Semantic Distance Coefficient for Semantic Field ‘Food’ of Tatar Culture-Specific Concepts and their equivalents in English

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ABSTRACT
In present time Intercultural communication is one of the issues of the day. Intercultural communication is closely connected with language worldview as any language reflects the world and culture worldviews. The article is aiming at OOV (out-of-vocabulary words) that present Tatar specific culture concepts. To research such words first we have arranged them into groups and then compared them with their equivalents in English. The more words we need to explain the meaning of the concept in other language the bigger is the difference in the sphere of concepts of the peoples whose languages we learn. We use the method of a dictionary article analysis, comparative and analytical methods to research the Tatar people specific concepts. We have investigated the semantic group “Food” and have calculated the semantic distance coefficient for this group. The coefficient made up 9.93 and it is showing that the sphere of concepts of this field differs much for Tatar and English people. The research results can be used in future research of the Tatar language and culture, Intercultural Communication as well as in Theory and Practice of Machine Translation.

Key words: language worldview, equivalent, lexeme, culture specific concept, semantic distance coefficient.
1. INTRODUCTION:

It is well known that while learning the language we compare it with our native language. We try to find equivalents for the words of our language and it does not present any difficulty because as a rule the majority of the words lexicalize concepts known to all people of the world. A word expresses the relation to an object naming some compartment of the universe reflecting it through the concepts of a particular ethnic community. We know that the universe is the same everywhere but it is different for each ethnic group due to culture and environment reasons. Certainly a concept can be interlanguage, for instance, spoon (English), lozhka (Russian), kashyk (Tatar), etc. But any language has the words that do not have equivalents in other language for some reasons. Some of them do not have equivalents due to the fact that the ethnic group does not have such an artifact: Russian *banya* (a small house where people wash themselves) does not have the equivalent in English; Tatar *tubyatyaj* (Tatar national cap) does not have the equivalent in English and Russian. In this case translators use various ways to introduce these subjects to other peoples’ cultures. Any way using the special translation techniques they enrich the vocabulary. Morena Bracaj presented some translation techniques in the review article (Braçaj, 2015). However the translation techniques do not help to understand the meaning of unknown subject and it raises the problem of lexical gaps, the words that do not have equivalents in other languages. Some words cannot have the equivalent in language A but they can have it in the language B (Vereshshagin et al, 1990). So we should conduct the research for a certain pair of languages. Moreover, the researchers use different terms to define the notion of the concepts that do not have equivalents in other languages, such as *lexical gaps, out-of-vocabulary words and specific culture notions*. The variety of synonyms also causes some difficulties for researchers. The Russian researcher L. Barchudarov (Barchudarov, 1975) made the classification for these words. He has distributed such words into three groups: 1. Proper and geographic names. 2. Realias, the words that do not exist in the language of people of other community. Usually such words present specific culture concepts of particular ethnic group. 3. Lexemes that L. Barchudarov named occasional lacunas (Barchudarov, 1975). The object of our research is the second
group, realias or specific culture notions of Tatar ethnic community. In our previous research we investigated the group ‘Family and Human Being Environment’ and presented the results in the article (Nutrtdinova,2015). We have compared it with their equivalents in English. According to the methodology developed by Russian linguists (Fenenko,2006) we selected the words that do not have equivalents in English from the corpora of Tatar fairy tales and distributed them in a few semantic fields. In this article we are presenting the results of the investigation for the semantic field ‘Food’.

2. METHODS:
Tatar culture specific notions were taken from the collection of Tatar fairy tales of Kaum Nasyry, famous Tatar educator and writer, published in 1900 and the others were taken from the collection of Tatar fairy tales that were written down by well-known Tatar writers Gumer Bashirov and Khamit Yarmy during the ethnographic expeditions in 1939-1940. Basing on the collections comments we have concluded that the tales were told and then written in so-called “a village koine”, the language received by joining Tatar language dialects, the stages of Tatar language development are presented in Tatar Grammar (Zakiev,1993). Any fairy tales are written in the style of folklore the language of which has a lot of specific culture concepts. We are using the methodology developed by Russian researchers of Voronezh University (Russia). The criterion of selection is the absence of equivalent in bilingual dictionary or a definition presented by a free word combination in metalanguage (Jurgita Cvilikaite,2006). We researched dictionary articles of printed English-Tatar dictionary, e-dictionaries and Explanatory dictionaries of English and Tatar. The researchers Vlachov, S. Florin (1980) consider that ‘realias’ (specific culture notions) can be presented mostly by nominative language units, nouns, very rarely, by adjectives, which have been derived from the nouns denoting specific notions (Vlachov,1986). We have distributed specific culture notions (SCN) into the following groups:
1) Family and Human being environment.
2) Animals.
3) Ethnographic Realias.
4) Religion.
5) Landscape.
6) Fairy tales characters.
7) Occasional lacunae.

