Handbook of Education Systems: Asia, Australasia, and Latin America*. Chichester: John Wiley & Sons.
- ² Kaplan, Robert B. and Richard B. Baldauf, Jr. 2003. *Language and Language-in-Education Planning in the Pacific Basin*. Dordrecht: Kluwer Academic Publishers.
- ³ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/japon.htm> (6 July 2007).

JORDAN

Duration of Education: 6+3+3 = **12**¹

Language of Dominant Group: **Southern Levantine Arabic**

Year	Concentration	Comments
1950-2000	0/12 = 0.000	While the 1952 Constitution is silent about the language of instruction, the language of instruction at the primary and secondary levels is Classical Arabic. Subsequent Laws of Education (1964) and National Plans have continued along this trajectory. ^{1,2}

Sources:

¹ Cameron, John and Paul Hurst, eds. 1983. *International Handbook of Education Systems: Africa and the Middle East*. Chichester: John Wiley & Sons.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asia/jordanie.htm> (9 July 2007).

KAZAKHSTAN

Duration of Education: 4+7= **11**¹

Language of Dominant Group: **Kazakh**

Year	Concentration	Comments
1991-1992		Transition.
1993	11/22 = 0.500	The 1993 Constitution guarantees the right to education in Kazakh or Russian for all levels of instruction. ^{2,3,4}
1994-2000	11/22 = 0.500	No evidence of change. ^{2,3,4}

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/kazakhstan.htm> (9 July 2007).

³ Grenoble, Lenore A. 2003. *Language Policy in the Soviet Union*. Dordrecht: Kluwer Academic Publishers.

⁴ Fierman, William. 2006. "Language and Education in Post-Soviet Kazakhstan: Kazakh Medium Instruction in Urban Schools." *The Russian Review* 65: 98-116.

KUWAIT

Duration of Education: 4+8 = **12**¹

Language of Dominant Group: **Gulf Arabic**

Year	Concentration	Comments
1963-2000	0/12 = 0.000	1962 Constitution (Article 3) states Arabic as the official language of Kuwait. And since then, the only language of instruction in schools is Classical Arabic. ²

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tfq.ulaval.ca/axl/asia/koweit.htm> (9 July 2007).

KYRGYZSTAN

Duration of Education: 4+7 = **11**¹

Language of Dominant Group: **Kyrgyz**

Year	Concentration	Comments
1991	11/33 = 0.333	Central Committee passes a bill in 1988 titled “The Continuing Development of National-Russian Bilingualism and the Improvement of the Study and Teaching of Kyrgyz, Russian, and Other Languages of the Peoples of the Soviet Union in the Republic.” Prior to independence, there were 983 Kyrgyz schools, 274 Russian schools, and 116 Uzbek schools. ² No evidence of change immediately upon independence. ^{2,3}
1992	11/33 = 0.333	Law on Education (Article 21) states the official language is the language of public instruction. Furthermore, in zones where there are concentrated minorities, access to education in their mother tongue is guaranteed. ³ In Osh, for example, where there is a large Uzbek population, Uzbek is a language of instruction. ²
1993-2000	11/33 = 0.333	No evidence of change. ^{2,3}

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Landau, Jacob M. and Barbara Kellner-Heinkele. 2001. *Politics of Language in the ex-Soviet Muslim States*. Ann Arbor: The University of Michigan Press.

³ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfg.ulaval.ca/axl/asia/kirghizistan.htm> (9 July 2007).

LAOS

Duration of Education: 5+3+3 = **11** ¹

Language of Dominant Group: **Lao**

Year	Concentration	Comments
1954	11/11 = 1.000	To solidify the Laotian identify, the government standardizes Lao as the medium of instruction. ²
1955-1975	11/11 = 1.000	Language policy is not an issue during the war between the royalists and the communists. ²
1975	11/11 = 1.000	The new communist government continues to use Laotian as the only language of instruction.
1976-1990	11/11 = 1.000	No evidence of change. ^{1,2}
1991	11/11 = 1.000	The 1991 Constitution (Article 75) legally authorizes Lao as the only language of instruction; instruction in minority language is neither permitted nor tolerated. ¹
1992-2000	11/11 = 1.000	No evidence of change. ^{1,2}

Sources:

¹ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/laos.htm> (6 July 2007).

