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Language as Status in Multilingual Switzerland

Karen Robson* and Gillian Anderson**

1 Introduction

The main objective of this paper is to examine the effects of language as a "status characteristic" on indicators of social stratification in a multilingual society, namely Switzerland. Language as a basis for social stratification has been examined in multilingual societies such as Canada, the US, Belgium, and Switzerland. In Canada, the English-French language debate has sparked sociological inquiry surrounding official language knowledge, ethnic and linguistic diversity and cultural pluralism. Bilingualism has been the focus of much of this social research. Prior research indicates that a "language penalty" does exist and not knowing English can be costly for French Canadians. English is the "language of work" and anglo-conformity in the sphere of paid employment has been well documented (Morris and Lanphier, 1977). For example, Grenier's (1997) study used Canadian census data to investigate how francophone minorities in Ontario and New Brunswick fared economically. Income comparisons and earnings regressions revealed that francophones in Ontario earned slightly less than anglophones, but the incomes of francophones in New Brunswick fell significantly below those of their English speaking counterparts (Grenier 1997: 285).

American studies have also shown that inability to speak English influenced workers' incomes, particularly among members of the Hispanic American population. Research suggests English fluency and English skill investment affect earnings and that the impact is experienced unevenly among different Hispanic ethnic groups (Davila and Mora 2001:83–5), likely due to Mexican Americans' acquisition of English occurring more rapidly than Puerto Rican and Cuban Americans in the 1980s. The "language penalty" is especially steep for Hispanic men in the United States (Kossoudji, 1988 cited by Pendakur and Pendakur, 2002a, 2002b). Similarly, focusing on Switzerland, Grin and Sfreddo's (1998: 521) research demonstrated that italophones living outside Italian-speaking communities experienced a socio-economic disadvantage in earnings.

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1.1 Language as human capital?

The above studies focused on the relationship between language and earnings and have argued that language penalties can be found in Canada, the US and Switzerland. Having surveyed much of the literature on language and stratification in Canada and the United States, Grin (1996: 19) indicated that while these relationships have been found to exist, there has been much less emphasis on developing theoretical models to explain these differences. Very little has been achieved in explaining the causal mechanism through which these disadvantages occur.

One popular perspective within the existing sociolinguistic literature views language as a standard form of human capital. Here language knowledge is conceptualised as a skill or investment like education or other forms of training and work experience (Pendakur and Pendakur, 2002a, 2002b; Vaillancourt, 1996). Human capital theorists maintain that rational workers will invest in themselves in order to enjoy greater economic success. The logical assumption is that workers investing in additional language knowledge will be rewarded with higher returns or rewards. As such, language is understood to be a determinant of earnings and is used to explain earnings differences.

Clearly, learning a second language can be costly in terms of time input or expense. Individuals may, however, make the investment and acquire language knowledge if the "returns" exceed the "costs" thereby engaging in a cost-benefit type analysis. Other factors that may need to be considered include an individual's linguistic abilities, the level of difficulty of a new language (Grin 1996), accumulation time (Vaillancourt, 1996), money and effort expended, and language value in the labour market (Pendakur and Pendakur, 2002a, 2002b). Some research has shown that returns to language skills investment may vary by gender, age, geographical location and economic sector with greater payoffs for English acquisition found in the manufacturing versus the public or service sectors given their reliance on outside markets (Pendakur and Pendakur, 2002a, 2002b; Vaillancourt, 1996). Grenier (1997) found that in Canada, income differences between francophone and anglophones were smaller for women than men in both Ontario and New Brunswick. Still other research shows that only those who have an excellent command of a second language will benefit from bilingualism (Vaillancourt, 1996: 76).

The human capital approach to language knowledge has been criticised for emphasising the element of cost. The concept of cost is lacking because it focuses primarily on the communicative nature of language (Grin, 1996). Grin (1996) for instance, is wary of the "language as currency hypothesis" and observes its limited application in the selection of official languages in multilingual countries. Moreover, he suggests that if languages are nothing more than communication "tools", sociologists would be hard pressed to explain why language issues have "fuelled" such "passion" and social debate (Grin, 1996: 29). Davila and Mora (2001) also note that investment and acquisition of other forms of human capital

(i. e. education) differ by ethnic group. Their research shows that workers who make similar investments in acquiring language knowledge, for example, Hispanic Americans learning English, continue to see differential returns. Therefore these authors expect that the economic returns associated with English language proficiency are likely to vary by ethnicity.

1.2 Language as ethnicity?

In the social context of the workplace, language is obviously a crucial skill. Grenier's (1997) Canadian research suggests that minority language maintenance has a negative impact on economic success. Maintenance of minority languages may marginalise individuals and prevent them from participation in wider social networks present in the dominant economic culture.

In contrast to human capital theory, an alternative perspective concentrates on the relationship between language and ethnicity. Here, language knowledge is often identified as an "ethnic attribute" (Grin and Sfreddo, 1998; Pendakur and Pendakur, 2002a, 2002b). Language is conceived of as a cultural characteristic where speech and speech communities may be viewed as expressions of identity, ethnic background, ethnic ties, and ethnic group membership.

Lang (1993: 168–170) contended that language usage and language networks set groups of workers apart. He maintained that language differences generate transaction costs, and that these costs may produce language based wage gaps. Employers may invoke language as a means of differentiating workers. Language differences are used to legitimate the assumption that employers are less knowledgeable of, and therefore less able to accurately evaluate the productivity of workers who speak different languages (1993: 170). According to Lang (1993), not speaking the same language can lead to "imperfect information" or "imperfect communication" and translate into discrimination. Similarly, while Pendakur and Pendakur (2002a, 2002b) maintain that non-elite minority language knowledge may work to one's benefit in ethnic labour market enclaves, it appears to be detrimental within mainstream labour markets where discrimination against minority groups persists. Minority language knowledge may act as "lightning rod for discrimination" (2002a: 152) or "function as a marker of difference" (2002b: 14) whereby ethnic language workers experience differential treatment.

