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The Length of a Translation

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THE LENGTH OF A TRANSLATION

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1. The Statistical Basis

A statistical investigation of the effect of translation on the length of a text is reported by A. G. Readett and W. H. Oakland in an article in a recent issue of The Incorporated Linguist. Their findings are important from two aspects: practically, for the guidance they offer to translator and editors as to the amount of space that will be needed to print a translation; and, from the point of view of the student of comparative stylistics, for their theoretical implications.

Their study was based on a sample of thirty-five papers presented at the Fourth International Coal Congress there were three official languages: English, French and German. A statistical study was made, according to measures of the number of words and of column-inches, of the original papers and their translation, everything but text being excluded from consideration. Some texts were originally written in languages other than one of the official three, but these (which included Russian, Dutch, and Polish originals) were not considered separately.

The article includes a number of tables of the various data collected, but the general result of the study may be seen from the following table:

<table>
<thead>
<tr>
<th>Translation into</th>
<th>English</th>
<th>French</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td>from</td>
<td>words</td>
<td>column inches</td>
<td>words</td>
</tr>
<tr>
<td>English</td>
<td></td>
<td></td>
<td>+ 16%</td>
</tr>
<tr>
<td>French</td>
<td>no change</td>
<td></td>
<td>- 7%</td>
</tr>
<tr>
<td>German</td>
<td>+ 21%</td>
<td>- 7%</td>
<td>+ 45%</td>
</tr>
</tbody>
</table>

(1) This article is based on a paper presented at the seminar in Comparative Stylistics conducted by Professor J.-P. Vinay at the University of Montreal, 17 February 1964.


(3) Reproduit du Incorporated Linguist, [ibid] p. 102, avec tous nos remercie­ments. NDLR

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Other statistical conclusions were:

a) An English version by a translator was about 3% longer than an original written in English; French and German translations were about 10% longer than originals.

b) If the same subject matter were written by English, French and German authors in their own language, the results expected would be:

<table>
<thead>
<tr>
<th>Language</th>
<th>Words</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>French</td>
<td>+5%</td>
<td>+5%</td>
</tr>
<tr>
<td>German</td>
<td>-15%</td>
<td>+5%</td>
</tr>
</tbody>
</table>

In the second part of the article, Readett suggests that there are five variables which produce the changes in length:

a) the structure of the original language;
b) the style of the author;
c) the structure of the target language;
d) the style of the translator; and
e) the subject matter; and particularly the jargon — in either language — of the subject.

2. Theoretical Implications

For the student of comparative stylistics, the why is often as interesting as the what. There are several theoretical inferences to be drawn from this study. The first matter that might be considered is the distinction to be made between the number of words in a text and its length (as measured in column-inches). The evidence offered here supports the insistence of Vinay and Darbelnet on the point that the translation unit is not the same as the printer's word. Consider, for example, three equivalent expressions quoted by Readett:

- English: adjacent
- French: les uns à côté des autres
- German: nebeneinanderliegend

While it may be true, it is pointless to say that the French uses six words while the English and German need only one; from the printer's point of view, the German word takes more than twice as much space as the English, and only one-fifth less space than the French six words; for the translator, there is only one translation unit involved; and few are

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(4) Ibid., p. 104.
the linguists who would consider the word to be a reliable tool for counting (or, for that matter, for analysis). How arbitrary is the division of written words becomes immediately apparent when one considers such examples as:

French: gendarme, chef-d’oeuvre, pomme de terre;
English: blackguard, black-head, black list.  

A more useful unit for our purposes is the linguistic sign as defined by Saussure. Following his distinction between the signifié and the significant, it is possible to consider the number and types of significant required by a language to express certain signifiés, and to compare two languages for their treatment of a similar signifié. One might, for example, compare English “potato”, where the signifié is expressed by a unique significant, with the French “pomme de terre”, where three units, identifiable elsewhere in other combinations, form here a composite significant for the one signifié. In these terms, one would recognize that French “fermière” consists of at least three units:

ferm-
-ier (person connected with; cf. écolier)
-e (morpheme referring to a female);

while the English equivalent, “farmer’s wife”, consists of four:

farm-
er
’s (element of relation)
wife.

It is to be noted that what in one language was expressed by a printer’s word was expressed in the other by a form of the suffix, and that a relation made clear in one language by the order in which the elements occurred had to be expressed by a grammatical suffix in the other.

Within this theoretical framework, it is possible to begin to consider the linguistic reasons for the differences of length in translation. Our first argument is provided by Saussure’s statement of the arbitrary nature of the sign. Leaving out of consideration certain theories, attractive but dubious, of phonemic conditioning, it may be fairly claimed that there is no special reason why a certain signifié should be represented by a particular significant. That is to say, there is no reason why “horse” should signify the concept it does; and even when a certain form may seem to be “motivated” (that is to say, explainable in terms of borrowing from another language, formed by historical phonetic change, or even formed from other words by compounding or affixation), the relation between signifié

(7) The French examples are taken from a list compiled by E. Richer, ed. the English from the Shorter Oxford English Dictionary. It is to be noted that the examples in each language show not only the same constructions but have a meaning that is different from the sum of their parts.

(8) Ferdinand de Saussure, Course in General Linguistics (CGL), New York, Philosophical Library, pp. 65-67.

