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SCHOOL OF PUBLIC RELATIONS AND COMMUNICATIONS

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I HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER BY SUPERVISION BY Dina Noemi Goren ENTITLED "Communication Through the Language Barrier: A Study of Translation" BE ACCEPTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE.

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COMMUNICATION THROUGH THE LANGUAGE BARRIER:
A STUDY OF TRANSLATION

by

Dina Noemi Goren
(B.A., Hebrew University, 1952)

A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
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BOSTON UNIVERSITY
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INTRODUCTION

The Importance of Translation Today

The age through which we are living has been called many things; it has been called the Nuclear Age, the Age of Total Warfare, and the Age of the Cold War. It has also been called the Age of International Communication, and, more specifically, the age of translation. For, at no period in history has there been such a great activity in the field of translation as there is today. Tens of thousands of volumes are published in translation every year, scores of international conferences on all levels and devoted to every conceivable activity are held--and made possible only thanks to multilingual interpretation. Hundreds of films are being dubbed the world over and their actors are thus made to speak to the audience of each country in its own language.

It was Wendell Wilkie who coined the phrase "One World." That this phrase has any validity left today, in an era of international conflict and tension is due, to a large extent, to the fact that, whether for peaceful or other purposes, international communication has become an established factor in the conduct of the world of today. Such communication would be inconceivable were it not for translation.

Summit conferences of heads of state and of foreign ministers, diplomatic meetings, disarmament talks--all are

held with the help of interpretation. Commercial or cultural delegations going abroad are assigned their own interpreters.

The United Nations and the various organizations affiliated with it have all developed intricate systems of interpretation, without which their work could not be carried out.

The scientists, in their various fields of activity, can no longer afford to work in isolation, and, although for military reasons part of their findings are not divulged to their colleagues in other countries, a great deal of material is being published. Even the Russians make public a considerable part of their research, including space research. In spite of Cold War tensions, international endeavours such as the recent Geophysical Year have united scientists the world over in a common cause. International collaboration in the fields of medicine and agriculture is even more common. Such collaboration would not be possible were it not for the continuous translation of research papers of all kinds and the great number of international gatherings whose functioning is made possible by an efficient system of interpretation.

Culture in its various manifestations is no less dependent on translation than is science. With the exception of music and the plastic arts, all cultural intercourse between nations stands in need of translation.

There is probably not a single country in the world today whose bookstores do not carry numerous volumes of

translation, whose theaters do not feature translated plays, or whose cinemas carry only locally produced films.

The flow of news for the press and for broadcasting is only made possible through the efforts of a legion of translators, those who work for the wire agencies and those whose function it is to monitor and translate broadcasts in many languages.

It is in fact impossible to think of any field of human activity which is not in need of the translator's collaboration at some stage or other. The armed services employ them, both for purposes of intelligence and for liaison with allies or with conquered peoples. Banks and commercial houses conduct much of their business with the help of bilingual secretaries. Advertising agencies who wish to reach foreign markets do so with the help of translators. And, last but not least, the individual who ever increasingly ventures beyond the frontiers of his own country as a tourist, would be completely lost were it not for the services of the interpreter-guide, the interpreter-hotel-clerk or the interpreter-waiter. Admittedly, not all persons engaged in such incidental translation can be classified as translators or interpreters, nor are many of them qualified as such, but their renditions can nevertheless be considered, broadly speaking, as translations.

Not only has there been in recent years a spectacular growth in the volume of translation, but also in its range, i.e., in the number of languages from which and into which books, articles and plays are translated. Thus, for example, in the last twelve years the volume of translations published in book form has grown by almost 350%. The number of scientific translations published during these years has increased seven and a half times, while that of literature has grown three and a half times.[1] This development is due to another characteristic of the present age--the nationalistic tendency which results not only in the establishment of new nations but is often accompanied by the development of national languages, or rather, by turning existing idioms into written languages capable of serving as vehicles for any kind of written discourse.

Many observers regard the continuous translation activity which is going on in the world of today as a sad waste of time and effort. To these people the only possible solution lies in the introduction of an international language. Putting such conviction into practice has resulted in the invention of a score or so of artificial languages designed for international use. Esperanto, Interlingua and Vola Pük are among the better known of these efforts. The only such language which has achieved any significant success is Esperanto, invented in the 1870's by Dr. Zamenhoff, a

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[1]See Appendix.

Jewish physician living in Poland. But at present the diffusion of Esperanto, not to speak of the other languages, does not warrant the belief that the need for translation for purposes of international communication will disappear in the foreseeable future.

Finally, there is an additional reason for the importance of translation in the world of today. The present era has produced a phenomenon which has been practically unknown ever since the conquests of Alexander the Great--the monolingual man of culture. The learned Roman knew Greek, as did all educated men on the Eastern shores of the Mediterranean. Then, starting with the expansion of Imperial Rome, and throughout the Middle Ages and until far into the last century. Latin was a common language, known to anybody with a high school education or its equivalent. Then again, without displacing Latin, French too became a world language--the language of diplomacy and of culture. English is also considered a world language, but here the situation is different. It is considered as such only by virtue of its being spoken in a number of countries which are both powerful and culturally important. However, it has not quite achieved the same status of a lingua franca, common to all men of culture, as had French in the last three centuries and Latin before that. Today, the citizens of the English speaking countries, of France, Italy and the Hispanic group of countries, or, for that matter of Russia and China, are by and large

monolingual. To determine the reasons for this phenomenon, whether it is a result of psychological inhibitions or of faulty language instruction, lies beyond the scope of the present paper. It is possible that, to a certain extent, the availability of translations is itself a contributing factor. In any case, the existence of the monolingual man of culture is one of the main reasons which make translation a necessary and vital part of international communication.

Translation and the Communication Process

In the following chapters an effort will be made to examine the process of translation first from its historical, then from its theoretical and practical aspects. Wherever communication between persons of different linguistic communities is involved, translation becomes an integral part of the communication process. While in unilingual communication there are only two communicating agents--the source and the destination, both of whom function as encoding-decoding units--translation involves the insertion of a third agent into the chain--a unit in which the encoding of the message takes place in a different language from that in which it is to be decoded. Assuming that the translator is perfectly bilingual, his encoding-decoding activity can be considered as not differing in principle from that which is carried out in any other link of a communication chain. Two very important characteristics, which are common to all

communication processes, can be distinguished in the translation process:

(1) subjective performance: i.e., the equivalence between the encoded message and the decoded message is established by means which depend ultimately on the personal, subjective criteria of the individual concerned.[1] As a result his performance is incapable of being judged by any objective criteria, or rather, the existence of such criteria is excluded as a matter of definition.

(2) loss of information: The insertion of a third link into the communication chain in itself increases by 50% the potential loss of information (assuming that the initial potential for a two-link chain is 100%). Loss of information is further caused by the fact that translation often resorts to terms which have a wider range of meaning that those of the original message, and which, as a result possess a greater potential frequency. As a result of this translation tends to increase redundancy, and might cause loss of information.

The process of encoding-decoding which takes place in the translating unit does not differ in principle from any other such process. Basically, any operation of this kind is a process of translation--of transfer from one code into another. The difference is only that in the case of

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[1]Cf. infra, p. 48 of Quine's hypothetical analysis of translation.

translation additional problems are introduced by the language difference, which makes it more difficult to achieve equivalence of meaning between the messages set in the two codes. In the following pages the assumption that such transference is possible, provided that the translator is acquainted with both languages, will be examined from its various aspects. This assumption will henceforth be referred to as the assumption of translatability. Such an examination will, I hope, serve to clarify by implication some of the theoretical problems involved not only in the process of translation, but in the process of communication as such.

Nature of Thesis

The aim of this thesis is to describe some of the problems, both theoretical and practical, involved in translation. As the title indicates and as I have tried to point out above, I consider translation to be a variation of the communication process which merits attention due to its great practical importance and its central position in international communications.

Although some of the aspects involved lend themselves to experimental research, the present paper limits itself to the description of the problem as a whole. The description, moreover, is not as comprehensive as I should like it to be. A comprehensive treatment of the subject of translation would require the joint efforts of a philosopher of language, a

linguist, a psychologist, a logician and probably of an electronic engineer as well. This, to the best of my knowledge, is yet to be done. What I have tried to do is to indicate the importance of the subject, to stress its relevance for students of communication and to describe some of the ways in which it is practiced.

A Review of the Literature

Considering the importance of translation, it is surprising how little treatment the subject has been afforded to date.

The only aspect of translation which has been extensively written about is that of literary translation, notably the translation of poetry. Numerous works have been devoted to the subject ever since the end of the 18th century, when Alexander Fraser Tytler published his work on translation. Many published translations include introductions in which the translator explains his approach and his methods. Early examples of this are the introductions written to his translations from Greek and Latin by John Dryden. Much of this material is however concerned with the particular problems involved in the translation from certain languages into others.

The French translator Edmond Cary, who in 1956 published a short book on translation in the modern world claims that a comprehensive treatment of the subject does not

exist as yet.[1] According to him this is due to the fact that it is only in recent years that translation in all its uses has really come into its own.

In 1959, Reuben A. Brower, of the Department of Comparative Literature at Harvard published a volume entitled *On Translation*, which includes two parts. The first, "Translators on Translation," is devoted almost entirely to problems of literary translation. The second part, "Approaches to the Problem," is also devoted in part to literary translation but includes also more theoretical material as well as a chapter on machine translation. The volume also includes a critical bibliography of works on translation, which, however, omits a number of references.

Major sources for the preparation of this thesis have been articles appearing in periodicals devoted to linguistics and related disciplines. The fact that I was not in a position to read the considerable material on the subject which appeared in Soviet, Czechoslovakian and Polish publications, is no doubt a serious limitation.

A most important source of information has been the publication *Babel*, *International Journal of Translation*, which is the multilingual organ of the International Federation of Translators (FIT), published in association with UNESCO. This journal includes not only valuable original material, but also

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[1]Edmond Cary, *La Traduction dans le Monde Moderne* (Geneve, Libraire de l'Université, Georg S.A., 1956), p. 7.

contains comprehensive bibliographies as well as abstracts of important articles. An index of all the translations which are published throughout the world, Index Translationum has been published yearly since 1949 by UNESCO. The project was originally started in 1932 by the International Institute of Intellectual Cooperation of the League of Nations, which continued the publication until 1940. (It was discontinued between 1940 and 1949.)

The subject of mechanical translation has been written about extensively. A special journal devoted to the subject MT, has been appearing since 1954. It is edited and published at the Massachusetts Institute of Technology. Also, numerous articles on the subject have appeared in various philosophical journals. A special volume on mechanical translation, Machine Translation of Languages, edited by William N. Locke and A. Donald Booth was published in 1955 by the Technology Press of MIT.

CHAPTER I

THE HISTORICAL ASPECT - TRANSLATION THROUGH THE AGES

The human race has been faced with the problem of communication through the language barrier ever since intercourse between people of different linguistic habits began. The Biblical story about the Tower of Babel serves to indicate man's early preoccupation with the fact of the diversity of languages. Speculation about which was the first language spoken by man has long been a favorite subject, not only of folklore and legend, but even of serious philologists, as late as the last century. Modern linguists are no longer searching for an answer to this question, realizing that such a quest would be even more futile than determining the exact place where man first lived on this planet.