² Keyes, Charles F. 2003. "The Politics of Language in Thailand and Laos," in *Fighting Words: Language Policy and Ethnic Relations in Asia*, Michael E. Brown and Sumit Ganguly, eds. Cambridge: The MIT Press.

LEBANON

Duration of Education: 5+7 = **12**¹

Language of Dominant Group: **Arabic**

Year	Concentration	Comments
1950-2000	<i>Minimum:</i> $12/22 = 0.545$ <i>Maximum:</i> $12/16 = 0.750$	<p>The 1943 Constitution (Article 10) allows for the freedom of the language of instruction. This has in turn supported a private French education system to meet the demands. As for the public Arabic education system, in the first two years of primary school, students can receive schooling in their mother tongue (including another Arabic dialect). Starting the third year, however, the teaching of instruction becomes Classical Arabic. At the secondary level, all Lebanese public schools are taught in Arabic.</p> <p><i>Note:</i> While the Armenians and the Kurds have the right to teach in Armenian and Kurdish, it is not certain if this is over the first two years as well or through the primary level.</p>

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/liban.htm> (11 October 2007).

MALAYSIA

Duration of Education: 6+7= **13**¹

Language of Dominant Group: **Malay (Bahasa Melayu)**

Year	Concentration	Comments
1957	$6/31 = 0.194$	1957 Education Ordinance creates two types of schools: (1) standard primary schools with Bahasa Melayu as the medium of instruction; and (2) standard-type primary schools with Mandarin or Tamil as the medium of instruction. ² English remains a language of primary education but the sole language of secondary education. ³
1958	$7/32 = 0.219$	The first Malay secondary school is established and rapidly expands with students completing their Lower Certification of Education (Form V) in 1962. ³
1959	$8/33 = 0.242$	See 1958.
1960	$9/34 = 0.265$	See 1958.
1961	$10/35 = 0.286$	See 1958. The 1961 Education Act reverses the 1957 Education Ordinance and reaffirms the goal of using Bahasa Melayu and English as the principle medium of instructions in all government schools. ²
1962	$11/36 = 0.306$	See 1958.
1963	$12/37 = 0.324$	See 1958. No evidence of change. ^{1,2,3,4}
1964	$13/38 = 0.342$	See 1958. No evidence of change. ^{1,2,3,4}
1965-1968	$13/38 = 0.342$	No evidence of change. ^{1,2,3,4}
1969	$13/38 = 0.342$	Following the 1969 riots, the National Operation Council recommends the New Economic Policy (NEP), which calls for the conversion of all English-medium schools to Bahasa Melayu. Chinese and Tamil-language primary schools are allowed to stay open with government funding. ²
1970-1971	$13/38 = 0.342$	No evidence of change. ^{1,2,3,4}
1972	$13/38 = 0.342$	1972 is the final year of full English-medium education. English-medium education begins to phase out slowly over a period of 14 years. ³
1973	<i>Minimum:</i> $13/37 = 0.351$ <i>Maximum:</i> $13/34 = 0.382$	See 1972: Phasing.
1974	<i>Minimum:</i> $13/36 = 0.361$ <i>Maximum:</i> $13/33 = 0.394$	See 1972: Phasing.

1975	$13/32 = 0.406$	English-medium primary schools are fully converted into Bahasa Melayu-medium primary schools. ^{1,4}
1976	$13/29 = 0.448$	English-medium lower secondary courses (Forms I, II, and III) are all converted in Bahasa-Melayu. ⁴
1977	$13/28 = 0.464$	See 1972 and 1976: Phasing.
1978	$13/27 = 0.481$	Bilingual program in upper secondary (Forms IV and V) ends. ⁴
1979	$13/25 = 0.520$	All secondary education is in Bahasa Melayu. ¹
1980-2000	$13/25 = 0.520$	No evidence of change. ^{2,3,4,5}

Sources:

