# The "Hidden Frontier" Between Trentino and South Tyrol: Interaction Between Populations on the Romance-Germanic Border

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### Introduction

Migratory movements and marriage exchange represent two of the main factors of modification in the genetic composition of a population. The way in which these come about is closely connected to the economic, social and cultural characteristics of the community in which they arise. In particular, mixed marriages between individuals from different ethnic groups, languages or religions provide a privileged point of view from which to study the type of interaction established between subjects from communities with different cultures and traditions.

The Alteritas project aims to study the relationship between populations by identifying interaction parameters (linguistic, biodemographic, archaeological and cultural) taken from both past and present communities. Interaction between communities is studied considering multidisciplinary aspects such as linguistic and cultural habits, uses, customs and social and economic structures, migratory and marriage exchanges. Linguists, sociologists, archaeologists, historians, ethnographers, cultural anthropologists and biodemographers are taking part in the project. In particular, the role of biodemography aims to determine the effects of change in the gene pool and in marriage structure as a consequence of the introduction of "mixed" couples within the populations. Surnames are used to try to detect continuity/discontinuity in the genetic structure of the adjoining communities found within the territory under study. Moreover, by studying mobility characteristics linked to marriage, an attempt is made to identify the prevailing directions of migratory and marriage exchanges between the various populations.

This study is part of a wider project that aims to analyze the complex interethnic relations in the language border area between Trentino and South Tyrol. The project was inspired by the work of two American ethnographers, J.W.Wolf and E.R.Cole, who studied two communities in Alta Val di Non (Upper Non Valley), Tret and St. Felix, on the border between Trentino and South Tyrol. The results

are contained in the famous essay "The Hidden Frontier. Ecology and Ethnicity in an Alpine Valley" (Cole and Wolf, 1974). By comparing the structure of the land ownership and inheritance laws, Cole and Wolf showed how the two communities, separated by an ethnic-linguistic border yet geographically very close and in the same environmental conditions, revealed cultural differences such as to determine two structurally different societies. Using surnames as parameters of interaction, our study sets out to discover whether "interethnic" relations have followed different paths among the communities overlooking the linguistic boundary between Trentino and South Tyrol.

Focus of the study are the main areas into which the frontier between the Italian and German-speaking communities of Trentino-South Tyrol can be geographically divided: Upper Non Valley, Adige Valley and Fiemme Valley. Another stretch of border between the Fassa and Gardena valleys will not be considered here as it is prevalently inhabited on either side by Ladin-speaking people. This paper will present the first results of the study and will concern assessment of any means of interaction emerging from the frequency of surnames found in the telephone directory.

# **Materials and Methods**

Telephone subscriber surnames, kindly provided by the SEAT company, were considered for the year 1993. They included those present in the 18 municipalities in the three "frontier" areas in question (Fig.1). In 1993 land lines were to be found in almost all homes, while mobile phones were not yet significantly widespread. As a result the surname frequency recorded corresponds approximately to the number of families living in the various localities at the time. Ten municipalities are under Trentino administration; the remainder under South Tyrol. Municipal land is adjoining and can be compared from an environmental point of view. Surnames were classified according to their linguistic origins, Italian and German. This work assumes that each surname originated in the territory of its own linguistic area, even though this is not necessarilty true, as pointed

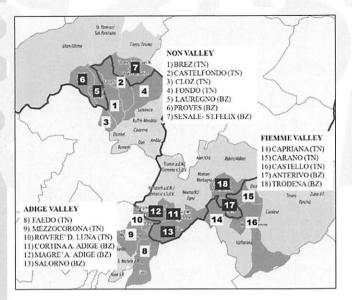


Fig. 1. Municipalities on the Romance-Germanic linguistic frontier of Trentino/South Tyrol.

out by De Felice (1980) in relation to surname origins in the Ladin parts of the same region.

The affinity between the surname set of the municipal populations has been calculated by means of the  $R_{ij}$  standardized index (Chen and Cavalli-Sforza, 1983). Comparison between all the population pairs allows a square and symmetric matrix of similarity to be constructed. A bidimensional topological representation of the relationships was then obtained by means of "nonmetric Multidimensional Scaling" (nmMDS; Davidson, 1983).

# Results

Figure 2 shows the topological representation of the relationships between the 18 populations. The linguistic

frontier areas have been grouped into three clusters. On the first dimension the Non Valley is clearly separated from the other two: this shows how surnames in the Non Valley are on the whole different from those in the other two valleys. Instead, the frontier is represented on the second dimension, where the Germanphone municipalities of South Tyrol are set on the upper side of the graph while the Italophone ones of Trentino are set on the lower side. Only the two South Tyrol municipalities in the Fiemme Valley (Trodena and Anterivo) are near the Italophone area. The municipal populations who speak different languages are grouped at the extremes of each cluster, showing the extent to which surname structure in the two adjoining linguistic communities differs.