It is likewise impossible to date when oral interpretation, from one language to another, first started. It must be as old as military conquests or trade. The Biblical story about Joseph and his brothers mentions an interpreter who translated the conversation between the brothers, although, obviously, Joseph did not need his services.[1] The Greek historian, Herodotos, describes how he met members of a special caste of interpreters on his visit to Egypt. The provincial rulers of Elephantine Island in Southern Egypt

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[1]Genesis, xlii, 23.

called themselves 'Head of Interpreters' and their functions apparently included interpreting for the Pharaos in their military and diplomatic dealings with their neighbors to the south.[1]

The first known work of translation is the _Septuagint_--the translation of the Old Testament from Hebrew into Greek. This translation was made in the third century B.C., in Alexandria.[2] Some Alexandrian Jewish writers, notably Philon, and also the early Alexandrian Church Fathers believed that the Greek philosophers, especially Plato, were indebted for some of their ideas to the Old Testament. This would presuppose an earlier Greek translation, dating from approximately 400 B.C. There is, however, no trace of such a translation and it is doubtful that it was ever made.

The _Septuagint_ translation was made during the reign of Ptolemy II, Philadelphus (285-246 B.C.). The reign of this king was a period of intensive cultural activity. The famous Alexandria Library, built by his predecessor, was greatly enlarged. Cultural delegations from as far afield as India

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[1]Karl Thieme, "Die Geschichtlichen Haupt-Typen des Dolmetschens," _Babel, International Journal of Translation_, Vol. II, No. 1, (1956), pp. 55-60.

[2]Alexandria was the capital of the Ptolemaic Kingdom, founded by Ptolemy, one of the two successors of Alexander the Great, who divided his Empire between them. It was the greatest center of Hellenistic culture for many centuries.

were received at his court.[1]

The Jewish community of Egypt was, in those days, the largest outside Palestine. Its language was Greek, and its philosophers made Alexandria the first meeting ground between Judaism and Hellenism. It was only natural that such a meeting of cultures should be accompanied by an activity in the field of translation. This phenomenon was to be repeated often throughout the ages.

Historical tradition has it that the translation of the Septuagint was made at the command of Ptolemy II. A description of the translating process is found in the so-called "Letter of Aristeas to His Brother Philocrates." There is some controversy as to the authenticity of this document, but the general outline of the story is more or less accepted as fact.[2]

According to Aristeas, the translation came about at the suggestion of the librarian of the Royal Library in Alexandria. Acting on his advice, Ptolemy II sent a delegation to the High Priest in Jerusalem who then sent seventy (or seventy-two) elders to make the translation. They were conducted by the librarian to the island of Pharos (site of

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[1]Henry Barclay Swete, An Introduction to the Old Testament in Greek (Cambridge: The University Press, Revised Edition, 1914), p. 11.

[2]C. A. Muses, The Septuagint Bible in the Translation of Charles Thomson as edited, revised and enlarged by C. A. Muses (Indian Hills, Colorado: The Falcon Wing Press, 1954), Introduction.

the world's first lighthouse) where a special building was provided for their use.

> So they set to work comparing their several results and making them agree; and whatever they agreed upon was suitably copied . . . In this way the translation was completed in seventy two days, as if that period had been pre-arranged.[1]

The same story is repeated by the Alexandrian writers Philon and Aristobulus, and also by Josephus in his "Antiquities of the Jews."[2] Later, when repeated by the Fathers of the Alexandrian Church and by the Talmud,[3] an interesting though probably fictitious detail was added to the story. These versions have it that the seventy elders, working in separated cells, came up with results which were identical to the last detail.

The Septuagint was the first of many Bible translations. To date the Bible has been translated into over 1,100 languages and dialects and remains the most translated text in the world.[4] Most active in this field were the Christian Churches. In the second century A.D. the Bible was translated into Syriac; then the Latin version, the Vulgate was made by St. Jerome. On several occasions the translators

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[1]Swete, op. cit., p. 11, quoted from "Aristeas Letter."

[2]Book xii.

[3]Bab. Talmud, Megillah, 9a.

[4]Eric M. North, The Book of a Thousand Tongues (New York: Harper and Bros., 1938).

of the Bible actually invented new alphabets for the languages into which they rendered the text of the Bible. Thus, the Gothic alphabet was invented by Ulfilas who, in the 4th century made the Gothic translation of the Bible. At the same time Mesrop and Sahak invented the Armenian alphabet when they translated the Bible into that language. The Cyrilian alphabet was invented in the 9th century by Cyril and Methodius who translated the Bible into Slavonic.[1]

With the Reformation came new Bible translations into vernacular tongues, motivated by a new conception of both the Bible and the vernacular. Thus Martin Luther translated the Bible into German and also wrote one of the first explanations of a method of translation in his "Sendbrief vom Dolmetschen."[2]

The 16th century also witnessed something else that was new in the field of translation. In 1514 there appeared the first polyglot Bible in print, the Poliglota de Alcalá, published in Spain by Cardinal Cisneros. On every page of this Bible the Hebrew original appears side by side with the Vulgate's Latin text, the Septuagint's Greek text (with an interlinear translation in Latin), and also with an Arameic version which, in its turn is also provided with an

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[1]Ibid.

[2]Cary, op. cit., p. 68.

interlinear translation into Latin.[1]

Translations were not, however, restricted only to the Bible. In 250 B.C. the Roman Titus Andronicus, produced the first translation of Homer into Latin. Some hundred years later, in 146 B.C. the Roman Senate commissioned a translation of a work on agriculture written by the Carthagean Magon.[2] With the coming of the Augustan Age of Rome the function of translation was somewhat changed. In this period translations were not made in order to make a foreign language text intelligible to those who had no acquaintance with the language concerned. For the cultured Romans of the time, who took a knowledge of Greek for granted, the value of translation lay in its providing a tool for the teaching of rhetoric and the perfection of style. The Roman rhetoricists believed that translation from a language of high culture into a language of low culture was necessary for the elevation and enrichment of the latter.[3]

In his De Oratore, Cicero has Crassus say:

> By following this practice translating the oratories of the best Greek orators I gained this advantage that while I rendered into Latin what I had read in Greek, I not only used the best words, and yet such as were

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[1]"Version," Enciclopedia Universal Ilustrada, Vol. LXVIII (Bilbao, Espasa-Calpe S.A., 1928).

[2]Cary, op. cit., p. 120.

[3]Donald Lemen Clark, Rhetoric in Greco-Roman Education (New York: Columbia University Press, 1957), pp. 170-71.

> in common occurence, but also formed some words by imitation, which would be new . . . taking care however that they were appropriate.[1]

Quintilian, in his own work, De Institutione Oratoria, stresses that Cicero again and again recommended translation and even published translations of Plato and of Xenophon which he did as exercises.

> The object of such exercise--says Quintilian--is evident; for the Greek authors excel in copiousness of matter and have introduced a vast deal of it in their eloquence. In translating them we may use the very best words since all that we use will be our own. As to figure of speech . . . we may be under the necessity of thinking out a great number and variety of them, because the Roman tongue differs greatly from that of the Greeks

Pliny the Younger finds additional reasons in favor of translation when he recommends its exercise to a friend:

> From the practice of this exercise you will acquire a propriety and brilliance of vocabulary, a wealth of figures, a vigor of statement. Moreover, from the imitation of the best writers you will learn their faculty of rhetorical invention. At the same time, what a reader might overlook cannot escape a translator. Thus you will gain both understanding and judgement from translation.[3]

The Roman poets of the period also made a point of translating the Greek poets, as did the playwrights. Thus we find that Virgil translated Homer and Theocritus, Horace translated Pindar, Plautus translated Aristofanes and Terence

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[1]Cicero, De Oratore, i, 155, quoted by Clark, op. cit., p. 170.

[2]Quintilian, De Institutione Oratoria, xv, 2-3, quoted by Clark, op. cit., p. 171.

[3]Pliny the Younger, Epistulae, vii, 9, quoted by Clark, op. cit., pp. 171-72.

translated Menander.[1] The influence of these works of translation on the poets and playwrights concerned is very evident.

These Roman translators did however not strive, as do most translators, to make their presence as inconspicuous as possible. They practiced translation for their own benefit as an exercise, not to overcome a barrier of communication. However, their rules of translating are valuable, in view of their stylistically-oriented motivation. It is clear, moreover, that the Romans appreciated the importance of translation and had no doubts as to the possibility of achieving valuable translations of valuable originals. It is important to keep this in mind in view of the contempt in which translation came to be held in later days, in particular by men who prided themselves on their proficiency in the classical languages.

Ever since the days of Cicero and Quintilian, translation has been held to be an important tool, not only for the polishing of style, but also for the more elementary purposes of learning a foreign language. Generations upon generations of schoolboys mastered Latin and Greek through translation exercises. Even today it is an important part of teaching foreign languages.

The political conquests of Imperial Rome, followed as they were by the spreading of Latin, resulted in linguistic

[1]"Traducción," Enciclopedia Universal Ilustrada, Vol. LXIII.

unity throughout a great part of the then known world. This was an unprecedented phenomenon, for, although the conquests of Alexander the Great had also resulted in the spreading of Greek (the so-called Koine version of the language), this was by no means as universal or as widespread a process. In many countries conquered and colonized by the Roman legions, Latin displaced the original idioms, but even in the countries where the original languages were preserved, considerable sections of the population knew, or at least understood, Latin. Culturally, Latin reigned supreme and the native poets in the various provinces used it as their own language. There was, therefore, little need for translation. The rise of Christianity and its spread throughout the Roman Empire made necessary a translation of the Bible into Latin. This was undertaken by St. Jerome in the 4th century. His was a strictly functional enterprise, designed to overcome a real communication barrier. St. Jerome summarized his own approach to translation when he said: "Non verbum verbum sed sensum exprimere sensum."

With the exception of isolated translations of the Bible,[1] translation in Western Europe was at a standstill for many centuries to follow. Latin came to be more and more corrupted in daily usage, so-called Vulgar Latin, and eventually developed into a series of separate though related languages. But throughout the Middle Ages it was still kept

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[1]Cf. supra, pp. 15-16.

alive, in a more or less uniform manner, for the purpose of erudite writing. In this case a language, which had ceased to be a language of vulgar communication, remained the language of scholarship for generations and even centuries.

A similar position is maintained to this day by Sanskrit in India and by Classical Arabic, which unites the Moslem world, although the majority of Moslems do not speak Arabic, and spoken Arabic itself has come to be divided into a number of very different dialects. Hebrew, too, had such a position for two thousand years, until it was revived as a modern language.

Latin, then, remained the universal language of the clergy and of all learned men throughout Western Europe during the Middle Ages. This was made possible by the willingness of writers and speakers of the language either to borrow from other languages, or to construct within the framework of Latin itself all that was necessary for their purposes. This situation lasted until the coming of the Renaissance, when, for various reasons, Latinists decided to revert to the Classical pattern of the language. Ciceronian Latin, however, was no longer a functional language at this time. It is thus, through the efforts of the purists who wished to reform it, that Latin came to lose the universal character which it had maintained for so many centuries.

The gradual disappearance of Latin as a world language resulted in an increasing translation activity. Philosophers

and scientists, who up to this time were writing their works in Latin, gradually came to write in their own national languages. To be understood by their colleagues in other countries, these works now had to be translated into several languages. As to poetry, the same classicism that so adversely influenced the fate of Latin made for a considerable translating activity. For one thing, the knowledge of classical Greek was revived and its literature was first translated directly into Western European languages.

While translation was almost at a standstill in Western Europe throughout the early Middle Ages, it was much practiced in the East. Teams of Syrians, installed at Bagdad translated the works of the Greek scientists and philosophers. In 834, for example, Ptolemy's work on Astronomy was translated into Arabic.[1]

These works, together with the original writings of Arab scientists and philosophers reached the Universities of Western Europe only when they were, in turn, translated from the Arabic into Latin. Thus, it was only by a devious process of double translation that Western Europe, where for centuries learning was dominated by the dictum "Graecum est, non legitur," came by the heritage of Greek culture.

