Hot and cold ethnicities in the Baltic states

Martin Ehala[a] & Anastassia Zabrodskaja[ab]

[a] Institute of Estonian and General Linguistics, University of Tartu,
Ülikooli 18, 50090 Tartu, Estonia

[b] Institute of Estonian Language and Culture, Tallinn University,
Tallinn, Estonia
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Martin Ehala[a]* and Anastassia Zabrodskaja[a,b]

[a]*Institute of Estonian and General Linguistics, University of Tartu, Ülikooli 18, 50090 Tartu, Estonia;* [b]*Institute of Estonian Language and Culture, Tallinn University, Tallinn, Estonia*

The article discusses the temperatures of the main ethnic groups in the Baltic states: Estonians, Latvians, Lithuanians, and their three Russian-speaking communities, and the Latgalian and Polish minority groups in Latvia and Lithuania, respectively. The study uses a triangulated methodology that includes a survey questionnaire for quantitative study and an associated protocol for a semi-structured focus group interview. The aim of the methodology is to make the notion of ethnic temperature quantitatively assessable, while retaining the opportunity for a rich qualitative description to understand its nature. The quantitative analysis confirms the wide divergence of subgroups within each ethnic group, each of which has a different ethnic temperature. The (intergroup) interaction of the members of these subgroups influences both the average temperature of the in-group and the temperatures of significant out-groups. The findings are interpreted to forecast the nature of ethnic processes in the Baltic states.

Keywords: identity; ethnolinguistic vitality; titular; minority; Russian-speakers

Introduction

The recent history of the Baltic nations is a textbook example of changes in ethnic temperature. Before WWII, the Baltic states were very mono-ethnic, with minorities of less than 10% of the total populations. Lithuania had a territorial conflict with Poland in which the Polish minority played an active part, while the other two Baltic countries did not have significant minority–majority conflicts.

All three were annexed by the Soviet Union just before WWII and were incorporated into the Soviet Union. During the Soviet time, Estonians, Latvians and Lithuanians seemed relatively cold, there were no major revolts, life was organised along Soviet lines and Soviet ideology was propagated in education, media and culture. The Soviet power encouraged immigration from the other parts of the Soviet Union. As a result of this process, large Russian-speaking communities were formed in Latvia and Estonia, which amounted to 34% and 30% of the populations, respectively, at the time of the collapse of the Soviet Union.

These Russian-speaking communities were multi-ethnic, Russians making up the largest share, but also including many Ukrainians, Belarusians and members of other ethnicities. Some of them were Russian-ethnic bilingual; some had already shifted to Russian prior to immigration to the Baltic states, while others shifted to Russian while in the Baltic states. The Russian-speaking population was a mobile, ethnically cold category

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*Corresponding author. Email: ehalam@ut.ee

of Soviet people, who did not integrate into the Baltic societies linguistically, but remained monolingual because of the high status of Russian in the Soviet Union. While in several parts of the Soviet Union ethnic minorities shifted to Russian, this did not happen in the Baltic states, where the oppositional identity of the titulars was very strong: Estonians, Latvians and Lithuanians were very endogamic in their family patterns and Russian was learned reluctantly at schools.

The signs of passive resistance indicate that the Baltic nations, cold in appearance, were actually quite hot inside. The hot core could be felt during the large national choir song festivals that had been organised every fifth year since the 1860s and were not banned during the Soviet time. Even though the repertoire had communist content, the ritual was the same and the traditional final patriotic song was always felt as a collective affirmation of existence. This hot core is perhaps the best explanation for the very rapid national awakening in the middle of the 1980s, as soon as Gorbachev announced the politics of *glasnost* and *perestroika*. Although the West was frightened by the possible ethnic conflicts that this could lead to (the parallel with Yugoslavia was self-evident), the rise in the ethnic temperatures never escalated to violence in the Baltic states, even though the rise in the ethnic temperatures of the titular ethnicities caused the Russian-speaking communities to become hotter, too.

The regaining of independence and the harshness of *cowboy capitalism* caused the ethnic temperatures of the titular groups to lower in the 1990s as rapidly as they had risen about five years before. At the same time, the Russian-speaking communities suffered from low collective self-esteem, because of the bankruptcy of the Soviet world view and values, and so their temperature lowered, too. As the economic situation improved, consumerist identities gained prominence and the Baltic societies became more utilitarian than earlier. All this kept ethnic temperatures relatively low compared to the late 1980s.

The situation began to change gradually in the early twenty-first century as Vladimir Putin's presidential administration of Russia, in seeking a new unified collective identity, started to rebuild Russian national pride on the basis of victory in WWII. This had an uplifting effect on the Russian-speaking minorities in the Baltic states, too, particularly in Latvia and Estonia. In response, the titulars' ethnic temperatures rose as well, particularly because of the conflicting interpretation of WWII events in the Baltic states. This was most marked in Estonia, where it culminated in the Bronze Soldier crisis in 2007 (see Ehala 2009a). The ethnic temperature in Latvia also increased due to the Latvian government's educational reform, which reduced the amount of Russian language education in secondary schools. In Lithuania, the ethnic temperature of Russians remained much lower, partly because the Russian-speaking community was considerably smaller, and partly because Lithuania seemed to have won the loyalty of the Russian-speakers by offering all of them citizenship right after Lithuania regained independence, while in Estonia and Latvia all incomers from the Soviet time had to apply for citizenship, and pass the state language exam and the exam on the constitution and the citizenship law (see more in Zabrodskaja 2009). Thus, despite their common recent history, the ethnic processes in the Baltic states have differed to some extent, which has resulted in different ethnic temperature dynamics.

Even though the notion of ethnic temperature is intuitively clear and can be used as a metaphor to characterise ethnic sentiments, it remains a mere metaphor unless it is possible to find a way to assess it in a more precise way, preferably so that it is possible to compare different settings and to predict at which level its further increase would start to cause inter-ethnic violence.

The goal of the current paper is to elaborate a method that will make it possible to assess ethnic temperature in a more precise manner. As proposed in Ehala (2011), the notion of ethnic temperature is closely related to the notion of ethnolinguistic vitality, although these two are not the same phenomenon. In the following pages, we aim to specify this relationship in more detail, to operationalise the concept of ethnic temperature and to test it in the case of Baltic ethnicities. In the next section, we outline the principles of ethnolinguistic vitality and their relations to ethnic temperature, based on Ehala (2011). This is followed by an overview of the research design: our analysis is based on data collected in a large-scale comparative study of the ethnolinguistic vitalities of eight Baltic ethnicities: Estonians, Latvians, Lithuanians, the Russian-speaking communities in each Baltic state, the Latgalian minority in Latvia and the Polish minority in Lithuania (see Ehala and Zabrodskaja 2013a, 2013b). The fourth section provides the results of the study across all these ethnicities comparatively. The fifth section focuses on intra-group differences within ethnicities by defining the hot and cold subgroups and characterising their language choice patterns, perceptions of legitimacy of the intergroup settings and the permeability of inter-ethnic boundaries. The quantitative results are triangulated with data from focus group interviews. In the final section, the results of the study are discussed theoretically and in the context of the Baltic states.

Ethnolinguistic vitality perceptions

Following the principles outlined by Giles and Johnson (1987), Thomas, McGarty, and Mavor (2009) and Ehala (2010), we consider ethnolinguistic vitality to be a social psychological disposition amongst the members of an ethnic group to act as a distinctive collective entity. In other words, we understand ethnolinguistic vitality as group members' willingness to engage in collective actions, such as expressing their will in manifestations or political action, and participating in rituals of fostering unity.

