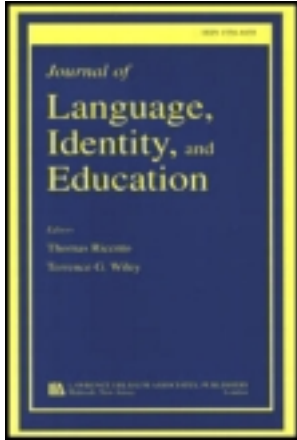


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## Journal of Language, Identity & Education

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/hlie20>

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Martin Ehala<sup>a</sup>

<sup>a</sup> University of Tartu

Version of record first published: 16 Jul 2012

To cite this article: Martin Ehala (2012): Cultural Values Predicting Acculturation Orientations: Operationalizing a Quantitative Measure, *Journal of Language, Identity & Education*, 11:3, 185-199

To link to this article: <http://dx.doi.org/10.1080/15348458.2012.686388>

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## Cultural Values Predicting Acculturation Orientations: Operationalizing a Quantitative Measure

Martin Ehala  
*University of Tartu*

This article proposes that acculturation orientations are related to two sets of cultural values: utilitarianism (Ut) and traditionalism (Tr). While utilitarian values enhance assimilation, traditional values support language and identity maintenance. It is proposed that the propensity to either end of this value opposition can be measured by an index (U) calculated as a differential of utilitarianism and traditionalism ( $U = Ut - Tr$ ). To measure Ut and Tr, a survey questionnaire was designed. The validity of the internal structure of the instrument, as well as its ability to differentiate between subgroups with different acculturation orientations, was tested in a large scale ( $N = 448$ ) survey in the Russian community in Estonia. The results indicate that the performance of the U-index was superior to both of its subcomponents in revealing correlations to sociodemographic indicators, as well as acculturation attitudes. Cluster analysis was used to bring out distinct subgroups from the sample relating to prototypical acculturation types.

**Key words:** acculturation, utilitarianism, traditionalism, language maintenance, assimilation

Several researchers of language shift have stressed the importance of cultural values for language and group maintenance. Conklin and Lourie (1983) have argued that emotional attachment to the heritage language is a factor that supports language maintenance. Fishman (1986) discusses the Old Order Amish and the Hasidic Jews, who have maintained their isolation and heritage languages thanks to very conservative ideologies that have secluded them from their mainstream societies. Smolicz and his coworkers (Smolicz, 1981; Smolicz & Secombe, 1989; Smolicz, Secombe, & Hunter, 2001) have emphasized that each group has a set of core values that are crucial to its sustainability. In general, if language is a core value, the language has a better chance of being maintained.

While affective factors and traditionalism have been shown to support language maintenance, another set of values has been claimed to promote language shift. Lewis (2000, p. 95) reports that those Guatemalan Mayan communities that were more open to innovations and economic development were also the most affected by language shift. Harris Russell (2000) discusses the case of the New Guinean Gapun, whose speakers adhere to a value system oriented towards inter-individual competition. Language is a part of this competition, which promotes a shift towards Tok Pisin as a tool to raise one's status in Gapun society. Li (2004) points out that the success

of the Utilitarian discourse system, which is based on individualist values promoting achievement and competition, is at least partly responsible for linguistic imperialism and a shift towards power languages. Similarly, Ehala and Niglas (2006) demonstrate how Estonian secondary school students' utilitarian value system feeds negative attitudes towards their native Estonian in comparison with English. Most recently, Edwards (2010) provides a chapter-length account of the influence of traditionalism and modernism on language maintenance and shift.

In sum, there is evidence that cultural values can play an important role in forming acculturation orientations, such as assimilation, integration, or separation. In Berry (1991, 1997), the typology of acculturation orientations was defined on the basis of two basic value assessments: (a) that of maintaining one's heritage culture and language and (b) adopting the language and culture of the dominant majority. While Berry's typology derives its acculturation types directly from acculturation attitudes, the present article proposes two opposing cultural value orientations that underlie acculturation attitudes, operationalize the construct, and test its validity empirically.

The first section of this article describes the conceptual structure of two opposing sets of cultural values: those of *utilitarianism* (Ut) and *traditionalism* (Tr). In the second section, it is argued that these values, although forming a logical opposition, are not opposite ends of one single value dimension but are orthogonal. This makes it possible to conceptualize Ut and Tr as the underlying values for Berry's (1997) typology of acculturation orientations. The third section attempts to elaborate a survey instrument for measuring Ut and Tr, to validate the instrument statistically and provide a model for expressing it in the form of an index (U-index). In the final section, the instrument and the U-index are tested by using them to measure the cultural values of the Russian-speaking community in Estonia.