Much of this translation from the Arabic was accomplished in Spain, which had become the meeting ground of European, Arabic and Jewish cultures. In the eleventh

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[1] Cary, op. cit., p. 120.

century Raymond Lull, Archbishop of Toledo, founded the celebrated School of Translators of Toledo, where a systematic work of translation was undertaken by learned men who belonged to the three cultures.

A number of literary works of Oriental origin also found their way into Western Europe by means of translations, which often also included considerable adaptation. One example of this is the legend of 'Barlaam and Josaphat,' which originated in India and bears a strong resemblance to the story of Prince Sidharta, the young Buddha. The Arabic version of this legend was translated into Latin in the 11th century, and from Latin into French in the 13th century.

Another much translated work is the 'Roman d'Alexandre' which is thought to have been written in Byzantium in the second century A.D. A century later an abridged translation of it was rendered into Latin. The Latin version was in turn translated into French around 1100 and later into English and German. This work had very considerable influence on the development of Western poetry. It was also translated into many Eastern languages in the 5th century, and later versions of it are to be found in Arabic, Syrian, Armenian, Ethiopian and Persian.[1]

Another Oriental text which reached Western Europe through a series of translations is the "Kalila W'Digna," a collection of fables and stories. Originally written in

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[1] Ibid., p. 71.

Sanskrit, it was translated into Persian and from that into Arabic, in the 8th century. The Arabic version, considered as one of the most elegant texts of Arabic literature, was translated into Spanish in the 13th century, at the orders of Alfonso X the Wise. A Hebrew translation of the same text, also made from the Arabic, was later translated into Latin.[1]

It was, however, only in the 16th century after the invention of printing that translation really became a major activity. Bible translations, translations of works of philosophy and science, and, most important of all, translations from Greek and Latin literatures into the various languages of Europe, became more and more numerous. In England, for example, the Elizabethan Age was ushered in by translations of Plutarch, Seneca and Ovid, and also of the works of Montaigne from the French.[2] Shakespeare, for instance, came by the classical subject matter of many of his plays only through reading Plutarch and Ovid in translation.

From this time onwards translation of literary, philosophical and scientific texts into the various languages of Europe becomes altogether too voluminous and diverse to follow in detail. As the West came to learn more about Far Eastern cultures, their texts too were translated into

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[1] D. Julio Cejador y Franca, Historia de la Lengua y Literatura Castellana, Vol. I (Madrid, 1915), pp. 192-93.

[2] Mark Van Doren, "The Uses of Translation," The Nation, Vol. CLXX (1950), p. 474.

European languages. This process is still continuing.

As the literary critic Mark Van Doren has pointed out:

> The literature of the world has exerted its power by being translated. The influence of great literature is universal, and in the course of things works through translation . . . translation . . . keeps us open to greatness wherever it may be, and it may be anywhere. . . . Translation keeps literature going in the world.[1]

Not only translation but oral interpretation as well developed greatly starting with the Renaissance. As has been mentioned, interpreters, both diplomatic and military, were not unknown in the ancient world. The prevalance of Latin did away for a number of centuries with the need for interpretation in diplomacy and also for military purposes. Commercial intercourse between nations was not of great volume during the Middle Ages, and moreover, much of it was conducted by traders who dealt with their own compatriots in different countries.

Diplomatic intercourse among the countries of Europe was in no need for interpretation due to the fact that when Latin ceased to be used, French succeeded it as a recognized diplomatic language. The situation was, however, different with regards to the Turkish Empire in the East. The representatives of Venice and Russia in Constantinopolis were, it is true, instructed in the Turkish language. France, on the other hand, resorted to interpreters from the time it sent its first ambassador to the Porte,[2] in 1535. These

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[1] Ibid.

[2] Cary, op. cit., p. 137.

interpreters, called _drogmans_,[1] came to constitute a veritable corps within the French diplomatic and consular services. They had their own ranks, each rank being assigned its special functions and requiring a different level of proficiency in the language concerned. A big embassy would be assigned as many as seven _drogmans_.[2]

The problems of translation and the methods involved are different for the different fields in which translation and interpretation is practiced. The problems of literary translation and those of other, more pragmatic translation are to be treated in further detail in a later chapter. But first we shall examine the problem of translation and translatability as such.

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[1]From the Arabic _Tourdjeman_.

[2]"Drogman," _La Grande Encyclopedie_, Vol. XIV, 1892.

CHAPTER II

THE THEORETICAL ASPECT - THE PROBLEM OF TRANSLATABILITY

Theoretical Treatment: A Historic Review

In the preceding chapter we have tried to follow some of the developments which translation has undergone throughout the ages. The theoretical side, the very problem of translation, did not preoccupy the many learned men who had been exercising their faculties in the art of translation. As has been pointed out--attempts at word-by-word translation had been abandoned even by St. Jerome, who translated a holy text in which every word was considered of transcendental importance. His dictum: "Non verbum verbum sed sensum exprimere sensum," came to be accepted by most of the translators who came after him. The inherent difficulty of translation was realized even by such completely bilingual writers as the Jewish philosophers of Moslem Spain. Thus, for example, Maimonides, who wrote some of his works in Arabic, others in Hebrew, clearly pointed out that he was unable to translate his own work from one language into the other.

Linguistic theory, as envisaged by mediaeval thinkers did not preclude the possibility of translation. At the University of Paris, which was the center of linguistic, or rather grammatical learning, the belief was commonly held that if a person should master one grammar, that of the

intellect, he would subsequently be able to know any language. This grammar, called also the "grammar of the mind" (grammatica speculativa) was the chief concern of the Paris University grammarians. An attempt to describe it was made in the 13th century by one Thomas of Erfurt (about whom nothing further is known), who set out to show the operations necessary if any kind of communication is to take place.[1]

In 1540 a French translator, Etienne Dolet, wrote a short treatise on the subject of translation "Traité sur la Traduction."[2] In it he states five requirements for good translation:

(1) the translator must understand perfectly the meaning and the subject of his author

(2) the translator must have perfect command of the language of the author whom he translates

(3) the translator does not have to follow the text of his author word by word

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[1]Robert G. Godfrey, "The Language Theory of Thomas of Erfurt," Studies in Philology, Vol. LVII, No. 1 (1960), pp. 22-29.

Thomas of Erfurt distinguishes three points of view from which a word can be viewed: as vox, dictio and pars orationis. Vox describes the physical qualities of the sound produced. Dictio refers to the first meaning or sign content which expresses a delimited reality, while pars orationis is the meaning form of this content. According to Thomas of Erfurt the process by which vox becomes dictio is a mental process of arbitrarily investing a sound with special meaning.

[2]The treatise is reprinted in full in Babel, Vol. I, No. 1 (1955), with an introduction by Edmond Cary.

Dolet was eventually burned at the stake for being too outspoken against the Church. One of the charges against him was that he wanted to change the diversity of languages which served God to punish mankind for trying to build the Tower of Babel.

(4) the translator should not use latinisms too often

(5) the translator should observe the rules of style in his own language

But Dolet's treatment of the subject can not really be considered as theoretical, in the strict sense of the word. It is only a set of "how to do it" rules, which leaves the central problem, that of translatability, untouched.

In the following centuries, as the art of translation came to be practiced more and more, much was written on the subject, mainly by the poets and writers engaged in translation. These writings are concerned chiefly with the problems of literary translation, mostly in the area of poetry. One of the most prolific writers on the subject was John Dryden, who outlined his approach to the problem in several of his introductions to his translations from classical literature. In 1790 Alexander Fraser Tytler published his Essay on the Principles of Translation. Throughout the 19th century, the problem of how closely a translation should follow the original text remained one of open controversy. The poet Robert Browning, for example, held that translation should follow the original even to the detriment of the style of the translation itself.[1] On the other hand, the translator of Omar Khayam, Edward Fitzgerald

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[1]T. F. Higham, "Greek Poetry in Translation," The Oxford Book of Greek Verse in Translation (Oxford: The Clarendon Press, 1944), Introduction, Part II.

held that:

> At all costs a thing must live, with a transfusion of one's own, worse life if one can't retain the original's better. Better a live sparrow than a stuffed eagle.[1] [Emphasis mine.]

The controversy as to which is preferable--the live sparrow or the dead eagle--has by no means been resolved to date. Any translator who is serious in his endeavour states his position in relation to it in his introduction. The introductions to translations from the masterpieces of world literature which contain valuable material on this subject are altogether too numerous to cite. Moreover, the consideration of such material is not within the scope of the present thesis. The problem of the translatability of a literary text is of the most complex order, involving as it does much that is beyond the mere transfer of words from one language into another. However, even the possibility of translating the simplest of texts is by no means a generally accepted fact.

The Validity of the Assumption of Translatability

In practice, all translation is based on a tacit agreement as to the validity of the assumption of translatability. This convention of tacit agreement, is however not sufficient proof of the validity of such an assumption.

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[1] E. Fitzgerald, Letters and Collected Works, Vol. II, 1859, p. 100. Quoted by Higham, op. cit., p. lxvii.

A categorical answer to this problem would require a complete examination of this assumption in relation to each and every one of the theories of knowledge and meaning put forth by philosophers since the dawn of philosophy. The problem of translatability is, in fact, but one of the facets of the central problem stated by the question: What is meaning? Such an examination would however transcend the scope of the present thesis. My purpose in the present chapter is to examine the problem only in relation to a few philosophical and linguistic theories--some of which challenge the assumption altogether, others which uphold it with certain qualifications, others still, which indicate a way of dispensing with it, without excluding the practical possibility of translation.

The Aesthetic Approach: Language as Aesthetic Expression

The development of comparative linguistics in the 19th century rudely shocked the belief in the existence of a universal grammar. One answer of philosophy to this was to subordinate the problem of linguistic expression, which, it seemed, could no longer hold its own as an independent and universal phenomenon, to the problem of aesthetic expression. This was the approach taken by the Italian philosopher Benedetto Croce. According to him, the variety of expressive forms, language among them, is irreducible, and each and any of them is incapable of reproduction.

> Every meaning is different from any other meaning, for nothing in this life repeats itself; and to the continued variation of meaning there corresponds the irreducible variety of expressive forms: the aesthetic syntheses of the impressions.[1]

Resulting from this is the impossibility of translation. For translation aims at the exchange of one impression for another. Unlike the pouring of a liquid from one container into another, of different form, this cannot be accomplished. It is possible, says Croce, to set forth in a logical manner something which has been earlier stated in an aesthetic form, but it is impossible to say again, in a different aesthetic form that which had already had an aesthetic form of its own. Therefore, every translation is either a waste, or a loss, or else it creates a new expression, which is the result of the original expression's being mixed with the personal impressions of the so-called translator. In the first case the so-called translation is deficient, or, in other words, does not even merit being described by the term "expression." In the second case we do have expression, or rather, we have two different ones, which thus express two different meanings. The translator, says Croce, finds himself in the position of the proverbial lover who has to make his choice between "Brutte fideli o belle infideli" (ugly but true or beautiful but untrue lovers). A translation which does not achieve proper aesthetic form of expression must therefore be

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[1]Benedetto Croce, Estetica come Scienza dell'Espressione e Linguistica Generale (Bari: Guis. Laterza and Figli, Quinta Edizione Riveduta, 1922), p. 76.

considered only as a commentary on the original, or as an explanation of it.