- ¹ Cowen, Robert and Martin McLean, eds. 1983. *International Handbook of Education Systems: Asia, Australasia, and Latin America*. Chichester: John Wiley & Sons.
- ² Ganguly, Sumit. 2003. "The Politics of Language Policies in Malaysia and Singapore," in *Fighting Words: Language Policy and Ethnic Relations in Asia*, Michael E. Brown and Sumit Ganguly, eds. Cambridge: The MIT Press.
- ³ Kaplan, Robert B. and Richard B. Baldauf, Jr. 2003. *Language and Language-in-Education Planning in the Pacific Basin*. Dordrecht: Kluwer Academic Publishers.
- ⁴ Burhanudeen, Hafriza. 2006. *Language and Social Behavior: Voices from the Malay World*. Dissertation. Bangi: Universiti Kebangsaan Malaysia.
- ⁵ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/malaisie.htm> (6 July 2007).

MONGOLIA

Duration of Education: 4+6 = **10**¹

Language of Dominant Group: **Mongol (Khalkha)**

Year	Concentration	Comments
1950-1991	10/10 = 1.000	Mongol is the only language of instruction. ²
1992	<i>Minimum:</i> 10/19 = 0.526 <i>Maximum:</i> 10/42 = 0.667	While the 1992 Constitution (Article 8) grants protection to linguistic minorities, only the Kazakhs have bilingual schooling at the primary level and partially at the secondary. ²
1993-2000	<i>Minimum:</i> 10/19 = 0.526 <i>Maximum:</i> 10/42 = 0.667	No evidence of change. ²

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asiel/mongolie.htm> (6 July 2007).

NEPAL

Duration of Education: 3+4+3 = 10¹

Language of Dominant Group: **Nepali**

Year	Concentration	Comments
1950-1956	10/40 = 0.250	Up until 1957, several languages are used as language of instruction. In addition to English and Nepali, Hindi is used predominantly in the southern plains of Nepal, and Newari in the Kathmandu valley. ²
1957	10/20 = 0.500	Beginning 1957, all local languages are prohibited and replaced by Nepali. ² English, however, remains a language of instruction. ³
1958-1970	10/20 = 0.500	No evidence of change.
1971-1976	10/10 = 1.000	First attempt at standardization: National Education System declares Nepali as the only language of instruction—even in the English private schools. ³
1977-1989	10/10 = 1.000	No evidence of change. ^{2,3}
1990	10/10 = 1.000	1990 Constitution (Article 18) guarantees the right to primary education in first language; from a de facto standpoint, however, this is not the case. ^{2,3}
1991-2000	10/10 = 1.000	No evidence of change.

Sources:

- ¹ Cowen, Robert and Martin McLean, eds. 1983. *International Handbook of Education Systems: Asia, Australasia, and Latin America*. Chichester: John Wiley & Sons.
- ² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asia/nepal.htm> (9 July 2007).
- ³ Eagle, Sonia. 2000. "The Language Situation in Nepal," in *Language Planning in Nepal, Taiwan and Sweden*, Richard B. Baldauf, Jr. and Robert B. Kaplan, eds. Clevedon: Multilingual Matters Limited.

NORTH KOREA

Duration of Education: **10**¹

Language of Dominant Group: **Korean (Hangŭl)**

Year	Concentration	Comments
1950	10/10 = 1.000	As early as 1947, Hangŭl is the only language of education, and its use is mandatory. ²
1951-2000	10/10 = 1.000	No evidence of change. ^{1,2}

Sources:

¹ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/coree-nord.htm> (6 July 2007).

² Kaplan, Robert B. and Richard B. Baldauf, Jr. 2003. *Language and Language-in-Education Planning in the Pacific Basin*. Dordrecht: Kluwer Academic Publishers.

OMAN

Duration of Education: 6+3+3 = **12**¹

Language of Dominant Group: **Arabic**

Year	Concentration	Comments
1950-2000	12/12 = 1.000	The language of instruction in all government schools at all levels is classical Arabic. ^{1,2}

Sources:

¹ Cameron, John and Paul Hurst, eds. 1983. *International Handbook of Education Systems: Africa and the Middle East*. Chichester: John Wiley & Sons.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asia/oman.htm> (10 October 2007).