## CONCEPTUALIZING UTILITARIANISM AND TRADITIONALISM

### The Opposition of Utilitarianism and Traditionalism

The notion of utilitarianism (Ut) was brought to the field of contemporary inter-cultural communication by Scollon and Scollon (1995/2001), who encapsulated the utilitarian principles introduced by Bentham, Stuart Mill, and other influential writers of the Enlightenment in seven points:

1. "Good" is defined as what will give the greatest happiness for the greatest number.
  2. Progress (towards greater happiness, wealth, and individuality) is the goal of society.
  3. The free and equal individual is the basis of society.
  4. Humans are defined as rational economic entities.
  5. Technology and invention are the sources of societal wealth.
  6. Creative, inventive (wealth-producing) individuals are the most valuable to society.
  7. Quantitative measures, such as statistics, are the best means of determining values.
- (p. 115)

Scollon and Scollon (1995/2001) argue that, even though utilitarian values and the utilitarian discourse system might not, in fact, be causally connected to the success of Western-type societies, this is still widely believed to be the case. Thus, in the pursuit of their own personal goals of

success, increasing numbers of people in developing countries adapt to the utilitarian discourse system and its underlying values, making a case for the system's own ascendancy. This, in turn, contributes to modernization, and the elimination of traditional values, customs and lifestyles in these societies. The same is also true in the case of immigrant communities in Western-type societies.

Quite often utilitarianism is opposed to traditional values (Tr). In fact, the opposition of utilitarianism to traditional values and customs was expressed in the very first works of utilitarian writers. John Stuart Mill (1869) states this with some passion:

The despotism of custom is everywhere the standing hindrance to human advancement, being in unceasing antagonism to that disposition to aim at something better than customary, which is called, according to circumstances, the spirit of liberty, or that of progress or improvement. . . . [T]he contest between the two constitutes the chief interest of the history of mankind. The greater part of the world has, properly speaking, no history, because the despotism of Custom is complete. . . . Custom is there, in all things, the final appeal; justice and right mean conformity to custom; the argument of custom no one, unless some tyrant intoxicated with power, thinks of resisting. (p. 17)

Conceptually it is not difficult to define the traditionalist principles as the logical opposite of utilitarianism principles (Ehala, 2005):

1. "Good" is defined by tradition.
2. Stability is the goal of society.
3. The conforming individual is the basis of society.
4. Emotional arguments override rational economic considerations.
5. Innovation is a disturbance of stability.
6. Guardians of traditions are the most valuable members of society.
7. Values are defined by moral authority. (p. 41)

Together the Ut and Tr value sets form a logical opposition that is relevant for inter-cultural behavior, particularly the tendency towards cultural and linguistic assimilation. However, the Ut-Tr opposition is not entirely unique, but is related to some other well-known dichotomies of cultural values, such as individualism versus collectivism; openness to change versus conservatism; or traditionalism versus secularism-rationalism.

### Relation to Other Dichotomies of Human Values

First, the Ut-Tr scale has some overlap with the individualism-collectivism dimension of cultures introduced by Hofstede (1980).

According to Hofstede (1991), "Individualism pertains to societies in which the ties between individuals are loose: everyone is expected to look after himself or herself and his or her immediate family," whereas, collectivism "pertains to societies in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty" (p. 51).

Historically there is no doubt that individualism and utilitarianism developed together, sharing a number of properties: both value rational decision-making by individuals, assuming that individuals are free to make their own decisions. Therefore, what is common to both the

individualism-traditionalism scale and Ut-Tr scale is the opposition between freedom of individual choice and adherence to group norms. What differentiates these two oppositions is that the Ut-Tr scale assumes rationality as the basis for abandoning backward customs and norms, whereas, the individualism-collectivism scale has no such underlying rationale: in individualist societies, one's freedom to have one's own goals that differ from those of the group is a basic right. Whether or not the choices are made on rational grounds and are directed towards economic progress is irrelevant.

As both the Ut-Tr and individualism-collectivism scales address the issue of adherence to group norms, both are also relevant to acculturation orientations. However, the Ut-Tr scale is conceptually closer to the acculturation orientations, as it conceptualizes economic advancement as a crucial factor for abandoning existing customs and traditions. It is well known that assimilation and integration are connected to social mobility, and that social mobility relies heavily on utilitarian motivations. Therefore, the Ut-Tr scale is likely to be a better predictor for assimilation and maintenance than the individualism-collectivism scale.

