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## Minority Community Development: Testing Landry's (2012) Intergroup Ethno-Linguistic Model

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### Abstract

We test Landry's (2012) ethno-linguistic community development model in the context of Canadian Francophone minorities, using two social responses as indicators of social development. These minorities are spread over 12 Canadian Provinces and Territories and represent a broad spectrum of minority levels. The social responses are the offer and the demand for health care services in French and they are derived from Statistics Canada's 2006 Survey on the Vitality of Official-Language Minorities. As predicted by Landry, we observe a strong association between the two social responses and the Francophones/Anglophones linguistic vitality ratio. A phase diagram analysis indicates that minorities have more control over local model dynamics whereas the majority has more control over global model constraints. This suggests practical lessons for fostering the development of minority communities.

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### 1. Introduction

Landry (2012) and Landry, Allard and Deveau (2007) proposed a macroscopic model of ethno-linguistic development based on a dialectic tension between a social determinism originating from a dominant linguistic community exhibiting a strong vitality, and the self-determination of a linguistic minority exhibiting a weak vitality. The premise of their model is that the ideological, legal, political, demographic, and historical context of a minority community determines its cultural autonomy and the chances that it might grow and develop as a distinct and active

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community. According to Landry, minorities enjoy more representation, more tailored programs and services, more rights and more control when their linguistic vitality and their identity are strong relative to the majority. In this paper we seek empirical evidence for Landry's model using the Francophone minority communities of Canada as a natural experiment. We test his model by examining the offer and demand for health care services in French in relation to the relative linguistic vitality of Francophones and Anglophones in 12 Canadian territorial and provincial jurisdictions where Francophones are in a minority. If Landry's model is correct, we should observe coherent relationships.

## 2. Methods

Offer and demand indicators are available from Statistics Canada's 2006 *Survey on the Vitality of Official-Language Minorities* (Giguère 2013; 2014). Linguistic data from the 2006 Canadian Census are available online ([www.statcan.gc.ca](http://www.statcan.gc.ca)) and on DVD (Canada, 2006). To estimate jurisdictional vitality, Linguistic Vitality Indices (LVI) were calculated using Lacroix & Sabourin's approach (Johnson & Doucet, 2006), by dividing the number of individuals speaking mostly a given language at home by the total population number for that mother tongue, jurisdiction by jurisdiction. The general assumption is that a minority community exhibiting low linguistic vitality is more assimilated, less likely to ask for services in its mother tongue, and less likely to grow and develop as a distinct community. Speaking a mother tongue at home is considered a good indicator of community vitality in several national (Institut de recherche sur le français en Amérique [IRFA], 2012; Lentz, 2004) and international studies (Aleksynska & Algan, 2010; Chiswick, 1991).

Canadian linguistic communities are classified in three broad mother tongue categories: two for the Official-Language populations, Anglophones, and Francophones, and the other, Allophones, for non-Official-Language populations. These three categories represent 58.1%, 21.7%, and 20.2% of Canadians respectively according to the 2011 Canadian Census (Canada 2012a, 2012b). By percentage of total population, Punjabi (1.33%), Spanish (1.26%), and German (1.26%) are the top three Allophone mother tongues in Canada (Canada, 2012). Canadian Official Languages are dominant and are spoken by nearly all Canadians (97.3%<sup>†</sup>; Corbeil & Lafrenière, 2010). Many Allophones do not mostly speak their mother tongue at home and often speak English or French. Similarly, many Francophones in minority situations do not mostly speak French at home. Francophones are in a minority in 12 out of 13 provincial and territorial jurisdictions and their demographic weight ranges between 0.4% and 32.7% of jurisdictions population (Canada, 2012). Because sample size is small for the 3 Canadian Territories, Statistics Canada pools these data, yielding a sample size of 10 for 12 jurisdictions. We refer to these 10 Francophone jurisdictional minorities below as Francophone minority communities. Like Warnke and Bouchard (2013), we defined mother tongue on the basis of respondents who indicated a single mother tongue (what Statistics Canada calls a "single response"). For more information about Canadian official language definitions, consult Forgues and Landry (2006).