Pendakur and Pendakur's (2002a; 2002b) recent research on three of Canada's largest urban centres showed striking results with respect to the link between language, ethnicity, and earnings. Their results revealed negative returns to knowing a minority language, even for workers who were proficient in a majority language. These workers continued to earn less than those who only spoke a majority language. For example, male workers in Montreal who spoke English as well as one other nonofficial language earned over ten per cent less than English unilinguals (2002a: 157; 2002b: 7).

1.3 Language as a status trait

Above, two perspectives on the role of language in social stratification processes were considered. The first viewed language as a form of human capital. The different returns that members of language groups receive on other human capital characteristics (Davila and Mora, 2001) suggest that language is not well-conceived of as human capital, if we consider human capital to refer to the economically salient skills that individuals possess. The second perspective discussed language as a marker of ethnicity and was of the orientation that minority language can "function as a marker of difference" (Pendakur and Pendakur, 2002a). As well, minority speakers who were proficient speakers of the dominant language were found to earn less than unilinguals of the dominant language. This suggests that it is not so much the proficiency in the language that matters, but that speaking a minority language signals ethnic minority status.

Ethnicity is conceptualised here as a status trait that can influence the acquisition of human, social, and cultural capital. The forms of capital are conceptualised as being three distinct but inextricably linked aspects of social position. Human capital refers to the skills that individuals possess which can be exchanged for economic reward, while social capital refers to the personal connections and networks that individuals have in society (Bourdieu, 1984; Coleman, 1988). Cultural capital, following Bourdieu (1984), refers to knowledge and shared cultural signals related to the participation in various forms of consumption. Furthermore, all three forms of capital are theorized to be convertible into one another (Bourdieu, 1986).

1.4 Differences in investment habits by ethnic group

Previous research in identifying differences in "capital" investment among ethnic groups has tended to focus on the success of minority groups within dominant cultures. For example, low levels of human capital by immigrants in Germany have been attributed to educational differences (Granato and Kalter, 2001), and thus an "under-investment" in human capital. As well, Trienekens (2002) found that in the Netherlands, ethnicity was a predictor of the types of leisure consumption activities, wherein ethnic minorities participated in less highbrow, popular, and community-based cultural events than their Dutch counterparts. Conversely, Swedish-speaking Finns have been found to have higher investments in social capital that the Finnish speaking majority (Hyyppa and Maki 2001), and among American high school students, McNeal (1998) found that ethnic minority groups had a greater likelihood of participating in extracurricular activities, several of which approximated human, social, and cultural capital investments. Additionally, Nee and Sanders (2001) found that immigrants with low stocks of human capital were more likely to find employment within the economy of their ethnic minority,

while immigrants with capital that was useful in the host society were likely to gain employment in the mainstream economy.

These previous studies indicate different investment behaviours of minorities within dominant cultures, but little attention has been given to the investment behaviour of individuals in countries where assimilation to the dominant culture is not necessarily expected. As well, it should be acknowledged that the "capitals" might differ in definition by ethnic group in pluralist societies. For example, Carter's (2003) study of African American youths from disadvantaged backgrounds found that ethno-specific cultural capital was often different from the cultural capital of the dominant culture. While beyond the scope of this paper, examination of how human, social, and cultural capital characteristics vary by ethnicity may provide some insight into why differences persist in various spheres of social life.

2 The Swiss case: context and rationale

Switzerland is unique in that it is a country composed of three distinct language communities or regions that recognise three official languages including German, French and Italian; four national languages including Romansch. As well, Switzerland is often applauded for its cultural pluralism. It has been described as "the most successful multilingual state in modern history" (Dunn 1970: 256). A state that lacks a history of linguistic conflict, it has been touted as the "famous Swiss Wunder or miracle" (Prevost and Beaud, 2002: 95). Additionally, Swiss political culture recognises and accepts diversity (McRae, 1983: 105). According to McRae (1983: 121-3) the political linguistic system is based on three key ideas: (1) the "absolute equality of the Swiss languages", (2) the sovereignty exercised by the Swiss cantons with respect to language related issues, and finally (3) the principle of "territoriality" whereby each canton has "the right to defend and preserve" its linguistic character against outsiders. Likewise, Prevost and Beaud (2002: 94) note that each canton is "entrusted with the powers necessary to protect the integrity and purity of their linguistic areas." Thus Swiss political power tends to reside in the cantons. This decentralised process aims to accommodate diversity and affords language groups a sense of cultural and communal autonomy (McRae, 1983: 107-9).

The Swiss case is interesting given the historical stability of various language communities and the high level of regional "linguistic homogeneity" (McRae 1983). Seventeen of the twenty six Swiss cantons are predominantly German speaking (i. e. more than 80 per cent); in Jura and Neuchâtel (87.8 per cent and 80.2 per cent respectively) the majority declare French as their mother tongue; and in Ticino (82.8 per cent) Italian is the major language spoken (Prevost and Beaud, 2002: 92–3). However as Grin (1996: 35) notes, recognising "linguistic

and cultural plurality" does not necessitate an "idealistic disregard" for intergroup competitiveness when it comes to limited resources. It has even been stated that "Swiss who move from one linguistic area to another have a "national duty" to assimilate" (Prevost and Beaud, 2002: 94). Moreover, given that territory and language appear to coincide (McRae, 1983; Laczko, 1994; Linder, 1994; Prevost and Beaud, 2002) variation in legislation, education, and culture (Renaud et als., 2001: 162) facilitates strategic comparative analysis of "capital" disparities associated with language across the Swiss cantons.