Croce, in fact, denies not only the possibility of translation but the possibility of reproducing any aesthetic expression at all--be it a verbal expression or a complete work of art. All he admits is the possibility of approximation. Insofar as translation is concerned, the so-called good translation is achieved when the expressions of the original lead to the production of similar expressions in the translation. It thus has original value as an independent work of art.[1]

Croce's critique is concerned mainly with literary translation. But his initial challenge of the possibility of translation, based on the irreducibility of expressive forms and the concommitant irreducible variety of meanings, can be maintained even in the case of non-literary translation, for, according to his philosophy, linguistic expression as such is an aesthetic function. As the German linguist and language philosopher Karl Vossler has pointed out, such a philosophy ultimately denies the very concept of a language community.[2]

Croce's approach then, sees translation as impossible because it subjects linguistic expression, of any kind, to

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[1] *Ibid.*, p. 82.

[2] Karl Vossler, *The Spirit of Language in Civilization* (London: Routledge and Kegan Paul, Ltd., 2nd reprinting, 1951), p. 175.

aesthetic expression, which, according to Croce, is ever changing and excludes reproduction as a matter of definition.

This theory, as Karl Vossler has shown, can be challenged even on aesthetic grounds. Translation, he points out, has become for some poets an aesthetic end itself. The very limitation of content challenges these poets to a supreme endeavour of expression through language.[1]

The French poet, Paul Valèry also considered the translator as an original artist who works within severer limits and for this reason composes in a purer medium than the original poet. The translator's contribution, according to Valèry. is in the inventions of form. In an essay written in 1941, on some 17th century translations from St. John of the Cross, by a certain Father Cyprian, Valery wrote:

> This translator . . . was accomplished in the fine art of writing verse in the pure state . . . and by that I mean that . . . his share is limited to fashioning the form. . . . He makes a kind of masterpiece by producing poems whose substance is not his own and each word of which is prescribed by a given text.[2]

Vossler holds that translation as such fulfills an important function in that it creates what he calls a "Synaesthetic bond" in spite of barriers of language. However, translation as an art rests, according to Vossler, on

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[1] Ibid., pp. 177-78.

[2] Quoted by Jackson Mathews, "Third Thoughts on Translating Poetry," On Translation edited by Reuben A. Brower (Cambridge, Mass.: Harvard University Press, 1959), pp. 74-75.

the relation between outer and inner language form. The practical translator breaks the work and gives up the whole shell in order to gain only "the juice of sentiment." This in itself is a good craft and Vossler quotes no less an authority than Goethe in support:

> I honor both rhythms and rhyme, by which poetry really becomes poetry; but what is really deep and fundamentally active, truly educative and helpful is that which remains when a poet is translated into prose. Then there remains the pure and perfect content, which, when it is absent, a brilliant exterior may delude us into imagining as present, and, when it is there, may hide.[1]

The Principle of Linguistic Relativity

Another approach which challenges the assumption of translatability is the one which holds that our very view of the universe is shaped by the language we are speaking. Such a theory conceives of language not merely as a set of symbols used to refer to a reality which exists outside of language, but maintains that reality as we see it, in other words, the referents themselves, are shaped by language as we speak it. Thus, the way reality appears to us is ultimately determined by the linguistic system which we are using.

Here, then, there is no denial of the language community as such, as in Croce. Not only does it exist but it is conceived as being the prime factor in shaping the individual's conception of reality. There is, however, a

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[1]Goethe, Dichtung und Wahrheit, III, ii, quoted by Vossler, op. cit., p. 180.

denial of a community of language in the universal sense, which implies a negation of the assumption of translatability.

This theory of language was first formulated by the German anthropologist and linguist Wilhelm von Humboldt, over a century ago. More recently it has been elaborated by the American, Benjamin Lee Whorf. Both men were led to this conclusion through their contact with languages altogether different from the traditional languages of culture--von Humboldt through his studies of the Kawi language of Java, and Whorf through his studies of American Indian languages. However, they did not limit their theories to these languages alone but claimed for them universal validity.

Thus, according to Whorf--

> The background linguistic system (in other words, the grammar) of each language, is not merely a reproducing instrument for voicing ideas but rather is itself the shaper of ideas, the program and guide for the individual's mental activity, for his analysis of impressions; for his synthesis of his mental stock in trade.[1]

This, Whorf argues, introduces to our thinking a new principle of relativity, which holds that:

> all observers are not led by the same physical evidence to the same picture of the universe, unless their linguistic backgrounds are similar.[2]

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[1] Benjamin Lee Whorf, "Science and Linguistics," *The Technology Review*, Vol. XLII, No. 6 (April, 1940). Reprinted in: *Collected Papers on Metalinguistics* (Washington, D.C.: Department of State, Foreign Service Institute, 1952), p. 5.

[2] *Ibid.*, p. 11.

A theory of language stated in terms such as these, would apparently have to exclude any possibility of translation as a matter of definition. For, if our conception of reality, or of the referents which constitute it, is shaped by our linguistic system--how can terms shaped by different systems have equivalent, or interchangeable, meanings?

In attempting to prove his hypothesis of linguistic relativity, however, Whorf himself has to rely on translation. The method of proof he employs is thus in direct contradiction to his hypothesis. Whorf's critics do in fact cite this as a major point against his hypothesis.[1] Whorf's basic assumption that language affects non-linguistic behavior derives from an inspection of linguistic facts, an inspection carried out through the use of translation.

Eric Lennenberg of MIT, who criticizes Whorf on this account, points out that: (1) the technique of translation employed by Whorf to demonstrate differences in languages is itself open to criticism on several grounds, (2) large differences in the linguistic handling of an event do not necessarily imply corresponding differences in the perception of that event. They may, for example, be merely the result of metaphorical developments in the language of which the speakers are wholly unaware (e.g., words such as "breakfast," "everybody," "beforehand," "already" or "inside"),

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[1]Eric Lennenberg, "Cognition in Ethnolinguistics," Language, Vol. XXIX, No. 4 (1953), pp. 463-71.

(3) linguistic and non-linguistic events must be described separately before they can be correlated. If their relation is not so proved, Whorf's principle of linguistic relativity becomes tautological, in that the only evidence for differences in "world view" turns out to be the linguistic differences themselves.

Moreover, in my opinion, Whorf's hypothesis can be challenged on another count as well. Whorf assumes that there exists a permanency of linguistic forms, inasmuch as their change, by definition, implies a change of the individual's "mental activity" or "picture of the universe." The metaphorical use of language mentioned by Lennenberg is but one example of the fact that linguistic forms change their function. The German-born philosopher Ernst Cassirer, in his _Philosophy of Symbolic Forms_ and in _Language and Myth_ emphasizes that linguistic forms change their function without however losing all of their earlier applications. Thus, the actual structure of a language cannot be taken as reflecting the actual structure of thought and of the culture.

Language as Symbolic Form

Ernst Cassirer, who proclaimed himself as an idealist philosopher, also was confronted with the problem of adjusting to the discoveries of modern comparative linguistics. But, in his attempt to reassert the autonomy of language as a universal form, he was, unlike Croce, not willing to regard

the problem of linguistic expression as a subordinate problem.

Cassirer does not deny von Humboldt's view that each particular language has a specific inner form. This, explains Cassirer, meant for von Humboldt that--

> . . . in the choice of its designations it [language] never simply expresses the objects perceived in themselves, but that this choice was eminently determined by a whole spiritual attitude, by the orientation of man's subjective view of objects. For the word is not a copy of the object as such, but reflects the soul's image of the object.[1]

In this sense, continues Cassirer, the words of different languages can never by synonyms--their meaning, strictly speaking, can never be encompassed by a simple definition which merely lists the objective characteristics of the object designated. There is always a specific mode of designation which expresses itself in the syntheses and coordination underlying the formation of linguistic concepts.

Thus, for example, says Cassirer, if the moon in Greek is called the "measurer" (μήν), in Latin the "glittering" (luna, luc-na), we have here one and the same sensory intuition assigned to very different notions of meaning and made determinate by them. It no longer seems possible to give a general account of the way in which this specifying of intuition is affected in the different languages, precisely

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[1]Ernst Cassirer, The Philosophy of Symbolic Forms, Vol. I, Language, Trans. Ralph Manheim (New Haven: Yale University Press, 1953), p. 284.

because we have to do with a highly complex cultural process, which varies with each special case.

This, clearly is a definite challenge to our assumption of translatability. However, Cassirer himself suggests a solution to the problem. Verbal concepts, he points out, are formed by a teleological process--they are named after the function which is served by them.

> The aspects of being are distinguished and coordinated according to a measure supplied by action--hence they are guided, not by any "objective" similarity among things, but by their appearance through the medium of practice, which relates them within a purposive nexus.[1]

However, concepts formulated in this fashion do not necessarily retain their original "sense," for

> If altered conditions of life, the changes that attend the advance of culture, have brought men into a new practical relation with their environment, the concepts inherent in language do not retain their original "sense."[2]

The original sense of a verbal concept is therefore subject to change. Such change is brought about by such external influences as the advance of culture. One form of such advance is, in my opinion, the exposure to other cultures, or cultural intercourse which, following Cassirer's line of reasoning can thus be said to induce a change in the "sense" of the verbal concept. Such a change, coming about

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[1]Ernst Cassirer, Language and Myth, trans. Susanne K. Langer (New York: Dover Publications, Inc., 1953), p. 39.

[2]Ibid.

as a result of cultural interaction will have an intercultural direction; the verbal concepts of the two languages, no longer possessing their teleological signification, will now be more synonymous that they could have been before.

They will still not be absolutely synonymous. Inasmuch as verbal concepts, after undergoing a change in their sense, continue to carry a vestige of their former meaning, they will not be equivalent. This difference will cause great difficulty in the translation of poetry, for example. But their synonymy would still be sufficient for purposes of translation within the context of a common cultural background.

If we were to re-examine Whorf's principle of linguistic relativity it would become apparent that it is valid only with regard to the first teleological stage of language formation and only in a context of cultural isolation.

But, in order to be able to follow this line of reasoning Cassirer has to assume that culture as such, and language within it, has universal validity. Proving this assumption is, to Cassirer a legitimate philosophical problem:

> Although philosophical analysis can never claim to grasp completely the special subjectivity that expresses itself in the different languages, still the universal subjectivity of language remains within the scope of its problems. For while languages differ in their perspectives of the world, there is a

perspective of language itself which distinghishes it from the other cultural forms.[1]

For the solution of this problem Cassirer employs the Kantian concept of Schema, which designates the area in which sensuous observation and intellectual categorizing--intuition and concept--meet. The concept is an abstraction from experience and continues to carry its sensuous eggshells with it. But, on the other hand, observation is not merely factual--form is present already in the manner of experiencing. Language possesses a schema of this kind: words are sensuous images (seen or heard) but they are used with meaning and so they are employed as symbols.

The human mind, according to Cassirer is a mind in need of symbols.[2] Symbols, however, are no substitute for images, for while images are given, symbols are made. Symbols serve the human mind to classify the phenomena of the world: Language is such a symbolic form; mythical thinking, art and history are others. Every cultural form is a symbolic form looking in two directions: Outward, at the world of experience and inward, at the working of the human mind.[3]

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[1]Cassirer, The Philosophy of Symbolic Forms, Vol. I, p. 285.

[2]Charles Hendel, in Cassirer's Philosophy of Symbolic Forms, Introduction, p. 50.

[3]W. F. Leopold, "Review of Ernst Cassirer's The Philosophy of Symbolic Forms," Language, Vol. XXXI (1956), pp. 73-84.

In language our consciousness creates arbitrary signs--but the force and effectiveness of these mediating signs would remain a mystery if they were not ultimately rooted in the original spiritual process which belongs to the very essence of consciousness.[1]

By virtue of their mediating function, and in spite of the different arbitrary forms the linguistic signs assume in different languages, and also in spite of the ambiguity inherent in the linguistic sign as such,[2] the possibility of reproduction of meaning by means of the linguistic sign is validated.