PAKISTAN

Duration of Education: 5+3+2+2 = 12¹

Language of Dominant Group: Urdu

Year	Concentration	Comments
1947	0/12 = 0.000	The 1947 Constitution keeps English as the official language because of the linguistic diversity within Pakistan. ²
1948	12/37 = 0.324	The Advisory Board of Education agrees that Urdu or a regional language will be the language of primary education; however, only Urdu is an approved language at the secondary level. ^{2,3} English is presumed to remain a language of primary instruction as well (see 1949-1971).
1949-1971	12/37 = 0.324	Lots of failed attempts: co-nationalizing Bengali (1956), replacing Sindhi (1961); and phasing out English (1969). At the end of the day, no evidence of change. ^{2,3,4}
1972	12/32 = 0.375	Bengali loses regional language status with the secession of Bangladesh.
1973-2000	12/32 = 0.375	No evidence of change. ^{2,4}

Sources:

- ¹ Cowen, Robert and Martin McLean, eds. 1983. *International Handbook of Education Systems: Asia, Australasia, and Latin America*. Chichester: John Wiley & Sons.
- ² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/pakistan.htm> (9 July 2007).
- ³ Husen, Torsten and T. Neville Postlethwaite, eds. 1985. "Pakistan: System of Education," in *The International Encyclopedia of Education*. Oxford: Pergamon Press.
- ⁴ Alyres, Alyssa. 2003. "The Politics of Language Policy in Pakistan," in *Fighting Words: Language Policy and Ethnic Relations in Asia*, Michael E. Brown and Sumit Ganguly, eds. Cambridge: The MIT Press.

PHILIPPINES

Duration of Education: 6+4 = **10**¹

Language of Dominant Group: **Tagalog**

Year	Concentration	Comments
1950-1956	0/10 = 0.000	Following World War II, Spanish disappears. In 1946, Tagalog is taught in all grades but only as a subject rather than as a medium of communication. Even with methodological improvements in 1957-1958, English remains the language of instruction and Tagalog remains a subject. ^{2,3}
1957-1958	<i>Minimum:</i> 2/30 = 0.067 <i>Maximum:</i> 2/20 = 0.100	In accordance with UNESCO, local and regional vernaculars are used in the first and second grades; English becomes the primary language of instruction from grade 3 and on. ^{3,4}
1959-1973	<i>Minimum:</i> 2/30 = 0.067 <i>Maximum:</i> 2/20 = 0.100	No evidence of change: The National Board of Education recommends Pilipino to be the language of instruction in all primary grades in all schools, ³ but a study committee postpones the recommendations. ⁴ Vernacular languages continue to be used as languages of instruction in grades 1 and 2. ⁴
1974	10/20 = 0.500	In 1974, the National Board of Education mandates a bilingual curriculum where science and math are taught in English and all other subjects in Pilipino. ³
1975-1986	10/20 = 0.500	No evidence of change. ^{2,3,4,5}
1987	10/20 = 0.500	The 1987 Constitution states that the official language of instruction is Filipino and (up until it is decided otherwise) English. Furthermore, the regional languages must serve as auxiliary vehicles of instructions in their respective regions. ^{4,5} Note, however, that this should be no construed to mean that initial literacy is taught in the local vernaculars. ³
1988-2000	10/20 = 0.500	No evidence of change. ^{2,3,4,5}

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Gonzalez, Andrew. 1999. "The Language Planning Situation in the Philippines." In *Language Planning in Malawi, Mozambique, and the Philippines*, Robert B. Kaplan and Richard B. Baldauf, Jr. eds. Clevedon: Multilingual Matters Limited.

³ Kaplan, Robert B. and Richard B. Baldauf, Jr. 2003. *Language and Language-in-Education Planning in the Pacific Basin*. Dordrecht: Kluwer Academic Publishers.

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- ⁴ Hau, Caroline S. and Victoria L. Tinio. 2003. "Language Policy and Ethnic Relations in the Philippines," in *Fighting Words: Language Policy and Ethnic Relations in Asia*, Michael E. Brown and Sumit Ganguly, eds. Cambridge: The MIT Press.
- ⁵ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asia/philippines.htm> (6 July 2007).