The Ut-Tr scale is also in concordance with Schwartz's (1992) typology of universal human values. In particular, utilitarianism expresses values connected with openness to change and such self-enhancement dimensions as achievement, self-direction, hedonism, power, and stimulation. Traditionalist values are connected with a conservative dimension that includes tradition, conformity, and security. Also, utilitarianism can be associated with personal and growth-related values, while traditionalism expresses social and protection-related values (Schwartz, 2006). The similarities and differences between the Ut-Tr scale and the value dimensions proposed by Schwartz are the same as with the individualism-collectivism scale: Ut-Tr embodies the drive for economic progress as the main force for change; the Schwartz scale does not include the idea that individualist values are predisposed to personal economic well-being.

Perhaps the best fit of the Ut-Tr scale is with the scale of traditional versus secular/rational values used in Inglehart and Welzel's (2005) world values map. This map has two broad value dimensions: the traditional/secular value dimension, which has a close similarity to the Ut-Tr relationship, and the survival/self-expression value dimension. The traditional/secular-rational dimension reflects attitudes towards religion. There are societies in which religion is very important. These societies also emphasize the importance of kinship ties, traditional family values, and respect for authority. In secular-rational societies, religion plays a minor role, people do not follow customs and traditions, family relations are weaker, and laws rather than authority are respected. Clearly the traditional/secular-rational dimension is close to both the individualism-collectivism scale and the Ut-Tr scale. It differentiates the individualism-collectivism scale by the high importance that is given to emotional attachment to norms and customs; and it differentiates the Ut-Tr scale by the lack of positive value attached to the notion of economic advancement associated with utilitarianism.

Thus, the Ut-Tr scale differentiates, in important details, between related sets of cultural values. The core of these differences lies in the opposition between emotional attachment to cultural norms as opposed to utilitarian striving for economic improvement. As these two values are particularly important for shaping acculturation orientations, the Ut-Tr scale is better suited for measuring them than broader scales, such as individualism-collectivism or the traditional/secular-rational dimension.

CONCEPTUALIZING THE RELATIONSHIP BETWEEN UT AND TR

Relationship to the Typology of Acculturation Orientations

In all the models of cultural values mentioned above, there is a logical opposition between the poles of the scale: individualism is conceptualized as opposed to collectivism, openness to change is opposed to conservativeness, traditionalism to secularism-rationalism, and Ut to Tr. This suggests that the opposing value sets are in a negative correlation. Schwartz (1999) argues, however, that such a correlation occurs only when different cultures are compared, because these values are culture-level values not individual-level ones. When measured among members of a single culture, the opposing values are not necessarily in any correlation. In fact, there was no significant correlation between the means of Ut and Tr in the first operationalization of the Ut-Tr scale (Ehala & Niglas, 2007); nor was it found in the current study.

Even though one does not need to assume that the reverse correlation between the opposites must also be manifested within one single culture, some principal means is still desirable to explain how the individual values aggregate to the patterns found on the cross-cultural level (Kagitçibasi, 1997). Quite interestingly, the relationship between Ut and Tr values can be better understood through the analogy of Berry’s (1991, 1997) well-known typology of acculturation attitudes. This typology is derived from two basic questions that relate to the maintenance of heritage values, on one hand, and adoption of mainstream values, on the other hand (see Table 1).

It is not hard to see that the first of these questions relates to Tr values, while the second relates to Ut values. And if it is possible to answer both questions positively, as Berry’s model suggests, a propensity to utilitarianism would not be considered as conceptually incongruent with a tendency to maintain traditional values. This analogy encourages one to hypothesize that Ut- and Tr-value categories make a similar two-way typology possible (presented in Table 2).

What this table reveals is that even if Ut and Tr do not constitute two poles in a single values scale in the strict sense, the two apparent poles exist and correspond to highly salient inter-group behavior prototypes: assimilation and separation. What is no less important is that the other two logical possibilities also have been observed, although they may not be as clear as the two extremes.