Stimulus Synonymy and the Analytical Hypotheses of Translation

The American philosopher Willard Quine of Harvard, examines the problem of translation in his book Word and Object in the process of a general examination of meaning. His examination is concerned mainly with radical translation, i.e., the possibility of translating a hitherto unknown language. He employs this hypothetical procedure in order to clarify the concept of meaning. In the course of this examination Quine differentiates between several kinds of sentences which differ from each other in the degree of their

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[1]Hendel, loc. cit., p. 52.

[2]Which, according to Cassirer is a virtue, for it corresponds to the ambiguity between intuition and concept. Cf. Leopold, op. cit.

translatability:[1]

Occasion sentences: A sentence is an occasion sentence for a man if he can sometimes be got to assent or dissent from it, but can never be got to do so unless the asking is accompanied by a prompting stimulation.

Standing sentences: Standing sentences contrast with occasion sentences in that the subject may repeat his old assent or dissent unprompted by current stimulation, if he should be asked again on later occasions.

The affirmative stimulus meaning of an occasion sentence is, according to Quine, the class of all the stimulations which would prompt a given speaker to assent to the sentence. The negative stimulus meaning can be defined in the same manner, in terms of dissent. The stimulus meaning of an occasion sentence can thus be defined as the ordered pair of its affirmative and negative stimulus meanings. The two are mutually exclusive, yet they do not determine each other, for the negative stimulus meaning of a sentence does not ordinarily comprise all the stimulations that would not prompt the speaker to assent to it.

The notion of stimulus meaning, says Quine, isolates a sort of "net empirical import of each of various single sentences." Without further defining meaning Quine points

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[1]Willard V. Quine, "Meaning and Translation," On Translation, ed. Reuben A. Brower, pp. 150-173. (This is a somewhat abridged version of the chapter "Translation and Meaning" in Quine's Word and Object.)

out that the concept of stimulus meaning may be said to constitute "in some strained sense" a meaning concept for occasion sentences, in particular for such general terms as for instance "Red" or "Rabbit" (which are one-word occasion sentences). Things would however get to be more complicated in the case of a word like "Bachelor." The difference is in that "Rabbit" is an observation sentence, i.e., an occasion sentence in which assent or dissent are prompted without collateral information, that is to say, without the aid of information which is not included in the prompting stimulation itself. If, when we see a man we are in a position to say that he is a bachelor this obviously implies additional information on our part.

> Occasion sentences whose stimulus meaning vary none under the influence of collateral information may . . . be called observation sentences. And their stimulus meanings may without fear of contradiction be said to do full justice to their meaning.[1]

Accordingly, an observation sentence can be said to possess intersubjective meaning. For, regardless of the different collateral information two speakers might have, the stimulus meaning of an observation sentence will still be the same, or rather deviate significantly little for the two of them.

However, the concept of stimulus meaning is valid not for observation sentences alone, but for all occasion

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[1]Willard V. Quine, Word and Object (Cambridge, Mass.: The Technology Press of the Mass. Institute of Technology and John Wiley and Sons, Inc., 1960), p. 42.

sentences, without regard to their observability. Rather, says Quine, we may speak of degrees of observability,

> For even the stimulus meaning of "Red" can be made to fluctuate a little from occasion to occasion by collateral information. . . What we have is a graduation of observability from one extreme, at "Red" or above, to the other extreme at "Bachelor" or below.[1]

But stimulus meaning bears little resemblance to what might be reasonably called meaning when applied to non-observational terms like "Bachelor." The translation of the Spanish "Soltero" as "Bachelor" cannot be predicated on the identity of stimulus meanings between persons. Nor can the synonymy of "Bachelor" and "Unmarried Man." Nevertheless, the stimulus meanings of "Bachelor" and "Unmarried Man" are identical for any one speaker. Although the concept of stimulus meaning is very remote from "true meaning" when applied to non-observational occasion sentences--synonymy can nevertheless be defined as the sameness of stimulus meaning, as long as we stick to one speaker. Moreover, continues Quine, we can even say that "Bachelor" and "Unmarried Man" are synonymous for the whole community, in the sense of their being synonymous for each of its members.

In this manner, by establishing the concept of stimulus synonymy, i.e., the sameness of stimulus meaning, Quine foregoes the need of defining meaning, without, however, having to abandon the concept of synonymy.

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[1]*Ibid*.

> Stimulus synonymy, or sameness of stimulus meaning, is a good standard of synonymy for non-observational occasion sentences as for observation sentences, as long as we stick to one speaker, "Bachelor" and "Unmarried Man" are stimulus synonymous without having the same meaning in any acceptably defined sense of "meaning." Very well; here is a case where we may welcome synonymy and let the meaning go.[1]

The concept of stimulus synonymy is valid in a two-language situation as well, provided that a bilingual speaker is at hand. "Bachelor" and "Soltero" will be stimulus synonymous to him. Taking him as a sample we may treat "Bachelor" and "Soltero" as synonymous for the translation purposes of the two linguistic communities which he represents. Whether or not he is a good sample can be determined by observing his fluency of communication in both communities and by comparison with other bilinguals.[2]

However, not all sentences are occasion sentences. There exists a gradation in the use of stimulus synonymy for purposes of translation. At one end are the observation sentences

> Whose meanings, stimulus meanings, emerge absolute and free of all residual verbal taint. Theoretical sentences . . . are at the other extreme. For such sentences no hint of the stimulatory conditions of assent or dissent can be dreamed of that does not include verbal stimulation from within the language. Sentences of this extreme latter sort, and often sentences that likewise lie intermediate between the two extremes, lack linguistically neutral meaning.[3]

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[1] *Ibid.*, p. 46.

[2] *Ibid.*, p. 47.

[3] Quine, "Meaning and Translation," *On Translation*, p. 171.

Stimulus synonymy, then, does not answer all the problems of translation. Translation, according to Quine, is carried out by means of what he calls analytical hypotheses, i.e., the conjectural equation of segmented utterances on the basis of already established translations of observation sentences, which are also tested in part by their conformity to intrasubjective synonymies of occasion sentences.[1] Analytical hypotheses, at best, are devices whereby we bring out analogies between sentences that have yielded to translation and sentences that have not, and so extend the working limits of translation. Thus we can speak of interlinguistic synonymy of words and phrases only within the terms of some particular system of analytical hypotheses. A result from this is the indeterminacy of translation. The further we get from sentences with visibly direct conditioning to non-verbal stimuli--the less there is a basis for comparison, or of saying what is a good translation and what is a bad one.[2]

The indeterminacy of translation is, according to Quine, attested to by the fact that--

> rival systems of analytical hypotheses can conform to all speech dispositions within each of the languages concerned and yet dictate . . . utterly disparate translations -- not mere mutual paraphrases but translations each of which would be excluded by the other system of translation.[3]

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[1] *Ibid.*, p. 165.

[2] *Ibid.*, p. 172.

[3] Quine, *Word and Object*, p. 73.

One reason for our failure to realize this is our stubborn feeling that the true bilingual surely is in a position to make uniquely correct correlations of sentences between his two languages. This, Quine points out,[1] is merely to say that the bilingual has his own private semantic correlations, his own set of analytical hypotheses. Another bilingual could have a semantic correlation incompatible with that of the first bilingual, without deviating from him in his speech dispositions in either language, except in his disposition to translate.

Value and Signification

So far we have dealt with various philosophical approaches to the problem of translatability--approaches in which the problem is seen more or less as part of the general problem of meaning. The linguistic approach is not concerned with the problem of meaning. Moreover, the assumption of translatability is a basic tenet of linguistic science, and not only in comparative linguistics. The American linguist, Edward Sapir, writes in this connection:

> Language is so constructed that no manner what any speaker of it may desire to communicate, no matter how original or bizarre his idea or his fancy, the language is prepared to do his work. He will never need to create new forms or force upon his language a new orientation--unless, poor man, he is haunted by the form feeling of another language and is subtly driven

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[1] *Ibid.*, p. 74.

> to the unconscious distortion of the one speech system on the analogy of the other. . . To pass from one language to another is psychologically parallel to passing from one geometrical frame of reference to another. The environing world which is referred to is the same for either language.[1]

Such formal completeness is characteristic of all languages--of Eskimo or Hottentot as well as of the languages of our great cultures. Formal completeness should, however, not be confused with richness of the vocabulary. If the vocabulary of a certain language is not sufficiently rich, the situation, says Sapir, can easily be helped by borrowing words from foreign sources, or by extending the meaning of existing words. The form of the language is not affected by these processes.

Such an absolute belief in the possibility of translation has led the linguist Zellig S. Harris of the University of Pennsylvania to defining the difference between two languages in terms of the number and content of the grammatical instructions needed to generate the utterances of one language out of the utterances of the other.

> If A is some large set of utterances in one language and B is a set in another language, then the list of changes that have to be made in A in order to transform A into B will be considered the difference B-A, the list of changes that transform B back into A is not simply the

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[1]Edward Sapir, "The Grammarian and His Language," Selected Writings of Edward Sapir in Language, Culture and Personality, ed., David G. Mandelbaum (Berkeley: University of California Press, 1951), p. 153.

reverse of B-A, but may be a different list, A-B.[1]

Translation, Harris points out, is complicated by the fact that the grammatical interrelation of morphemes in each language is a matter of subdivision of the sentence into constituents which will often differ in the two languages; also the order of the morphemes within each constituent will often be different for different languages. However, it is possible to analyze these differences grammatically, and the resulting list of changes to be introduced will make accurate translation possible. In fact, says Harris, such a list can be put in the form of routine instructions for machine translation.

The grammarian's approach is thus opposed to that of modern philosophy. One way of coordinating the two approaches within a unified system of linguistic thinking was suggested by the Swiss linguist Ferdinand de Saussure. As a linguist, de Saussure did not concern himself with the problem of how the linguistic sign becomes the counterpart of a concept, but rather with the uses to which it is put. In the process of doing so he introduces a differentiation which is basic to his whole thinking. Language, says de Saussure,[2] is made up

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[1]Zellig S. Harris, "Transfer Grammar," _International Journal of American Linguistics_, Vol. XX, No. 4, 1954 (Translation Issue), pp. 259-270.

[2]Ferdinand de Saussure, _Course in General Linguistics_, eds., Charles Bailly and Albert Sechehaye, in collaboration with Albert Reidlinger. Trans. Wade Baskin (New York:

of two constituents; la langue and la parole. In terms of la langue the linguistic sign has value, in terms of la parole it has signification.

La langue is a system of linguistic signs which members of the speech community utilize for the purpose of communication. It is the social side of speech

> . . . outside the individual who can never create nor modify it by himself; it exists only by virtue of a sort of contract signed by the members of a community. Moreover, the individual must always serve an apprenticeship in order to learn the functioning of language.[1]

It is different from the actual instances of speech, the speech events by which the speakers avail themselves of the system, i.e., la parole. La langue and la parole are interdependent, the former is both the instrument and the product of the latter. But their interdependence does not prevent their being two absolutely distinct things. La langue exists in each individual, yet it is common to all. It is a collective instrument. La parole on the other hand consists of individual combinations that depend on the will of the speaker and on the willful phonational acts that are necessary for the execution of these combinations. La parole is

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Philosophical Library, 1959).

Due to the fact that the English term language is in this case reserved for the translation of the French language, the term la langue will have to be used in the following pages. For the sake of uniformity I will therefore also use la parole although this term can be translated by the English term "speech." The translator of de Saussure's work into English does not make this distinction he uses language for la langue.

