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## Spanish for Americans? A Tipping Model of Bilingualism among Hispanics in the US

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## SPANISH FOR AMERICANS?

# A TIPPING MODEL OF BILINGUALISM AMONG HISPANICS IN THE U.S. ${ }^{1}$ 

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[^0]
#### Abstract

This paper compares two contrasting ideals of what it means to become or to be American within the context of the language choices made by Hispanics in the United States. Its overarching question is: What contextual and individual-level factors influence the decision to maintain or learn Spanish, or see to it that one's children do so? I develop a "tipping" model of the configuration of area-specific circumstances that influence the "payoff" for bilingualism: the degree to which Spanish-English bilingualism (as opposed to English monolingualism) is viable or desirable in a particular metro area. The model's tipping point is the bilingual:English monolingual ratio at which the utility functions for bilingualism and English monolingualism intersect. I find that area-specific payoffs influence the probability of bilingualism among Hispanic adults and that - independent of payoffs -residence in a place that is past the tipping point exerts a strong, positive effect on this probability. These results provide empirical support for the tipping model and its usefulness in studying macroand micro-level language outcomes.


There has always been linguistic diversity in America. Yet popular ideals of immigrant assimilation and American national identity have often placed as much importance on immigrants losing the characteristics of their homeland as on adopting the ways of the United States. Reminiscent of what he calls "the magic of assimilation," Peter Salins summarizes a traditional assimilationist model as follows:

Assimilation American style set out a simple contract between the existing settlers and all newcomers. Immigrants would be welcome as full members of the American family if they agreed to abide by three simple precepts. First, they had to accept English as the national language. Second, they were expected to take pride in their American identity and believe in America's liberal democratic and egalitarian principles. Third, they were expected to $\ldots$ be self-reliant, hardworking, and morally upright (p.6).

In terms of language, "assimilation American style" means that immigrants give up their native tongue, or do not pass it on to their children. An effort to maintain this model is implicit in efforts to establish English as the official language of the United States, as well as in numerous campaigns to pass state-level Official English (also referred to as "English Only") laws (Tatalovich 1995). Recent studies of the Official English movement show that its supporters range from liberals who see English as an important common bond to nativists who view non-English speakers as unwanted aliens (Citrin 1990; Citrin et. al 1990; Frendreis and Tatalovich 1997). It seems, however, that the movement's success ${ }^{2}$ is largely due to its framing of Official English in terms of patriotism, rather than intolerance. As summarized by Frendreis and Tatalovich (1997:365), backing coalesces around "the attitude that speaking English is related to being a good American." Majority support for Official English laws "is

[^1]connected to attitudes that are clearly related to this broader issue of national identity, which does not neatly coincide with existing dimensions of political conflict" (p.366).

A competing model of assimilation also exists: one that includes elements of both the sending and receiving cultures, and involves learning by longtime residents of the receiving place as well as by newcomers (López 1996; Yinger 1994). Particularly since the 1960s, multicultural and pluralist ideas have influenced many aspects of the way Americans perceive their identity - from what we expect from the government and what we want children to learn in school to our choices of food, clothing, music, and the languages we speak. The English Plus movement has responded to Official English supporters' efforts by coalescing civil rights and educational organizations to promote "a strong belief that all U.S. residents should have the opportunity to become proficient in English plus one or more other languages" (English Plus 2000). For nonnative speakers, this means acquiring proficiency in English and maintaining proficiency in their native language(s). For native English speakers, it means a viable opportunity to become proficient in another language alongside English. Proponents of English Plus value linguistic diversity (and other aspects of cultural diversity) as a national strength that provides the United States with a "unique reservoir of understanding and talent" (EPIC 1992:152).

The above illustrates two sharply contrasting ideals of what it means to become or to be American, particularly in regard to language choice. This paper compares these rival models within the context of the linguistic decisions made by Hispanics in the United States. ${ }^{3}$

[^2]Its overarching question is: What contextual and individual-level factors influence the decision to maintain or learn Spanish, or see to it that one's children do so? This question and its answers are of significant interest to those who study immigrant assimilation or national identity as well as to politicians, policymakers, and educators.

The paper is organized as follows: First I explore historical reasons that English monolingualism became a mark of American identity, and contemporary reasons why it still might be - especially for recent immigrants and their families. Next I develop and test a "tipping" model of the configuration of circumstances that influence the degree to which Spanish maintenance or acquisition (as opposed to English monolingualism) is viable or desirable. Finally, I test the importance of the socio-structural "payoff" for bilingualism in an individual-level analysis of bilingualism among English-speaking Hispanic adults in the United States.