TABLE 1  
Acculturation Attitudes

		<i>Is it considered of value to maintain one’s linguistic and cultural identity?</i>	
		<i>Yes</i>	<i>No</i>
Is it considered of value to adopt the linguistic and cultural identity of the dominant majority?	Yes	Integration	Assimilation
	No	Separation	Marginalization

TABLE 2  
Attitude Types on the Ut and Tr Scales

		<i>Traditionalism</i>	
		<i>High</i>	<i>Low</i>
Utilitarianism	High	Modernist (tendency to integration)	Utilitarianist (tendency to assimilation)
	Low	Traditionalist (tendency to separation)	Distancing (tendency to marginalization)

### The Notion of U-Index

Even though Ut and Tr do not formally form a single continuum, their combinations still define a continuum between utilitarianist and traditionalist attitude types. To capture this regularity, the position of any single person on the bipolar scale of Ut-Tr can be expressed by simply calculating the differential of Ut to Tr:

$$1. U = Ut - Tr$$

In this manner, for any combination of values for Ut and Tr, the higher the outcome, the more utilitarian the value system of this person (or the population, if the average of its members' U values is calculated). If the Ut and Tr values are equal, the outcome is zero, the middle point of the scale, and if Tr is larger than Ut, the value of index U is negative, indicating high traditionalism.

Although the U-index differentiates well between the two opposites that are directly relevant for heritage language and identity maintenance, the index is not able to differentiate between the modernist and distancing types of acculturation orientations. For both types, the U-index values are close to zero. However, the modernist type is characterized by high values for both Ut and Tr, while the distancing type is characterized by low values for the same variables. Of course, there could also be a large number of those who associate with both Ut and Tr moderately. Yet, all these combinations would have a similar outcome, where the U-index is close to zero.

If the goal of using the U-index is just to assess the value orientations related to language maintenance/assimilation, merging modernists with the distancing type is perhaps not a big problem. If a more precise account of value orientations behind acculturation orientations is needed, the U-index needs to be used together with Ut and Tr. One way of doing this is to use these variables as input for cluster analysis, which, at least theoretically, should bring about four clusters corresponding to the prototypes predicted by the model. This will be dealt with in detail in the section Results of the Cluster Analysis that follows later.

### Operationalizing the Ut-Tr Scale

To operationalize the Ut-Tr scale, a set of fourteen statements was designed following the principles of Ut and Tr outlined in the section Opposition of Utilitarianism and Traditionalism. Seven statements expressed Ut values, and seven statements, Tr values. The design was inspired by the Schwarz (2003) Portrait Values Questionnaire (PVQ), according to which subjects are asked to



indicate how similar the person portrayed by the statement is to them on a six-point Likert scale (1 representing very similar . . . 6, very different).

To test and elaborate the questionnaire, two pilot studies were administered among students of Tallinn University. A total of 154 respondents completed the questionnaire, of whom 69% identified Estonian as their first language; 28%, Russian; and the rest, other languages. The results were subjected to exploratory reliability analysis to find the subset of items with the highest value for the Cronbach alpha, while still maintaining the bipolar nature of the scale (for the reliability analysis, the scales of the items expressing utilitarianism were reversed). As a result, 10 items (6 for the Ut and 4 for Tr, see Appendix) that had the best fit to the model were chosen as the scale for the main study.

The main study was a large-scale quantitative survey that was designed to assess the ethnolinguistic vitality of the Russian community in Estonia. The Ut-Tr scale was a part of this survey. The study was conducted and data digitalized by a professional survey company. The sample was obtained by a stratified sampling method and comprised 448 respondents living in Estonia whose first language was Russian. As the sample was optimized for different settlement types (segregative, balanced bi-ethnic and dispersed), it may not have been fully representative for the Russian-speaking community in Estonia as a whole because the respondents from the areas of low concentration of Russian-speaking people were somewhat overrepresented. For the purpose of evaluating the validity of this instrument, this deviance was irrelevant.

## EMPIRICAL TESTING OF THE INSTRUMENT

### Comparing the Power of U-Index to the Power of Its Component Variables

To test the instrument empirically, its internal consistency was checked first by exploratory factor analysis. The exploratory analysis was preferred over the confirmatory factor analysis because of its greater strength: if the proposed theoretical structure emerges through successive unconstrained exploratory procedures, it provides much stronger evidence than if the same result is obtained by comparing just a few alternative structures by unreplicated constrained confirmatory analysis.

To test the suitability of the data set for factor analysis, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were used. The KMO value was .719, which is better than the threshold value .6; and the Bartlett's test was also significant ( $p < .001$ ), indicating that it is appropriate to use the factor analysis. The missing cases were excluded pairwise.

Principal component analysis was used to specify the number of underlying factors. The unrotated factor solution led to a three-factor structure with eigenvalues of 1 or more (2.659, 2.407, 1.108). However, the screeplot diagram (see Figure 1) and the comparison with parallel analysis suggested that the two-factor solution would be optimal for further exploration. Parallel analysis is a Monte Carlo simulation technique for deciding the number of factors to keep in principal-component analysis (see e.g., Ledesma & Valero-Mora, 2007). It led to three factors with eigenvalues greater than 1 (1.235, 1.167, and 1.112). As the third factor in parallel analysis had a higher eigenvalue than the third factor in actual analysis, only the first two factors were retained in further analysis.