3 Objectives of the current research

It was argued above that language is an appropriate proxy for ethnicity. Ethnicity is argued to be a status characteristic that affects the acquisition and conversion of capitals. One major objective of this paper is to examine the direct effects of language as a status characteristic on individuals' stocks of human, social, and cultural capital. There are three main hypotheses that will be tested. The first is that speaking a minority language will have a direct negative impact on all forms of capital. The second related hypothesis is that the effect on the capitals of speaking a minority language will be reduced in heterogeneous areas. This is because status characteristics will carry less importance in more mixed areas where status characteristics will be less "unusual" and potentially stigmatic. A third exploratory hypothesis that will be examined is that the investment in the capitals differs by ethnicity, not simply due to status disenfranchisement, but possibly due to investments differing in importance to members of different cultural groups.

4 Data, methods, and analytic strategy

This analysis uses data from the 1999 wave of Swiss Household Panel Study (SHPS). The data analysed here are restricted to those persons aged twenty-one to fifty-nine who answered the language questions in 1999, as well as the various other items that are examined here (Ns for each estimation are provided in the tables). At the household level, the net response rate was 61 per cent, which is considered good for panel studies of this nature. This analysis employs a cross-sectional analysis of the 1999 wave. At the time of analysis, language questions were asked only in the initial year of data collection.

4.1 Variables

In this section, the items used to measure human capital, social capital, cultural capital, language, language region, and various controls are discussed.

4.1.1 Human capital

Economically salient capital was measured for both the cohort member and his or her family of origin. The human capital of the panel member was measured by estimating the hourly earnings potential of the respondent using the techniques suggested by Gershuny (2000). This human capital variable is referred to as earnings potential in the tables that follow. Details of the estimation equation are presented in Annex 1. Gershuny's human capital estimator is particularly useful in that it understands human capital as a collection of characteristics that are accumulated across time. It is truly innovative as it recognises this dynamic nature of the life course and the longitudinal nature of capital accumulation. As a continuous measure, one major advantage of this human capital estimator over more traditional approaches (i. e. those that measure "class") is that it can examine changes over relatively short periods of time, as opposed to other measures that focus on mobility between generations.

Gershuny (2000) argues in various writings that categorical conceptualisations, like those developed by Goldthorpe and his colleagues (see for example, Goldthorpe 1987, 2000), have a host of shortcomings that, to a large extent, misspecify the processes behind social stratification. Arguing that class position is more than just an expression of occupational prestige, Gershuny (2000) suggests an alternative specification of social position that is non-categorical in nature, can measure relatively small changes over short periods of time, is assignable to those not in employment (or to those who have missing values on income variables), and is even aggregable to the household level. This continuous measure is essentially the predicted values from a regression equation with wages as the dependent variable and skills, age, work experience, and various quadratic and interactive terms as the predictors. The measure itself is a human capital estimator. If human capital is understood to mean those skills that are most easily convertible to economic resources (i. e. education and work experience), then the predicted earnings from such a skill set in a representative sample should provide a reasonable estimator of one's potential "worth" in a capitalist society. Where someone's score is on the distribution of such scores, should indicate his or her relative human capital position.

To measure the social position of the panel members' family of origin, the father's highest level of educational attainment was used. Where father's information was missing, mother's information was used.

4.1.2 Social capital

There are two distinct components to the conceptualisation of social capital used here. The first focuses on individual relationships. The greater the number of contacts, the greater the social network of a person, and the greater access a person has to resources potentially available through other people. This concept is measured

by two items. The first item measures number of friends, while the second measures number of colleagues. Respondents were asked, "How many good and close friends do you have?" and "With how many work colleagues or acquaintances met during the course of leisure, political, religious or other activities, are you on good terms?"

Respondents were also asked about their membership in various organisations. These items provide information on how attached the individual was to his or her community and thus get at the "civic engagement" aspect of social capital. Respondents were asked if they were active or passive members of the following types of organisations: 1) local or parents' associations, 2) sports or leisure associations, 3) an organisation involved in cultural activities, music, or education, 4) a syndicate or employees' association, 5) a political party, 6) an organisation concerned with protection of the environment, 7) a charitable organisation, 8) a women's organisation, or 9) a tenants' rights association. Active memberships to any groups were coded "1" and summed to create a variable that measured an individual's civic engagement. Passive memberships (i. e. just paying membership fees to an organisation) were not considered expressions of civic engagement, and were therefore not included in the social capital measure.

4.1.3 Cultural capital

An individual's cultural capital was assessed through their participation in high culture leisure activities. Respondents were asked about the frequency that they participated in: 1) reading for leisure, 2) attending a course for leisure, and 3) going to the theatre, the opera, or visiting an exhibition. Response categories were: everyday, at least once a week, at least once a month, less than once a month, and never. Dummy variables were created for reading at least once a week, and taking a course and attending the theatre, opera, or exhibition at least once a month.

4.1.4 Language as a status trait

First language was assessed by response to the question: "Which language do you relate to and master best? If the respondent indicated having a second language, he or she was also coded as having a second language at this stage. All languages identified by respondents were recorded. For first language of personal use, codes were collapsed into "German", "Swiss German", "French", "Italian", and "other". The distinction between Swiss German and German was retained because of the significant number of respondents (N = 275) indicating German (rather than Swiss German) as their first language. Included in the "other" category were Swiss-French dialect speakers (N = 3), and Ticino dialect speakers (N = 34). A dummy variable for having a second language was created, where "1" indicated having a second language.