It is hypothesised (Ehala 2011) that ethnolinguistic vitality is related to ethnic temperature. A 'hot' ethnic group is one whose members have a high emotional attachment to their group. 'Cold' ethnic groups are those whose members' emotional attachments to their groups are low, absent or latent. As the hot members of an ethnicity are more likely than the cold members to participate in collective actions, a hot ethnicity has higher vitality than a cold ethnicity, if all other factors influencing vitality are kept constant.

We hypothesise that there are at least two social psychological parameters that influence the emotional attachment of members to their group. One of them is intergroup distrust (Dt), and the other is utilitarianism (U). We hypothesise that the higher the level of distrust towards a significant out-group, the more likely the individual is to be bonded to the in-group and predisposed to participate in collective actions. Similarly, the lower the level of utilitarianism and higher the level of traditionalism, the higher the respondent's emotional bond is to the in-group. We assume that those individuals who feel strongly committed to the traditions and values of their in-group are more likely to participate in collective actions in support of their in-group.

Following Ehala (2009b, 2010), we assume that ethnolinguistic vitality (V) is a complex phenomenon that depends crucially on four social psychological factors:

(1) perceived strength differential (PSD) between the in-group ('us') and the most prominent out-group ('them');
(2) the level of intergroup discordance (D);

(3) perceived intergroup distance (R)[1]; and
(4) the level of utilitarianism (U) in the value system of the group studied.

All of these factors are socio-psychological, and they reflect group members' perceptions, attitudes and beliefs about their own group and the inter-ethnic relations in the setting in which they live. PSD expresses the perception of how strong the in-group is in relation to a specific out-group. If the out-group is perceived as stronger, the PSD value is negative. If the in-group is perceived as stronger, the PSD has a positive value. The model assumes that low PSD perceptions decrease vitality and high values increase it, because the perception of weakness promotes emotional detachment from group membership and lessens the willingness to engage in collective action.

Discordance expresses the feeling of distrust towards the out-group and the perception of the illegitimacy of the intergroup power relations. The higher the levels of distrust and perceptions of illegitimacy, the more likely the members of the in-group are to engage in collective action to change the situation.

Intergroup distance expresses the nature of the individuals' network of linguistic contacts. The more the out-group language is used, the closer the individual is ethnolinguistically to the out-group. This variable also includes the perception of cultural, racial and religious similarity with the out-group. The closer the respondent is to the out-group, the lower the vitality, as the individual may already be undergoing language and identity shift.

Utilitarianism, as mentioned above, characterises the commitment to the traditions and values of the in-group vs. the detachment from those traditions and values and adherence to utilitarian values that stress personal needs and aspirations.

The interaction of these variables in defining vitality is expressed mathematically (outlined later); here we illustrate this relationship in a more informal way by five hypothetical vitality profiles:

(1) Large negative PSD and negative D, and small R and high U = lowest vitality
(2) Large negative PSD and high D, and/or large R and/or low U = medium vitality
(3) Small negative PSD and medium D, and medium R and medium U = medium vitality
(4) Small positive PSD and low D, and small R and high U = medium vitality
(5) Large positive PSD and high D, and/or large R and/or low U = highest vitality

Type (a) characterises a small minority that is culturally and linguistically very close to the majority, typically a regional variety of the standard, such as Low German or Latgalian, which is characterised by out-group favouritism (low discordance), and whose members are socially mobile. Type (b) minorities are small in number or weakly organised, but culturally very distinct communities, such as Berbers in the Netherlands, Roma in many central European countries and traditional ethno-religious communities, such as Russian Orthodox Old Believers, all of which are possibly stigmatised by the majority and/or have very traditional lifestyles. The stigma and/or traditionalism prevents them from identity shift, and thus they have medium vitality despite their low strength and status. Type (c) is characteristic of a strong, well-organised minority that has a lifestyle and values that are quite close to the majority, but because of strong collective self-esteem, they have secured sustainability; typical examples are the Québécois French and Russian-speakers in Latvia and Estonia. Type (d) characterises a relatively weak

majority community that is in a peaceful relationship with a large and culturally close minority. This is not a very common type; an example is the Czech majority in the former Czechoslovakia. This majority type is likely to agree peacefully to autonomy demands if the minority sets this as a goal. Type (e) is the profile of a typical hegemonic majority which could also feel threatened or has closed inter-ethnic boundaries, an example being Lithuanians or Estonians.

In this vitality model, distrust (Dt) and utilitarianism (U) contribute to the overall vitality scores; therefore, if our hypothesis about the relatedness of ethnic temperature to vitality is correct, the results of our survey should be in accordance with the observations that the major ethnic groups in Latvia and Estonia are relatively hotter than in Lithuania. By being able to measure the vitality we would be able to assess the ethnic temperature in a more precise and comparable manner than is possible by qualitative ethnographic means. This is not to underestimate the qualitative interpretation, which is also relevant in constructing the comprehensive account.

The design of the study

The theoretical model outlined in the previous section was operationalised in Ehala and Niglas (2007) in the form of a quantitative survey questionnaire which was further elaborated on the basis of its performance and for the requirements of the current study. In all, there are 60 statements in the questionnaire built on the Likert scale principle. The statements form 10-item sets that measure the underlying variables in the model, given briefly in the previous section and in detail by Ehala and Zabrodskaja (2013a, 2013b). By calculating the mean scores for each 10-item set, we were able to get pseudo-continuous variables which could, with a certain caution, be used in parametric statistical tests. In this manner, it became possible to assess the vitality of a given group. Provided that there was a link between vitality and ethnic temperature, it also became possible to compare ethnicities or their subgroups in relation to their relative hotness.

The quantitative data were triangulated with half-structured interviews having open-ended questions, which allowed for differentiated, individual and subjective opinions to be given, but also provided a set of responses that could be related to the quantitative data. The interview plan was drafted on the principles of the model and included the following topics: (1) self-categorisation, (2) perceived cultural distance between groups (factor R), (3) possible identity trajectory in the future, (4) appreciation of traditions vs. utilitarianism (factor U), (5) perception of ethnocultural symbolic capital (factor PSD) and (6) perception of inter-ethnic discordance (factor D). The goal of the protocol was to elucidate qualitative data that would lead to a deeper understanding of the discursive choices that underlie beliefs and attitudes studied by the quantitative survey. The full text of the survey questionnaire and the focus group interview protocol are presented in Appendixes I and II (available online at http://kodu.ut.ee/~ehalam/Appendices.pdf) to encourage their use in other social settings.

The samples of the surveys were composed using a stratified sampling method so as to reflect the inter-ethnic composition of the population in different regions (five in each case), and were compiled by a well-known professional polling company in each country. All samples were aimed at $N = 1000$: in Estonia, the sample consisted of 538 Estonians and 460 Russian-speakers, in Latvia, 419 Latvians, 406 Russian-speakers, and 200 Latgalian Latvians, and in Lithuania, 400 Lithuanians, 230 Russian-speakers, and 270 Poles.

The samples were structured by five strata (see Table 1): A – areas of overwhelmingly titular mono-ethnic populations, mostly rural and smaller settlements, but also the city of

Table 1.   The composition of the samples and distribution of the respondents in strata.