## ENGLISH FOR AMERICANS?

The United States has never had an official language policy, but an ideology that links English monolingualism with American identity has prevailed for at least a hundred years. Bilingualism was relatively common in the nineteenth century, and bilingual education was not unknown. ${ }^{4}$ Yet by the end of this period a belief that "American English both reflected and constituted the democratic and rational nature of the country" had emerged (Portes and

Schauffler 1996:10). For some influential thinkers, this meant far more than establishing a common language for practical reasons. An American style of English was seen as uniquely suited to define the nation and its citizens.

Reflective of this notion, and undoubtedly in reaction to an all-time high level of immigration, Congress enacted an English language requirement for citizenship in 1906. In 1907 it appointed a joint committee, The Dillingham Commission, to study immigration's impact on the country. Guided by the theories of influential nativist scholars, the Commission concluded in 1911 that new immigration consisted mostly of "inferior peoples" who were physically, mentally, and linguistically different and would thus not easily adopt "fundamental American ideals" (King 2000:64). The Commission urged Congress to impose many restrictions on new immigration, two of which became law: required English literacy for all immigrants over age sixteen in $1917^{5}$ and a fixed quota by race in 1921 (King 2000:295; Piatt 1990:16). It is also noteworthy that New Mexico's statehood was delayed until, in the words of one prominent politician, "the migration of English-speaking people who have been citizens of other States does its modifying work with the Mexican element" (Baron 1990:8).

World War I heightened anxieties about national loyalty and immigrant assimilation. During and following the war, several states prohibited the teaching of German. The governors of Iowa and South Dakota issued decrees prohibiting the use of any language other than English in public places or over the telephone (Piatt 1990). Schools in many states

[^3]required children to take language loyalty oaths. A 1919 Nebraska statute banned teaching any language other than English before the ninth grade (Dillard 1985; Marckwardt 1980). In 1923, an Illinois law targeted speakers of British English, declaring "American" to be the state's official tongue (Tatalovich 1995:63-69).

The National Origins Act of 1920 brought more of the same; it set very strict limits on immigration, banned immigration from Japan altogether, and essentially blocked the entry of persons from other non-European countries by establishing national quotas based on the contribution of each nationality to the total U.S. population in 1920. The absence of a continuous flow of new immigrants encouraged those who were already in the U.S. to assimilate by abandoning the languages and customs that separated them from the dominant culture. By and large, immigrants sought to do so, thus perpetuating a norm of full assimilation based on an Anglo-American model (c.f. Massey 1995). As the twentieth century progressed, citizens and newcomers alike came to view the English language as a very important part of this model - possibly the only common bond among Americans (MacKaye 1990). Prominent politicians denounced foreign language use as un-American (Brumberg 1986). Some upper- and middle-class parents encouraged their children to study Latin, German, or French, but bilingualism among recent immigrants was categorically disfavored. All of this equated to substantial pressure on the children and grandchildren of these immigrants to speak English only (Portes and Hao 1998).

For non-Europeans, however, perfectly mastering English and other elements of the dominant culture did not necessarily make one part of a unified social and economic

[^4]mainstream. Even for European immigrants, this submersion strategy never worked as well as accounts of those who "made it" would lead us to believe. The melting pot was, at best, a highly idealized and exclusive description of the experience of becoming American.

In the 1960s, immigration reform, the Civil Rights Act and the Voting Rights Act provided, collectively, a new basis for minority groups to politically and culturally articulate their ethnic identity. This was a potential window of opportunity for other languages to flourish, alongside English, as permanent, valuable parts of American culture. The Bilingual Education Act (BEA), originally passed by Congress in 1968, may - in some cases - have contributed to this opportunity. The BEA aimed to improve the poor school performance of immigrant children by providing funds for "transitional" programs to help children of limited English-speaking ability learn English well before transitioning into regular classrooms. ${ }^{6}$ These programs often involve instruction in a child's native tongue. Yet even as it signaled intent to help children succeed in school, the language of the original BEA and its limited focus on schools serving large concentrations of poor families served to further associate bilingualism with disadvantage, cultural deprivation, and alienation (Haugen 1972; Schmidt 2000).