Table 1 shows the number of surnames in each municipality subdivided according to their linguistic origin: *Italian*,

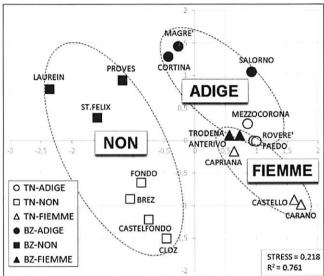


Fig. 2. Topological representation of the relationships between populations on the Trentino/South Tyrol linguistic frontier.

MUNICIPALITY	TELEPH. SUBSCR.	NR. O	F SURNAM	IES / SPEAK	PERCENTAGE			
		ITA	GER	D-MIX	тот	ITA	GER	D-MIX
		•	NON VA	LLEY	•			
BREZ (TN)	238	68	16	12	96	70,8	16,7	12,5
CASTELFONDO (TN)	214	65	4	2	71	91,5	5,6	2,8
CLOZ (TN)	195	48	7	7	62	77,4	11,3	11,3
FONDO (TN)	449	155	37	7	199	77,9	18,6	3,5
LAUREIN (BZ)	58		16		16		100,0	
PROVES (BZ)	48	6	22		28	21,4	78,6	
SENALE-ST. FELIX (BZ)	133	9	41		50	18,0	82,0	
		v.	FIEMME V	ALLEY				
CAPRIANA (TN)	185	57	4	2	63	90,5	6,3	3,2
CARANO (TN)	541	384	15	4	403	95,3	3,7	1,0
CASTELLO (TN)	733	340	32	18	390	87,2	8,2	4,6
ANTERIVO (BZ)	115	25	21	5	51	49,0	41,2	9,8
TRODENA (BZ)	260	64	51	6	121	52,9	42,1	5,0

ADIGE VALLEY												
FAEDO (TN)	157	68	4		72	94,4	5,6					
MEZZOCORONA (TN)	1415	521	69	42	632	82,4	10,9	6,6				
ROVERE' D. LUNA (TN)	405	141	18	12	171	82,5	10,5	7,0				
CORTINA A. ADIGE (BZ)	142	61	25	4	90	67,8	27,8	4,4				
MAGRE' A. ADIGE (BZ)	290	78	66	11	155	50,3	42,6	7,1				
SALORNO (BZ)	838	302	104	28	434	69,6	24,0	6,5				

Tab. 1. Number of telephone subscribers and number of surnames by linguistic origin in each municipality. ITA= italophone. GER= germanophone. D-MIX= double and "mixed" surnames made up of an Italophone form and a Germanophone one.

German or double and "mixed", i.e. made up of an Italophone form and a Germanophone one. Among the Upper Non Valley municipalities in the Bolzano province, Laurein is characterised by exclusively German surnames. Values of about 80% are found in the other two Germanophone municipalities of Proves (76.6%) and St.Felix (82%). No subscribers with doublemixed surnames are present in these communities. In the Trentino municipalities of the Non Valley the proportion of Italian surnames ranges from 70.8% at Brez to 91.5% at Castelfondo, while the proportion of German surnames reaches 18.6% at Fondo, the municipality comprising the hamlet of Tret studied by Cole and Wolf. At Brez and Cloz the percentage of double-mixed surnames is around 12%. The Fiemme Valley appears a lot more "Italianised": only 40% of the surnames are of German origin in the two municipalities in the Bolzano province (Trodena and Anterivo), while about half are Italian in origin. Doublemixed surnames represent 5% at Trodena and almost twice the amount (9.8%) at Anterivo. The presence of German surnames at Capriana and Carano, Trentino municipalities in the Fiemme Valley, is far less than in the equivalent ones in the Non Valley (respectively 6.3% and 3.7%); mixed ones are also sporadic (a mere 2 and 4 double-mixed surnames). Castello di Fiemme is the only municipality where Germanophone and mixed surnames are found in slightly higher proportions (8.2% and 4.6%).

In the Adige Valley Italian surnames are more frequent than German ones throughout and the proportion of Italian surnames in the South Tyrolean municipalities of Salorno and Cortina all'Adige reaches 70% while the German surnames in the Trentino municipalities of Mezzocorona and Roverè della Luna make up little more than 10% of the total. Mixed surnames are about 5-7% of the total. Percentages are different instead in the two municipalities with settlements geographically more distant from the administrative frontier: at Faedo (TN) the Italian surnames represent 94.4% without double-mixed surnames; at Magré all'Adige (BZ) Italian surnames are 50.3%; German surnames are 4.6% and double-mixed ones are 7.1%.

# **Discussion**

Surnames make it possible to trace the socio-demographic behaviour that determined their distribution within the

population, by revealing the cumulative effects of the factors that change their ethnic composition (Lucchetti et al., 1989; Zei et al., 1993; Pizzetti et al., 2001). In the case of neighbouring municipalities speaking different languages, the presence of surnames typical of each language in one and the other community indicates that demographic interaction - migration or marriage - existed between the two populations.