Stratum	Percentage of titulars in the area	Estonia		Latvia			Lithuania		
		E^2	R	La	R	Lg	Li	R	P
A	>90	147	50	118	103		110	60	
B	90–70	132	70	48	3	100	80	60	
C	70–50	126	70	150	152		110	60	130
D	50–20	82	120	50	50	100	50		140
E	<20	51	150	53	98		50	50	

Kaunas in Lithuania; B – areas of 70–90% of the titular population, mostly medium-sized towns, but also the city of Klaipeda in Lithuania and the Latgale rural area in Latvia; C – areas of 50–70% of titular populations, which included all three capital cities: Tallinn, Riga and Vilnius; D – areas of prominent minority population (50–80%), which included the Russian-dominant industrial towns, and the Polish-dominant rural area around Vilnius (Vilniaus rajonas); E – areas of overwhelming Russian majority, which included industrial towns from each Baltic state. The sample distribution by strata is presented in Table 1.

The qualitative research was carried out in 2008–2011 through 25 focus-group oral interviews. Each group comprised six respondents and was formed on the basis of the vitality differences among the subgroups, obtained from the analysis of the quantitative data. Each interview lasted approximately two and a half hours. The exact number of interviews and settings are given in Table 2. In Latvia, there was also one mixed-group interview conducted, where members of all three ethnic groups were present. All of the respondents were interviewed in cafes or university rooms by Anastassia Zabrodskaja or non-professional interviewers who were from the same nominal ethnic groups as the respondents.

The questionnaires were presented and interviews were conducted in the state language with Estonians, Latvians and Lithuanians, and in Russian with Russian-speakers and Poles. Latgalian Latvians could choose either the Latvian or Russian language for their questionnaires, but the language of the interviews was Russian.

The results by ethnicities

Detailed presentations of the results on the ethnolinguistic vitalities of the Baltic ethnicities can be found in Ehala and Zabrodskaja (2013a); here we give only the most important findings necessary for a better understanding of the discussion of ethnic temperature that follows in the next section.

Table 2.   Interview statistics.

Country	Number of interviews with titulars	Number of interviews with Russian-speakers	Number of interviews with Latgalian Latvians in Latvia or Poles in Lithuania	Settings
Estonia	1	4		C, E, B
Latvia	4	3	2	C, A, B, D
Lithuania	4	3	3	C, E, A

The interaction principles of the vitality factors presented earlier are formalised in Equations (1) and (2):

$$V = U(\text{PSD} + \text{D})/R, \text{ if}(\text{PSD} + \text{D}) < 0 \qquad (1)$$

$$V = R(\text{PSD} + \text{D})/U, \text{ if}(\text{PSD} + \text{D}) > 0 \qquad (2)$$

The choice of equation depends on the (PSD + D) value, which could be a negative or positive figure, depending on the values of PSD and D. PSD is less than 0 for those respondents who assessed the in-group as weaker than the out-group. D is a negative value for those respondents who showed out-group favouritism (see Sachdev and Bourhis 1991). Thus, (PSD + D) is typically a negative value for respondents from minority groups, and positive for respondents from majority groups. However, in the case of large intergroup discordance (positive D), the value of (PSD + D) could become positive even for minority members who saw their in-group as weaker than the out-group. In this case, Equation (2) is used. These two equations are needed to express the impact of U and R correctly for minority and majority groups. Even though the impact of U and R for the minority and majority group vitality is similar (high U and low R lower the vitality), the different impacts of multiplication and division for negative and positive numbers requires the use of different equations depending on the (PSD + D) value.

The questionnaire was operationalised in a way that made it possible to measure all variables and to calculate the value of V. The vitality scores for the Baltic ethnicities are presented in Table 3.

As vitality is a relational concept characterising the perception of a certain inter-ethnic situation from the point of view of the in-group, the V score is different in different in-group–out-group axes. For example, Lithuanians show higher vitality in relation to the Polish (0.91) than to the Russian minority (0.65). Table 3 presents the vitalities of the majority and minority from the viewpoint of the respective in-group for all settings studied. For example, the vitality of Lithuanians in relation to Lithuanian Russian-speakers as perceived by Lithuanians is 0.65, and the vitality of Lithuanian Russian-speakers in relation to the Lithuanian majority as perceived by Russian-speakers is −0.22.

The V scores are to be interpreted using Table 4, which shows the range of V values. The calibration of the scale in Table 4 is based on the interpretation of the questionnaire scales, mathematical characteristics of the model and what is known about the vitalities of the Baltic ethnicities from numerous other studies on Baltic ethnicities. It is a rough guide that needs to be fine-tuned through further studies. In Table 4, low vitality scores are described using the degrees of language and identity shift that are hypothesised to accompany certain levels of vitality. The high scores are characterised using the notion of ethnocentrism. The higher the vitality score, the more ethnocentric the ethnicity. Usually

Table 3. Vitalities of Baltic ethnicities.

Country	Majority	Vitalities in comparison		Minority
Lithuania	Lithuanians	0.91	−0.24	Poles
	Lithuanians	0.65	−0.22	Russians
Estonia	Estonians	0.87	−0.08	Russians
Latvia	Latvians	0.55	0.06	Russians
	Latvians	0.42	−0.20	Latgalian Latvians

Table 4.   Degrees of vitality (adapted from Ehala and Zabrodskaja 2013a, 79).

		Values of V	Description
High vitality		> 1.5	Extreme ethnocentrism
		0.6 … 1.5	Strong ethnocentrism
		0.3 … 0.6	Moderate ethnocentrism
		0.1 … 0.3	Weak ethnocentrism
		0 … 0.1	Stable vitality
		0 … −0.1	Stable vitality
		−0.1 … −0.2	Weakly shifting
		−0.2 … −0.3	Moderately shifting
		−0.3 … −0.4	Strongly shifting
Low vitality		< −0.4	Extremely shifting

ethnocentrism characterises majorities, but it can also characterise strong minority communities.

When we analyse the scores in Table 3, we can see that Lithuanians and Estonians have high vitality and are characterised by strong ethnocentrism, while the Latvians have a somewhat lower mean score. At the same time, the Latvian Russian-speakers have the highest score amongst minorities, followed by Estonian Russian-speakers. The Latvian-Russian intergroup setting is the closest to parity amongst the settings studied. This is partly explained by the large economically and culturally prominent Russian community in Latvia, and partly by the significant inter-ethnic discordance between the groups (the highest in the settings compared). The high D score is the main reason why the Russian-speakers in Latvia are the only minority community in the Baltic states that has a V score higher than 0. The Russian-speakers in Estonia have a slightly lower V score, but still high enough to be considered in the stable zone. The numerically small minorities (the Russian-speaking and the Polish minorities in Lithuania and Latgalian Latvians in Latvia) all have significantly lower V scores, and this also corresponds to their attested pattern of language and identity shift (see Geben and Ramonienė forthcoming; Stafecka 2006; Klavinska 2009). When we look at the overall trend, the V scores of the majority decline as the V scores of the minority rise, which was expected, because the V score incorporates the perception of in-group strength in comparison with the out-group.

Yet this trend is by no means absolute. For example, Lithuanians and Estonians are characterised by high vitality towards Poles and Russian-speakers, respectively. Yet the Russian-speaking minority is relatively much larger in Estonia than the Polish minority is in Lithuania, and their vitality is also higher. Interestingly, Lithuanians are significantly less closed and ethnocentric in relation to their Russian-speaking minority, which is about the same size as their Polish minority. Therefore, the perception does not always reflect the objective reality similarly, but is mediated by the discourses of inter-ethnic relations. These similarities and differences seem to stem from historical disputes between Lithuania and Poland over the Vilnius region and between Estonians and Russian-speakers over the official status of Russian, which is not an issue in Lithuania. We will characterise this in more detail in the next section when dealing with the results of the qualitative study.