Revisions of the BEA have greatly extended its application. At different times it has emphasized different goals: ethnic awareness in the 1970s, English fluency and academic achievement in the 1980s, more freedom for local- and state-level decision-making in the 1990s. An alternative "sheltered English" approach has become popular in recent years:

[^5]limited English-proficient students are placed in special English as a second language (ESL) classes for a period of time before they join mainstream classrooms. Regardless of strategy, however, most the school programs developed to aid limited English-proficient students address a population viewed as needing special attention in order to become like the majority. It is still quite common to gauge success at educating the children of immigrants by evaluating how quickly they give up their first language and shift to English (García 1995). This emphasis does not necessarily stem from prejudice or nativist sentiments on the part of educators. Based on the results of recent research about language skills and earnings among immigrants and the native-born, it may represent what appears to be the most pragmatic strategy for upward mobility in the United States. Chiswick and Miller (1996:37), for example, conclude that "there are few economic and decreasing cultural rewards for language maintenance."

Yet today as in the past, we see that immigrants' efforts at cultural assimilation do not uniformly translate into structural incorporation (García 1995). Immigrants are quite aware of this. Fernández Kelly and Schauffler (1996) suggest that the assimilation experience and the outcomes of migration are strongly influenced by characteristics of immigrant groups and the conditions under which they came to the United States. ${ }^{7}$ They find that Cuban "gainers" experienced a relatively hospitable reception and had access to resources such as good schools and adequate housing. Spatial concentration has been an advantage, allowing them to use social capital to facilitate upward mobility and create a Cuban American identity that
successfully combines elements (e.g., language) of the sending country with that of the receiving country. In contrast, Nicaraguan "sliders" evidence a trend of downward mobility. Many of them came to the U.S. as political exiles, expecting to be treated as Cubans had been. Unable to legalize their status, educated professionals remain stuck in low-paying, dead-end jobs that severely limit their residential choices and access to quality schools for their children. Nicaraguan youths recognize a stigma attached to their national origin; their attempts to fit into the larger society are marked by efforts to disassociate themselves from their roots. One way to do so is to not speak Nicaraguan Spanish - or to not speak Spanish at all.

Fernández Kelly and Schauffler (1996) conclude that the respective meanings that Cubans, Nicaraguans, and other groups attach to living in the U.S. and "becoming American" are unmistakably shaped by the opportunities and limitations they perceive. "The immigrant condition forces individuals to observe themselves even as they are being observed by others. As a consequence, immigrants repeatedly engage in purposeful acts to signify their intended character and the way that character differs from, or converges with, that of other groups" (p.31).

## THEORIZING LANGUAGE CHOICE

How does language fit into the identity-formation and maintenance strategies by which immigrants and others minority group members signify their intended character? Given the historical legacy of English in the United States and its overwhelming pervasiveness, when

[^6]does it make sense to preserve another language alongside it? Neoclassical economic (e.g., Pool 1991), human capital (e.g., Chiswick and Miller 1992, 1995; Chiswick 1991) and functionalist (e.g., Gellner 1983) theories posit that bilingualism will be practical or desirable to the extent that it represents a significant labor market advantage. In the first cases, the advantage is to individuals in society, in the last case it is to a particular society within a world of societies.

Others (e.g., Anderson 1991; Greenfeld 1992; Hobsbawm 1990) downplay economic incentives, instead pointing to ethnic identities and their meanings for members of various groups as the salient factors that inform official language policy and individual decisions about language acquisition and maintenance. This emphasis suggests that social factors such as the relative status of a language, its speakers, and the ethnic group(s) with which they identify will be important determinants of linguistic choice.

## A Tipping Model of Spanish-English Bilingualism

Regardless their specific focus, theories of linguistic choice all posit that individual behavior (learning, maintaining, or forgetting a language) changes in response to something about the contextual situation. To link individual decisions with collective outcomes, a model of the decision-making process must encompass the interaction between individual-level incentives and societal-level patterns. "Tipping" models such as developed by Schelling (1972) and applied to linguistic assimilation by Laitin $(1988,1993,1998)$ provide such a framework.

Figure 1 illustrates a hypothetical linguistic tipping game. A stable equilibrium exists when everyone is monolingual or everyone is bilingual. At equilibrium, "it appears to actors
that the world is completely stable" (Laitin 1998:22). There are no reasons to change. Alterations in a population's composition (such as when there is a lot of migration, or when some sub-groups grow faster than others) or in political and economic incentives can bring instability because they provide reasons to explore new identities. Some people will try to maintain the status quo; others will try to change it. Laitin (1998) points out that "the tipping game is but a partial rendition of the overall cultural dynamic" in that people need to understand their choices before they can strategize. Much of the work of identity choice, therefore, precedes the tipping dynamic. "Nonetheless, the tipping model neatly encapsulates people's strategic dilemmas once the game has begun" (p.24).
-Figure 1 about here-