[1]Ibid., p. 14.

thus not a collective instrument; its manifestations are individual and momentary.[1]

The relevance of this distinction to the problem of translation becomes apparent once we consider the problem of the signified concepts with it in mind.[2]

The linguistic sign, according to de Saussure, is composed of two parts; the sound, i.e., signifier (*significant*) and the signified concept (*signifie*). The relation between signifier and signified is normally arbitrary. The signified can be considered from the point of view of either *la langue* or *la parole*. It is only in the latter case, through the act of speaking, that the linguistic sign can be said to have specific meaning, or signification. Within *la langue*, the system of signs, it has many potential meanings; or rather, it possesses not meaning but value (*valeur*). The value of the linguistic sign is determined within and by the system of *la langue*. It is determined by the synonyms and near-synonyms for which it may be exchanged and which, within the system, limit its potential function. Values, then, are determined by relationships within each language system. It is therefore theoretically impossible that two signs of two different languages should ever have

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[1] *Ibid.*, p. 19.

[2] Robert A. Politzer, "A Brief Classification of the Limits of Translatability," *Modern Language Journal*, Vol. XL (1956), pp. 319-322.

the same value. They can only be put to the same specific uses, in speech, but their potential uses will never be the same.

This point is explained by de Saussure in the following example:

> Modern French mouton can have the same signification as English sheep, but not the same value, and this for several reasons, particularly because in speaking of a piece of meat ready to be served on the table, English uses mutton, not sheep. The difference in value between sheep and mouton is due to the fact that sheep has beside it a second term while the French word does not.[1]

The value of a linguistic sign, in terms of the language system is not translatable. Its signification, or specific meaning, which is the particular realization of one of its many potential meanings in the act of speaking, can have a synonym in another language, in the sense that the linguistic sign is put to the same specific use in both cases.

Quine's observation sentences, which have stimulus synonymy, can be synonymous in the sense of signification. Value, by definition, implies verbal stimulation from within the language. Analytical hypotheses of translation are made in terms of signification, or meaning for the particular speaker who employs them. The indeterminacy of translation which is based on such analytical hypotheses is the result of its not taking into account the value of the linguistic

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[1]de Saussure, Course of General Linguistics, p. 115.

sign, but only its signification. Or rather, the fallacy inherent in this procedure of making signification stand for value.

CHAPTER III

THE APPLIED ASPECT (I): THE AREAS OF TRANSLATION AND THEIR PROBLEMS

The Assumption of Translatability as Qualified in Practice

In the preceding chapter we have examined the validity of the assumption of translatability. We have seen that various theories resolve the matter in various ways, ranging from complete denial of the assumption to a qualified validation. The translator, though by no means unconcerned with the theoretical aspects of translation, has to accept the validity of the assumption of translatability or else change his field of activity. His acceptance of it is by no means unqualified however. Most translators recognize that perfect equivalence between the original and its translation is probably impossible. Nevertheless, it is pointed out that in spite of the many difficulties it is a matter of fact that information can be effectively communicated across language barriers.

The American translator Joseph Casagrande writes that the task of the translator is to decode a message presented in one code (A) and to encode that message into a second code (B), so that the two messages are equivalent, or, more accurately, of approximate equivalence. If there is a loss of information in this process of switching codes it must be

remembered that much information is lost even in the case of a message which passes between members of the same speech community. But when the intentions of a speaker encoded in a message language are commensurate with the significance of the message to the hearer, when transcoded into the target language, we have functional equivalence.[1]

However, the achieving of such functional equivalence does not constitute the only aim of translation. Whether or not it is the main purpose of a translation depends on the character of the original. Using the aim of the translation as our criterion, we can divide the whole field of translation into two main sections:

(1) aesthetic translation, i.e., the translation of poetry and other works of literature

(2) pragmatic translation, which includes the translation of scientific, diplomatic, juridical and commercial subject matter, where the emphasis is on content, not on form.

Aesthetic Translation

The translation of literary texts, and particularly of poetry, is no doubt the most difficult.

Voltaire, for example, thought that it was altogether impossible to reproduce the quality of poetry in translation:

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[1]Joseph Casagrande, "The Ends of Translation," *International Journal of American Linguistics*, Vol. XX, No. 4 (1954), pp. 335-41.

> Qu'on ne croie pas connaître les poètes par les traductions; ce serait vouloir apercevoir le coloris d'un tableau dans une estampe.[1]

Cervantes, on the other hand, thought that literary translation is possible. He even claims to have himself translated Don Quixote from an Arabic manuscript.[2] Thus, Cervantes makes Don Quixote say, at one point, that translation is like the backside of a tapestry "un tapiz al revés"--the finer the quality of the tapestry, the more does its backside resemble its upper side.[3]

The Hebrew poet Bialik likened the reading of poetry in translation to "kissing one's beloved through a veil."

One method which is often used to test the success of a translation is translating back from it to the language of the original. Obviously, such a method would never result in a reproduction of the original work in the case of poetry or a literary text.

In addition to having to reproduce the contents of the source, the translator of poetry must also strive to reproduce its form and aim to evoke in the reader a reaction which would be as close as possible to that which is stimulated by the original. To render a translation of this kind is

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[1]This is only one of numerous examples where an author pretends that an original work of his is a translation. A well known example is Elizabeth Barrett Browning's "Sonnets from the Portuguese."

[2]Quoted in "Traduction," <u>Larousse du XXe Siecle</u>, Vol. VI (1933).

[3]Quoted in "Traduccion," <u>Enciclopedia Universal Ilustrada</u>, Vol. LXIII.

extremely difficult, for a number of reasons.

The Problem of Value.--As has been shown by de Saussure, words in two languages can never be value-synonymous. In a literary context words are usually not used with a single, clear-cut meaning, or signification in terms of their definition in la parole. Their entire value plays a role in the understanding of the context in which they are used. An example of this is the pun, which is a play of words where each word has to be understood by its various significations. As a result puns are almost absolutely untranslatable. Another example is that of intentional ambiguity, which is considered by some literary critics as the very essence of poetry.[1] In this case the translator is at a loss even to determine which of the many significations of the word in question he is to render in his translation; to reproduce the ambiguity is altogether impossible because of the difference in the value of the word in the two languages.

Even in cases which are not so extreme, there remains the problem of association and of the emotional load which is carried by each word. Thus, for example the English word "military" can be translated into Russian only by a term which means "warlike." "Military preparations" thus become

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[1] Cf. William Empson, The Seven Types of Ambiguity (New York: A New Directions Book, 3rd Edition, 1953).

"Warlike preparations."[1] The difference in the emotional quality of the two phrases is obvious.[2]

Another difficulty results from the fact that, as Cassirer has pointed out, the meaning, or rather the value of a word is not determined at one point in time never to change again. Language is constantly changing, although, as de Saussure has stressed, this change is not the result of the individual's intervention.[3] Cultural changes necessarily influence the associative and emotional value of the word. In this sense it might be said that in reading a text several centuries old, the discerning reader has to perform a translation of his own. Even so, and even if he is able, through research, to fathom some of the associations which, while obvious for the author and his contemporaries, are no longer meaningful to speakers of the language today, he can hardly achieve a complete understanding of the text. When a work of this kind is subject to translation into another language the problem becomes doubly involved. The translator in this case has to reckon with three separate sets of associations:

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[1]Politzer, loc. cit., p. 320.

[2]This point could be perhaps proven experimentally by means of testing, through the semantic differential, a series of words in the original version, for speakers of the source language, and in the translated version for speakers of the translated language. Perhaps a method could also be devised for testing, not attitudes to words but to whole phrases.

[3]The subject of language changing, called by de Saussure 'diachronic linguistics,' is extensively treated in his Course of General Linguistics. Some critics point to a certain ambiguity in his treatment of the respective roles of la langue and la parole in effecting change in the language.

that of the source, that of the present day speakers of the source language and that of the speakers of the translation language. In practice many translators, especially those who translate from Greek or Latin, tend to avoid this triple operation. The result of such avoidance is a translation which is archaic in its style and its associations. In this case, any attempt to provide the reader with the opportunity of experiencing a reaction similar to that which was experienced to the contemporary reader of the original, is abandoned. In other words, the reader will miss the very experience aimed at by the author of the original. Such translations can not hope to achieve great success for, as Reuben A. Brower of Harvard has put it--

> The average reader of a translation in English wants to find the kind of experience which has become identified with "poetry" in his reading of English literature.[1]

The Problem of the Independent Importance of Form.-- de Saussure, as we have seen, claims that the connection of the signified to the signifier is purely arbitrary, that words, i.e., signs stand proxy as it were, for the concepts which they represent. This view has been challenged on several counts. Onomatopoeic words are but one example of an association between signified and signifier which does not seem to be arbitrary. In poetry other associations are also brought out. Sound imitation, not as a matter of using

[1]Reuben A. Brower, "Seven Agamemnons," On Translation, p. 173.

onomatopoetic words alone, but as a complex means of suggesting mood and imagery, is very often used in poetry (e.g., in the poems of Edgar Allan Poe).

Various literary critics have spent much effort in trying to classify the various meanings suggested by different sounds. However, their conclusions can usually be criticized as being merely subjective. Yet some, notably the association between high vowels (e and i) and thin, quick, clear and bright objects and, again, between low vowels (o and u) and clumsy, slow, dull and dark objects, have been experimentally proven.[1]

Recently it has been suggested that there exists some sort of universal phonetic symbolism. This hypothesis maintains that historically unrelated languages employ analogous phonetic contrasts in words whose referents differ in some quality such as size or color. When this hypothesis was tested experimentally it turned out that subjects were able to match pairs of similar words of English and one unfamiliar language with a significant degree of accuracy. They were unable to do such matching when confronted with two languages which were both unfamiliar to them.[2]

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[1] René Wellek and Austin Warren, Theory of Literature (New York: Harcourt, Brace and Co., 1942), p. 164.

[2] Herbert Rubenstein and Murray Aborn, "Psycholinguistics," Annual Review of Psychology, Vol. XI (1960), p. 292.

The idea that a word is nothing more than a proxy for its referent has been violently discarded by certain poets and literary critics, notably those associated with the Russian Formalist movement. This movement had its origins in Russia in the second decade of the present century, and later was continued in Prague.[1]

Their objection to this idea was part of their general objection to the old dichotomy of "content versus form," which cuts a work of art into two halves: a crude content and a superimposed purely external form. As René Wellek and Austin Warren point out in their description of the theories of the Russian Formalist movement,[2] the aesthetic effect of a work of art does not reside in what is commonly called its content. There are few works of art which are not ridiculous or meaningless in synopsis. But to distinguish between form as the factor aesthetically active and content as aesthetically indifferent, is hardly possible. At first sight it seems easy to do so. If we understand by content the ideas and emotions conveyed in a work of literature, the form would include all linguistic elements by which content is expressed. But on examining this distinction more closely, we see that content implies some elements of form. For example, the events told in a novel are part of the content,

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[1] Victor Erlich, "The Russian Formalist Movement," Partisan Review, Vol. XX, No. 3 (1953), pp. 282-296.

[2] Wellek and Warren, *op. cit.*, pp. 140-141.

while the way in which they are arranged into a "plot" is part of the form. Even in language, commonly considered part of the form, it is necessary to distinguish between words in themselves, aesthetically indifferent and the manner in which individual words make up units of sound and meaning, which is aesthetically effective. The formalists thus discard the old distinction between form and content and introduce two new terms: 'materials' and 'structures.' 'Materials' are the aesthetically indifferent elements including such things as were formerly considered part of the content and others formerly considered formal. 'Structure' is a concept including both content and form insofar as they are organized for aesthetic purposes.