4.1.5 Language regions

Dominant language by canton was determined by both information obtained from the federal Swiss statistical organisation (Statistik Schweiz 2003) literature, and a crosstabulation of canton by first language. Two cantons, Jura and Appenzell Inner-Rhodes were excluded from the analysis due to very small sample sizes. Table 1 summarises how language regions were identified. The majority of cantons were German dominant, while Geneva, Neuchâtel, and Vaud had French majorities. Ticino was the only canton where Italian was dominant. Although Fribourg and Valais had clear French majorities of about two-thirds, substantial German pro-

Table 1: First Languages by Canton (row percentages)

Language Region	German+	French	Italian	Other
German Dominant		17 1 1 9 h	29	
AG Argovia	90.03	1.06	3.63	5.29
AR Appenzell Outer-Rhodes	92.73	1.82	0.00	5.45
BE Berne	83.05	13.11	1.69	2.15
BS Basle-Town	88.56	1.99	2.99	6.47
BL Basle-Country	90.81	3.89	0.71	4.59
GL Glarus	94.74	0.00	5.26	0.00
LU Lucerne	93.73	1.00	1.75	3.51
NW Nidwalden	95.65	0.00	0.00	4.35
OW Obwalden	97.56	0.00	0.00	2.44
SG St. Gall	92.39	0.22	2.46	4.92
SH Schaffhausen	90.91	0.00	6.49	2.60
SO Solothurn	93.81	0.00	3.44	2.75
SZ Schwyz	90.35	0.88	1.75	7.02
TG Thurgovia	94.14	0.45	1.80	3.60
UR Uri	100			
ZG Zug	85.71	0.00	2.20	12.09
ZH Zurich	89.00	2.07	3.67	5.26
French Dominant				
GE Geneva	4.18	79.11	3.13	13.58
NE Neuchâtel	4.26	85.49	2.90	7.35
VD Vaud	7.04	83.24	2.68	7.04
Italian Dominant				
TI Ticino	12.23	2.14	81.65	3.98
High Mix				
FR Fribourg	30.16	65.25	1.31	3.28
GR Grisons	77.51	0.59	7.10	14.79
VS Valais	27.11	66.67	1.83	4.40

⁺ Swiss German and German

portions were found here as well -30 per cent in Fribourg and 26 per cent in Valais. Similarly, Grisons had a clear German majority (76 per cent), but the largest Italian speaking proportion found outside of Ticino (10 per cent). Thus four language regions were created: German dominant, French dominant, Italian, and mixed. The mixed category was constructed to test whether higher degrees of language heterogeneity were associated with mother tongue having differential returns to the capitals examined here (i. e. the second major hypothesis tested in this paper).

4.1.6 Control variables

Age was measured by the current age of the respondent at the time of the survey. A dummy variable measuring if a respondent was resident in an urban centre was constructed (1 = urban). A dummy variable for females was created (1 = female). A variable measuring the respondent's marital status at the time of the survey was included in the data set. The variable was recoded slightly to the categories married, cohabiting, single, and previously married (including divorced, separated, and widowed).

Table 2: Descriptive Statistics

Obs	Mean	Std. Dev.	Min	Max
5572	0.59		0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
5572	0.04		0	1
5572	0.24		0	1
5572	0.06		0	1
5572	0.07		0	1
5572	0.94		0	1
5541	0.56	0.50	0	. 1
4405	40.54	12.33	15.53	79.80
5509	5.82	4.78	0	20.00
5444	6.07	7.25	0	25.00
5572	0.87	1.02	0	7
5562	0.92		0	1
5548	0.18		0	1.
5562	0.24		0	1
5572	0.57		0	1
5457	0.20		0	1 40 1 40 1
5572	0.65		0	1
5572	0.07		0	1
5572	0.17		0	1
5572	0.11		0	1
5572	40.09	10.10	21	59
	5572 5572 5572 5572 5572 5572 5541 4405 5509 5444 5572 5562 5548 5562 5572 5457 5572 5572 5572	5572 0.59 5572 0.04 5572 0.24 5572 0.07 5572 0.94 5541 0.56 4405 40.54 5509 5.82 5444 6.07 5572 0.87 5562 0.92 5548 0.18 5562 0.24 5572 0.57 5457 0.20 5572 0.07 5572 0.17 5572 0.11	5572 0.59 5572 0.04 5572 0.24 5572 0.07 5572 0.94 5541 0.56 0.50 4405 40.54 12.33 5509 5.82 4.78 5444 6.07 7.25 5572 0.87 1.02 5562 0.92 5548 0.18 5562 0.24 5572 0.57 5457 0.20 5572 0.07 5572 0.17 5572 0.17 5572 0.11	5572 0.59 0 5572 0.04 0 5572 0.24 0 5572 0.06 0 5572 0.07 0 5572 0.94 0 5541 0.56 0.50 0 4405 40.54 12.33 15.53 5509 5.82 4.78 0 5444 6.07 7.25 0 5572 0.87 1.02 0 5562 0.92 0 0 5548 0.18 0 0 5572 0.57 0 0 5572 0.57 0 0 5572 0.07 0 0 5572 0.07 0 0 5572 0.17 0 0 5572 0.17 0 0 5572 0.17 0 0

5 Descriptive results

Table 2 presents descriptive statistics for the entire sample. Almost 60 per cent declared Swiss German as their first language, followed by French (24 per cent), other (7 per cent), Italian (6 per cent), and German (4 per cent). Over half of the sample indicated that they possessed a second language. The mean earnings potential was just over forty Swiss Francs per hour. Respondents reported having on average six friends and colleagues, and the mean value for civic engagement was just below one, reflecting that 45 per cent of respondents indicated that they were not active members of any organisations. Over 90 per cent of the sample read at least once a week, while just 18 per cent attended a course at least once a month and 24 per cent attended the theatre, opera, or exhibition at least once a month. Fifty seven per cent of the sample was female and the average age of respondents was forty. Twenty per cent had a parent with high educational attainment. With regard to marital status, almost two-thirds were married.