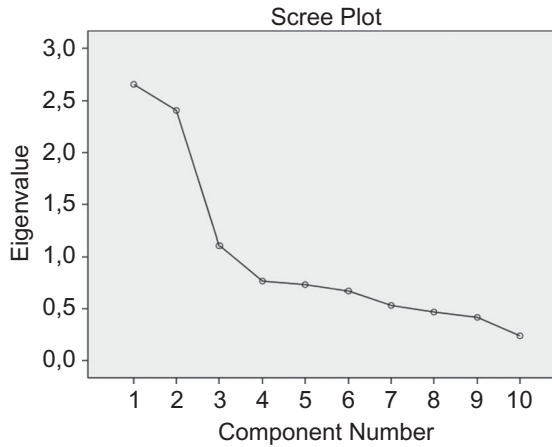


FIGURE 1 Distribution of the eigenvalues in the initial factor solution.

Thereafter, two factors were extracted and rotated using Varimax and Oblimin rotations. The Oblimin rotation was used to test for a possible correlation between factors. As the strength of the relationship between the two factors was very low, at .085, the Varimax rotation with Kaiser Normalization was considered as more appropriate. The rotation converged in three iterations leading to the structure corresponding to the theoretical model (see Table 3). The ten items grouped into two factors representing Ut and Tr values. As Table 3 reveals, for each item, the factor loadings are high for one factor (shown in bold) and low for the other, suggesting a good fit of the data to the theoretical model. The two-factor solution explained 51% of variation.

To further test the internal consistency of both scales, Cronbach alphas were calculated. Both scales had acceptable reliability (for Ut,  $\alpha = 0.719$ ; and for Tr,  $\alpha = 0.792$ ). As the internal consistency of the instrument was good, the factor scores for Ut and Tr were calculated using

TABLE 3  
The Factor Structure of Ut and Tr

	<i>Component</i>	
	<i>Traditionalism</i>	<i>Utilitarianism</i>
Traditionalism	<b>.881</b>	-.080
Roots	<b>.865</b>	-.061
Conservatism	<b>.684</b>	.051
Purism	<b>.677</b>	.236
Self-realization	-.009	<b>.732</b>
Careerism	-.143	<b>.713</b>
Locale loyalty	.006	<b>.656</b>
Innovativeness	.129	<b>.653</b>
Goal directedness	.078	<b>.636</b>
Independence	.091	<b>.433</b>

*Note.* Bold text indicates high factor loadings.

regression method and used as input variables for calculating the U-index values according to the formula  $U = U_t - Tr$ .

To test the U-index, its correlations to various sociodemographic variables and other items in the survey were measured. There were no statistically significant correlations except with age and with the statement *The Estonian state has no obligation to secure the sustainability of Russian culture and language in Estonia*. As for the age, the older the respondents were, the lower their U-index value, indicating a stronger tendency towards traditional values among older respondents ( $r = -.318, p < .01$ ). This trend is intuitively plausible, providing some support for the validity of the instrument. Regarding attitude towards the need to secure the sustainability of Russian language and culture in Estonia, the more utilitarian were the respondents, the more they agreed that the Estonian state has no obligation to secure Russian sustainability ( $r = -.181, p < .01$ ). This suggests that the more utilitarian a person is, the less he or she is committed to heritage language and culture maintenance.

Given this, one could expect that the U-index would also be correlated to heritage language usage. The usage of Russian and Estonian languages was measured in the same survey by a ten-item set of statements focusing on language choice in different settings ranging from family to the public spaces. Interestingly, there was no significant correlation between the U-index and language-usage index. This finding seems to undermine the usability of the index in predicting language shift. However, the result may still have a quite natural explanation: one would expect the utilitarian people to use less heritage language only in cases in which the usage of heritage language would appear as not beneficial from the utilitarian point of view. If there is clear utilitarian value in knowing and using one’s heritage language, the utilitarian persons would not tend to abandon it any more than non-utilitarian people. As Russian is a useful language both in Estonia and internationally, there is little utilitarian motivation to abandon it, and this is the reason why it does not correlate to U-index. This hypothesis could be tested by further studies involving lesser used heritage languages.