The group of ‘Ethnographic Realias’ we distributed into smaller fields such as Food, Household Objects and Clothes. So the next step of our research is to calculate the coefficient of semantic distance for the semantic group ‘Food’. The higher is the figure the bigger is the distance between the concepts. The method was proposed by Russian researcher V. Nalimov (Nalimov, 1979) to describe the meaning of explicated word and later it was used by V. Titov (Titov, 2002) to calculate the semantic distance coefficient for a pair of any languages. According to this method the criterion for a lexeme selection can be the following: if a word of any language has an equivalent in an explanatory article of the dictionary it means that both languages segment the semantic field in similar way and form the similar concepts. But in the case when to explain the word meaning we need a few words we can say that the pair language does not have analogous concept. V. Titov concluded that the more words we need to explain the word meaning the less common concepts the pair of the languages have (Titov, 2002).

To calculate the coefficient of semantic distance (SDC) it is necessary to get the data about the number of the definitions from a bilingual dictionary and the number of words in the definitions. Then we should get the total number of the words of all the definitions. To do it we have to multiply the number of the words of each definition by the number of the definitions. Total number we got will be the quantity \( D \) – the sum of all the words of the definitions. V. Titov has presented the following formula of a coefficient of semantic distance calculation for a particular language: a coefficient of semantic distance \( = \frac{D}{Q} \), where \( Q \) is the number of all the definitions in the dictionary) \( (9) \). Unfortunately at present time Tatar English bilingual dictionary has not been published yet so we are presenting our own definitions that have been edited by native speakers from the USA.

3. RESULTS:

We selected sixteen OOV of the semantic field ‘Food’ (the field ‘Ethnographic Realias’ in total has 71 words; Food: 16 words; Clothes: 9 words; Household objects: 46).

Basing the above mentioned opinion we excluded Tatar lexemes that have...
straitforward equivalents in English and selected those ones that need more than one word to explain the meaning in English.

We have investigated the semantic field ‘Food’ and the results we have got show that the food of Tatar people differs from English mainly due to historical, cultural and social reasons. We are presenting the draft extract of the Explanatory Tatar English Dictionary. At the end of each article we showed the number of words necessary for explanation of the meaning.

4. FOOD:

Kazylyk n. dried breast of a horse; brisket, meat cut from the breast of a horse 15

Kumys n. fermented mare’s milk, kumiss 5

Kak n. marshmallow sticks, a spongy confection made from a soft mixture of sugar, albumen, and gelatin 16

Kojmak n. a thick pancake 4

Zhimesh n. fruit, dried fruit, mostly dried apricot and prune; berries 10

Kumyasch n. white bread, a loaf 4

Kalatch n. kind of fancy loaf 5

Kabartma n. puff, bun, scone 4

Shirbet n. sherbet, a sweet dry powder that tastes fizzy and is eaten as a sweet, cooling drink of sweet diluted fruit juices, water ice; sorbet 25

Balish n. a round baked pie with potato, meat and onions or a round fried meat pie 16

Kalzha n. meat roll or small pieces of boiled meat (beef, horse, lamb) 12

Bavyrsak n. baursak, a dessert dish, dough balls fried in oil 10

Katyk n. yoghurt, a sour-tasting drink made from cow's or goat boiled milk fermented with certain bacteria 16

Araky n. vodka, an alcoholic spirit 5

Balavyzly set fatty milk of a yellow color 6

Airan n. katyk diluted with cold water 6

In Figure 1 we are showing the calculation of semantic distance coefficient for the field ‘Food’
Figure 1. Food

<table>
<thead>
<tr>
<th>Number of words</th>
<th>Number of the definitions (Q)</th>
<th>Total (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>15</td>
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<tr>
<td>6</td>
<td>2</td>
<td>12</td>
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<td>10</td>
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<td>15</td>
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<td>16</td>
<td>3</td>
<td>48</td>
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<tr>
<td>25</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>159</td>
</tr>
</tbody>
</table>

Q -16, D – 159; SDC = D/Q = 159/16 = 9.93

Lexical units of the semantic field ‘Food’ verbalize some concepts unknown to English people because of the absence of such food in their culture. The coefficient of semantic distance for the semantic field ‘Food’ made up 9.93 whereas the coefficient for the field “Family and Human Being environment” made up 8.57. As we see food used by Tatars sometimes cannot be accepted by the English people due to historical, cultural and social reasons and can cause misunderstanding. One of the reasons is the difference in climate conditions and the history development. Tatar people use horse meat and they have a special name for a horse which is used for meal, yelky (елкы). Tatars also use horse milk (kumyss) and horse sausage (kazylyk). In the past the Tatars were nomadic tribes and the English had settled way of life and the difference in the life way is reflected in the language.