Table 3: Language Region by First Language: Distribution of Cases

Region	German	French	Italian	Mixed	Total
First Language	1775.2	3174	13.0-		100
Swiss German	3135	25	12	114	3286
German	168	24	12	18	222
French	119	750	4	483	1356
Italian	114	25	159	15	313
Other	213	73	37	67	390
Total	3749	897	224	697	5567

Table 3 presents the numbers of cases available for each region and language group considered here. In the French, Italian, and mixed regions, there were small numbers of speakers of the minority languages. This was particularly the case in the Italian region where there were only four French speakers and just 12 speakers of Swiss German and 12 speakers of German. In the "mixed" region there were similarly small numbers of German and Italian speakers.

6 Results from multivariate estimations

For Switzerland as a whole, first language had a direct effect on social, cultural, and human capital. Of the concepts measuring social capital, having a French,

Italian, or "other" mother tongue had a negative effect on number of colleagues, and speaking German, Italian or some "other" first language had a negative association with civic engagement, compared to Swiss German speaker (Table 4).

Table 4: Regressions of Social Capital on First Language and Controls

a ciona a consuna ada.	real result have been a large tree.			er a car of the street strongs		
	All	German	French	Italian	Mixed	
Number of Friends	1				Ind a succession	
Swiss German	(ref)	(ref)				
French	1.021**	0.533	(ref)		(ref)	
First Language not French			-0.449		-1.589**	
German	-0.205	-0.235				
Italian	0.249	0.216		(ref)		
First Language not Italian				-1.556		
Other First Language	-0.315	-0.271				
Second Language	0.204	0.195	-0.045	1.171	0.159	
Observations	4267	2951	655	145	511	
Adjusted R-squared	0.02	0.01	0.01	0.07	0.02	
Number of Colleagues						
Swiss German	(ref)	(ref)				
French	-1.377**	-2.491**	(ref)		(ref)	
First Language not French			-0.616		1.050	
German	-0.812	-0.480				
Italian	-1.457**	-0.950		(ref)		
First Language not Italian				-0.508		
Other First Language	-1.859**	-1.785**				
Second Language	0.542*	0.717*		2.684*	0.336	
Constant	5.601**	5.598**	4.900**	2.921	3.326**	
Observations	4217	2908	652	145	507	
Adjusted R-squared	0.03	0.02	0.02	0.08	0.01	
Civic Engagement	······································					
Swiss German	(ref)	(ref)				
French	-0.074	-0.076	(ref)		(ref)	
First Language not French	orn bus co	situal como	-0.316**		0.173	
German	-0.302**	-0.315**	orb To arra		dman ban	
Italian	-0.340**	-0.307**		(ref)		
First Language not Italian	0.5 10	0.507		0.417*		
Other First Language	-0.321**	-0.377**		7.17		
Second Language	0.016	0.015	0.162	-0.200	-0.181	
Constant	0.451**	0.437**	0.486**	-0.030	0.358*	
Observations	4303	2978	659	148	513	
Adjusted R-squared	0.05	0.04	0.05	0.10	0.05	
, ajasta n. squareu	0.05	0.04	0.03	0.10	0.03	

Unstandardised Coefficients

^{*} significant at 5%; ** significant at 1% (two-tailed)

⁺ controlling for respondent earnings potential, parental education, sex, and geographic location.

The only deviation from this pattern was the positive effect of French mother tongue on an individual's number of friends.

With regard to cultural capital (Table 5), being a French, Italian, or "other" speaker was associated with a decrease in the odds of both reading for leisure and

Table 5: Logistic Regressions of Cultural on Language and Controls+

	All	German	French	Italian	Mixed
Reading at Least Once a Week					
Swiss German	(ref)	(ref)			
French	0.602**	1.037	(ref)		(ref)
First Language not French			0.321**		2.554*
German	0.954	0.833			
Italian	0.496**	0.424**		(ref)	
First Language not Italian				2.147	
Other First Language	0.487**	0.698			
Second Language	0.918	0.851	1.685	0.550	0.622
Observations	4297	2975	658	147	512
Pseudo R-squared	0.06	0.05	0.12	0.13	0.12
Attending a Course					
Swiss German	(ref)	(ref)			
French	0.489**	0.645	(ref)		(ref)
First Language not French	0.103	0.013	0.730		1.069
German	0.859	0.845	0.750		1.003
Italian	0.387**	0.474*		(ref)	
First Language not Italian	0.507	0.474		0.990	
Other First Language	0.491**	0.617*		0.330	
Second Language	1.148	1.121	1.279	7.231	0.979
Observations	4287	2967	655	148	512
				0.08	0.05
Pseudo R-squared	0.03	0.01	0.02	0.08	0.05
Attending Theatre, Opera, Etc					
Swiss German	(ref)	(ref)			Filtropies
French	1.623**	1.131	(ref)		(ref)
First Language not French			0.545*		0.482**
German	1.464*	1.489*			
Italian	1.099	0.445*		(ref)	
First Language not Italian				0.774	
Other First Language	0.756	0.686			
Second Language	1.111	0.998	1.467*	0.430	1.545*
Observations	4296	2975	656	147	513
Pseudo R-squared	0.06	0.06	0.06	0.12	0.07

Odds Ratios

^{*} significant at 5%; ** significant at 1% (two-tailed)

⁺ controlling for respondent earnings potential, parental education, sex, and geographic location.

attending courses. With regard to high culture events, however, French and German speakers had significantly increased odds of attending such events, compared to Swiss German speakers. These language-based differences in social and cultural capital suggest that perhaps there is an ethnic-based difference in investment in these two forms of capital. Compared to Swiss German speakers, other language speakers had less investment in social capital, except for the positive effect of being

Table 6: Regression of Logged Earnings Potential on Language, Social Capital, Cultural Capital, and Controls (All Switzerland)