The study of marriage mobility simply through surname frequency, however, does not reveal the full entity of migration in the case of virilocality: the offspring take the father's surname in his place of residence and by the next generation that of the mother is already lost so that no trace remains of her immigration. Conversely, when the marriage is uxorilocal the newly-wed male migrates, handing down his surname to his children in the wife's place of residence. Potential indicators of interchange between communities where different languages are spoken are double-mixed surnames. These probably formed following marriages between two subjects from different ethnic groups and origin but the bearer of the double surname should, in theory, only be the female spouse, since the Italian civil code (section 143 bis) stated that only the wife could add her surname to that of her husband. On the other hand, current family law legislation (law 171/75) establishes that "the wife keeps her maiden name and that the addition shall not appear on identification documents". In short, the presence of double-mixed surnames in a certain place should therefore correspond to the occurrance of the following two circumstances: 1) the celebration of "mixed" marriages between subjects from different linguistic areas and 2) the telephone subscription being in the name of the female spouse.

An overview of the isonymic relationships among the villages on the border between Trentino and South Tyrol, provided by nmMDS representation, shows a clear separation of the Non Valley municipalities from those in the Adige and Fiemme valleys. On the whole, geographical separation is accountable for greater variability than are linguistic differences. As regards the South Tyrol part, the results confirm the findings of Lucchetti et al. (2005) in that area. The weak exchange of surnames between the valleys is interpreted by the Authors as related to the limited mobility of the South Tyrol population, especially those living among the most isolated valleys.

The different frequency of Italian surnames in the three Germanophone areas suggests that the administrative and linguistic frontier between Trentino and South Tyrol may have been permeable to mobility or matrimonial exchange to differing degrees although there are no particular geographical barriers in any of the municipal territories on the border. "Porosity" seems to be at a maximum on the Adige Valley border and at a minimum in the Non Valley. Even the direction of the interchanges is different and the frontier in the Adige and Fiemme valleys appears more permeable to the flow of Italophone surnames towards South Tyrol. It is hard to say with precision, simply from surname frequency, whether this can be chiefly attributed to migration or uxorilocal marriage.

In the Germanophone comunities of the Non Valley no double mixed surnames are found, while in two of the corresponding Trentino municipalities they represent over 10%; on the other hand in the Fiemme Valley the opposite occurs, with rare cases in the Trentino area (from 1% to 4.6%) and higher values on the Germanophone side (at Anterivo 9.8% of the surnames are double mixed). As previously discussed, it is not easy to give a clear explanation to these asymmetries.

What is certain is that in the three areas of the South Tyrol studied land ownership, to which much of the local economy is linked, is shared out differently. In 2009 the Non Valley municipalities recorded 103 masi chiusi (buildings and land inherited as an inseparable unit) over a resident population of 1393 inhabitants (7.5 masi for every 100 inhabitants); in the Adige Valley there were 124 masi over a population of 5483 residents (2.3 masi per 100 inhabitants) while in the two municipalities of the Fiemme Valley only 14 masi were recorded in the census (1 every 100 inhabitants) (Mori, 2009). The variation in the number of mountain farms in relation to residents suggests an important link between the scarcity of "interaction" along the Upper Non Valley border and the continuance of land ownership still strongly based on the institution of the maso chiuso (even now widely present in the area), as was pointed out by Cole and Wolf in "The Hidden Frontier".

The joint use of border village civil or parish records should provide a key to understanding the characteristics of the exogamy (using marriage certificates) and mobility brought about by virilocality or uxorilocality (obtained from birth certificates recording offspring born in the couples'place of residence). For this purpose the Alteritas project aims to gather name certificates for several decades, in the municipalities involved in the study.

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### References

Chen K.H., Cavalli-Sforza L.L. 1983. Surnames in Taiwan: interpretations based on geography and history. *Hum. Biol.*, 55: 367-374.

Cole J.W., Wolf E.R. 1974. The Hidden Frontier. Ecology and Ethnicity in an Alpine Valley. New York, Academic Press.

Davidson M. 1983. *Multidimensional scaling*. Wiley, New York. De Felice E. 1980. *I cognomi italiani*. Il Mulino, Bologna.

Kezich G., Viazzo P.P. eds, 1993. La frontiera nascosta rivisitata: ecologia, economia, etnicità nell'arco alpino. Atti del Seminario permanente di Etnografia alpina, SM Annali di San Michele, 6.

Lucchetti E., Soliani L. 1989. Similarità tra popolazioni esaminate mediante i cognomi. *Rivista di Antropologia*, 67: 181-198.

Lucchetti E., Tasso M., Pizzetti P., De Iasio S. 2005. Surname distributions and linguistic-cultural identities in the Alto Adige-Südtirol Area. Int. J. Anthrop., 20, 3-4: 225-245.

Mori E. 2009. Il maso chiuso del Sudtirolo: la sua storia e la normativa vigente, Bolzano, Provincia Autonoma.

Pizzetti P., Lucchetti E., Soliani L. 2001. L'uso dei cognomi nella ricerca biodemografica, SIDeS, *Popolazione* e *Storia*, 1/2001: 107-136.

Zei G., Barbuijani G., Lisa A., Fiorani O., Menozzi P., Siri E., Cavalli-Sforza L.L. 1993, Barriers to gene flow estimated by surnames distribution in Italy. Ann. Hum. Genet., 57: 123-140.