QATAR

Duration of Education: 6+3+3 = **12**¹

Language of Dominant Group: **Arabic**

Year	Concentration	Comments
1971-2000	12/12 = 0.000	While the government and public administration runs in Gulf Arabic, the language of public instruction in Qatar is Classical Arabic. English is introduced as a second language in the last two years of primary school. ²

Source:

¹ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval.
<http://www.tlfq.ulaval.ca/axl/asia/qatar.htm> (9 July 2007).

RUSSIA

Duration of Education: 4+7 = **11**¹

Language of Dominant Group: **Russian**

Year	Concentration	Comments
1992	<i>Minimum:</i> 11/55 = 0.200 <i>Maximum:</i> 11/33 = 0.333	1992 Law on Education (Article 6) states that citizens of Russia have the right to receive instruction in their mother tongue. ²
1993-2000	<i>Minimum:</i> 11/55 = 0.200 <i>Maximum:</i> 11/33 = 0.333	While subsequent laws have maintained the status quo (including 1996 Law on Cultural Autonomy, Article 10), Russian remains a compulsory subject and is the main vehicle of instruction at the primary and secondary levels. ²

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/russie.htm> (8 October 2007).

SAUDI ARABIA

Duration of Education: 6+3+3 = **12**¹

Language of Dominant Group: **Najdi Arabic**

Year	Concentration	Comments
1950-2000	0/12 = 0.000	The only language of instruction in all Saudi schools is Classical Arabic. ^{1,2}

Sources:

¹ Cameron, John and Paul Hurst, eds. 1983. *International Handbook of Education Systems: Africa and the Middle East*. Chichester: John Wiley & Sons.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asia/arabie-saoudite.htm> (10 October 2007).

SINGAPORE

Duration of Education: 6+6= **12**¹

Language of Dominant Group: **Chinese**

Year	Concentration	Comments
1959	12/48 = 0.250	After World War II, the British fashioned a 10-year program that promoted schooling in Chinese, Malay, and Tamil, while expanding English-language instruction. ²
1960-1964	12/48 = 0.250	No evidence of change. ^{2,3,4}
1965	12/48 = 0.250	After its ouster from the Malaysian Federation, the government maintains the status quo: English, Chinese, Malay, and Tamil remain the languages of instruction at both the primary and secondary levels. ²
1966-2000	12/48 = 0.250	No evidence of change: PAP's language policy from the 1960s has lasted until the present day. ^{2,3,4}

Sources:

- ¹ Cowen, Robert and Martin McLean, eds. 1983. *International Handbook of Education Systems: Asia, Australasia, and Latin America*. Chichester: John Wiley & Sons.
- ² Ganguly, Sumit. 2003. "The Politics of Language Policies in Malaysia and Singapore," in *Fighting Words: Language Policy and Ethnic Relations in Asia*, Michael E. Brown and Sumit Ganguly, eds. Cambridge: The MIT Press.
- ³ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/singapour.htm> (6 July 2007).
- ⁴ Kaplan, Robert B. and Richard B. Baldauf, Jr. 2003. *Language and Language-in-Education Planning in the Pacific Basin*. Dordrecht: Kluwer Academic Publishers.

SOUTH KOREA

Duration of Education: 6+3+3 = **12** ¹

Language of Dominant Group: **Korean**

Year	Concentration	Comments
1950	12/12 = 1.000	1949 Education Law reorganizes education system, ² where Korean is the only language of instruction. ¹
1951-2000	12/12 = 1.000	No evidence of change. ^{1,2}

Sources:

¹ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asiie/coree-sud.htm> (6 July 2007).

² Kaplan, Robert B. and Richard B. Baldauf, Jr. 2003. *Language and Language-in-Education Planning in the Pacific Basin*. Dordrecht: Kluwer Academic Publishers.