To test whether the composite U-index performed better than its component variables ( $U_t$  and  $Tr$ ) in explaining the relationships with age and attitude towards maintenance, the correlations of these variables to U-index,  $U_t$ , and  $Tr$  were compared (see Table 4).

As Table 4 shows, the correlations of the U-index to age and support to the heritage maintenance were higher than the correlations of  $U_t$  and  $Tr$  to the same variables. This indicates that the performance of the U-index was superior to its components, providing sound empirical support for the conceptual structure of the U-index. What is also important is that for the age, the  $Tr$  result was closer to U-index, while for the heritage maintenance support, the  $U_t$  result was closer. This means that the U-index seems to have a quite good ability to capture the unique properties of both of its subcomponents.

TABLE 4  
Strength of Correlations to Age and Attitude Towards Maintenance

Variable	U-index	U <sub>t</sub>	Tr
Age	-.318	-.173	.276
Support for heritage maintenance	-.181	-.137	.119

Note. Significance level in all cases:  $p < .01$ .

## Results of the Cluster Analyses

A further analysis was performed by k-means cluster analysis, which made it possible to cluster a large number of cases using Euclidean distance calculation. For this analysis, three continuous variables, U-index, Ut, and Tr, were used as input. The clustering method identifies homogeneous sets of respondents based on these variables. The researcher must specify in advance the desired number of clusters, based on some theoretical consideration. Here, the number of clusters was specified as four, based on the attitude typology in Table 2. The algorithm groups cases so as to minimize within-cluster variance and maximize variability between clusters in an ANOVA-like fashion. As the k-means cluster analysis is sensitive to the order of cases in the process of analysis, the cases were randomized in five different ways and an analysis was run for each particular order. All trials led to the same cluster structure, which confirmed the stability of this solution (for a more specific overview on the method, see Everitt, Landau, & Leese, 2001; Schneider & Roberts, 2005).

The four clusters that emerged as a result of the k-means analysis are presented in Table 5. The underlying value combinations for the clusters corresponded roughly to the predictions of the theoretical model and were labeled accordingly: the cluster that had the highest mean for the U-index, high Ut mean and low Tr mean, was labeled *Utilitarianists*; the mirror-image cluster (low U-index mean, low Ut mean, and high Tr mean) was labeled *Traditionalists*. There were two clusters that had quite similar U-index means, close to the mid-value of the scale (zero). One of these had high mean values for both Ut and Tr (around 0.7), and the other had considerably lower mean values for both these variables (around 0.4). Keep in mind that the rough verbal equivalents for the numeric values are the following: 0, absolutely different from me; 0.2, bears almost no resemblance to me; 0.4, does not resemble me much; 0.6, resembles me to some extent; 0.8, resembles me; 1, resembles me a great deal). Thus, a mean response around 0.7 would signify quite high identification, whereas a mean value of 0.4 would signal moderate distancing. Based on this, the clusters were labeled *Modernists* and *Distancing*, respectively.

As Table 5 shows, the cluster variability in U-index values was quite large: The lowest cluster (Traditionalists) had the mean U-index value  $-.42$  and the highest cluster (Utilitarianists), the U-index value  $.37$ . Thus, the difference between the extreme clusters was 47.5% of the total scale. This is a large variation and indicates that the mean value of the U-index ( $-.17$ ) for the whole sample was a rough approximation over quite diverse subgroups.

To test the validity of the k-means cluster analysis, the same data set was subjected to two-step cluster analysis. This analysis allows a more exploratory approach by which the number

TABLE 5  
Value Types on Ut-Tr Scale

Cluster	U-Index Mean	Ut Mean	Tr Mean	Size of Cluster	
				N	%
Traditionalists	$-.42$	.38	.79	165	37
Modernists	$-.09$	.63	.73	143	32
Distancing	$-.08$	.39	.47	98	22
Utilitarianists	.37	.63	.27	42	9%

of clusters needs is not determined beforehand. The algorithm determines the number of factors itself as a result of the analysis. Differently from the k-means analysis, the two-step analysis produced a three-factor solution: *Traditionalists* (low U-index), *Modernists* (mid-range U-index with high Ut and Tr) and *Utilitarianists* (high U-index). The fourth cluster (*Distancing*) did not emerge, and its members were distributed between the three remaining factors, with the majority falling into the cluster *Utilitarianists* (see Table 6).