In tipping games, it is assumed that actors' orientation to action is instrumental. People choose a particular course when they believe it offers the best means of realizing their goals in a given situation or in an expected future situation (Kiser and Hechter 1998:801; Laitin 1998:216). Here, social-structural characteristics of an area such as population composition and economic opportunities and cultural elements such as Hispanics' or bilinguals' relative status and influence affect individuals' incentives to retain or learn Spanish. They respond to their circumstances by choosing bilingualism or English monolingualism. This in turn alters the group-level payoffs for bilingualism and monolingualism. "Tips" - changes in the collective payoff for making a particular choice happen because people's decisions about their actions are based on what they think others are going to do. The most important insight in this model is that the macro-level change that
results when a critical number of people alter their behavior is an outcome of micro-level decisions and anticipations (Schelling 1978:101-102).

Depending on their goals, people will respond more to some factors than they will to others. For example, some people might be most likely to retain or acquire Spanish-English bilingualism if there exists a real or anticipated economic return for doing so. For others, maintaining a Hispanic identity and an active appreciation for Hispanic cultures is more important. And certainly new immigrants who perceive barriers to assimilation (e.g., prejudice, inability to gain legal status) and/or future risks involved with staying in the United States will place a higher priority on Spanish maintenance (cf. Laitin 1998:11). At the macro level, area-specific characteristics that affect these incentives determine the payoff for bilingualism.

The analysis that follows is a multi-level test of the tipping model. Rather than studying or projecting a situation in one place over time, I look at many metro areas at one time: 1990. Movement along the X -axis is across-place variation in the proportion of Hispanic adults who are bilingual. I establish metro area-level payoffs for bilingualism and their relationship to the ratio of Hispanic adults who are bilingual as opposed to English monolingual. Then I model bilingualism at the individual level, with its area-level payoff as an independent variable.

The first goal of this research is to identify a configuration of factors that influence the level of Spanish-English bilingualism in U.S. metropolitan areas. I expect to find that the economic importance of Spanish-English bilingualism, the local or regional political context,
and the status of Spanish and Spanish-speakers will all be significant in determining the payoff for bilingualism or monolingualism.

The tipping model predicts that the bilingual proportion of the population and the payoff for bilingualism will rise in tandem, though not necessarily at the same rates. ${ }^{8}$ As the payoff rises, bilingualism becomes more important or desirable. When the X -axis value (the ratio of bilinguals to English monolinguals) is beyond the tipping point where the utility functions for monolingualism and bilingualism intersect, bilingualism makes both collective and individual sense. This suggests that in places or situations to the right of the tipping point (where more than a specified proportion of the population is bilingual), the payoff for bilingualism will depend more on the fact that there are lots of bilinguals around than on other area-specific circumstances.

## DATA AND VARIABLES

This inquiry encompasses metropolitan statistical areas (MSAs) or primary metropolitan statistical areas (PMSAs) and Hispanic adults who live in them. Data about general characteristics of the Hispanic population come from the 1990 Census (file STF3C). Data used to calculate the bilingualism:monolingualism ratio, bilinguals' relative socioeconomic status, and some contextual variables come from the 1990, 1-percent PUMS (Ruggles and Sobek 1997). The variable "Hispanics' political influence" is Santoro's (1999) "index of Latino institutional resources." Voting statistics come from the County and City Data Book $(1988,1994)$, with county-level figures aggregated up to the MSA/PMSA level when

[^7]necessary. Table 1 provides additional details about the variables; here I discuss how each is relevant to a test of the linguistic tipping model described above.
-Table 1 about here-

## Dependent Variable

In the MSA/PMSA-level analysis, the dependent variable is the ratio of Hispanic bilinguals to Hispanic English monolinguals. For the purpose of defining a payoff function for monolingualism I use the monolingual: bilingual ratio. ${ }^{9}$ In the individual-level analysis of Hispanic adults who speak English well the (dichotomous) dependent variable is SpanishEnglish bilingualism. The Census asks respondents which language they speak at home, and how well they speak English. Here, Spanish-English bilinguals as those who report that they speak Spanish at home and speak English "very well."