SOVIET UNION

Duration of Education: 4+7 = 11¹

Language of Dominant Group: **Russian**

Year	Concentration	Comments
1950-1952	<i>Minimum:</i> $11/165 = 0.067$ <i>Maximum:</i> $11/33 = 0.333$	In the early years of the Soviet Union, every citizen was guaranteed the right to mother tongue instruction. ²
1953-1963	<i>Minimum:</i> $11/165 = 0.067$ <i>Maximum:</i> $11/33 = 0.333$	During Khrushchev's rule, Russian becomes the language of the Soviet Union, and languages begin to take relative importance to one another in Soviet polemics. For example, the 1958-1959 Education Reform (Clause 19) states education in mother tongue is no longer compulsory. <i>Note:</i> By this time, instruction in the native language was offered for most languages with a written form at the primary level and for some languages at the secondary level. ²
1964-1982	<i>Minimum:</i> $11/165 = 0.067$ <i>Maximum:</i> $11/33 = 0.333$	Under Brezhnev (1964-1982), the process of Russification increases. This is evident by the fact that between 1934 and 1940, 64 (65) different nationalities had schools where math and science (literature) instruction was taught. Yet between 1981 and 1985, math and science (literature) instruction was conducted in 32 (52) languages. ²
1983-1984	<i>Minimum:</i> $11/165 = 0.067$ <i>Maximum:</i> $11/33 = 0.333$	No evidence of change. ²
1983-1991	<i>Minimum:</i> $11/165 = 0.067$ <i>Maximum:</i> $11/33 = 0.333$	While Gorbachev (1985-1991) adopts a more reactive stance, there is no evidence of any significant change. ²

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Grenoble, Lenore A. 2003. *Language Policy in the Soviet Union*. Dordrecht: Kluwer Academic Publishers.

SRI LANKA

Duration of Education: *Before 1978*: 5+7 = **12**¹
Since 1978: 6+5+2 = **13**²

Language of Dominant Group: **Sinhalese**

Year	Concentration	Comments
1950-1952	$5/22 = 0.227$	In 1945 the language of instruction changed to one of the native tongues—Sinhalese and Tamil—or to English for grades 1 through 5; and year by year from 1953 through 1959, English was slowly phased out in grades 6 through 12. ¹
1953	$6/23 = 0.261$	See 1950-1952.
1954	$7/24 = 0.292$	See 1950-1952.
1955	$8/25 = 0.320$	See 1950-1952.
1956	$9/26 = 0.346$	See 1950-1952. Also, secondary school science curriculum switches from English to the national languages. ²
1957	$10/27 = 0.370$	See 1950-1952.
1958	$11/28 = 0.393$	See 1950-1952.
1959	$12/29 = 0.414$	See 1950-1952.
1960	$12/29 = 0.414$	No evidence of change. See 1950-1952.
1961	$12/28 = 0.429$	Government nationalizes the Christian missionary schools; every school (both public and private) is forced to phase out English-language instruction so that English is taught only as a second language by the mid 1970s. ³
1962	<i>Minimum:</i> $12/28 = 0.429$ <i>Maximum:</i> $12/27 = 0.444$	Phasing: See 1961.
1963	<i>Minimum:</i> $12/28 = 0.429$ <i>Maximum:</i> $12/26 = 0.462$	Phasing: See 1961.
1964-1971	<i>Minimum:</i> $12/28 = 0.429$ <i>Maximum:</i> $12/25 = 0.480$	Phasing: See 1961.
1972	<i>Minimum:</i> $12/27 = 0.444$ <i>Maximum:</i> $12/25 = 0.480$	Phasing: See 1961.

1973	<i>Minimum:</i> 12/26 = 0.462 <i>Maximum:</i> 12/25 = 0.480	Phasing: See 1961.
1974	12/25 = 0.480	Phasing: See 1961.
1975	12/24 = 0.500	Phasing: See 1961.
1976-1977	12/24 = 0.500	No evidence of change.
1978	13/26 = 0.500	1978 Constitution (Article 18) states that Sinhalese is the official language of Sri Lanka, but both Sinhalese and Tamil are national languages of the country (Article 19). ⁴ Furthermore, Tamil can be used for any transaction in the Northern and Eastern Provinces. ³
1979-2000	13/26 = 0.500	No evidence of change: Language of instruction is in Sinhalese or Tamil. ^{2,3,4} English has mostly disappeared. ^{2,4}

Sources:

- ¹ Deighton, Lee C, ed. 1971. "Ceylon," in *The Encyclopedia of Education*. New York: The Macmillan Company & The Free Press.
- ² Cowen, Robert and Martin McLean, eds. 1983. *International Handbook of Education Systems: Asia, Australasia, and Latin America*. Chichester: John Wiley & Sons.
- ³ DeVotta, Neil. 2003. "Ethnolinguistic Nationalism and Ethnic Conflict in Sri Lanka," in *Fighting Words: Language Policy and Ethnic Relations in Asia*, Michael E. Brown and Sumit Ganguly, eds. Cambridge: The MIT Press.
- ³ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/srila.htm> (9 July 2007).

