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Б.П. Ашрапов (Худжанд, Республика Таджикистан)

**Уровень использования некоторых счетных слов,
количественно измеряющих время и расстояние,
в таджикском, китайском и английском языках**

Аннотация: В статье рассматривается уровень использования классификаторов и счетных слов, используемых для количественной оценки времени и расстояния в таджикском, китайском и английском языках. Эти языки представляют собой различные типологические профили (синтетические, изолирующие и аналитические соответственно), что приводит к значительным различиям в том, как эти концепции грамматически кодируются. Анализ лингвистических данных, взятых из словарей, грамматик и примеров предложений, показывает, что таджикский язык использует ограниченный набор специальных счетных слов в сочетании с флективной морфологией существительного, в то время как китайский язык использует богатую систему классификаторов, которые классифицируют существительные на основе формы, функции и других семантических признаков. Английский язык в основном опирается на счетные слова без флексии или классификации существительного.

Ключевые слова: счетные слова, время, расстояние, таджикский, китайский язык, английский, лингвистическая типология, морфология, семантика

B.P. Ashrapov (Khujand, Republic of Tajikistan)

**The Level of Usage of Some Measure Words Quantifying Time and Distance
in Tajik, Chinese and English**

Abstract: The article dwells on the level of usage of classifiers and measure words used to quantify time and distance in Tajik, Mandarin Chinese, and English. These languages represent distinct typological profiles (synthetic, isolating, and analytic, respectively), leading to significant differences in how these concepts are grammatically encoded. The analysis of linguistic data, drawn from dictionaries, grammars, and example sentences, reveals that Tajik utilizes a limited set of dedicated measure words combined with inflectional morphology on the noun, while Mandarin Chinese employs a rich system of classifiers that categorize nouns based on shape, function, and other semantic features. English relies primarily on measure words without noun inflection or classification.

Key words: measure words, time, distance, Tajik, Mandarin Chinese, English, linguistic typology, morphology, semantics

1. INTRODUCTION

It is known that a series of numeratives, or measure words are observed to be used for calculating the quantity of both discrete and non-discrete objects. Over time, some of them have disappeared, while others are still resorted to in modern literary languages under comparison. Measure words also known as classifiers are used in conjunction with numerals to specify the quantity of an object or objects [8: 195; 2: 167; 10: 90].

It is noteworthy that in these languages several related units are observed. These are used alongside numerals with nouns denoting school supplies, newspapers and magazines, food, clothing, and transportation, as well as with discrete and non-discrete nouns; that is, for counting time, area and space, geographical names, and also for counting and calculating quantity, size, volume, weight, width, and length of objects [7; 9]. They, in turn, have their own specific function and status in the formation of this syntactic phenomenon, each individually playing a key role in fulfilling this function. In reference to it, it can be added that in Mandarin Chinese, such units are quantitatively more numerous than the corresponding units in English.

The expression of quantity is a fundamental aspect of human language, and languages employ diverse grammatical mechanisms to quantify entities and notions. One such mechanism, particularly prominent in many East and Southeast Asian languages, is the use of classifiers (also known as “measure words” in some contexts). Classifiers are grammatical morphemes that categorize nouns based on semantic features, such as shape, size, function, or animacy. They typically appear in conjunction with numerals or other quantifiers. While English has measure words (e. g., a piece of cake, two sheets of paper), their usage is less grammatically obligatory and semantically restricted than in classifier languages like Chinese. Tajik presents a different system employing a more limited set of measure words and relying more on inflectional morphology [3; 4; 5; 6].

The objective of the study is to compare and contrast the systems of classifiers / measure words used for quantifying time and distance in Tajik, Mandarin Chinese, and English. These semantic domains are chosen because they are universally relevant and often require precise quantification. The typological differences between the compared languages provide a valuable framework for understanding the variation in grammatical encoding of these notions.

Specifically, this study addresses the following research questions:

How do the typological differences between Tajik (synthetic), Mandarin Chinese (isolating), and English (analytic) manifest in the structure and use of classifiers / measure words for time and distance?

Does the presence or absence of obligatory classifier systems correlate with other grammatical features in each language (e. g., noun inflection, word order flexibility)?

To what extent do these typological differences affect the complexity and transparency of the quantification systems?

What are the primary challenges encountered when translating expressions of time and distance quantification between these three languages?

What strategies do translators employ to address mismatches in classifier / measure word systems (e. g., addition, omission, substitution, paraphrasing)?