The data in Table 3 also illustrate the intuitively plausible trend that the majorities are more open and inclusive for non-threatening minorities. For example, Lithuanians have lower V scores towards non-threatening Russian-speakers, and Latvians show lower V

scores towards Latgalian Latvians, which can be considered as a legitimate subgroup of Latvians.

Certainly, the factors responsible for ethnic temperature also play a role in the vitality score, but as they are embedded in the equation, their impact is not directly visible from the V score. When we look at the two factors associated with ethnic temperature – inter-ethnic distrust (Dt) and utilitarianism (U) – we can see that there are quite revealing differences between the mean scores of the ethnicities presented in Table 5.

The distrust scale ranges from 0 (maximum trust) to 1 (maximum distrust), with 0.5 being the neutral midpoint. As all mean scores are below the neutral midpoint, the average level of Dt is not high in absolute terms, but the differences are still large over the settings. For example, the highest level of distrust is shown by the Russian-speaking minority in Latvia (towards the Latvian majority), as well as Latvians towards their Russian-speaking minority. The Dt level of Lithuanians towards their small Polish minority is surprisingly high, but it is not countered by a similar distrust from Polish. As would be expected, the smallest Dt level is shown by Latvians towards Latgalian Latvians, but the latter have small reservations in replying in the same way. Looking at the whole range of mean scores, we can see that it is within the range of 20% of the scale, which is quite large considering that the Baltic states are all democratic Western-type well-functioning societies, and the inter-ethnic climates do not appear that different at first glance.

When we compare the mean values for U, there are also differences, but on a considerably lesser scale (see Table 6).

The scale ranges from 0 (maximum traditionalism) to 1 (maximum utilitarianism). 0.5 is the midpoint or balanced level of utilitarianism and traditionalism. As can be seen from Table 5, all ethnicities gravitate towards traditionalism, as the mean values for U are less than 0.5. The titular ethnicities are the most traditionalist, and the Latvian Russians – arguably the economically most advanced minority group in the Baltic states – show the highest level of utilitarianism. However the variability is only eight percentage points of the scale, which is fairly small: the standard deviations within each sample are about twice that large. The differences between subgroups within each ethnicity are about twice as large as the differences between the mean values of ethnicities.

To summarise, the mean values of V indicate some differences in ethnic temperatures amongst the Baltic ethnicities: the hottest is the situation in Latvia, with the large and prominent Russian minority there having both high vitality and a considerable level of distrust towards Latvians, reciprocated by the latter. The situation in Estonia is somewhat cooler on both the Estonian and Russian side. Lithuanians are considerably hotter towards the relatively small Polish minority than towards the Russian-speaking minority. The relatively low scores on the Utilitarianism scale indicate that traditional values and respect for cultural heritage have considerable value amongst all ethnicities. To gain a better

Table 5. Distrust between Baltic ethnicities.

Majority	Distrust scores in comparison		Minority
Lithuanians	0.46	0.40	Poles
Latvians	0.46	0.47	Russians
Estonians	0.41	0.43	Russians
Lithuanians	0.35	0.32	Russians
Latvians	0.24	0.35	Latgalian Latvians

Table 6.   Utilitarianism in Baltic ethnicities.

	R(E)	R(La)	R(Li)	P	Lg	E	La	Li
U	0.42	0.46	0.43	0.43	0.43	0.39	0.42	0.41

understanding of the construction of ethnic temperature, we now turn to intra-group analysis.

The intra-group analysis

As Kosmarskaya (forthcoming) shows, the urban and modernised Kyrgyz and Kazakhs are cooler in ethnic terms than those from rural areas. Also, according to Nosenko-Stein (forthcoming), there are a number of different Jewish identities characterised by different ethnic temperature: while new Jews are relatively hot, other types seem to be cooling. Considerable intra-group variation is characteristic of the ethnicities in the Baltic states as well. Therefore, the group average values for vitality parameters reported above are fairly rough approximations over a wide range of variation.

In order to assess the scope of this variation and its influence on the perception of reality that influences intergroup relations, we categorised the respondents on the basis of their ethnic temperatures. An individual has theoretical model presented in Section 2, an individual has a hot attitude towards his/her ethnic affiliation if he/she has either a high level of distrust towards the important out-group (high Dt value) or a high level of emotional attachment to his/her in-group (low U value) or both. An individual has a cold attitude to his/her ethnic affiliation if he/she has both a low level of distrust and a low level of emotional attachment to his/her in-group (high U value).

Based on their scores on Dt and U scales, we grouped the respondents into five categories: DtHot includes individuals who scored more than 66% of the scale's range on the distrust dimension. These are the individuals who had the top 33% of the most distrustful responses. UHot includes the individuals who had the bottom 33% of the scores on the U scale. These individuals had the most traditional and least utilitarian value orientation. The category 2xHot includes the respondents who had the highest values on both the Dt and U scales (as Dt and U are not in correlation, 2xHot is a small category compared to the two other hot categories). The cold category includes individuals who had scores below the neutral midpoint on the Dt scale (i.e. they expressed trust in the out-group, not distrust) and had higher scores than the mean on the U level. The medium category includes the rest of the respondents.

The results of the comparison are presented in Figure 1. As can be seen, the highest share of hot respondents was found in Latvia, both amongst the Russian-speakers and amongst Latvians. These samples also had the smallest share of cold individuals. The ethnic temperature in Estonia is slightly lower. The third pair of ethnicities on the heat scale is Lithuanians and Poles, but here the share of cold individuals is considerably larger. The situation can be classified as cold between Lithuanians and Russians: there is very little distrust, and there is the highest level of cold individuals. This is in accordance with the observation that Lithuanian Russians have chosen a voluntary assimilation path (see Brazauskiene and Likhachiova 2011) and the Lithuanians are fairly relaxed in accepting the assimilating Russians. The coldest structure is shown by the Latvians towards Latgalian Latvians, but the latter have somewhat more hot individuals.
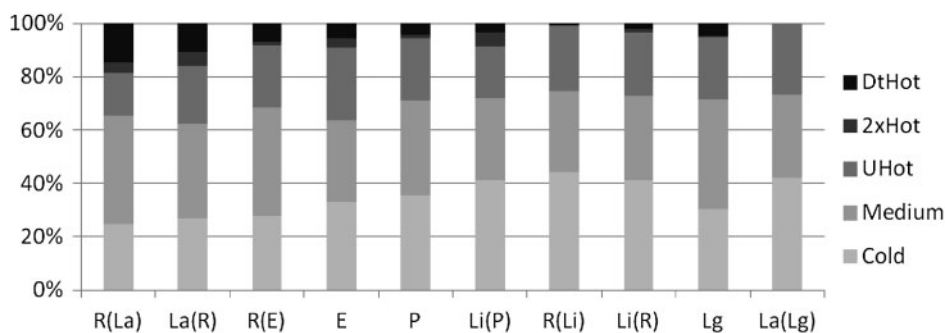
Figure 1.   Hot and cold subgroups within Baltic ethnicities.

There are two general tendencies visible in Figure 1. First, the share of the DtHot subgroup is fairly similar in every majority–minority pair, but differs between the pairs. This points to strongly interactive causes for the distrust levels, that is, they are not simply discursively manipulated within two groups separately but are constructed in a dialogic manner. This gives empirical support to the Bourhis et al. (1997) interactive acculturation model, which claims that immigrants' acculturation orientation is shaped by the attitudes of the majority. Secondly, the level of ethnic temperature within a group can vary according to the out-group. For example, Latvians have a fairly large proportion of hot individuals with respect to Russian-speakers, but not at all with respect to Latgalian Latvians. This means that a hot ethnicity is not necessarily closed and antagonistic to all out-groups. It may be antagonistic to some out-groups while at the same time freely accepting new members from some other out-groups.