## MSA/PMSA-Level Independent Variables

Modeling area-specific payoffs for bilingualism involves two baseline variables: the proportion of a MSA/PMSA's population that is Hispanic, ${ }^{10}$ and the proportion of Hispanics who are foreign-born. The most obvious factor to influence Spanish retention is the presence of other speakers in one's area of residence (Scrauf 1999; Stevens 1992). Lacking a community of speakers, it is improbable that people fluent in English will maintain Spanish. Equally obvious is that foreign-born Hispanics will be more likely to speak Spanish along with English than Hispanics who were born in the United States. In 1990, only about 5

[^8]percent of foreign-born Hispanic adults reported speaking only English. In contrast, about 35 percent of Hispanic-heritage adults born in the U.S. are English monolinguals. ${ }^{11}$ We would thus expect to find more bilingualism in metro areas where first generation immigrants comprise a relatively large portion of the Hispanic population for two reasons: immigrants (including those who have not yet learned English) expand the community in which it is useful or desirable to speak Spanish, and they are likely to maintain Spanish once they have learned English. Furthermore, as Sohoni (2000) emphasizes, immigrant status does not equal ethnic status. Studies of immigrant assimilation should distinguish between the foreign- and native-born because immigrants generally have less access to American social institutions (the means that permit them to follow the traditional model of assimilation) than their children and grandchildren do.

How do economic incentives and social context shape language decisions?
Bilingualism is often a benefit to workers in neighborhoods, regions, or occupational areas where more than one language is regularly spoken. The extent to which this economic benefit exists, and translates into good jobs and high incomes, should influence the prevalence of bilingualism. Overall, however, Spanish-English bilinguals in the United States earn less than English monolinguals do. Based on the 1990 Census, Chiswick and Miller $(1996: 7,23)$ report a disadvantage of around 12 percent for the native-born and 20 percent for the foreign-born. This general trend notwithstanding, we would expect to find more bilingualism in areas where the disparity is lower than average, does not exist at all, or is

[^9]reversed. To test this proposition, I employ ratios that reflect bilinguals' and English monolinguals' relative income and socioeconomic status (SEI).

Clearly, bilingualism's payoffs encompass more than real or perceived economic advantages. The social status and influence of Hispanics in a given area should also have some bearing on their and others' desire to maintain a distinct identity by retaining or becoming fluent in Spanish. The status measure here is a composite of Hispanics' mean education, income, and SES relative to non-Hispanics'. The measure of political influence is a state-level index that reflects the percentage of registered voters and the percentage of legislators who are Hispanic. I expect that there will be a positive relationship between Hispanics' status and political influence and the bilingualism: English monolingualism ratio.

Three measures reflect potential disincentives for bilingualism. The first, average proportion of Republican votes in the 1984 and 1992 presidential elections, implies a social and political climate that strongly supports a one-way model of assimilation. The second marks four states - Arizona, California, Colorado, and Florida - in which Official English laws were passed via initiative after having failed in the state legislature. ${ }^{12}$ While there is no evidence that voters in these states differ significantly from other voters in terms of their general cultural orientation, it may be that the initiative process allows voters to express their sentiments, e.g., to react against a change in "the prevailing pattern of language usage" (Citrin et al.1990:541). Or, as Frendreis and Tatalovich (1997) conclude, movement entrepreneurs who frame the language issue in patriotic and politically salient terms may enjoy more success in referendum states.

[^10]The third 'political disincentives' indicator is a marker for location in California - a state known in recent decades for its anti-immigrant political climate. Proposition 187, passed in 1994, is a tangible example. California is the only state with such a law. While the still-contested statute specifically targets illegal immigrants by restricting their use of public services, ${ }^{13}$ it reflects the more general notion that immigrants are a burden to the state (Waldinger 1996). As summarized by Mailman (1995), "no longer is the welcome mat out for 'your tired, your poor, your huddled masses...' Foreigners are less welcome precisely because they are perceived as tired and poor and huddled when the public identifies poverty with indolence and sees the barrio as the cause of many ills" (p.3). To the extent that speaking Spanish associates one with immigrants in "the barrio," Hispanics' incentives to speak English only could rise.

## Individual-Level Independent Variables

Age could have a bearing on individual-level language outcomes in several ways. Older immigrants are likely to have been in the United States longer and are thus more likely than younger immigrants to be bilingual. Also, older immigrant or native-born Hispanics may perceive a greater need to maintain a distinct Hispanic identity because of having experienced prejudice in the U.S. An age effect in the other direction is also possible: Spanish retention should be universal among temporary labor migrants whose visits to the United States are linked to achieving particular goals at home, and these people tend to be young. In this analysis, there is no clear reason to expect one possible age effect to be stronger than another.

[^11]Many studies of language proficiency and usage reveal gender-specific patterns. For example, Stevens (1986) reports that females who know English are less likely than males to stop speaking their native language. Chiswick and Miller (1999) find that the economic returns for English proficiency are greater for immigrant women than for men. This suggests that, to the extent that additional returns for Spanish-English bilingualism exist, women will have a greater incentive to retain Spanish. ${ }^{14}$ A further reason to control for sex here is that, traditionally, women are viewed as keepers and transmitters of the symbolic aspects of Hispanic culture, such as songs and religious rituals (Hondagneu-Sotelo 1993; Pena and Frehill 1998; Rodriguez 1999). Fulfilling this role could promote more Spanish retention among women than among men.

