

## ***Semantic Ambiguity***

Kenneth E. Harper, University of California, Los Angeles, California

The extent of the problem of multiple meaning in translation is illustrated in this analysis of a sample page of Russian scientific text. The use of an idio-glossary represents only a partial solution to the problem.

AN ANALYSIS of a sample page of Russian scientific text<sup>1</sup> revealed the following distribution of words, with respect to semantic clarity or ambiguity:

	Single Value		Idioms	Multiple Values
	Word-for-word MT	Clarified by structural analysis		
Words	77*	7	24	46 ( 30% of total)
Running words		40	24	75 ( 28% of total)
		Total number of words: 151		
		Total number of running words: 266		

Figure 1

Callahan's Russian-English Technical and Scientific Dictionary was consulted for English equivalents of the multiple-valued words. The average number of equivalents for these words was 8.6. Many of these equivalents may be considered as synonyms; when there is a fairly distinct change in meaning, the listing is divided into groups, separated by a semi-colon. The average number of such groups, representing distinct meanings, is 3.0 (see Fig. II).

Conclusion: 30% of the total words in the passage analyzed should be represented by three English equivalents. This figure has no meaning as applied to any given word; it is perhaps an indication of the extent of the problem of multiple meaning. The problem can be partially solved by an arbitrary selection of a given equivalent for certain fields (the Idio-glossary). Even here, there are definite limits, as the list of typical multiple meaning words in Fig. II shows.

1. F. M. Gol'tsman and SH. SH. Raskin, "O dielectricheskikh svoistvakh nekotorykh polimorfnykh organicheskikh soedinenii", Doklady Akademii Nauk SSSR, vol. LXXIX, no. 5. 1953. p. 187.

\* Of this number, 22 words (42 runnings words) were "technical" words of one value, such as 'polymorphic', 'dielectric', etc. These words composed 15% of the total.

Multiple listings of equivalents, taken from Callaham's Technical Dictionary, are illustrated by the following sample entries. (The figures indicate, left, the total number of equivalents, and right, the lexicographer's attempt to distinguish between groups of synonyms.)

<p>9-3 <u>изменение:</u> change, alteration, variation, modification, conversion, transformation; fluctuation, deviation; correction</p>	<p>7-4 <u>строение:</u> building, construction; formation; structure; constitution; texture, grain</p>
<p>9-2 <u>объем:</u> volume, size, bulk, space, capacity, contents; compass, extent, amplitude</p>	<p>5-4 <u>явление:</u> phenomenon; effect; (med.) symptom; appearance, occurrence</p>
<p>11-4 <u>переход:</u> transition, passing over, passing, conversion; passage, crossing, migration (of ions); exchange (of places), switching; blending, shading (of colors)</p>	<p>6-3 <u>увеличение:</u> increase, growth, augmentation; enhancement; enlargement, magnification</p>
<p>15-6 <u>величина:</u> size, dimension, measure; (math.) value, magnitude, quantity, amount; volume, bulk; degree, extent (of error), scope; intensity (of force, etc.); bigness, greatness</p>	<p>5-2 <u>потеря:</u> loss, disappearance, waste, escape (of gas, etc.); (mil.) casualty</p>
<p>9-3 <u>смешанный</u> mixed, miscellaneous, composite, compound, combination, blended; hybrid; stirred, agitated</p>	<p>7-2 <u>скачок:</u> jump, skip, leap, spring, bound; rapid change, drop</p>
	<p>8-2 <u>нарушение:</u> breaking, breach, infringement, infraction, transgression, violation; disturbance, dislocation</p>
	<p>6-2 <u>отличаться:</u> differ, be distinguished (by), be characterized (by); surpass, out-do, excel</p>

Figure 2