Roman Jakobson, Professor of Slavic Languages at Harvard, who was one of the theoreticians of the Russian Formalist movement, wrote in 1933:

> The distinctive feature of poetry lies in the fact that a word is perceived as a word and not merely a proxy for the denoted object, or an outburst of emotion, that words and their arrangement, their meaning, their outward and inward form acquire weight and value of their own.[1]

Another theoretician of the movement, Boris Tomashevski, wrote in his Theory of Literature that poetic language is defined as "one of the linguistic systems, where the communicative function is relegated to the background and where verbal structures acquire autonomous value."[2]

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[1]Quoted by Erlich, loc. cit., p. 289.

[2]Ibid.

According to this theory, then, the problem of translation is to achieve a reproduction of the 'structure' of a work of art, which, involving as it does elements which have to do with the particular characteristics of the source language is especially difficult, if not impossible, to reproduce.

However, even without discarding the traditional dichotomy of form and content, as did the Russian Formalists, there remains the importance in poetry of such formal elements as euphony, rhythm and meter. The translation of these elements, or the achieving of their equivalence, causes the translator great difficulty, and only too often he is quite unable to overcome it.

Pragmatic Translation

As has been pointed out above, pragmatic translation is any activity of translation which has as its aim the reproduction of a message as accurately and as efficiently as possible, with no undue emphasis on the matter of form.

Eugene Nida, Bible translator and linguist, has defined translation as follows:

> translating consists of producing in the receptor language the closest natural equivalent of the message of the source language, first in meaning and secondly in style.[1]

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[1]Eugene A. Nida, "Principles of Translation as Exemplified by Bible Translating," On Translation, p. 19.

But even while disregarding form, or rather, not considering its reproduction as an important aim, the translator of pragmatic translations is still confronted with a number of grave problems.

Connotation and Denotation.--The associative load carried by words (which is part of their value in terms of la langue), often complicates translation even when it is done for pragmatic ends.

The followers of the school of General Samantics introduce the terms 'connotation' and 'denotation' in this connection. The term 'connotation' does in fact closely resemble de Saussure's term of 'value,' while denotation is the counterpart of 'signification.'

The General Semanticists, however, go further than merely stating the difference between the two terms. Parallel to Whorf's line of thinking, the adherents to the theory of General Semantics argue that forms taken by language tend in many cases to encourage certain patterns of thought and to discourage others. Moreover, the connotations appearing in language have at least as much part in the influencing of thought as do the denotations.[1]

Edmund Glenn, a translator and disciple of General Semantics, gives the following example of this process: The French word for taxpayer is contribuable; while the English

[1] Edmund Glenn, "Semantic Difficulties in International Communication," ETC, A Review of General Semantics, Vol. XI, No. 3 (1954), p. 179.

word 'taxpayer' evokes the image of man at a teller's window, the French word, according to him, evokes not an image but a thought--that all citizens must contribute to the welfare of the state.[1]

An additional complication is due to the fact that certain combinations of denotation present in one language are impossible in another language. Thus, for example, at a certain economic conference the Soviet delegation reacted very strongly to the wording of a certain proposal which included the term "expanding economy." This term was intended to convey the meaning of expansion both from within the economy and outward. However, according to Glenn, this phrase can only be translated into Russian by a phrase meaning "self-expanding economy," which, when applied to a capitalist economy can obviously not be endorsed by a Soviet delegate since it is contrary to Marxian theory.[2]

To describe a situation of this kind Edmund Glenn suggests the term _language differential in a bilingual situation_, which he defines as--

> the difference between the reactions of the speakers of the first language to what is said in their own language and the reactions of the speakers of the second language to what is said in their own language.[3]

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[1] _Ibid._, p. 165.

[2] _Ibid._, p. 166.

[3] Edmund Glenn, _ETC, A Review of General Semantics - Special Issue on Interpretation and Intercultural Communication_, Vol. XV, No. 2 (1957-58), Introduction, p. 87.

These differences in connotation, moreover, grow in proportion to the distance between the two cultures whose languages are involved.

The Problem of Diversity in Word Classes and in Grammatical Categories.--Different languages use different word classes to express certain ideas. That which in one language is described by a verb might be rendered by a noun in another language and similar differences exist with regard to adjectives and adverbs. This difficulty increases when the two languages, the source and the target language, do not belong to the same language families (e.g., in case of translation from an Indo-European language into an American Indian language).

The problem of grammatical categories is even more complicated. Eugene Nida lists the following situations which cause difficulties in translation:

(1) Instances in which the source language lacks information which is obligatory in the target language (e.g., in the Villa-Alta dialect of Zapotec it is obligatory to distinguish between actions which occur for the first time with particular participants and those which are repetitious).

(2) Instances in which information which is obligatory in the target language is obscure in the source language.

(3) Instances in which information which is obligatory in the target language is ambiguous in the source language.

(4) Instances in which information which must be made explicit in the target language is only implicit in the source language.

(5) Instances in which information which is explicit in the source language must be treated differently in the target language (e.g., in the case of translating from a language employing genders into a language such as English where all nouns are neuter).[1]

In the first four instances translation thus requires the supplying of additional information which, when the translator cannot supply on internal evidence of the text, he is forced to provide by guesswork. In the last instance there may be, on the contrary, an actual loss of information.

Linguistic Form and Semantic Function.--In addition to the problem caused by differences in grammatical categories, the translator is also faced by the difficulties which arise from a lack of forms having analogous semantic functions in the two languages concerned.

Such situations might, according to Nida, be caused by the following reasons:

(1) The non-existence of a term (and its corresponding referent) in the target language, but with an equivalent function being performed by another referent (e.g., in some languages there is no equivalent for snow, for such a

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[1]Nida, *op. cit.*, pp. 22-25.

phenomenon is outside the people's realm of experience--however the widely used equivalent used for "white as snow" is "white as the egret's feathers").

(2) The existence of the referent in the target language, but with a different function from what it has in the source language (e.g., in some languages "hard heart" is a symbol, not of unkindness but of courage).

(3) The non-existence of the referent in the target language and also of any other referent with a parallel function. In this case the desired information can only be conveyed through a commentary.[1]

Redundancy Resulting from the Use of Words with Wide Areas of Meaning.--If we should classify words according to their range of substitution we would soon discover a series of hierarchies, ranging from the most concrete "low level" vocabulary, i.e., words having the greatest specificity, to the most generic "high level" vocabulary, i.e., words having the greatest degree of generality.

For one thing, so-called synonyms in two languages do not always have the same position in the hierarchy described above. Some words possess a high degree of generality in one language while they are very specific in others. This is but another aspect of the problem of value, and serves to prove de Saussure's assertion that no two words in two languages

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[1]*Ibid.*, pp. 29-30.

can be synonymous in terms of their value.

Words with a wide range of generality cause translation difficulties on yet another count. This is a result from a tendency on the part of translators to use such words, often called "good terms," with great frequency. This, while convenient for the translator, often causes loss of information, for, as Eugene Nida points out:

> The wider the area of meaning of a word (in terms of the wider segment of experience covered by a term), the greater is the likelihood of its statistical frequency of occurrence. This . . . means that it tends to have a higher predictability of occurrence and hence greater redundancy. The greater the redundancy, the less the information carried by the unit in question. This means that a translation made up primarily of words with wide areas of meaning does not carry the load of information which is often presumed.[1]

Translation of Scientific Texts

Theodore Savory, an Englishman who is both an expert on language and a specialist on spiders, claims that--

> Scientific prose . . . almost alone among all the different categories of prose can be translated into languages other than the language in which it was first written, not merely satisfactorily but perfectly.[2]

The reasons for this, according to Savory, are as follows:

(1) The author of a scientific work rarely is confronted with the necessity of choosing between alternative expressions

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[1] *Ibid.*, p. 27.

[2] Theodore Savory, *The Language of Science* (London: André Deutsch, 1953), p. 113.

Ideally, there should be no alternatives, for his terms are prescribed by the terminology of his field of study.[1]

(2) The scientist-author is never concerned with the sound of his prose.[2]

(3) Scientific words seem to have a property which inhibits the formation of associations and they are emotionally neutral.[3]

Had Savory chosen to employ Saussurian terminology, he might have said merely that in scientific prose words are used exclusively in terms of their signification. Their interlingual synonymy is moreover warranted by the fact that they are employed within identical frames of reference, those of a well-defined field of science.

To prove his point about the possibility of perfect translation of scientific texts, Savory includes a series of translations from English into French and vice versa, done by different translators. He proves not only that it is impossible to distinguish between the original and a translation thereof, but also that two different translators can easily come up with almost identical versions. Moreover, he also shows that a translation back into English from the French translation of the English original can be almost

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[1] _Ibid._, p. 82.

[2] _Ibid._

[3] _Ibid._, p. 90.

identical with the original. From these examples Savory concludes that scientific prose provides translators with "the nearest possible approach to perfection of their craft."[1]

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[1] *Ibid.*, p. 119.

CHAPTER IV

THE APPLIED ASPECT (II): TECHNIQUES OF TRANSLATION AND INTERPRETATION

The Difference Between Translation and Interpretation

The term translation is used, in a general sense, to describe any activity which has as its aim to reproduce what is expressed in one language in another language. It decodes a message in language A and encodes it in language B.

Some languages, among them English, employ different terms for oral and written translation. For written translation, that is--the translation of a written text in writing--the term translation is preserved. Oral translation, that is--the oral rendering of a spoken message, is described by the term interpretation. A third form of translation which is used sometimes is the oral rendering in one language of a written text in another language. This kind of translation, which is sometimes referred to as 'translation at sight,' used to be much practiced for ritual purposes, in cases where the sacred text, not understood by the common people, was read out to them in their own idiom. One of the earliest references to translation found in the Bible is concerned with this kind of translation. When Ezra, soon after the return from Babylon, called an assembly of the people outside the walls of Jerusalem, he read to them from

the Bible translating each paragraph into Arameic, which was the spoken language.[1]

Translation and interpretation are employed for different purposes and their subject matter, too, is usually different as a result, although this is not necessarily so. Also, the techniques employed are different and so is the end result. While the translator has at his disposal all the time he may need and is free to consult dictionaries and reference books, the element of spontaneity is of supreme importance in the case of interpretation. The interpreter's rendition can not, as a result, be expected to match the accuracy of the translator's version.

While the subject matter of the translator ranges all the way from poetry and literature, through scientific material, to diplomatic, juridical and commercial documents, the interpreter, although not restricted to any special area, is in fact active only in the latter fields. His services are sought in situations where people speaking different languages confront each other either in individual meetings or within the framework of an international conference. In diplomatic meetings on the individual level interpreters are often used even where there is no real language barrier between the two parties. In such cases they are employed

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[1]Ezra, viii, i. This practice continued in the synagogues and it is believed that these oral translations into Arameic formed the basis for the written translation of the Bible into Arameic.

purely for the sake of decorum, their function being to establish the equal prestige of the languages used by the parties to the meeting.[1]

The interpreter's function is vital in international conferences. In order to interpret the various speeches made at a conference it is not enough merely to know the two languages--that in which the speech is made and that into which it is to be translated. The demands made on the interpreter are so exacting and require so much training that those who have mastered this technique have come to be considered as members of a special profession--the profession of conference interpreters.

Historically, conference interpreting made its appearance as a profession at the end of World War I, when French lost its prerogative of being the sole language of diplomatic negotiations and international gatherings started to use French and English concurrently. The first regular teams of interpreters were formed for the Paris Peace Conference, in 1919. In the years between the two world wars interpreters were required to work mostly in these two languages.[2] After World War II, several more languages won similar status and thus, for example, the United Nations and its affiliated organizations provide interpretations of their

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[1]Vossler, op. cit., pp. 176-77.