## 3. Results

We observe (Table 1) that the representation of Francophones is low everywhere except in New Brunswick (32.7%), whereas Anglophone representation dominates everywhere else (64.7% to 97.6% of jurisdiction populations). Allophones are in much larger proportion than Francophones in most jurisdictions except in the four Atlantic Provinces (the first 4 rows in the Table); a similar pattern is obviously repeated for other categories such as: visible minorities, immigrants or for the Simpson's Diversity index. French ranks relatively high compared to other languages most often spoken at home, except in the 3 western-most provinces. In the case of Francophones, LVIs are highest in New Brunswick (0.909) and lowest in Saskatchewan (0.257; i.e., 71.7% lower than in New Brunswick). In the case of Anglophones, LVIs are highest in the 3 Territories (1.185) and lowest in Newfoundland and Labrador (1.012; i.e., 14.6% lower than in the Territories). In other words whereas Anglophone majority

communities exhibit relatively high LVIs across all jurisdictions, speak mostly English at home, and gain English-speakers from other linguistic communities, the opposite is true for Francophone minority communities: they exhibit wide-ranging LVIs (they are below 50% in most jurisdictions), and they lose French-speakers to other linguistic communities (especially English). Overall, the results indicate that 38% of Francophones do not speak mostly French at home.

Table 1. Demographic statistics for 10 Canadian jurisdictions: Fr = Francophone; An = Anglophone; Allo = Allophone; VM = Visible Minority; IM = Immigrants; SDI = Simpson's Diversity Index; ROF = Rank of French (Language most often spoken at home).

	%Fr	%An	%Allo	%VM	%IM	SDI	ROF	LVI ratio	LVI Fr	LVI An
NL <sup>†</sup>	0.4	97.6	2.0	1.1	1.7	0.030	2	0.353	0.357	1.012
PEI <sup>†</sup>	4.2	93.6	2.3	1.4	3.6	0.093	1	0.472	0.490	1.038
NS <sup>†</sup>	3.7	92.3	3.9	4.2	5.0	0.107	1	0.509	0.530	1.042
NB <sup>†</sup>	32.7	64.7	2.6	1.9	3.7	0.461	1	0.850	0.909	1.069
ON <sup>†</sup>	4.2	69.1	26.6	22.8	28.3	0.340	1	0.504	0.596	1.183
MA <sup>†</sup>	4.0	74.6	21.4	9.6	13.3	0.249	1	0.390	0.461	1.181
SA <sup>†</sup>	1.8	85.5	12.8	3.6	5.0	0.130	4	0.233	0.257	1.103
AB <sup>†</sup>	2.0	79.6	18.4	13.9	16.2	0.214	5	0.293	0.330	1.126
BC <sup>†</sup>	1.4	71.2	27.4	24.8	27.5	0.303	9	0.257	0.301	1.169
TE <sup>†</sup>	2.5	65.0	32.4	3.9	6.2	0.277	2	0.416	0.493	1.185

<sup>†</sup> NL = Newfoundland & Labrador; PEI = Prince Edward Island; NS = Nova Scotia; NB = New Brunswick; ON = Ontario; MA = Manitoba; SA = Saskatchewan; AB = Alberta; BC = British Columbia; TE = 3 Territories, i.e., Northwest Territories, Nunavut, and Yukon

Next we test Landry's model through standard linear regression (Zar, 1984) of the two social responses, i.e., offer and demand for health care services in French, on LVI ratios. The associations between the social responses and LVI ratios are very strong: the lower the LVI ratio (i.e., the more the ratio favors the dominant community), the lower the offer or demand for health care services in French.

$$\text{Demand} = 18.43 + (79.44 \cdot \text{LVI Ratio}) \quad [F(1, 8) = 97.2, R^2 = 0.924, p < 0.001] \quad (1)$$

$$\text{Offer} = -10.51 + (104.88 \cdot \text{LVI Ratio}) \quad [F(1, 8) = 36.5, R^2 = 0.820, p < 0.001] \quad (2)$$