A marker for "foreign-born" is included in the individual-level analysis for the reasons discussed in the previous section. Just as the proportion of an area's Hispanic population that is foreign-born should positively influence the level of bilingualism there, an individual's likelihood of being bilingual should be higher if she or he is foreign-born.

Education contributes to the English proficiency of immigrants as well as that of natives whose home language is not English (Carliner 2000). Depending on the contextual situation, education might also afford native-born Hispanics the opportunity to become fluent in Spanish, or deter them from doing so (López 1996). Whatever findings ensue should be viewed with caution due to the way that bilingualism is measured here. Highly educated Hispanics may be more likely to speak both Spanish and English fluently, but less likely to

[^12]speak Spanish at home. I include measures of educational attainment and its interaction with foreign-born status as controls, unattached to specific predictions.

In the 1990 1\% PUMS sample (weighted), Mexicans comprise 58 percent of the Hispanic adults who are Spanish-English bilingual or English monolingual. Puerto Ricans make up14.6 percent, Cubans 5.6, and "others" (here the reference category) 21.8 percent. As discussed above, the meaning and process of assimilation is not the same for all groups. The possibility and prevalence of regular travel between the U.S. and one's country of origin or heritage will influence the degree to which assimilation is an additive process rather than one in which the ways of the receiving place replace those of the sending place. Return migrants who come (often repeatedly) to the United States in order to earn money for a specific purpose, such as buying a piece of land or capitalizing a business at home, will certainly retain Spanish (Massey et. al 1987; Massey and Espinosa 1997). The same reasoning applies to Puerto Ricans, for whom there are no legal barriers to entering or leaving the fifty states.

A group's status may also influence the relative advantage its members find in following the traditional model of assimilation or in taking an alternative path. As suggested by Fernández Kelly and Schauffler’s (1996) work, discussed above, low-status group membership could be an incentive to "forget" that group's characteristics. López's (1999) research lends additional support to this hypothesis. He finds that, among immigrant youths who follow a pattern of "segmented assimilation" - in this case becoming part of ethnic gangs, that "all these gang members will be banging in English" (p. 218). In contrast, belonging to a group that enjoys high status within the larger community could provide extra
incentives for maintaining the characteristics of that group, e.g., bilingualism. This may be the case for Cubans. All of the above leads to the expectation that the probability of bilingualism will differ by national origin.

Returning now to the tipping model, the MSA/PMSA-level payoff for bilingualism included in the analysis of individuals' probability of being bilingual is the predicted bilingual:English monolingual ratio for a given area. It reflects the context within which individuals make language decisions. These payoffs should factor more importantly into the language outcomes of persons living in places that are below the tipping point (the intersection of the payoff functions for bilingualism and monolingualism) because their decisions are, at least in part, based on the perceived payoffs they attach to various choices. The specific MSA/PMSA-level payoff should play a lesser role in the language decisions of persons who live in places that are above the tipping point. In these places, the payoff is as much a product of the relative number of bilinguals as a determinant of it.

## ANALYSIS AND FINDINGS

## Metro Areas

Table 2 reports the results of an OLS regression analysis of Spanish-English bilingualism in United States metropolitan areas. Models 1-3 account for contextual, economic, and status variables; Models 3-5 incorporate political dynamics. ${ }^{15}$ As expected, the relative size of a metro area's Hispanic population and the foreign-born within that population contribute strongly to the prevalence of bilingualism there.
-Table 2 about here-

[^13]It appears that both economic rewards and status associated with bilingualism influence its prevalence in an area, but in an interdependent way. While bilinguals' relative income does not improve the model, ${ }^{16}$ bilingual Hispanics' socioeconomic status (in relation to English-monolingual Hispanics) does. Since income and SEI are well correlated, this finding suggests that it is a visible concentration of bilingual professionals in a community that contributes to Spanish maintenance or acquisition there.

In contrast, Model 3 shows that the general status of Hispanics (regardless of their language usage) is not significantly related to the level of bilingualism in an area. Hispanics' political resources, however, are. Similar to the SEI finding, this could indicate that positive group representation encourages the maintenance of traits that distinguish the group in a way that individual group members' achievements do not.