To decide which solution has a better explanatory power, the sociodemographic characteristics of the cluster memberships were compared. The typical member of the cluster *Traditionalists* is a female having Russian citizenship. She has a secondary vocational education and could be retired. The members in this cluster tend to have lower than average income. Their mean age is 47 years, which is the highest amongst clusters. This profile is intuitively plausible for a traditionalist Russian speaking person in Estonia. The person values his or her ethnic roots and for this reason prefers Russian citizenship to an Estonian one. The sociodemographic characteristics of a typical member in the *Traditionalists* cluster were very similar in both k-means analysis and two-step analysis.

The typical member of the Modernists cluster is male, living in Russian-dominant parts of the capital. The mean age in this cluster is 43 years. In this respect both cluster analyses had a similar outcome. With respect to the k-means clustering, the members of the Modernists group tended to have a lower than average income, but this characteristic disappeared in the three-cluster solution. The little details in this profile indicate that this cluster membership is very close to the average. Considering that it represents the non-extreme Ut-Tr value combinations, it is not surprising.

The typical member of the cluster Utilitarianists is young (mean age 35 years) and single, with Estonian citizenship. The members tend to be students or employed in the public sector. They are likely to live in the Estonian-dominant part of the capital or in Russian-dominant cities in eastern Estonia. No unemployed people were found in this cluster. These characteristics were brought up by both analyses. In the three-cluster solution, higher education and higher than average income emerged as additional characteristics. The profile of the Utilitarianists cluster is intuitively a plausible one, representing the younger, better educated, and wealthier people, who are more likely to be socially mobile.

The Distancing cluster emerged only in the k-means analysis. Its typical members are single, have Estonian citizenship, higher education, and are employed in the public sector, having a slightly above-average income. They tend to live in Russian-dominant cities in eastern Estonia, and their mean age is 40 years. This profile is not very typical of marginalized members of a

TABLE 6  
Distribution of Cluster Members in Two Alternative Cluster Analyses

	<i>Two-Step Cluster Analysis</i>		
	<i>Traditionalists</i>	<i>Modernists</i>	<i>Utilitarianists</i>
K-means cluster analysis			
Utilitarianists	0	0	40
Distancing	35	21	52
Traditionalists	128	11	0
Modernists	8	150	2

minority, resembling socially mobile utilitarianists more. Actually, half of the members of this cluster merged with the cluster Utilitarianists in the three-cluster solution.

### Concordance of the Results With Previous Studies

Although three clusters revealed psychologically realistic and contrasting groups in the sample, the profiles were further compared by the results obtained by Kruusvall, Vetik, and Berry (2009). They used the data of the *Integration Monitoring 2005* survey carried out with an Estonian Russian-speaking population in 2005 to find the clusters corresponding to Berry's typology of acculturation attitudes. They used five summary indexes as the variables in the cluster analysis: (a) contact and discrimination, (b) satisfaction with policies, (c) meaningfulness of civic engagement, (d) cultural threat, and (e) ethnic self-esteem. They labeled the four clusters in the following way: (a) integration (with assimilation connotation), (b) separation, (c) marginalization, and (d) diffuse profile (Kruusvall et al., 2009).

The integration (with assimilation connotation) cluster in Kruusvall et al. (2009) and the cluster of Utilitarianists were both characterized by a high proportion of young people, Estonian nationals, and a smaller number of retired and unemployed people (Kruusvall et al., 2009). The separation cluster in Kruusvall et al. (2009) and Traditionalists in the current were characterized by a predominance of older people, having secondary (vocational) education and Russian citizenship. The fourth cluster, characterized by Kruusvall et al. (2009) as the diffuse profile, had a higher proportion of people in early middle age, living in Tallinn. This is similar to the Modernists cluster in this study. For these three clusters, concordance between different studies is quite good, considering that the clusters in these studies were based on quite different input variables.

The marginalization cluster in Kruusvall et al. and the Distancing cluster of the current study had different sociodemographic profiles. According to Kruusvall et al. (2009), the marginalization cluster had a higher proportion of female and older people, people with Russian citizenship, and those living in eastern Estonian cities. The cluster of Distancing in this study had a higher proportion of younger, more highly educated people with slightly higher than average income, living in eastern Estonia. This mismatch indicates that the three-cluster solution, distinguishing the extreme clusters (Utilitarianists and Traditionalist) from the mid-cluster of the average people (Modernists) might have the stronger empirical support than the four-cluster solution.