We also looked at the differences between hot and cold categories in regard to their networks of linguistic contacts and language choice patterns, as well as their perceptions about their in-group and out-groups. In terms of the network of linguistic contacts (items R01-10, Appendix I), there is a strong tendency within each ethnicity that subjects in the hot category use less out-group language than the subjects in the cold category. Using two-way ANOVA, the difference between the hot and cold groups emerged as statistically significant at a 0.05 level for six cases out of ten: R(E), R(La), P, E, La(R) and Li(R). For two cases – R(Li) and Li(P) – the tendency was not statistically significant. In the case of Lg and La(Lg), there was no consistent pattern. Although the causal direction between ethnic temperature and language cannot be stated with certainty, there are factors that indicate that ethnic temperature has an impact on language choice. For example, the Russian-speakers in Latvia use more Latvian language on average than do Russian-speakers in Estonia. If the linguistic network distance controlled the level of distrust and utilitarianism, one would expect that the R(La) would have lower scores on distrust and higher scores on utilitarianism than R(E). Actually, the pattern is the reverse: the hot group of R(La) has $U = 0.41$, Dt $= 0.63$, while the hot group of Rus(E) has $U = 0.36$; Dt $= 0.57$, that is the R(La) has a higher mean value for Dt, not lower. The same holds for Estonians and Latvians. The hot group of Estonians is marginally cooler than the Latvian hot group (Est $U = 0.33$, Dt $= 0.55$; La $U = 0.32$, Dt $= 0.58$) yet the Estonian group has less contact with Russians than Latvians do.

Therefore, while the linguistic network distance seems to depend largely on patterns of segregation, which are different in Latvia and Estonia, it is also clear that, at least

partly, the individuals who belong to the hot group try to reduce the amount of contact as compared to the cold individuals, irrespective of the inter-ethnic setting. The opposite is not true: more inter-ethnic contact does not result in consistently lower levels of Dt and higher levels of U.

When we looked at the differences in the perception of cultural distance (items R11-20 in Appendix I), there was a very consistent and statistically significant ($p < 0.05$) tendency in all 10 inter-ethnic settings, that is, the respondents who belonged to hot subgroups perceived the out-group members as more culturally distinct from themselves than the members of cold subgroups. Further analysis showed that this relationship was influenced mostly by the level of distrust, while the contribution of U was statistically insignificant. This means that the higher the absolute level of distrust, the higher also the perception of cultural distance, irrespective of the intergroup setting, that is irrespective of real cultural differences between the two groups.

This regularity emerged clearly in the case of Lithuanians towards local Poles and Russians. Objectively, one might assume that the cultural distance between Lithuanians and Poles would be less than between Lithuanians and Russians, since Poles are Roman Catholic, like Lithuanians, while Russians are Orthodox. Yet Lithuanians perceive the Russians to be closer than the Polish (0.46 vs. 0.49 points on a 1.0 scale). The main reason seems to be that the Lithuanians' mean level of distrust towards Poles is considerably higher (0.46) than towards Russian-speakers (0.35).

Ethnic temperature is also connected to the perception of the legitimacy of intergroup power relations (items D01-04, Appendix I). For minority ethnic groups, members of hot subgroups perceive the inter-ethnic situation as less legitimate than do the members of cold subgroups (the mean difference between H and C subgroups is statistically significant in all five minority cases, $p < 0.05$). For majority ethnic groups, the relationship is the reverse: the members of hot subgroups perceive the situation as more legitimate than do the members of cold subgroups. The mean difference between H and C subgroups is statistically significant ($p < 0.05$) in four cases out of the five. Therefore, we can claim with high certainty that ethnic temperature is related to the perception of the legitimacy of the inter-ethnic situation in a manner that the pairs of majority–minority groups having higher inter-ethnic temperature have more conflicting perceptions about the legitimacy of the situation.

In our earlier study (Ehala and Zabrodskaja 2011), we found on the basis of the study of Russian-speakers in Estonia (the same data as used in this study) that there was a negative correlation between the level of discordance and perceived in-group strength: the stronger the level of distrust and feeling of illegitimacy, the weaker the in-group was perceived. The same relationship was also revealed in the case of R(La) and R(Li), but not in the case of Lg and P. In addition, in the case of R(E), R(La) and R(Li), there was a positive correlation between U and PSD: the more utilitarian the person, the stronger s/he perceived the in-group. Similar findings have been reported in earlier literature (Giles and Johnson 1987; Hogg and Rigoli 1996; Liebkind, Jasinskaja-Lahti, and Teräsaho 2007). However, in the case of majority ethnicities no difference in the perception of PSD was detected in relation to either Dt or U. Thus, it is only in the case of the three Russian minorities in the Baltic states that the perceived strength differential depends at a statistically significant level ($p < 0.05$) on the ethnic temperature: the hot subgroups perceive their ethnic in-group as relatively weaker than the cold subgroups do.

Based on the results of the quantitative analysis above, a social psychological profile can be drawn that characterises the typical members of hot and cold subgroups within an

ethnicity. A typical member of a hot subgroup has a high level of distrust towards the out-group, in extreme cases dehumanising the members of the out-group. He or she values the traditions and norms of her culture to the extent that this may become a significant factor constraining his/her own personal life choices. Because of intergroup distrust and/or traditionalism, a typical member of a hot subgroup tries to avoid contact with out-group members, and prefers not to use the out-group language. They also try to psychologically distance themselves from the out-group by perceiving the out-group as different in appearance and tastes, culturally alien, having an incompatible value system, and being hard to socialise with. The hot members of the minority ethnicity have a high perception of the illegitimacy of the intergroup setting, while the hot members of the majority group, in contrast, have a high perception of the legitimacy of the same intergroup setting. In some cases, this also leads to the perception of identity threat, which results in a lowered perception of in-group strength. This set of beliefs, if it becomes hegemonic in society, maintains strong inter-ethnic boundaries and may lead to intergroup conflict over legitimacy issues.

The views characteristic of the hot attitude were clearly shown in the focus group interviews. For example, the views of Alise, a 17-year-old Latvian girl from setting C speaking Latvian as her first language, matched very closely the profile drawn from the quantitative analysis. She was very strongly committed to her Latvian identity, and she would not change her citizenship under any circumstances, because 'taking another citizenship, it would be disrespectful to the Latvian nation; there are so few Latvians'. She was proud of her heritage and considered it to be her destiny: 'even if I were a Chukchy, I would say that I was a Chukchy, because that would be my identity'. If she were to live abroad, this would not affect her identity; 'if in the heart there are these feelings, then nothing changes'. She was quite exclusive in defining the in-group. Despite having relatives who were Latgalians and Russians, she claimed: 'I do not consider myself close to Latgalians or Russians'; furthermore, she doubted the possibility of marrying a non-Latvian as 'it is still another ethnicity. And my family would not be happy'; and finally she doubted the possibility that someone could become a Latvian: 'If you were born in Russia, you would be Russian. Well, you can come to Latvia, and take up the traditions, but you cannot become a Latvian'. When some focus-group members mentioned that Latvians had privileges that the minorities did not have, she replied by stressing the legitimacy of the situation: 'Russian-speakers do not have any problems in Latvia in finding jobs; considering, as we know, how many Russian-speakers do not speak Latvian, they feel fine here. Certainly, Latvians have their advantages, but in principle there is almost no difference'. She also made it clear that the rigid in-group boundaries were caused by distrust:

> I agree in the sense that you cannot really get close. While living side by side and doing the same things, people become alike, but Latvians have such, I do not know, good or bad property that they take offence for a very long time. And I think that Latvians will feel offended for quite some time, that is, Russia occupied Latvia, and Latvians will not be able to forgive that for quite some time.