SYRIA

Duration of Education: 6+3+3 = **12**¹

Language of Dominant Group: **Arabic**

Year	Concentration	Comments
1950-2000	12/12 = 1.000	Classical Arabic remains the only language of instruction. ^{1,2}

Sources:

¹ Cameron, John and Paul Hurst, eds. 1983. *International Handbook of Education Systems: Africa and the Middle East*. Chichester: John Wiley & Sons.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asia/syrie.htm> (10 October 2007).

TAIWAN

Duration of Education: 6+3+3 = **12**³

Language of Dominant Group: **Mandarin (Guoyu)**

Year	Concentration	Comments
1950-2000	12/12 = 1.000	“Clearly, [Mandarin] has absolutely dominated language-in-education policy from the inception of the [National Language Movement] in Taiwan in 1945 to the present...First languages were ignored; [English] was allowed for purely instrumental purposes—for access to science and technology.” (57) ¹

Source:

¹ Kaplan, Robert B. and Richard B. Baldauf, Jr. 2003. *Language and Language-in-Education Planning in the Pacific Basin*. Dordrecht: Kluwer Academic Publishers.

TAJIKISTAN

Duration of Education: 4+7 = 11¹

Language of Dominant Group: **Tajik**

Year	Concentration	Comments
1991-1993	11/33 = 0.333	1989 Law on the Languages of the SSR Tajikistan (Article 21) states that all citizens have the right to choose a language of instruction for secondary education in Tajik, Russian, Uzbek, and in areas where another nationality is concentrated, in its native language. No evidence of change immediately following independence. ²
1994	11/33 = 0.333	1994 Constitution states Tajik is the official language of the state, and Russian, the language of inter-ethnic communication. ²
1995-2000	11/33 = 0.333	No evidence of change: The Russian and Uzbek communities have support for their languages from kindergarten to the university levels. ^{2,3}

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlq.ulaval.ca/axl/asie/tadjikistan.htm> (9 July 2007).

³ Landau, Jacob M. and Barbara Kellner-Heinkele. 2001. *Politics of Language in the ex-Soviet Muslim States*. Ann Arbor: The University of Michigan Press.

THAILAND

Duration of Education: *Before 1978*: $4+3+3+2 = 12$ ¹

Since 1978: $6+3+3 = 12$ ¹

Language of Dominant Group: **Thai**

Year	Concentration	Comments
1950	$12/12 = 1.000$	In the 1930s, the government aggressively promoted the use of Thai in the schools. Chinese language schools were required to teach in Thai using the government curriculum. ²
1951-2000	$12/12 = 1.000$	No evidence of change: The government has never given serious thought to bilingual programs, ² and minority languages remain ignored in the education system. ³

Sources:

¹ Cowen, Robert and Martin McLean, eds. 1983. *International Handbook of Education Systems: Asia, Australasia, and Latin America*. Chichester: John Wiley & Sons.

² Keyes, Charles F. 2003. "The Politics of Language in Thailand and Laos," in *Fighting Words: Language Policy and Ethnic Relations in Asia*, Michael E. Brown and Sumit Ganguly, eds. Cambridge: The MIT Press.

³ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/thailande.htm> (6 July 2007).

TURKEY

Duration of Education: 5+3+3 = **11**¹

Language of Dominant Group: **Turkish**

Year	Concentration	Comments
1950	11/11 = 1.000	While the Lausanne Treaty of 1923 calls for minority rights, its application has been strictly religious and never linguistic. As such, Turkey has not recognized its minorities, including the Armenians, Bulgarians, Greeks, and Kurds. ²
1951-1981	11/11 = 1.000	No evidence of change. ²
1982	11/11 = 1.000	1982 Constitution (Article 42) declares Turkish as the only language of instruction. ²
1983-2000	11/11 = 1.000	No evidence of change. ²

Sources:

¹ Holmes, Brian, ed. 1983. *International Handbook of Education Systems: Europe and Canada*. Chichester: John Wiley & Sons.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asia/turquie.htm> (10 October 2007).