Are there systematic patterns of translation shifts related to the typological differences between the languages?

Do certain types of time or distance expressions pose greater translational difficulties than others?

2. MATERIALS AND METHODS

The corpus of our study conducts a comparative linguistic analysis approach drawing on both qualitative and quantitative methods. Data were collected from a variety of sources ensuring a comprehensive representation of each language's system of time and distance quantification:

1. *Identification*: classifiers / measure words for time and distance were identified in the comparative languages by dint of a systematic search of dictionaries and grammars. Initial lists were compiled and then refined through cross-referencing multiple sources.

2. *Morphological Analysis*: the morphological structure of each identified classifier / measure word was considered. This included determining whether the item was a free morpheme, a bound morpheme, or a compound. Any derivational relationships to other lexical items being taken into account as well.

3. *Semantic Analysis*: the semantic criteria governing the selection of each classifier / measure word were determined. This involved analyzing the range of nouns with which each classifier / measure word could co-occur and identifying the common semantic features of those nouns. Factors such as shape, size, dimensionality, animacy, function, and cultural conventions were considered. Instances of polysemy and synonymy were documented and analyzed.

4. *Comparative Analysis*: the systems of the three languages were compared and contrasted across multiple dimensions:

Inventory Size: the number of classifiers / measure words for time and distance in each language was dwelt on;

Morphological Complexity: the relative proportions of free morphemes, bound morphemes, and compounds were contrasted;

Semantic Specificity: the degree of semantic specialization of classifiers / measure words was canvassed;

Grammatical Obligatoriness: the extent to which classifiers / measure words are grammatically required in different contexts was carried out.

5. *Translation Analysis*: a parallel corpus of sentences containing time and distance expressions was formed using literary texts and their translations across the comparative languages. Translation shifts (e. g., additions, omissions, substitutions of classifiers / measure words) were identified and categorized. The frequency and types of shifts were studied to determine systematic patterns in reference to the typological differences between these languages.

3. MAIN RESULTS

3.1. TAJIK

In Tajik, a relatively limited set of measure words for time and distance were discussed. These are typically free morphemes preceding from the noun they modify. Crucially, Tajik nouns also often show number agreement (singular / plural) through suffixes.

Time: sol – year (e. g., du sol – two years); moh – month (e. g., se moh – three months); hafta – week (e. g., yak hafta – one week); ruz – day (e. g., panj ruz – five

days); soat – hour (e. g., chor soat – four hours); daqiqa – minute (e. g., dah daqiqa – ten minutes); soniya – second (e. g., bist soniya – twenty seconds).

Distance: metr – meter (e. g., sad metr – one hundred meters); kilometr – kilometer (e. g., du kilometr – two kilometers); santimetr – centimeter (e. g., ponzdah santimetr – fifteen centimeters); millimetr – millimeter (e. g., panj millimetr – five millimeters); farsakh – farsakh (a traditional unit of distance, approximately 6 kilometers) (e. g., yak farsakh roh – one farsakh of road).

Designing on the premise of the above-adduced examples one can assert that the influence of Russian on modern Tajik, particularly in the adoption of metric units is clearly noticed. As well as, nouns in these constructions often take plural suffixes when modified by numerals greater than one.

3.2. MANDARIN CHINESE

Mandarin Chinese possesses a rich and complex system of classifiers. Classifiers are obligatory in noun phrases involving numerals and many quantifiers. They are typically bound morphemes that follow the numeral and precede the noun.

Time: 年 (nián) – year (e. g., 两年 – liǎng nián – two years); 月 (yuè) – month (e. g., 三个月 – sān ge yuè – three months); 星期 (xīngqī) / 礼拜 (lǐbài) – week (e. g., 一个星期 – yī ge xīngqī – one week); 天 (tiān) – day (e. g., 五天 – wǔ tiān – five days); 小时 (xiǎoshí) – hour (formal) (e. g., 四小时 – sì xiǎoshí – four hours); 钟头 (zhōngtóu) – hour (informal) (e. g., 一个钟头 – yī ge zhōngtóu – one hour); 分钟 (fēnzhōng) – minute (e. g., 十分钟 – shí fēnzhōng – ten minutes); 秒 (miǎo) – second (e. g., 二十秒 – èrshí miǎo – twenty seconds); 点 (diǎn) – o'clock (for telling time) (e. g., 三点 – sān diǎn – three o'clock).