Individuals who held comparable views were found in every focus group in every ethnicity studied. The hot Estonian discourse was very similar to that of the Latvian, and this, of course, was reflected dialogically in the hot discourse amongst the Russian-speakers of Latvia and Estonia. The following three excerpts are from three focus group

interviews with Russian-speakers in Estonian setting D, Latvian setting C and Estonian setting C:

Setting D, Estonia (Estonian Russian-speakers in their thirties):

> **Pavel**: In fact, with the word 'Estonian' I have an association – the word 'offended'.
> **Andrei**: Oh!
> **Pavel**: Yes, and the word 'Estonian' is also associated with the word 'child'; yes 'offended child', such an association.
> **Andrei**: This is about Estonian politicians. And in general, Estonian politicians evoke the feeling that they were deeply offended and they continue to take revenge for this…
> …
> **Pavel**: We are not fresh off the train.
> **Dmitri**: Yes, this is a controversial question, who came here before.
> **Pavel**: Yes, for sure, if you dig into it.
> **Interviewer**: Andrei, could you please repeat once again, maybe we have not heard 'Yes, for sure, if you dig into history'.
> **Pavel**: Yes, for sure, if you dig into history.
> **Interviewer**: Andrei, you had a comment, (smiles) when Pavel was talking …
> **Andrei**: Oh no, I just wanted to add something about all these muulased ['aliens', Estonian code switch], that all this was some time ago, that it is normal fascism, that type of principle completely, that is when there are Jews and there are humans, and here somehow we have the same thing, in my view, that is all; such [an idea] has appeared in the course of [an interview].

Setting C, Latvia (Latvian Russian-speaker in her thirties):

> **Inna**: … you open a newspaper and read: occupiers, immigrants, on the front page of the newspaper. This is why there is no status of Russian as a second state language, though it is much talked about. So you have to fight for everything, with difficulty.

Setting C, Estonia (Estonian Russian-speakers in their twenties):

> **Mikhail**: It is like the attitude of the indigenous Estonians, in relation to Estonian Russians. Well, it should change gradually; that is, in one generation it will not really happen … (pause) Well, can I ask a counter-question? Does anybody remember what happened in Macedonia several years ago?
> **Deniss**: I have never been there. I do not know.
> **Interviewer**: Let us not discuss the Macedonian case now.
> **Mikhail**: No because …
> **Interviewer**: What happened in Macedonia? Only quickly, in one sentence.
> **Mikhail**: A third of the population are not Macedonians but Albanians. It is written in the constitution of the country: Macedonia is a country of Macedonians. After military clashes that lasted several months, sponsored by 'big brother', Albania in this case, legislative changes were adopted, that is President Trajkovski then ran to Ukraine, buying a lot of helicopters, MI-24s … And the situation ended with steps taken to raise the status of Albanians, not just as a national minority, but as a state-forming nation …

As the excerpts show, the feeling of resentment of Latvians and Estonians seemed to be perceived by the Russian-speaking out-groups, too, and they agreed that reconciliation might take a long time. Yet, the official discourse of occupation and immigration was clearly contested by hot Russian-speakers as the main ideological justification for their low status in Latvia and Estonia. While the hot Latvians and Estonians considered the ethnic status differences to be legitimate and not affecting opportunities for finding jobs,

etc., hot Russian-speakers compared the situation with that of Jews in Nazi Germany. The parallel with Macedonia is particularly telling as it offers a hint of the possibility of improving the status of the Russian-speakers by forced actions supported by Russia. But such an extreme view was not supported by the interlocutors during the interview.

In Lithuania, hotness was not constructed in the axis of Lithuanians–Russian-speakers, but towards local Poles. In one Lithuanian focus group (setting A), an aversive and distrustful attitude emerged as soon as the interviewer asked respondents to express opinions about Lithuanian Poles, which led to sounds expressing emotions (*Oooh … Mmmm*, etc.). An analysis of the whole interview makes it possible to argue that there were hot, medium and cold individuals amongst the participants of the focus group, but when it came to expressing opinions about Poles, all aligned with the hegemonic aversive stance. We present three statements from this part of the interview here. The first statement was from Rasa, a female over 50 years old. She was the first to reply to the interviewers' request and she did so in quite strong language. The fact that she was the first to reply and she did so bluntly indicated strong conviction and confidence that her opinion would be approved of. When the reviewer asked for other opinions, Rasa's opinion was countered by Elena, who had Polish heritage. She tried to point out some positive characteristics, but also tried to find excuses for her opinion. The third opinion from Snaigė was aired a few minutes later, after three more people had expressed their opinions. Snaigė positioned herself as neutral, and mentioned some positive characteristics, but at the end she also aligned herself with the hegemonic opinion, '*with regret*', as she repeated twice:

Interviewer: Now move on to another category – Poles.
All: Ooo … Mmm. Ooo [all express emotions]
Interviewer: What can you say? What are the first associations? What comes to mind?
Rasa: I can say that as a Russian has his own character, a Pole has his own character too, I would say, more distasteful. It is not acceptable to me. A Russian is more acceptable to me. A Pole is primarily a liar, that is, well, a dandy, well, not a dandy. I can not even think of this word at once. I just see a type who sucks up, a flatterer and, well, in one word, a sticky person. Well, taking into account all of the history, the policy of Lithuania towards Poles, it does not raise pleasant associations.
Interviewer: Others?
Elena: In general, I am an interesting case because my paternal grandmother was … in childhood she spoke Polish. A grandmother from … I have just recently learned … my maternal grandmother also spoke Polish. My son-in-law is now a Pole. My granddaughter, it turned out, is also registered as a Pole because it was necessary. In short, it is very interesting with Poles, but for me a Pole is very colourful, expressive and, in general, slippery. Not because … on the whole, it does not apply to my son-in-law. No … Well, maybe this is because of my family, from my grandparents, from Lithuania itself. But in order for this Pole to feel himself to be a Pole, I consider it necessary that there be this option – tuteišiai [self-identification of Lithuanian Poles that persist in Lithuania's Vilnius Region] – as they are now in the Trakų region.
[–]
Snaigė: Well, I do not know. I just did not have close contacts with Poles. Occasionally when there were groups from Poland before, sometimes I showed them the museum. They left with a very good impression, they were sincerely happy, and they thanked me – and it was truly very good with them, a great time. But I just do not know; we did not talk in our family, you know, against Poles, but somehow my attitude was shaped maybe from history textbooks or … But, well, I do not like them. Unfortunately, of course. I know that there are Chopin, Sienkiewicz, etc., but my personal opinion is like that. Unfortunately.