(9) I have discussed this principle at greater length in an earlier article, “Comparative Stylistics and the Principle of Economy”, J. des Trad. VIII. 3.

(10) CGL, pp. 67-70.
and *signifiant* is still arbitrary, and arbitrary for each language. But one must go further: not only is the linguistic sign,—the relation between the two parts—arbitrary, but each of the parts, *signifié* as well as *signifiant*, is also arbitrary and peculiar to a language. It is this latter concept that is at the heart of the Whorf-Sapir hypothesis: the organization of reality implied in a language is particular to that language.\(^{11}\) Not only does each language have its own system of organization on the *signifiant* (formal) level, but it also has its own system of organization on the *signifié* (conceptual) level. It is this basic fact that causes the major difficulty in translation, explaining matters that are untranslatable, and proving the fallacy of the idea that translation is never more than finding words in one language that will express exactly the concepts expressed by the world of the original.

A second concept that must be taken into consideration is the principle of economy, the constant tendency in language, as in other human activities, to make the least effort necessary to achieve the desired result. Here, a theoretical basis is provided by information theory, where it is shown that there tends to be a constant inverse relationship between the frequency of a unit and its cost; in other words, the more common a unit is, the shorter it tends to be.\(^{12}\) One might note here the result of a survey to test the accuracy of this principle. Taking a random sample,\(^{13}\) one finds the relation of word length (measured in syllables) to frequency to be as in the following table:

<table>
<thead>
<tr>
<th>Length of word in syllables</th>
<th>Words of a frequency of</th>
<th>of</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>more than 50 per million</td>
<td>1 — 34 per million</td>
</tr>
<tr>
<td>1</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
<td>22</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>34</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Average syllables per word</td>
<td>1.6</td>
<td>2.8</td>
</tr>
</tbody>
</table>


\(^{12}\) For a discussion of information theory from the linguistic point of view, see André Martinet, *Éléments de linguistique générale*, Paris, Colin.

\(^{13}\) The sample was taken from Thorndike and Lorge, *The Teacher’s Word Book* of 30,000 Words.
As has been suggested earlier, the printer’s word is not a satisfactory unit, but one can expect to find a similar tendency whatever unit is used.

Now let us combine these two principles, the arbitrary nature of the linguistic sign and the tendency to economy of expression. The way of thinking of a speaker (or writer) will naturally be (more or less) in accordance with the organization of reality of his own language, and so will tend to be expressed in the most economical way. That is to say, not only will there be economy in the choice of *signifiants*, but the choice of *signifiés*, of concepts to be expressed, will be to a certain extent controlled by the language in which he is thinking and speaking. The translator, on the other hand, is forced to find ways of expressing these same concepts, expressed economically in the original language, in another language, where the organization of reality is in fact different. That is to say, while in the original language there is likely to be one *signifiant* for every *signifié*, in the target language it will be frequently necessary to use several *signifiants* for what was one *signifié* in the original language. It will still usually be possible to express the concept, but the expression will tend to be longer.

Consider some examples. The French word “frileux” includes in its meaning an aspect of habit not expressed by its nearest English equivalent “chilly”; the full meaning can only be expressed by some such circumlocution as “susceptible to the cold”14. Again, the English continuous tenses express an aspect that can be rendered in French only by using a number of words (e.g. “il est en train de”). Or the French distinction preterit/imperfect will often need to be translated by adding an adverb such as “suddenly”.

All this leads us to conclude, then, that a translation will necessarily tend to be longer because the original is not just a coding into the original language of a certain number of ideas; the very form of those ideas is in fact controlled by the nature of the original language. The original will be the more normal method of expressing this relation, and so will tend to be more economical, and shorter, than the translation.

There are two extensions to be made. The first concerns technical translation. I would suggest that it seems *a priori* likely that the language in which a certain field of technology (or perhaps any area of human knowledge) has been first or most developed will tend to be more efficient (hence, shorter) in referring to this field than any other language. This will be because the original work of organizing the reality of the field into a method of linguistic expression will have been done in that language; something written about the subject in another language, though “original”, will still be basically a “translation”. Obviously this hypothesis would need careful investigation, but it could go some way towards explaining the economy of the English versions in Readett and Oakland’s study; following it, one would expect ideas concerned with a technological area such as coal production or railways to be expressed more economically in English; other areas would tend to be more efficiently expressed in other languages.

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(14) SCFA, p. 80.

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The second extension concerns the nature of the original and target languages; here, there are tendencies which may well cut across and disguise the working of the principles so far enunciated. In general terms, this involves the fact that economy is possible in a language not just by using fewer lexical items but also by being able to make use of morphological or syntactical signals instead of lexical items. We have already seen the greater economy of French "fermière" when compared to English "farmer's wife"; as an example working the other way, one might consider the ease with which adverbs are formed in English by using a suffix where French needs several words; or the way in which an English noun may be used as an adjective, position alone being needed as a marker, where French must use an element of relation (compare "a native American" with "un Américain de naissance"). These factors are likely to make it possible that one language will generally be more economical than another, irrespective of the principles considered earlier.

It can be seen, then, that there are several factors, often contradictory in tendency, that are basic to the way in which translation affects the length of a text; an investigation of these factors leads to a consideration of some of the basic principles of comparative stylistics.

(15) SCFA, pp. 126-127.