Models 4 and 5 indicate no relationship between a higher- or lower-than-average proportion of Republicans and the prevalence of bilingualism in an area. While a bit surprising, this finding lends additional support to the claim that the issue of language usage in the United States cuts across political cleavages (Citrin 1990; Citrin et al. 1990; Frendreis and Tatalovich 1997). ${ }^{17}$ Model 4 does show a negative relationship between referenda voting for English Only laws and bilingualism, but this effect disappears Model 5, with control for a MSA/PMSA's location in California. ${ }^{18}$ It is likely that this 'California effect' represents both anti-immigrant sentiment and the political opportunities to express it (cf. Hirschman, Kasinitz, and DeWind 1999).

[^14]All of the factors that contribute to the final metro area-level model of bilingualism should inversely impact the prevalence of monolingualism. Figure 2 shows polynomial curves fitted to the predicted values derived from Table 2, Model 5 and the same model with English monolingualism:bilingualism as the dependent variable. We see that the tipping point after which the bilingualism ratio, as opposed to other incentives, drives the payoff for bilingualism is 0.3 . This leads to the specific prediction that metro-area payoffs should have less influence on the language decisions of people living in MSA/PMSAs where the bilingualism ratio is more that 0.3. To test this prediction, I include payoffs, the tipping point, and their interaction in the logistic regression analysis of bilingualism (vs. English monolingualism) in individual Hispanic adults.

- Figure 2 and Table 3 about here-


## Individuals

Table 3 reports the results of a logistic regression analysis of bilingualism among a large sample of Hispanic adults who live in U.S. metro areas. Model 1 shows that, with control for level of education, the foreign-born are almost four times more likely to be bilingual than the native-born. Model 2 shows that, for Hispanics born in the United States, education exerts a strong, negative effect on the probability of bilingualism. For the foreign-born the story is opposite. Each additional degree of education adds about 15 percent to the chance that one will be bilingual. The age variable's impact is of little magnitude; an added year of age contributes, at most (in Models 4-6) 0.5 percent to the chance that a person will be bilingual. As expected, women are slightly more likely than men to be bilingual.

[^15]Even with control for individual characteristics and area-level context, Mexicans and Puerto Ricans are more likely to be bilingual than are persons from other Hispanic roots. As discussed above, people in these groups are especially apt to retain strong ties to their country of origin or heritage because of geographic proximity and a tradition of return migration. In the case of Cubans, it appears that their relatively high status and spatial concentration ${ }^{19}$ contribute to Spanish retention. The MSA/PMSA-level payoff for bilingualism encompasses these factors, thus "Cuban" becomes non-significant in Models 4-6, which include this payoff.

More generally, we see that area-level context contributes substantially to the individual-level models. Model 4 shows that the probability of bilingualism as opposed to English monolingualism increases by 28 percent per unit of change in the MSA/PMSA-level payoff for bilingualism.

How does an area context that is past the tipping point (bilingual:English monolingual ratio above 0.3 ) figure into the individual-level analysis? Model 5 shows that, for persons living in places that are past the tipping point, the probability of bilingualism is almost 50 percent higher than for those living elsewhere, regardless of the specific payoff in a given metro area. This finding provides empirical support for the tipping model and its usefulness in studying macro- and micro-level language outcomes.

Model 6 explores the degree to which living in a place that is past the tipping point changes the importance of the area-specific payoff as a predictor of individuals' language choices. The payoff appears to be slightly more important in places to the left of the tipping

[^16]point, but still substantial in places to its right. For people living where the bilingualism: English monolingualism ratio is below 0.3 , there is a 38 percent increase in the probability of bilingualism per one-unit increase in its MSA/PMSA-level payoff. This decreases to 28 percent per unit increase in places where the bilingualism ratio is above the tipping point. This finding lends support to the prediction that the payoff for bilingualism will have more weight in determining individual language outcomes among people who live in places where there are relatively few bilinguals (cf. Stevens 1992). To illustrate this point, the Appendix reports the results of the 'payoff' model (Table 2, Model 5) for MSA/PMSAs below and above the tipping point. In places where the proportion bilingual is below the tipping point, the model explains 80 percent of the variance in bilingualism. In places above the tipping point, the explained variance is only 53 percent.

## CONCLUSION

Given the historical and contemporary pervasiveness of the traditional, one-way model of immigrant assimilation, the degree to which the Spanish language is spoken among Hispanics in the United States is surprising. Based on the individual level data used in this study, 57 percent of native-born and 84 percent of foreign-born Hispanic adults who are fluent in English speak Spanish at home. This alone shows the viability of an additive definition of assimilation and American identity. This study has specified contextual, economic, social, and individual circumstances under which such a definition is most likely to predominate. In doing so, it has demonstrated a relationship between macro-level incentives and individual choices in which there is a tipping point above which individuals' collective decisions affect the payoff for making a particular choice in a particular place.