So we can see a strong group norm here in attitudes towards Poles, with clear signs of how hard it is for an individual to counter hegemonic views. A similar well-established

distrustful norm about the out-group was encountered in Latvian and Estonian discourses as well, but directed towards Russian-speakers. We saw above how the minority attitudes reflect the majority stance, but the impact is clearly dependent on whether the minority is strong or weak. While in Latvia and Estonia hot Russian-speakers contested the situation, the Lithuanian Poles did not contest the Lithuanians' stance, but rather just asked not to be categorised on ethnic grounds, as this excerpt from a focus group interview with young Poles from setting E indicates:

Interviewer: Well, how would you like to be considered by other people?
Beata: Who I am.
Interviewer: Who you consider yourself to be?
Beata: Yes, yes.
Robert: Well, I would also say that I'd like to be considered as who I am. So that they would not divide people by ethnicity etc. because often the division is that if you are a Lithuanian, then you are bad and if a Pole, then good. Or vice versa. I wish that it wasn't that way.
Viktor: You should be valued as a person and people shouldn't look at your name or family name which is not like others have. Like you are stupid or something. You should be treated simply as a person.
[–]
Interviewer: And now let us talk about such categories – what is your opinion about them. For example, the word Pole. What are the first associations that come to mind with this word? What kind of person is a Pole?
Andrey: I have no associations. The same as a Brazilian or a Frenchman or a Portuguese.
Interviewer: Simply ethnicity?
Andrey: Yes.
[–]
Robert: I think that a Pole is like all other ethnicities, a person; they all are the same. That is why a Pole is like all other ordinary people.
Interviewer: Don't you have any first association?
Robert: No.
Viktor: I think that for me a Pole is immediately associated with patriotism. He is like a patriot.
Alyona: And for me this is something native. Like our own.
[–]
Interviewer: And the expression Lithuanian Pole? Does that mean anything to you?
Andrey: Are there any?
Interviewer: Does this expression mean anything to you?
Viktor: Yes.
Interviewer: Viktor?
Viktor: For me, it is immediately associated with a person who is not liked, who is despised. My … Well, this is my opinion.
Interviewer: But for others?
Alyona: For me, the immediate association is with some kind of discrimination. Well, something bad.
Interviewer: But for others?
Romuald: For us, this is our own man, but for others it is an enemy of the nation.
Beata: The combinations 'Lithuanian Pole' itself somehow well …
Interviewer: Do you use it yourself?
All: No.
Interviewer: Have you ever heard that somebody from the outside would use the term?
All: Yes.
Interviewer: From who have you heard that the most?
All: From Lithu …
Romuald: From Delfi.lt. You hear such people who do not know … who only read newspapers. Yes? On the Internet, where everything is written. These are such

people who are still young. They do not understand the meaning. Somebody says there – they go with the flow. The wind blows and they all go. Morons.

The levels of collective identity denial are quite telling here. Young Polish people would like the ethnic labelling removed altogether from their categorisation, as it is very directly associated with the perception of discrimination. They disassociate themselves from the general category Polish, too, by saying that this does not have any specific meaning for them, and when confronted with the term *Lithuanian Polish*, they ironically question the existence of this category at first. Only after considerable conversation do some positive self-associations start to emerge. So the self-denial of Polish identity is quite strong here, which is not surprising considering the prevalent anti-Polish sentiments in the Lithuanian discourse. Therefore, while Lithuanians show high ethnic temperature towards Poles, the latter do not contest it, but try to disassociate themselves from Polishness in public discourse. It seems that the Polish do not construct their ethnic temperature on the distrust scale as they do not feel they have the necessary collective strength to counter the majority, but instead opt for traditionalism.

Discussion and conclusions

To summarise the results, we could say that it is possible to operationalise the concepts of hot and cold ethnicities and to measure the ethnic temperature of different ethnicities in a fairly exact manner for meaningful comparative research.

In the case of Baltic ethnicities, we can see distinct types of vitality and ethnic temperature. All three titular ethnicities have fairly high vitality, supported by hotness towards significant minority out-groups: Russian-speakers in the case of Latvia and Estonia, and Polish in the case of Lithuania. Strong minority ethnicities (Russian-speakers in Latvia and Estonia) are also relatively hot and so the mutual ethnic heat helps to maintain a steady state which supports the language and identity maintenance of the Russian-speakers. A similar strategy is not available for weak ethnicities, such as Lithuanian Russian-speakers and Polish. Both of these minorities have quite large numbers of individuals who are hot regarding traditionalism, which means that they are trying to maintain their vitality by holding on to their traditions. This is undermined by significantly large numbers of cold individuals, particularly in the Russian case, which indicates clear language and identity shift.

All of these settings are connected with the case of cross-border minorities who are the majority population in the neighbouring country. All of them involve historical conflict situations between neighbouring nations: Russia vs. Estonia, Latvia and Lithuania, and Poland vs. Lithuania. Therefore, attitudes towards minorities are shaped, to a large extent, by the memory of these historical events. The minorities suffer clearly because of the historical legacy, and while the strong Russian-speaking minorities in Latvia and Estonia feel vital enough to imagine contesting their low status (with Russian support or not), the Polish minority has too low a vitality for this.

Latgalians form a case distinct from all of the others: because of the possible subgroup identification with the mainstream Latvian ethnicity, several general trends in attitudes characteristic of other settings studied do not hold here, and also no consistent pattern could be detected except that this setting is characterised by the lowest level of ethnic heat on the part of both the minority and the majority.

Theoretically, the results show that ethnic temperature contributes to ethnolinguistic vitality by reducing out-group contact, making the inter-ethnic boundaries appear more

rigid and cultural differences larger. Also, hot individuals see the legitimacy of the intergroup setting in a more conflictual way and may perceive their in-group as relatively weaker, as do cold individuals. In the case of minority groups, a large number of hot individuals are opposed to possible language and identity shift and, in the case of majorities, this strengthens ethnocentrism and alignment to group norms and values for individual members.

A significant finding of this study is the distinct difference in inter-ethnic attitudes towards different out-groups. The concept of hot and cold ethnicities was conceptualised as an absolute measure characterising an ethnicity (Ehala 2011), but the results of this comparative study indicate that an ethnicity can be hot in one inter-ethnic setting and cold in another setting. For example, Lithuanians are considerably hotter towards Poles than towards Russian-speakers, and Latvians hotter towards Russian-speakers than to Latgalians. This means that characteristics of hotness, such as closed inter-ethnic boundaries, avoidance of contact and the use of the out-group language, are not features characteristic of this ethnicity in general, but only for certain settings. So, for example, an ethnicity that is ethnocentric and closed in one setting (e.g. Estonians towards Russian-speakers) can be open and even show out-group favouritism in another setting (e.g. Estonians towards Western Europeans; see Tammemägi and Ehala 2012).

While the ethnolinguistic vitality questionnaire used in this study made it possible to address the phenomenon of ethnic temperature, the instrument was not designed particularly for this purpose. This sets some limitations on what conclusions can be drawn from its use. Theoretically, ethnic temperature is assumed to strengthen vitality, yet in the theoretical model of vitality, the temperature parameters (Dt and U) are taken as the defining parameters for vitality (amongst other parameters). Therefore, it is inevitable that vitality scores are higher for those ethnicities that have higher scores for Dt and U. In addition, the comparison of hot and cold subgroups revealed that Dt and U also affect some other parameters that are assumed to contribute to vitality. In short, the set of relevant inter-ethnic attitudes and perceptions form a complex and interrelated set. The analysis of these interrelations should lead to an improved model of vitality, as well as to a more precise conceptualisation of the factors that contribute to ethnic temperature (Dt, U and possibly others).