Mapping these results, we see in Figure 1 that offer nearly satisfies demand in New Brunswick, the Province with the highest LVI ratio. The four leftmost Provinces in the graphic are the three western-most provinces as well as the most eastern, Newfoundland and Labrador. For these jurisdictions offer is below 45% of the demand. We also note that offer and demand data are more variable at intermediate LVI values (a small gap for Manitoba, a moderate gap for Nova Scotia or Ontario, and a large gap for Prince Edward Island or the Territories).

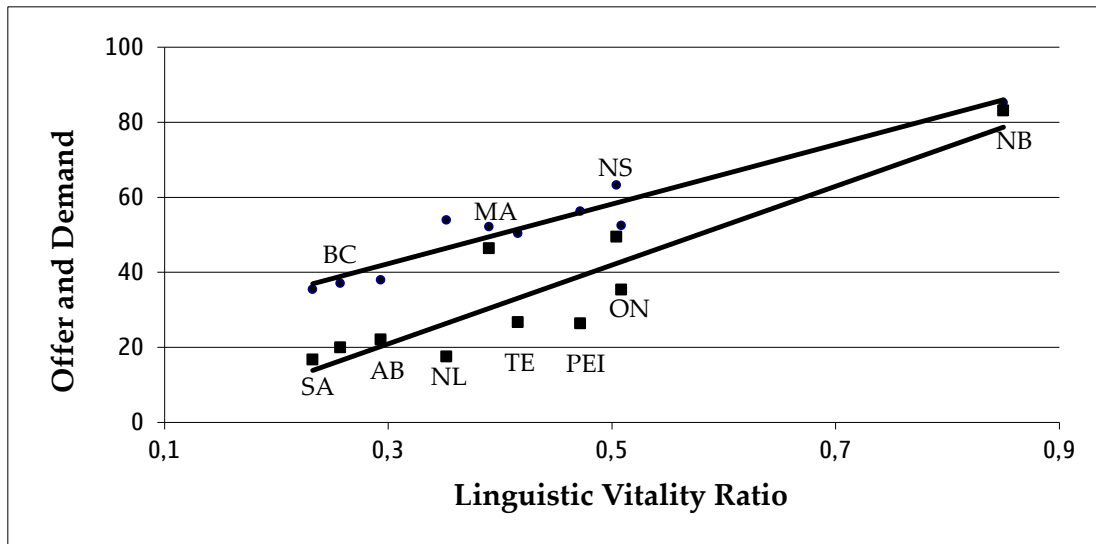


Fig. 1.

Offer and demand for health care services in French as a function of the ratio of linguistic vitality indices (Francophone/Anglophone) in 10 Canadian jurisdictions; the Territories data are pooled. (Demand = dots; Offer = squares).

To test whether other jurisdictional socio-demographic factors explain additional offer and demand variation, we used multiple linear regression (Zar, 1984) of offer and demand on the seven demographic factors in columns 2 to 8 in Table 1. While no additional variable explained variation for the demand relationship and Eq. 1 stands as is, one additional factor was statistically significant in the case of the offer relationship. Eq. 2 can therefore be updated as follows:

$$\text{Offer} = -13.36 + (82.92 \cdot \text{LVI ratio}) + (55.55 \cdot \text{SDI}) \quad [F(2, 7) = 35.6, R^2 = 0.910, p < 0.001] \quad (3)$$

This shows that although the relationship between the offer of health care services in French and Linguistic Vitality Ratios is very strong (Eq. 1), it is somewhat affected by jurisdictional linguistic diversity (Eq. 3). This suggests that jurisdictional linguistic diversity (a) modifies the response predicted by Landry's model, a factor not explicitly contemplated in his original 'bilingual' intergroup version, and (b) affects the social response of the majority community, to the benefit of francophone communities (a spin-off effect).