		1	2	3	4
Language		F 5.00	-10		
French		-0.003	0.003	0.000	0.027**
German		0.085**	0.098**	0.083**	0.035*
Italian		-0.072**	-0.052*	-0.042*	-0.033*
Other First Language		-0.073**	-0.051**	-0.034	-0.022
Second Language		0.015	0.015	0.014	0.017*
Social Capital					
Number of Friends			0.001	0.000	0.002*
Number of Colleagues			0.002**	0.002**	0.001
Civic Engagement			0.047**	0.042**	0.016**
Cultural Capital			j. 0		
Read at Least Once a Week				0.127**	0.064**
Course at Least Once a Month				0.015	0.044**
Theatre etc at Least Once a Mo	nth			0.090**	0.073**
Human Capital	12.J	8111	18.79		To the second
Parental Education	1.7.	2	Pag	- F	0.108**
Controls				diamedi ya	
Cohabiting					0.052**
Single					0.023*
Previously Married					-0.020
Female					-0.165**
Age					0.088**
Age squared				00011	-0.001**
Urban		810 C	- 1.3	1995.13	0.012
Constant	àdo	3.654**	3.583**	3.453**	1.560**
Observations		4353	4244	4228	4155
Adjusted R-squared		0.01	0.04	0.07	0.50

Unstandardised Coefficients

^{*} significant at 5%; ** significant at 1% (two-tailed)

French on having friends. Speaking French, Italian, or some other first language decreased the odds of cultural capital investment as well, except in the case of German and French participation in high culture events.

Finally, the effects of first language on human capital were examined (Table 6). It was found that the impact of first language was mediated, to some extent, by social and cultural capital for German and Italian speakers. The direct effect of language was still statistically significant in the final model, where controls for social and cultural capital, family background, and various statuses were included. Compared to Swiss Germans, being a French speaker was associated with a 0.027 increase in logged human capital. For Germans (compared to Swiss Germans), the coefficient was 0.035. For Italian speakers, however, the effect was negative (b = -0.033).

To summarise, compared to being a Swiss German, speaking French, Italian, or other languages was negatively associated with social capital and cultural capital in all of Switzerland, with the exception of number of friends for French speakers and high culture consumption in the case of German and French speakers. Taking these factors (and others) into account, however, still resulted in a language-based differential in human capital for non-Swiss German speakers in Switzerland as a whole, along with evidence of the moderating effect that status has on returns to the forms of capital.

6.1 Results by region

Table 7 presents the regression of the natural logarithm of human capital on language, social and cultural capital and controls by language region. Due to the small number of respondents in the Italian region, it was not possible to do these estimations on the sample representing the Italian region. In the German region, independently of the effects of other variables, speaking German as a mother tongue was positively associated with human capital (compared to Swiss German speakers), while speaking Italian as a first language had a negative impact on human capital. In the mixed region, speaking a language (other than French) had a negative impact on human capital, independent of the effect of other variables. These findings are particularly striking, given that the effects of language were still significant even given the inclusion of social capital and cultural capital, as well as numerous controls, in the models. In the mixed region, however, not speaking French as a first language did not have an effect on human capital. Interestingly, it was only in the mixed region where having knowledge of a second language had a positive effect on human capital.

Table 7: Regression of Logged Earnings Potential on Language, Social Capital, Cultural Capital, and Controls by Language Region

i saringa - geralis - 1	German	French	Mixed
Language			
Swiss German	(ref)		
French	0.006	(ref)	(ref)
French not First Language	0.000	-0.073**	-0.024
German	0.046*	0.075	0.024
Italian	-0.068**		
Other First Language	-0.015		
Second Language	0.006	0.035	0.045*
Social Capital	1 306		
Number of Friends	0.001	0.002	0.001
Number of Colleagues	0.001	0.001	0.002
Civic Engagement	0.013**	0.015	0.028**
Cultural Capital	gregor e for or		nga ^{lat} i ga
Read at Least Once a Week	0.042**	0.089**	0.107**
Course at Least Once a Month	0.041**	0.066*	0.083**
Theatre etc Once a Month	0.061**	0.088**	0.074**
Human Capital	*		
Parental Education	0.102**	0.106**	0.136**
Controls			V
Cohabiting	0.054**	0.072*	0.027
Single	0.021	0.046	0.005
Previously Married	-0.012	-0.043	-0.053
Female	-0.183**	-0.143**	-0.113**
Age	0.092**	0.072**	0.090**
Age squared	-0.001**	-0.001**	-0.001**
Urban	0.023*	-0.019	0.026
Constant	1.530**	1.843**	1.504**
Observations	2869	638	502
Adjusted R-squared	0.51	0.51	0.49

Unstandardised Coefficients

6.1.1 Results for the German dominant region

Focussing now on the analyses of the German dominant region, in Table 4, having French or "other" as a native tongue had a negative effect on number of colleagues,

^{*} significant at 5%; ** significant at 1% (two-tailed)

while being a German speaker (as opposed to Swiss German), Italian or "other" speaker had a negative effect on civic engagement. With regard to cultural capital (Table 5), being an Italian speaker (compared to Swiss German) reduced the odds of participation in all of the cultural capital items. It was only with German speakers that there was an increase in the odds of participation in high culture events. In the models predicting human capital, social and cultural capital mediated the effects of language on earning potential for all language groups (results not shown), but remained a statistically significant predictor of human capital for German speakers and Italian speakers, independent of the effects of social capital, cultural capital, and other variables included in the estimations. Again, the finding that being a German speaker had positive effects on capital and that being an Italian speaker had negative effects on stocks of capital (compared to being a Swiss German speaker) gives clear evidence that language as status can have positive and negative effects on capital. The reasons for this are unclear, but could possibly be associated with ethnic variations in the value associated with investing in the forms of capital. Alternatively, speakers of high German may give language "signals" that encourages preferential treatment by gatekeepers, while Italian speakers may be straightforwardly discriminated against in the German dominant region.