The coefficients of semantic distance for the fields ‘Clothes’ and ‘Household objects’ made up 10.1 and 6.9 correspondently. Big difference in the numbers can be also explained by difference in climate and the life way (for clothes and food). As for Household objects we have analyzed the lexemes that name the objects and can make
the conclusion that the objects the Tatars use in everyday life are similar to the objects the English people use but certainly there is some difference that should be explained for each notion. The word kishta (кишта) can be translated as shelf but the difference is that it is placed above a misch (Russian ‘pech’ (the object used to cook a meal) and used to preserve bread). English people do not have a special word for such a word. Russian pech has equivalent in Tatar misch but it is impossible to compare English stove or oven with this object. It demands special comment in the dictionary. We are going to present the results for the group ‘Household Objects’ (the words kishta, misch and tustagan belong to this field) in our future articles.

5. DISCUSSIONS:

Many linguists have been conducting research in the field of lexical gaps. However the problem is that some words cannot have the equivalent in language A but they can have it in language B (Vereshshagin, 1990). Russian pech has the equivalent in Tatar misch but does not have it in English. Russian matreshka does not have the equivalent in Tatar but in English we have a word combination nest doll. So the study is endless as we can investigate specific culture notions of any pair of languages. Moreover, the researchers use various definitions and we can find a lot of synonyms to name such language phenomenon: lexical gaps, lacunas, xenonyms and others but the problem of the definition has not been solved yet. Some researchers tried to distribute lexical gaps in different groups. Russian linguist L. Barchudarov divides them in the following way: 1. Proper and geographic names. 2. Realias, the words that do not exist in the language of people of other community. Usually such words present specific culture concepts of particular ethnic group. 3. Occasional lacunas (Barchudarov, 1975). The word realia is used by Russian researches and does not have a straightforward equivalent in English but we do not use the term lexical gap because the last one does not explain it as specific culture notion. The linguists of Voronezh University (N. Fenkenko, A. Kretov, I. Bulgakova and others, 2013) developed the methodology for research of the second group, realias or specific culture notions. They use the term realia to denote culture specific notion. In opinion of N. Fenkenko the term realia can be easily misinterpreted. This can be explained by the fact that the term relaia was taken from other sciences. In her monography she is giving her own definition where she is defining realia as a
source concept and recommends preserving it as a pair term for *lacuna*, the notion of comparative linguistics. Realia is denoting the signicicate of a word relating to one lingual culture when this word does not have a nomination in other language and the lexical gap can be named “lacuna”. ‘Realia’ is used both to name the culture object of reality and for the language nomination of the same object that can cause misinterpreting. In our article we have chosen the term ‘realia’ to name culture specific concepts of the Tatar people and compared them with the lacunas in English presented by zero direct equivalent or a definition presented by a few words. N. Fenenko offered to separate realias into a special lexical group and named it *realicon* (Fenenko,2013). Following her hypothesis we can make an explanatory dictionary for any language. It should be noted that the word definition have to be a free word combination because a set-phrase can be interpreted as a language unit and cannot be accepted (Jurgita Cvilikaite, 2006).

6. CONCLUSION:
Lexicon of any language has the words that cannot have the equivalent in language A but they can have it in language B forming lexical gaps. Many researchers investigate such words and try to define the reason of lexicalization lack presented by the gaps. Some linguists call them out-of-vocabulary words (OOV) and tried to distribute them into groups. We are basing the classification made by Russian linguist Barchudarov. He distributed them into three groups, proper names, realias and occasional lacunas. The notion of realia is taken by Russian researcher N. Fenenko. In her works she defines it like a culture specific notion and a pair to the notion ‘lacuna’ in the target language. She developed the methodology of research for culture specific notions. Basing it we distributed Tatar culture specific notions that do not have equivalents in English into semantic fields. We are presenting the extract of a dictionary draft and the semantic distance coefficient for this field. It made up 9.93 while the coefficients of other fields made up 8.57 (Family and human Being Environment), 10.1 (Clothes) and 6.9 (Household objects). These numbers show the difference of concepts denoted by the words that verbalize the universe fragment for the English and the Tatar ethnic communities.

7. RECOMMENDATIONS:
The method of the research that is described in the article can be used to compare semantic groups and fields aimed at revealing the difference in the process of lexicalization of world culture and language views via any language. The research results can be the basis for Tatar English Explanatory and bilingual dictionaries of Tatar culture specific concepts and it can contribute to the development of machine translation for Tatar and English languages. Moreover, world community can have the opportunity to learn Tatar culture.

8. ACKNOWLEDGEMENTS:
The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

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Reviesta Publicando, 4 No 13. (1). 2017, 711-720. ISSN 1390-9304


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Artículo recibido: 05-11-2017
Aprobación definitiva: 05-12-2017