TURKMENISTAN

Duration of Education: 4+7 = **11**¹

Language of Dominant Group: **Turkmen**

Year	Concentration	Comments
1991		Transition.
1992	11/33 = 0.333	The 1992 Constitution states Turkmen is the official language, but protects minority rights. From a de facto standpoint, education is given in Turkmen in 80% of the schools; in Russian in 16%, and the remaining 4% are mainly in the north and include the Uzbeks. ²
1993-2000	11/33 = 0.333	No evidence of change. ^{2,3}

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/turkmenistan.htm> (9 July 2007).

³ Landau, Jacob M. and Barbara Kellner-Heinkele. 2001. *Politics of Language in the ex-Soviet Muslim States*. Ann Arbor: The University of Michigan Press.

UNITED ARAB EMIRATES

Duration of Education: 6+3+3 = **12**¹

Language of Dominant Group: **Arabic**

Year	Concentration	Comments
1950-2000	12/12 = 1.000	According to the curriculum outlined, the learning of Arabic is considered the most important. ¹ In public primary and secondary schools, Classical Arabic is the only language of instruction. ²

Sources:

¹ Cameron, John and Paul Hurst, eds. 1983. *International Handbook of Education Systems: Africa and the Middle East*. Chichester: John Wiley & Sons.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. http://www.tlfq.ulaval.ca/axl/asia/emirats_arabes.htm (9 July 2007).

UZBEKISTAN

Duration of Education: 4+7 = **11**¹

Language of Dominant Group: **Uzbek**

Year	Concentration	Comments
1991-1994	11/22 = 0.500	1989 Constitution (Article 75) states Uzbek and Russian are both languages of instruction. No evidence of change immediately following independence. ²
1995	11/22 = 0.500	1995 Law does not mandate Uzbek to be the only language of instruction. On the contrary, Article 6 allows citizens to choose their language of instruction. ² While the main division remains between Uzbek and Russian, there are other minority language schools. ³
1996-2000	11/22 = 0.500	No evidence of change. ^{2,3}

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asi/ouzbekistan.htm> (9 July 2007).

³ Landau, Jacob M. and Barbara Kellner-Heinkele. 2001. *Politics of Language in the ex-Soviet Muslim States*. Ann Arbor: The University of Michigan Press.

VIETNAM

Duration of Education: 5+7 = **12**¹

Language of Dominant Group: **Vietnamese**

Year	Concentration	Comments
1976	12/12 = 1.000	Following the fall of Saigon and the subsequent reunification of Vietnam, Vietnamese becomes the only official language of instruction, and French is forbidden. ²
1977-2000	12/12 = 1.000	No evidence of change: While the 1980 decision 53-CP mandates that Vietnamese would be the common language for every ethnic group and endorses “literary bilingualism”, this turns out to be impractical. ³ Also, while the 1992 Constitution protects minority rights and the government does recognize minority languages, Vietnamese remains the only language of instruction. ²

Sources:

¹ UNESCO. <http://portal.unesco.org/en/>.

² Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asie/vietnam.htm> (6 July 2007).

³ Vasavakul, Thaveporn. 2003. “Language Policy and Ethnic Relations in Vietnam,” in *Fighting Words: Language Policy and Ethnic Relations in Asia*, Michael E. Brown and Sumit Ganguly, eds. Cambridge: The MIT Press.

YEMEN

Duration of Education: *generic* 12

Language of Dominant Group: **Sana'ani Arabic**

Year	Concentration	Comments
1990		Transition
1991-2000	0/12 = 0.000	1991 Constitution (Article 2) states the official language of Yemen is Arabic. Since then, Arabic remains the only language of teaching in publicly-owned establishments—from the primary through the tertiary levels. ¹

Source:

¹ Leclerc, Jacques. 2007. *L'Aménagement Linguistique dans le Monde*. Quebec: Université Laval. <http://www.tlfq.ulaval.ca/axl/asia/yemen.htm> (11 October 2007).