Distance: 米 (mǐ) – meter (e. g., 一百米 – yībǎi mǐ – one hundred meters); 公里 (gōnglǐ) – kilometer (e. g., 两公里 – liǎng gōnglǐ – two kilometers); 厘米 (lícmǐ) – centimeter (e. g., 十五厘米 – shíwǔ lícmǐ – fifteen centimeters); 毫米 (háomǐ) – millimeter (e. g., 五毫米 – wǔ háomǐ – five millimeters); 里 (lǐ) – a traditional Chinese unit of distance (about 500 meters) (e. g., 一里路 – yī lǐ lù – one li of road); 尺 (chǐ) – a traditional Chinese unit of length (about 1/3 of a meter) (e. g., 三尺 – sān chǐ – three chǐ); 寸 (cùn) – a traditional Chinese unit of length (about 1/30 of a meter) (e. g., 五寸 – wǔ cùn – five cùn).

Seemingly, the majority of other classifiers exist, such as 段 (duàn) for a period of time or a stretch of road, 阵 (zhèn) for a brief period (e. g., of rain), and general classifiers like 个 (ge), which can sometimes be used with time words in informal speech.

3.3. ENGLISH

In English, a great deal of measure words for time and distance are used, but these are not grammatically obligatory in the same way as Chinese classifiers. They are typically free morphemes (separate words) that precede the noun. English nouns do not inflect for number when used with measure words (except for irregular plurals).

Time: year (e. g., two years); month (e. g., three months); week (e. g., one week); day (e. g., five days); hour (e. g., four hours); minute (e. g., ten minutes); second (e. g., twenty seconds).

Distance: meter (e. g., one hundred meters); kilometer (e. g., two kilometers); centimeter (e. g., fifteen centimeters); millimeter (e. g., five millimeters); mile (e. g., ten miles); yard (e. g., five yards); foot / feet (e. g., one foot, two feet); inch (e. g., six inches).

While English can use phrases like *a period of two years*, the *of* is a preposition, not a classifier. English relies heavily on the inherent meaning of the measure word itself.

4. DISCUSSION

The comparative languages demonstrate distinct approaches to quantifying time and distance. Tajik, with its synthetic morphology uses a limited set of measure words, but often combines them with noun inflection (number marking). This reflects a greater degree of grammaticalization within the noun phrase itself. Mandarin Chinese, an isolating language mandates the usage of classifiers with numerals and quantifiers. These classifiers provide a rich semantic categorization of nouns extending beyond simple measure word. English, a largely analytic language bears measure words, but their usage is less grammatically constrained and less semantically diverse than in Chinese.

The obligatory nature of classifiers in Mandarin Chinese highlights their crucial role in shading meaning. Omitting a classifier (e. g., saying \三月 instead of 三个月 for three months) is ungrammatical. In contrast, English can often omit the *of* in phrases like *a cup of coffee* without causing ungrammaticality, although the full phrase is often preferred. Tajik's system, while using measure words, also relies on the noun's inflection to signal number, a feature absent in both English and Chinese in these constructions.

The differences have considerable implications for translation. For example, a Tajik phrase like *panj ruzhoi daroz* (five long days) includes both the measure word *ruz* (day) and the plural suffix *-hoi* on both *ruz* and the adjective *daroz* (long). A direct, word-for-word translation into English (five days long) would be grammatically correct but stylistically less natural than *five long days*. Translating into Chinese would require the selection of the appropriate classifier (天 – *tiān*): *五天长* (*wǔ tiān cháng* – five days long – less common) or, more naturally, *很长的五天* (*hěn cháng de wǔ tiān* – very long five days). The adjective placement also differs across the languages.

5. CONCLUSION

Adducing the results of the comparative analysis beset with the theme explored that the diverse strategies employed by Tajik, Mandarin Chinese, and English to quantify time and distance. The typological differences between the languages – synthetic, isolating, and analytic are clearly reflected in their respective systems of measure words and classifiers. Tajik combines a limited set of measure words with noun inflection, Chinese utilizes an extensive and obligatory classifier system, and English relies on measure words without obligatory noun marking or classification. These findings have implications for translation, second language acquisition, and our understanding of how language encodes fundamental notions like quantity.

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Сведения об авторе:

Баходурдҷон Пулотович Ашрапов,
канд. филол. наук
доцент
факультет восточных языков
Худжандский государственный университет
имени академика Бободжона Гафурова

Bahodurjon P. Ashrapov,
PhD
Associate Professor
Faculty of Oriental Languages
Khujand State University named
after academician Bobojon Gafurov

bahodur.ashrapov@mail.ru