Future research could further develop and test the theoretical model and findings presented here by identifying metro areas relative to their position along the X -axis in the tipping diagram (Figure 2) - particularly those for which the payoff for bilingualism is much lower or higher than the model predicts. Examining the circumstances in these areas could lead to a better understanding of the range of factors, and their interactions, that contribute to the payoff equation.

Another possible extension of this work pertains to Spanish usage and learning among non-Hispanics. There is some evidence that this is on the rise. For example, duallanguage and Spanish immersion programs in public schools are becoming increasingly popular. ${ }^{20}$ Does non-Hispanics' demand for Spanish fluency correspond to the same payoff structure as Spanish maintenance among Hispanics does? If not, what would a tipping model for non-Hispanics learning and using Spanish look like? Answering these questions would add another dimension to our understanding the dynamics of language choice in the United States.

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[^1]:    ${ }^{2}$ In 1980, only three states had passed Official English legislation. In 1990 the number was eighteen; to date it is twenty-three, with twenty still in effect (English First 2001).

[^2]:    ${ }^{3}$ The background discussion and theoretical framework presented here applies to other language groups as well. I have chosen Spanish-English bilingualism as the study's focus because Spanish-speakers are, overwhelmingly, the largest non-English-language group in the country. Spanish-speakers comprised over half

[^3]:    ${ }^{4}$ In 1900, about 4 percent of American schoolchildren were taught in German at least some of the time (Stewart 1993:155-156).

[^4]:    ${ }^{5}$ Vetoes by presidents Taft (1912) and Wilson (1915) prevented literacy restrictions from becoming law until 1917, when Congress overrode Wilson's veto.

[^5]:    ${ }^{6}$ Senator Ralph Yarborough (D-Texas), a key figure behind the BEA, initially designed legislation to address "the special needs of the large numbers of students in the Unites States whose mother tongue is Spanish and to

[^6]:    ${ }^{7}$ Specifically, they identify within-group differentiation by class, the type of reception a group receives and the quality of resources available to it, the degree of spatial concentration among group members, and the length of

[^7]:    ${ }^{8}$ There are some exceptions. For instance, when there are only a few bilingual individuals, the demand for their services as interpreters and translators will be greater than when there are more bilinguals in an area. Thus the

[^8]:    diagram shows a higher payoff for bilingualism when the percent bilingual is near zero than when it begins to rise.
    ${ }^{9}$ Simply evaluating the proportion of Hispanics who are bilingual yields similar payoffs for bilingualism and monolingualism - results that reflect the value of speaking English rather that that of speaking English and Spanish.

[^9]:    ${ }^{10}$ "Proportion Hispanic" is logged to somewhat modify the influence of a few cases: large MSAs with extreme concentrations of Hispanics.
    ${ }^{11}$ These estimates are derived from the $1 \%$ PUMS sample.

[^10]:    ${ }^{12}$ Previous models included controls for and MSA/PMSA's location within any state that had passed an Official English law in or before 1990. This did not contribute significantly to the analysis.

[^11]:    ${ }^{13}$ The official ballot argument for 187 described it as "the first giant stride in ultimately ending the ILLEGAL ALIEN invasion" (Mailman 1995:3).

[^12]:    ${ }^{14}$ On the other hand, Stevens (1986) and Carliner (2000) show that, overall, female immigrants are significantly less likely than males to become fluent in English. My data do not evidence this trend. Of Hispanic adults who are either bilingual or English monolingual, 50.4 percent are female and 49.6 percent are male.

[^13]:    15 "Hispanics" institutional resources" reflects both status and political influence.

[^14]:    ${ }^{16}$ This is also the case when the SEI variable is not included.
    ${ }^{17}$ Proponents of English Only laws frame their message in terms of patriotism, not intolerance (Citrin 1990).
    People who vote for these laws often share a characteristic that Citrin et al. (1990:554-555) call "Americanism" - believing in God, trying to get ahead, and defending the country.

[^15]:    ${ }^{18}$ GOP voting, though non-significant, is maintained in the final model because of it improves the overall fit.

[^16]:    ${ }^{19}$ Ninety-one percent of the Cubans in this sample live in MSA/PMSAs where the proportion bilingual is past the tipping point, where the average payoff for bilingualism is about two points higher than otherwise.

[^17]:    ${ }^{20}$ The Center for Applied Linguistics produces yearly statistics on these programs (http://www.cal.org/twi/).