6.1.2 Results for the French dominant region

For the French dominant region, such detailed analyses of first languages were not possible, due to the smaller sample size. Instead, the individuals who identified their first language as French were compared with those who indicated some other language as their primary tongue. Being a non-French speaker was associated with a decrease in civic engagement (Table 4) and decreased the odds of reading for leisure and participation in high culture events (Table 5). In the model predicting human capital (Table 6), the effect of having a non-French mother tongue was mediated by social and cultural capital, but the main effect still persisted. In the French dominant region (Table 7), having a mother tongue other than French was negatively associated with human capital (b = -0.073).

6.1.3 Results for the Italian dominant region

In the Italian dominant region, speaking a mother tongue other than Italian was positively associated with civic engagement (Table 4). No other effects of language on the forms of capital were found. It should be noted that findings for this region are likely associated with considerable error due to the small sample size (n = 147). Indication of this problem is found not only in the large explained variances associated with the models for this region (as compared to the remaining regions), but also in the performance of control variables. For example, parental education had a large negative effect on number of colleagues (b = -3.846) while having positive effects in Switzerland as a whole and the German dominant region, while the effect of parental education on reading at least once a week was

negative rather than positive (with positive results found in Switzerland as a whole and the German dominant region).

6.1.4 Results for the "mixed" region

The mixed region was analysed as a separate type of region to examine whether results would differ due to its ethnic heterogenity. French speakers were used as the reference category as they comprised almost 70 per cent of this region. Compared to French speakers, non-French speakers had fewer friends (Table 4), were more likely to read for leisure, and were less likely to participate in high culture events (Table 5). The effect of not speaking French, however, had no statistically significant impact on human capital, even when estimated in a bivariate regression (results not shown). As well, it was only in this mixed region where having a second language increased earnings potential (Table 7).

6.2 The inverse relationship between status and cultural plurality

The second major hypothesis tested in this paper was that language, as a status trait, would have reduced importance in determining the capitals in more heterogenous or "mixed" areas. In the mixed regions (Fribourg, Grisons, and Valais), having a mother tongue other than French was negatively associated with number of friends, an increase in the odds of reading for leisure, and a decrease in the odds of high culture participation. However, and most importantly, not speaking the dominant language as a mother tongue had no impact on human capital. This suggests that as heterogeneity increases, the barriers to language minorities decrease. It was also only in this area where having a second language was positively associated with human capital, suggesting that multilinguality in diverse areas is rewarded and that the effects of language as a status trait are minimised.

6.3 Under-investment and differential investment by minority speakers

The "under-investment" by minority speakers in the language-dominant regions likely has to do with many forums for investment being difficult to access due to language barriers – the vast majority of these investment opportunities are logically geared towards the "dominant" culture in the region. The absence of such findings for the mixed region is likely due to the greater cultural plurality of such regions and the associated plurality of "investment" opportunities. It is also likely that in these heterogeneous areas, there are more investment opportunities available to individuals in their native language. As well, the finding that having a second language was beneficial in terms of human capital indicated that movement towards acceptance of cultural plurality (interpreting bilinguality as such) was also rewarded. These findings further suggest that plurality in Swiss cantons reduces the effect of language as a status trait.

Within language regions it was found that in the German dominant area, social and cultural capital disadvantages were experienced by French, Italian, and speakers of other languages, as well as speakers of non-Swiss German. The greatest disadvantage was associated with Italian speakers. German speakers, however, had a higher likelihood of participating in high culture events than their Swiss German speaking neighbours. In terms of human capital, German speakers did better than Swiss German speakers and Italians were again at a disadvantage in terms of human capital. Even after accounting for their lower levels of social and cultural capital, a negative association with human capital still existed for Italian speakers in the Swiss German dominant region.

However, as suggested above, it was not always the case that the minority language speakers were under-investing in the forms of capital considered here. In Switzerland as a whole, French speakers (compared to Swiss German speakers) had more friends and a greater likelihood of participating in high culture events. As well, individuals who indicated that their first language was German and not Swiss German also had a greater likelihood of participating in high culture events. In terms of human capital, German speakers did better than Swiss German speakers in Switzerland as a whole (and within the German dominant region), while speaking French (compared to Swiss German) had a positive association with human capital for Switzerland as a whole. These findings indicate that across Switzerland, speakers of languages other than Swiss German may have a tendency to have less social and cultural capital than their Swiss German counterparts, except for the French and German in the case of high culture consumption and human capital and the French in the case of number of friends.

Van den Bulck and Van Poecke (1996) explain that German-Switzerland has developed into a "diglossic" speech community where "there is a sharp and stable distinction between two languages or two varieties of language according to function and domain" (p. 222). The Swiss German dialect (Mundart) is used in "informal, intimate, and relational domains" while the "High variety" (Hochdeutsch) "is reserved for formal, institutional and transitional domains". According to Kuhn (1980), a standard German-Swiss language did not develop in Switzerland because of the lack of Eigenkultur (a culture of self identity) among the urban middle class. Haas (1990) argues that while high German was adopted as a main mother tongue by German bourgeoisie in Germany, this was regarded as unacceptable by their Swiss German counterparts, who regarded Hochdeutsch as a pan-regional communication tool and the language of science and art. According to Haas, this refusal to adopt Hochdeutsch as the standard language and maintenance of Mundart made the dialect highly symbolic and also made it possible for national boundaries to be established between Switzerland and Germany. The findings on German speakers are surprising, as the effect cannot be explained completely as being attributable to economic migration by a highly skilled group of workers from other German-speaking countries, as 60 per cent were Swiss-born. Perhaps their use of "high" German, as opposed to Swiss dialect, sends signals or "language codes" (Bernstein, 1971) to employers and related gatekeepers that such traits should be rewarded. This is also similar to Bourdieu's argument about how class differentials are maintained in the educational system. The greater participation of German speakers in high culture activities would also support this idea. One possible explanation of French speakers having a higher investment in number of friends and high culture participation than Swiss German speakers may be because French culture itself may place greater importance on social interaction and appreciation of the beaux-arts.