### Correlation of U-index Values to Acculturation Orientations

To test whether the holders of the Utilitarianist type of values are less likely to care about the maintenance of their heritage culture than representatives of the traditionalist type, the mean values for responses to the questionnaire item *The Estonian state has no obligation to secure the sustainability of Russian culture and language in Estonia* were compared using one-way ANOVA. For this statement, the respondents were asked to show their agreement or disagreement on a 6-point Likert scale ranging from 1 (absolutely agree) to 6 (absolutely disagree). The comparison was made using the three-cluster solution. A clear difference emerged between the value types: While all the groups expressed disagreement with this statement, the mean value for the

TABLE 7  
Attitudes of Russian Speakers Towards Sustainability of Russian in Estonia

Statement: *The Estonian state has no obligation to secure the sustainability of Russian culture and language in Estonia.*

Cluster	<i>U-Index Mean</i>	<i>Level of Disagreement Mean</i>
Traditionalists	-.39	5.98*
Modernists	-.13	4.75
Utilitarianists	.20	4.54*

\*The mean difference between co-indexed clusters is significant at the .5 level.

utilitarian type was the lowest and the mean value for the traditionalist type was the highest, while the modernists were in the middle (see Table 7).

These results can be taken as preliminary confirmation that adherence to a utilitarian value system underlies an assimilationist acculturation orientation, while a traditionalist value system is associated with a separatist orientation: Those who have a higher U-index value have a higher tendency to agree that the maintenance of the Russian culture and language should be supported.

This may have an impact on actual acculturation behavior as well. While the oldest generations of Russian speakers in Estonia are fairly traditionalist ( $U = -.25$ ) and the youngest adult generation appears well balanced in their cultural values ( $U = -.02$ ), there still appears to be quite a significant number of young Russian-speaking urban people who have a markedly higher level of utilitarianism ( $U = .20$ ). The presence of this subgroup, particularly if their successful social mobility provides an example for others, could be a warning indicator of what Laitin (1988) calls a cascade of assimilation. Of course, this depends on a complex interaction of Utilitarianism with other factors contributing to linguistic and cultural transmission not dealt with in this article.

## CONCLUSION

This article proposes that the cultural values of utilitarianism and traditionalism are conceptually related to acculturation orientations. In this way, language maintenance and assimilation depend partly on a person's broader disposition towards one or the other pole of this dichotomy.

So far, no methodological tools for measuring the impact of cultural values on acculturation orientations have been developed. The current article set its goal as elaborating a quantitative instrument that can be applied to measure the level of utilitarianism in minority communities. Its first empirical assessment reported here has been encouraging, yet its validity needs to be tested in different communities before it can be considered a reliable tool.

Understanding the factors influencing the patterns of acculturation is a very complex task. The number of possible contributing variables is large and their interaction is not always clear. Even though the U-index focuses on just a single factor contributing to language maintenance and shift, its actual impact could still differ within different speech communities. This possibility should not be taken as a discouraging sign, though. Further studies using the same methodology could give valuable insights of how the Ut-Tr value dimension influences actual language

maintenance behavior. As the methodology through which the U-index is obtained makes it a falsifiable hypothesis, further studies could also lead to its refinement.

## ACKNOWLEDGMENT

This article is part of the project “Ethnolinguistic Vitality and Identity Construction: Estonia in Baltic Background” supported by Estonian Science Foundation grant no. 7350.

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APPENDIX

QUESTIONNAIRE ITEMS FOR MEASURING UT–TR VALUE DIMENSION

	<i>Title</i>	<i>Item</i>
Utilitarianism	Independence	It is important for him/her to do things on his/her own. He/she likes to be free and not depend on others.
	Goal-directedness	He/she does not want to waste time on unimportant people and things that do not take him/her forward in life. It is important for him/her to concentrate on achieving his/her goals.
	Self-realization	Self-realization is more important to him/her than relations with loved ones. He/she is not afraid of ruining relations if these start to disrupt the fulfillment of his/her goals.
	Careerism	Career success is more important to him/her than friends and acquaintances. He/she would be ready to relocate if he/she received a lucrative job offer, even if it meant losing his/her existing social network.
	Innovativeness	He/she is open to all that is new. He/she finds that traditional ways of living and old-fashioned values have become a hindrance to progress.
	Locale-loyalty	He/she does not feel loyalty to his/her locale. He/she is ready to live and work anywhere if the conditions are good enough.
Traditionalism	Conservatism	Following traditions is important to him/her. He/she considers abandoning family, religion or cultural customs inappropriate.
	Roots	He/she values his/her roots, heritage culture and birth community highly.
	Traditionalism	He/she considers it important to follow the practices of his/her culture. It is important to him/her that his/her children should value these customs and traditions, too.
	Purism	Linguistic and cultural purity is important to him/her. He/she tries to avoid foreign influences in his/her language and behavior.