#### 4. Discussion

Strong relationships between two social responses and the ratio of the linguistic vitalities of Francophone minority to Anglophone majority communities across 12 Canadian jurisdictions provide strong evidence in favour of Landry's (2012) ethno-linguistic development model. The agreement between the field and theory validate the model and the dialectic linguistic theory on which the model is founded. We believe therefore that our findings as well as the practical lessons proposed below are generally applicable (Landry, Allard & Deveau, 2007), to other minority communities in Canada or elsewhere, to other sectors besides health, and to other jurisdictional levels (e.g., national, regional, municipal).

Our study reveals three perspectives regarding Landry's model. First it shows that the social response of the majority (offer) is affected by the multilingual and multicultural context within which Canada's two official languages communities interact: the less anglo-dominant a jurisdiction, the higher the offer of health care services in

French. In other words minorities collectively affect the power relationship of a minority community with the majority community, to the benefit of the former. This is a significant finding in the Canadian context because immigrants whose mother tongue is neither French nor English are fast increasing in numbers in Canada (National Post, 2013). According to the 2011 Canadian Census, about 1 in 5 Canadians speak a language other than English or French at home (Canada, 2012). This linguistic diversity effect should be considered in future francophone community vitality studies, whenever possible.

The second perspective is obtained by interpreting Landry's cultural autonomy model as a phase diagram. Phase diagrams are concrete demographic maps that help illustrate the spatial or temporal evolution of complex phenomena (Verbitskii & Tereshchenko, 1996; Shone, 2002; Guermond, 2008; Matcharashvili et al., 2007). For example the "X" axis of Figure 1 represents the dynamic dimension of the phase diagram. Since Table 1 shows however that Anglophone majority vitality is consistently high (between 1.01 and 1.19) while that of the Francophone minorities is variable, it follows that, from a phase diagram perspective, the dynamic of the system reflects primarily the vitality of the minority community. The scope of this dynamic can be appreciated across column 9 in Table 1, and by comparing those 2011 data to equivalent 2001 data based on Statistics Canada's national censuses: 2011 jurisdictional LVIs were within  $\pm 10\%$  of 2001 LVIs; they grew 8 to 10% in the Western Canadian provinces and in the Province of Newfoundland and Labrador, declined about 8% in Nova Scotia, and remained stable or decreased slightly elsewhere.

The phase diagram perspective also shows that the social responses are constrained along narrow trajectories over the whole range of vitality ratios. As a result, no single jurisdictional minority community can, on its own, push the linear national trajectories upwards, or consistently sustain a development trend that deviates from the system trajectories illustrated in Figure 1. If for example the British Columbia Francophone minority decided to invest heavily in a health care services initiative to attempt to grow the offer of health care services straight up along a vertical plane, it is predictable that success would be fleeting since sooner or later system constraints would come into play to bring it back along the trajectory, at a level that is consistent with the vitality of the community. To push the social development regression lines "up" within the Figure 1 phase space requires that all Francophone minorities act in a concerted way at an inter-jurisdictional level to realize an overall system change by influencing the control exerted by the majority, through promotional and political interventions. Such an endeavor would be complex and long term.

The perspective derived from the phase space diagram therefore is that community vitality represents a "fast" or short-term dynamic of the phase diagram (what Landry calls the evolution of cultural autonomy) while the social development response exhibits a "slow" or long-term system dynamic (what Landry calls social determinism). Though the two are not mutually exclusive (a social change can presumably affect both), the distinction between fast and slow dynamics is an important one and reveals three practical lessons.

First of all, because the social responses are primarily proportionate to the francophone community vitality, *minority communities should focus on building community vitality as a tool to generate favorable social responses*. They should prefer and diligently support system interventions designed with community vitality and identity in mind, and more generally view a sector such as the health sector as a social development tool that contributes to the vitality, the cultural identity, and the wellbeing of their community, rather than as a service sector.

