

SUMMARY OF NOTES ON SYNTACTIC PROBLEMS

(Studies made in the Reports of the Academy of Sciences, U.S.S.R.)

I. The English article "the": when to supply it before Russian nouns?

From a sample of 100 occurrences:

If arbitrarily supplied for singular nouns, the result was "correct" 33 times, and unnecessary 13 times. If omitted for plural nouns, the result was "correct" 45 times, and unnecessary 6 times. Instead of "the", "a" was correct in two instances only.

If this sample means anything, why is "the" so rare with plural nouns? No help was found by reference to grammatical categories of surrounding words in the sentence, and no classifications of nouns which require or do not require the "the" could be discovered.

II. Identification of the short neuter adjective in -no, as opposed to the adverb in -no.

From a sample of 122 occurrences, 83 such forms proved to be adverbs in usage, and 39 proved to be adjectives. If the word in -no is called a short adjective in the following constructions, a 5% "error" results:

-no + infinitive
-no , chto
kak + -no
a symbol + -no
budet + -no

III. The conjunction "i".

Four main equivalents are listed by dictionaries: "and," "also," "even," and "but." From a sample of 200 occurrences, i was found to mean "and" 80% of the time, "also" 15% of the time and "even" 2% of the time. If the following comparisons with contiguous words are performed, the meaning of i can be determined 90% of the time:

noun + i (i = "and") - 63% of total occurrences i + pre-
position (i = "and")

like parts of speech before and after i (i = "and")

verb + i (i = "even").

IV. Participles

Active participles may be adequately translated with the English suffix "-ing", for both present and past participles. Passive participles, both present and past, may be adequately translated with the suffix "ed".

Past active and present passive participles are quite rare in scientific language. Past passive and present active participles are common; the difficulty in translation is caused by the fact that they are sometimes adjectives, and sometimes participles, properly speaking. From a sample of 132 occurrences of past passive and present active participles, the former used as adjectives 47 times, and as participles 34 times; the latter were used 23 times as adjectives, and 28 times as participles. (The term "adjective" implies only that prepositions generated by the genitive, dative, and instrumental cases of nouns must be inserted before modifiers of such nouns; in the phrase, "v trubke opredelennoi dliny" the participle is said to serve as an adjective so that the translation will be "in a tube of determined length," rather than "in a tube determined of the length.") The problem is, then, when to recognize this adjectival use of participles. The most expeditious manner of resolving this problem appears to be: if the participle is preceded by a comma, it is immediately translated, as noted above; if the participle is not preceded by a comma, it is subjected to the routines established for adjectives. The translation of the participle is the same

in either instance, but provision is made for the insertion of a generated preposition before the participle.

V. Prepositions

1. pri. A large sample of noun objects of this preposition was taken.

These nouns were tentatively divided into two classes:

Class 1 - nouns formed from verbs

(examples: izmenenie, sblizhenie, sozdanie, narushenie, umen'shenie, perekhod, izuchenie, vozrastanie, nagrevanie)

Class 2 - nouns which have no "verbal" equivalent

(examples: temperatura, dlina, plotnost', emkost', diametr, chastota, elektrod)

It is difficult to find an English equivalent which will always be adequate for the first class of nouns. Depending upon the type of verb from which the noun comes (transitive or intransitive), "pri" may acquire the meaning "when there is a _____," "when is _____ ed," or "when _____s". The "adverbial" connotation of pri with these nouns is suggested by some such equivalent as "during" or "in the process of".

Examples of the many other meanings of pri did not occur in the text examined, except in what may be called idiomatic constructions.

2. y. Except for idiomatic constructions, this preposition was found in a large sample to be equated with "in" when the noun object was in "the prepositional case; "in" or "into" was preferred when the noun was in the accusative case.
3. na. The equivalent "on" was satisfactory followed by a noun in the prepositional case. With the accusative case, na acquires a greater variety of meanings; it is not yet clear whether or not these instances must be treated as idioms.

4 po. Followed by dative case nouns of Class 1, as noted under pri, po equates with "in." Followed by a noun which designates an actual or hypothetical path in space (line, diameter, axis), po equates with "along". Followed by an animate noun, it equates with "according to". The great majority of noun objects were distributed among these three classes; obviously, the definitions of these classes are incomplete. Further study will perhaps indicate whether these classes are valid, whether new classes must be formed, or whether it is possible to coin a new equivalent, such as "with respect to" or "with reference to" for po followed by a noun in the dative case.

The problem of choosing the appropriate equivalent for prepositions, as well as for many other types of Russian words, is often a complex of the fact that English usage requires various equivalents in different circumstances, even when the "meaning" has not varied in Russian. Despite the difficulty, there would appear to be some associative principle which enables the human translator to select the correct English equivalent of po, e.g., in combination with a noun, when such a combination or sequence is encountered for the first time in his experience. The correct choice is made, not on the basis of memory, as in idioms, but on the association of the noun with a class of nouns which experience has fixed, however unconsciously, in the memory of the translator. The task is to establish, if possible, the principles of association, and to find to what degree these principles are consistent between languages.

VI. Verbs

The reflexive ending (-sya) must be handled in different ways for different classes of Russian verbs. The main classes of verbs, which should be given distinctive codings for this purpose, are:

1. Active-passive (with -sya) in Russian=active-passive in English (nasvat', izuchat', nablyudat')

2. Active-intransitive (with -sya) in Russian = no distinction in English (isparit'-sya, izmenit'-sya, szhimat' -sya, sgushchat' -sya)

Perry describes verbs of this type as posing a "particularly difficult problem" (Machine Translation of. Languages, p.180). If we take into account that such verbs are both transitive and intransitive in English (evaporate, change, contract, condense), **we** will simply avoid the unnecessary passive form in translation. (The passive construction in English will be permitted if verbs of this type are followed by a noun in the instrumental case.)

3. Intransitive only in Russian (with -sya)=intransitive in English (estat'sya, stanovit'sya, kazat'sya)

4. Active only in Russian
(zaviset', padat')

5. Verbs which change in meaning with -sya
(imet'-sya, nakhodit'-sya, prikhodit'-sya)

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