6.4 Limitations of the study

While differences in capitals among status groups have been identified, the interpretation of the differences is highly speculative. While a theoretical framework has been proposed that understands status – here understood as mother tongue – to limit access to and conversion of capitals, the differences that have been demonstrated here are not clearly explainable. As mentioned above, the cultural differences in investment habits are not understood and more research needs to be done in this area if the theoretical framework proposed here is to be applied to culturally diverse populations.

As well, the human capital estimator may also be masking some very important differences in human capital acquisition. The effects of ethnic status may bias this estimator itself, as it is not possible to know if, for example, educational institutions in Swiss German regions are "better", whether in the quality of education they offer or with regard to the prestige associated with having attended them.

7 Summary and Conclusion

This paper has identified differences in social, cultural, and human capital by first language, both across Switzerland as a country, and within language dominant areas. Language was argued to be a status indicator that influenced access to and accumulation of the forms of capital. It was found that across Switzerland as a whole, speaking French, Italian or another language as a mother tongue was, compared to being a Swiss German native speaker, associated with a decrease in the majority of social and cultural capital indicators, with the exception of number of friends and high culture participation for French and German speakers. Independent of cultural and social capital, however, first language still had a direct effect on human capital – positively for French and German speakers, and negatively for Italian speakers. In the language regions, evidence was found for the negative effect of minority status on the capitals examined here, with some

notable exceptions. In the German dominant region, German speakers fared better than their Swiss German speaking counterparts on high culture participation and human capital, while in the "mixed" region, few disadvantages between speaking a minority language and stocks of capital were found. It should also be highlighted that the statistical significance of the interaction terms between high culture participation and speaking Italian also suggested that status acted to moderate the returns to capital in Switzerland as a whole.

The overall findings supported the hypothesis that status influences the acquisition of the forms of capital, while some support was also found for the hypothesis regarding the additional moderating effect of language as a status trait. There were consistent disadvantages associated with being a minority language speaker, particularly in Switzerland as a whole, in the results presented above. As well, the finding in the "mixed" region that language was a much less important determinant of the capitals also supported the hypothesis that cultural heterogeneity reduces the barriers imposed by status characteristics. The third hypothesis that there was possibly ethnic variation in capital investment behaviour due to cultural differences was somewhat supported. Because the human capital estimator is a measure of earnings potential based upon human capital characteristics, it can be deduced that French and German speakers had better jobs and educational backgrounds, and that Italian speakers tended to have "less" of these characteristics compared to their Swiss German speaking counterparts and were rewarded differentially for high culture participation. The advantages associated with identifying German as a mother tongue (rather than Swiss German) further suggested that speaking "high" German rather than the country dialect sends "language codes" to various gatekeepers which resulted in the preferential treatment of this status group, while speaking French or Italian as a first language resulted in a negative status influence in many of the spheres of capital accumulation.

It should be acknowledged that there are at least two possible reasons for the differential stocks of capital among the status groups: 1) that barriers (in the form of discrimination) exist that prevent status groups from acquiring the capitals, and 2) that the pursuit of these forms of capital is not equally important to various cultural and ethnic groups. The findings presented here demonstrate that differences do exist, but the underlying cause of the differential stocks of capital among the status groups may be due to discrimination, cultural differences that drive "underinvestment" or "over-investment" or combinations of both of these factors. The theoretical framework employed in this analysis is a useful tool for understanding the mechanisms underlying social stratification in various spheres of life, however, it cannot account for the ethnic and cultural differences that may influence investment in the forms of capital.

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Annex 1

In order to determine earnings potential for each respondent, a Heckman regression was used to estimate a wage equation for males and females, where sex was added to identify the selection equation:

[Heckman] Logged Hourly Earnings Potential = workex education \times MOW highad \times MOW medgrad \times MOW, select (female workex educ \times MOW highad \times MOW medgrad \times MOW)

where:

- 1. *logged hourly earnings* = the natural logarithm of hourly earnings reported by respondents;
- 2. work ex = work experience was measured by the year in which uninterrupted paid work began subtracted from the survey year;
- 3. *education* = respondent's highest level of educational attainment;
- 4. *MOW* = mean wage of respondent's occupation, generated using the mean wage by two digit ISCO classifications;
- 5. higrade = quantiles 9 and 10 of the MOW distribution;
- 6. medgrade = quantiles 5, 6, 7, and 8 of MOW distribution;
- 7. various interaction terms to account for the different income trajectories of high and medium waged occupations and education.

Gershuny (see, for example, 2000, 2002a, 2002b, 2002c) argues in various writings that categorical conceptualisations, like those developed by Goldthorpe and his colleagues, have a host of shortcomings that, to a large extent, misspecify the processes behind social stratification. Arguing that class position is more than just an expression of occupational prestige, Gershuny suggests an alternative specification of social position that is non-categorical in nature, can measure relatively small changes over short periods of time, is assignable to those not in employment, and is aggregable to the household level. This continuous measure is essentially the predicted values from a regression equation with wages as the dependent variable and skills, age, work experience, and various quadratic and interactive terms as the predictors. The measure itself is a human capital estimator. If human capital is understood to mean those skills that are most easily convertible to economic resources (i. e. education and work experience), then the predicted earnings from such a skill set in a representative sample should provide a reasonable estimator of one's potential "worth" in a capitalist society. Where someone's score is on the distribution of such scores should indicate his or her relative human capital position. It should be noted that Gershuny believes the other capitals to be of more or less equal importance, but has thus far only developed a measure of human capital. As well, the human capital estimator is thought to be relevant for a particular age set, as Gershuny demonstrates (2002a, 2002b) that wealth is a component of social position that takes on increased importance closer to retirement age. An individual's human capital derived from skills and work experience typically has an inverted U-shaped trajectory that peaks in the late forties. It is after this point and en route to retirement that wealth typically becomes a more substantial component of human capital.