Second, because fast and slow variables operate at different temporal and spatial scales, *minority communities should adopt dual intervention strategies*, i.e., tackle the "fast" dynamics of the evolution of cultural autonomy through community initiatives, within a jurisdiction, and tackle the "slow" dynamics of the system's social responses through long-term advocacy, political representation and coalition-building at inter-jurisdictional and national levels.

Third, *minority communities distributed over several jurisdictions should adopt a governance model that facilitates the dual strategy mentioned just above, to address both local community vitality challenges and global advocacy system challenges effectively*. Levy (2014) and Crump and Mavro (2011) describe consortium governance models that exhibit the required characteristics to achieve that goal (what Crump and Mavro (2011) call a "contractual consortium through a lead organization").

The third perspective is obtained by matching the "slow" dynamics of the social response at an inter-jurisdictional level and the "fast" dynamics of community vitality at an intra-jurisdictional level with the three

essential cultural autonomy components proposed by Landry. His first component, social proximity, which applies to all minority situations but is the only component available to communities in extreme minority situations, stems from individuals who primarily use their mother tongue in family and social contexts and pass their language and culture to the next generation without substantial help from the public sphere. This component corresponds well with the “fast” component of community dynamics in our phase diagram. The third component, ideological legitimacy, refers to situations where the State and majority support the development of an autonomous minority by enshrining their rights in a legal framework, through representation and through the creation of tailored programs and services. It seems to correspond well with the “slow” component of community dynamics in our phase diagram.

While Landry suggests that the ideological legitimacy component applies only to communities at high levels of linguistic vitality, we believe however that it can also apply to all vitality levels in a multi-jurisdictional environment such as is the case for the federated jurisdictions of Canada. Thus a higher order of social responses is possible in jurisdictions where Canadian Francophones exhibit low demographic weights (less than 2%) and low linguistic vitality, because the demographic weight of Francophones is relatively high at a national level (around 20% overall). Ideological legitimacy may therefore have a global portent that pushes the social response system trajectories “up” across all the jurisdictions represented in Figure 1. For example Canadian Francophones have rights to services in French across jurisdictional boundaries in several spheres of federal jurisdiction (in whole or in part: public health, legal and educational services, immigration, etc.) Other programs that enjoy a high degree of national popularity such as French immersion education also represent a social response that is beneficial to all Francophone minority communities across Canada (and across all sectors) by generating a large number of French-speaking professionals at a level that well surpasses the francophone communities’ own generating capacity (Giguère & Conway, 2014).

## 5. Conclusion

We suggested that Canadian Francophone communities represent a natural experiment that can help test and demonstrate the validity of Landry’s ethno-linguistic community development model. We do that by examining the relationship between social responses over the access to health care services in French and the Linguistic Vitality Ratios of Francophone and Anglophone communities across 12 Canadian jurisdictions where Francophone individuals represent from 0.4% to 32.7% of total population. We observe strong linear associations and validate Landry’s model and the dialectic linguistic theory on which it is founded.

We observe a secondary effect associated with linguistic diversity: the more diverse a jurisdiction, the greater the access to health care services in French (a “spin-off” effect). Furthermore, mapping the social responses against vitality ratios yields a heuristic phase diagram which represents Landry’s model through a Health Care Sector lens. The phase diagram illustrates that the social responses follow narrow system trajectories that are in proportion to the vitality of the minority community. We observe that Francophone minorities have more control over local system dynamics (fast variable; what Landry refers to as the evolution of cultural autonomy) whereas the Anglophone majority has more control over global system constraints (slow variable; what Landry refers to as social determinism).

Our results suggest three practical lessons that may benefit minority communities:

(a) minority communities should focus on building community vitality as a tool to generate favorable social responses; (b) the dynamics of the evolution of cultural autonomy and the dynamics of social determinism operate on different temporal and spatial scales and minority communities should tackle these dynamics through a dual strategy relying on different tools and approaches; and (c) minority communities should adopt governance models that effectively address both local community vitality challenges and more global social determinism challenges.

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