To conclude, the current paper tried to answer the question raised by Polese (forthcoming) about how to measure ethnic temperature. Using the survey questionnaire for ethnolinguistic vitality, we specified two parameters that we believed were major contributors to the ethnic temperature, and were able to show that individuals who scored high on these parameters perceived intergroup boundaries as more rigid, had fewer linguistic contacts with out-group members and saw the legitimacy of the inter-ethnic situation in more conflicting ways than individuals who could be characterised as ethnically cold. We were able to specify the relative heat of different ethnic communities in the Baltic setting and specify its nature by qualitative analysis, revealing that the core issues increasing ethnic temperature are grounded in historical memories involving inter-ethnic conflict, and that the ethnic temperatures are constructed dialogically in intergroup communication between majority and minority groups.

We acknowledge that the theoretical insights obtained from this study are far from conclusive. On the contrary, this is just one of the few large comparative studies that have tried to specify the complex set of factors that influence inter-ethnic attitudes and perceptions and how these relate to ethnolinguistic behaviour. It is very likely that there are other significant factors involved that were not included in our study.

Acknowledgements

Notes

1. R comes from the notion of radius, from the metaphor of the gravity of ethnic groups that attract their members. The attraction decreases as the value of R grows.
2. The following abbreviations are used here and subsequently: E – Estonian, La – Latvian, Li – Lithuanian, R – Russian-speakers, R(E) – Russian-speakers in Estonia, R(La) – Russian-speakers in Latvia, R(Li) – Russian-speakers in Lithuania, Lg – Latgalian Latvian, and P – Polish.

References

Bourhis, Richard Y., Léna Céline Moi'se, Stéphane Perreault, and Sacha Senécal. 1997. "Towards an Interactive Acculturation Model: A Social Psychological Approach." *International Journal of Psychology* 32 (6): 369–386. doi:10.1080/002075997400629.

Brazauskiene, Elena, and Alla Likhachiova. 2011. "Russkije v sovremennoj Litve: yazykovye praktiki i samoidentifikatsija [Russians in Contemporary Lithuania: Linguistic Practices and Self-Identification]." *Диаспоры/Diasporas* 1: 61–85.

Ehala, Martin. 2009a. "The Bronze Soldier: Identity Threat and Maintenance in Estonia." *Journal of Baltic Studies* 40 (1): 139–158. doi:10.1080/01629770902722294.

Ehala, Martin. 2009b. "An Evaluation Matrix for Ethno-Linguistic Vitality." In *Rights, Promotion and Integration Issues for Minority Languages in Europe*, edited by Susanna Pertot, Tom Priestly, and Colin Williams, 123–137. Basingstoke: Palgrave Macmillan.

Ehala, Martin. 2010. "Refining the Notion of Ethnolinguistic Vitality." *International Journal of Multilingualism* 7 (4): 363–378. doi:10.1080/14790711003637094.

Ehala, Martin. 2011. "Hot and Cold Ethnicities: Modes of Ethnolinguistic Vitality." *Journal of Multilingual and Multicultural Development* 32 (2): 187–200. doi:10.1080/01434632.2010.541919.

Ehala, Martin, and Katrin Niglas. 2007. "Empirical Evaluation of a Mathematical Model of Ethnolinguistic Vitality: the Case of Võro." *Journal of Multilingual and Multicultural Development* 28 (6): 427–444. doi:10.2167/jmmd537.0.

Ehala, Martin, and Anastassia Zabrodskaja. 2011. "Interethnic Discordance and Stability in Estonia." *Journal of Baltic Studies* 42 (2): 213–237. doi:10.1080/01629778.2011.569068.

Ehala, Martin, and Anastassia Zabrodskaja. 2013a. "Ethnolinguistic Vitality of Ethnic Groups in the Baltic Countries". In *Negotiating Linguistic, Cultural and Social Identities in the Post-Soviet World*, edited by S. Smyth and C. Opitz, 45–85. Oxford: Peter Lang Verlag.

Ehala, Martin, and Anastassia Zabrodskaja. 2013b. "Ethnolinguistic Vitality and Acculturation Orientations of Russian-speakers in Estonia". In *The Russian Language Outside the Nation: Speakers and Identities*, edited by L. Ryazanova-Clarke. Edinburgh: EUP.

Geben, Kinga, and Meilutė Ramonienė. forthcoming. "Current Trends of Self-Identification in Urban Areas of Lithuania: The Case of Lithuanian Poles." In *Sociolinguistic Studies. Special Issue "Post-Soviet Identities: Linguistic, Ethnic, National"*, edited by Anastassia Zabrodskaja and Martin Ehala.

Giles, Howard, and Patricia Johnson. 1987. "Ethnolinguistic Identity Theory: A Social Psychological Approach to Language Maintenance." *International Journal of the Sociology of Language* 68: 69–99.

Hogg, Michael A., and Ninetta Rigoli. 1996. "Effects of Ethnolinguistic Vitality, Ethnic Identification, and Linguistic Contacts on Minority Language Use." *Journal of Language and Social Psychology* 15 (1): 76–89. doi:10.1177/0261927X960151005.

Klavinska, Antra. 2009. "Daudzvalodiba Austrumlatvija. Valodu lietojuma sferas. [Multilingualism in Eastern Latvia. Spheres of Language Usage]." In *Valodas Austrumlatvija: Petijuma dati un*

rezultati [Languages in Eastern Latvia: Data and Results of Survey], edited by I. Šuplinska and S. Lazdina, 146–157. Rezekne: Rezeknes Augstskola.

Kosmarskaya, Natalya. forthcoming. "Russians in Post-Soviet Central Asia: More 'Cold' than the Others? Exploring (Ethnic) Identity under Different Socio-Political Settings." *Journal of Multilingual and Multicultural Development*. doi:10.1080/01434632.2013.845195.

Liebkind, Karmela, Inga Jasinskaja-Lahti, and Mia Teräsaho. 2007. "Ingroup vitality and intergroup attitudes in a linguistic minority." *Scandinavian Journal of Psychology* 48 (5): 409–418. doi:10.1111/j.1467-9450.2007.00591.x.

Nosenko-Stein, Elena. forthcoming. "Still Warm but Getting Colder: Changing Ethnic Identity of Post-Soviet Jewry." *Journal of Multicultural and Multilingual Development*. doi:10.1080/01434632.2013.845196.

Polese, Abel. forthcoming. "Between 'Official' and 'Unofficial' Temperatures: Introducing a Complication to the Hot and Cold Ethnicity Theory from Odessa." *Journal of Multilingual and Multicultural Development*. doi:10.1080/01434632.2013.845198.

Sachdev, Itesh, and Richard Y. Bourhis. 1991. "Power and Status Differentials in Minority and Majority Group Relations." *European Journal of Social Psychology* 21 (1): 1–24. doi:10.1002/ejsp.2420210102.

Stafecka, Anna. 2006. "Dialectal Basis of High Latvian Written Language." In *Proceedings of the 4th International Congress of Dialectologists and Geolinguists*, 443–449. Riga: Latvian Language Institute.

Tammemägi, Anni, and Martin Ehala. 2012. "Eesti õpilaste keelehoiakud 2011. aastal. [Language Attitudes of Estonian School Students in 2011]." *Keel ja Kirjandus* 4: 241–260.

Thomas, Emma, Craig McGarty, and Kenneth Mavor. 2009. "Aligning Identities, Emotions, and Beliefs to Create Commitment to Sustainable Social and Political Action." *Personality and Social Psychology Review* 13 (3): 194–218. doi:10.1177/1088868309341563.

Zabrodskaja, Anastassia. 2009. "Language Testing in the Context of Citizenship and Asylum: The Case of Estonia". *Language Assessment Quarterly* 6 (1): 61–70. doi:10.1080/15434300802606572.