[2]Jean Herbert, The Interpreter's Handbook (Geneva: Librare de l'Université, Georg and Cie. S.A., 1952), p. 2.

proceedings in five languages: English, French, Russian, Spanish and Chinese.

Various Methods of Interpretation

Conference interpretation can be either simultaneous or consecutive. Interpretation is termed simultaneous when it is given simultaneously with the original speech. When it is given immediately after the speaker has completed his speech, or one part of it, it is called consecutive.

Jean Herbert, of the School of Interpreters of the University of Geneva, who was the first chief interpreter at the United Nations, writes that simultaneous interpretation can be accomplished by three methods:[1]

(1) Whispering: when the interpreter whispers into the ear of one or two delegates what is being said by the speaker.

(2) Telephonic simultaneous: when the interpreter, who generally himself listens to the original speech through earphones, speaks his interpretation into a microphone.

(3) Translation at sight: when the interpreter is given a written text which he has never seen before and, either directly or through a microphone, "reads" it aloud at normal reading speed in a language other than the one in which it was written.

Consecutive interpretation may be given either from the speaker's rostrum or from the floor or by telephone when

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[1] Ibid., pp. 7-10.

the same speech has to be translated into several languages.

Simultaneous interpretation is expected to render the whole of the original text. Consecutive interpretation, on the other hand, often renders only a resume of the original speech.

Simultaneous Interpretation.--From the point of view of the interpreter simultaneous interpretation is the more difficult of the two and requires a great deal more training.

At the School of Interpreters of the University of Geneva, which is the oldest school specializing in the training of interpreters,[1] the student first has to master translation, then consecutive interpretation and only in the third and last stage some of the students are trained in simultaneous interpretation. The great difficulty of this method lies in that the interpreter has to perform four operations at one time: listening (to the speaker), translating, speaking and listening (to himself while pronouncing the translation). While he is still translating one part of the sentence he already has to listen and mentally record the next one.[2]

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[1]Other well-known institutions in this field are The Institute of Languages and Linguistics at Georgetown University, Washington, D.C., and The School of Interpreters of the University of Mainz, West Germany.

[2]Gerard Ilg, L'Enseignement de l'Interpretation à l'École d'Interpréter de l'Université de Genève (Geneva, 1959), pp. 5-11.

Simultaneous interpretation has its origins in the early 1930's when, at a meeting of the International Chamber of Commerce in Washington, D.C. it was felt that much time was being wasted through the method of consecutive interpretation then in use. The possibility was then suggested of interpreting the proceedings simultaneously by means of "whispering interpretation," a method which had already been used on occasion in cases where only one or two participants of a meeting ignored the language in which the proceedings were being held. On the basis of this, attempts were made to devise a method which would make it possible for the interpreter to "whisper" his translation to many listeners at once. For this purpose he was seated beside the speaker, interpreting into a highly sensitive "whispering" microphone. However, when it became necessary to provide multilingual simultaneous interpretation, this method was no longer adequate. The International Business Machines Corporation thereupon developed a system designed to cope with the problem of simultaneous interpretation in several languages.

The method developed by IBM was first applied at the Nürenberg Trials.[1] It is estimated that it helped shorten the trials by about two years.[2] Later it was also used in

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[1]Simultaneous interpretation at this trial was organized by Dr. Leon Dorset, Director of the Institute of Languages and Linguistics, Georgetown University.

[2]United Nations, Department of Public Information, "Simultaneous Interpretation System" (Dittoed, May, 1957).

the Tokyo War Crimes Trial. Its success on these two occasions led to the decision to try it out in the United Nations. After a year of experimentation in different bodies of the world organization, the General Assembly of the United Nations decided to adopt the system of simultaneous interpretation for regular use.[1]

At the United Nations there are five official languages. Thus, while a speaker is delivering a speech in one of these languages his words are being interpreted at the same time into the other four languages. Each of the main conference and council rooms at the UN headquarters in New York, as well as in Geneva, is equipped with mechanical apparatus to provide simultaneous interpretation. Each delegate is equipped with earphones and a selecting switchboard which enables him to follow the debate in the language he understands best even when it is conducted in all five languages.[2]

Consecutive Interpretation.--Consecutive interpretation requires an entirely different technique from that of simultaneous interpretation. While in both methods the memory of the interpreter is of great importance, he can not, in the case of consecutive interpretation, rely on it solely.

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[1] *Ibid.*

[2] When it becomes necessary to word a final decision, made up from original sections in one language and amendments to it in several others, the UN resorts to the services of a special department which is in charge of terminology.

He must develop a system of note-taking which will enable him to remember the original discourse while translating it when the speaker is done. This system of note-taking is not to be confused with stenographic notation. Stenographic notation would of necessity lead to a word-by-word translation while the interpreter is deciphering his shorthand notes.[1]

As a rule, every interpreter develops his own system of note-taking, but there are some general rules. Most important--the interpreter is trained to take his notes in the same manner regardless from the source language or the language into which he is to translate. Visual symbols, such as descending and ascending arrows (for decrease or increase), symbols loaned from mathematics, from Chinese, and a variety of short and abbreviated words from different languages constitute the chore of this system of notation. Also, causative and other relations between parts of sentences are expressed through writing a group of words over another, parentheses and similar devices.[2] The main purpose of such systems of notation is to enable the interpreter to commit to writing ideas rather than words.

Intrepretation then differs from translation in the technique of reproducing what is said in one language in

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[1]Ilg, op. cit., pp. 2-3.

[2]Jean-François Rozan, La Prise de Notes en Interpretation Consecutive (Geneva: Libraire de l'Université, Georg and Cie, S.A., 1959).

another language. Insofar as its subject matter is limited, it is limited for technical reasons. The only area of translation which excludes oral interpretation almost completely, is that of literary translation. Technical and scientific material is often subject to interpretation in the course of scientific conferences. Diplomatic, juridical and commercial intercourse is equally subject to both translation and interpretation, depending on the form of the original message.

Dubbing

The translation of the dialogue in films is an area which has problems all of its own and cannot therefore be included in any other category. Such translation can be rendered either by means of subtitles or by dubbing, i.e., making an entirely new soundstrip in the language of the country where the film is shown.

Subtitling is obviously the cheaper method of the two, but it results in much abridged versions of the dialogue and also causes some discomfort to the viewers. As a result, dubbing is resorted to wherever the market is large enough to justify this expense. In English-speaking countries the problem of translating films is not of any great importance, but it is a serious problem in those countries which import a considerable part of the films shown on their screens and their televisions from abroad, notably from the United

States. In Italy and in Spain almost all foreign films are shown in dubbed versions, and so are a majority of those shown in France.[1]

Dubbing involves great difficulties of translation. The translator not only has to provide local equivalents for much of the colloquial and imdiomatic expressions of the original, but he also has to cope with the very difficult problem of synchronizing sound and image. His translation has to fit, both in length and in the required movements of the lips, the performance of the actors as projected on the screen.

Mechanical Translation

Mechanical translation (MT) is an interdisciplinary endeavour par excellence. Warren Weaver points out that

> students of language and the structure of languages, . . . logicians who program computers, electronic engineers who design and build them--and especially the rare individuals who share all of these talents and insights--are now engaged . . . [in this endeavour].[2]

The very idea of mechanical translation is based on the assumption of translatability in its strictest sense--the assumption that a one-to-one correspondence exists between

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[1]Cary, op. cit., p. 106.

[2]Warren Weaver, "The New Tower," Machine Translation of Languages, eds. William N. Locke and A. Donald Booth. (Published jointly by the Technology Press of MIT, John Wiley and Sons, Inc., New York, and Chapman and Hall, Ltd., London, 1955), Foreword, p. vii.

the language of the original text and that of the translation. Two specialists in the field, William Locke and Donald Booth, point out that if this assumption is correct

> it is possible to envisage a purely mechanical process--in the broad sense--which, if applied to the input text, will result in an output translation, and which, if reapplied to the translation, will reproduce the original input text.[1]

Historically, the idea that mechanical translation from one language into another might be feasible first arose in 1946 during discussions held between A. D. Booth and Warren Weaver on the possible applications of digital computers. At this stage the possibility of constructing a mechanical dictionary to aid human translators was envisaged.

Two years later this idea was supplemented by the suggestion that, by following certain rules of procedure in the decomposition of words of the input text "it would be possible to cause a purely automatic machine to add a set of grammatical notes to the bare dictionary stem renderings."[2]

Following a memorandum on the subject circulated by Warren Weaver in 1949, widespread interest in the possibilities of MT was kindled, and active research was undertaken.

In 1950 the idea of providing a pre-editor and a post-editor to work with the machine was suggested. However,

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[1]A. Donald Booth and William H. Locke, "Historical Introduction," _ibid_., p. 1.

[2]_Ibid_., p. 3.

the idea of pre-editing has been subsequently abandoned.

The first conference devoted to the subject of MT was held in 1952, at the Massachusetts Institute of Technology. The participants of this conference agreed that linguistic and computer techniques were sufficiently advanced to make possible studies of word frequencies and word translation studies in relation to particular languages and fields of study. Also, it was agreed to start the operational analysis of syntax with a view to programming in terms of machine operations.

The first practical demonstration of mechanical translation was held in 1954. The computer used was the IBM 701, general purpose computer, which was programmed, with the help of Dr. Leon Dorset of Georgetown University, to do translations into English of a number of Russian sentences, using a total vocabulary of 250 words.

According to Booth and Locke, researchers in the field of MT concentrate their efforts to solve the following five problems:

(1) The provision of adequate input-output facilities. At present adequate means are available for high-speed input of tapes to computers. The problem now is to achieve full automatization, i.e., a process whereby printed, handwritten or even spoken texts could be fed directly into the computer.

(2) The development of really large and cheap storage units to hold the "dictionary" and "grammar." In the machine

memory words are stored not in their original form but in coded patterns of electric or magnetic impulses, holes in tape, dark or light spots on film, etc. Adequate means have to be devised to make possible the storage of a great number of words. Moreover, the storage has to be so constructed that one or more output words would be associated with each input word, position of a word or group of words.

(3) The preparation of suitable dictionaries, perhaps specialized as to field. At present, most of the work in MT in the United States, is done in translation from Russian into English. To use MT for translation of texts in specific fields of research, special dictionaries of the relevant terminologies have to be compiled so that they can be stored in the computer. Moreover, if MT is to be employed for other languages as well, appropriate dictionaries have to be made for these too.

(4) The classification and analysis of inflectual endings. This has to be done so as to feed the "grammatical" part of the storage unit.

(5) The achievement of some form of adequate operational syntactic analysis. This is particularly difficult since it requires linguists to adopt a wholly new point of view, so that their analysis can be translated into a series of machine operations.[1]

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[1]Cf. *supra*, p. 51.

While some experts argue that literary masterpieces can never be translated mechanically, Booth and Locke hold the view that even the translation of poetry might ultimately be possible:

> A machine with a sufficiently extensive storage organ would be able to construct rhymes and rhythms and to relate these to the ideas contained in the original text, provided only that the necessary additional cues to sound, syllable structure and stress were provided in the memory with suitable routines for processing them.[1]

They also speculate that it might even be possible to envisage a machine with large enough storage to contain descriptive phrases relevant to what they call "the most standard literary situations."

> The act of 'translation' would then consist of identifying the _ideas_ contained in the original text and expressing _these_ in terms of stored phrases.[2]

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[1]Booth and Locke, _loc. cit._, p. 14.

[2]_Ibid_.

CHAPTER V

SUMMARY AND CONCLUSIONS

In the foregoing chapters the various problems of translation, both theoretical and practical, have been reviewed. It has been pointed out that while aesthetic translation offers the greatest difficulties of translation, no text, with the possible exception of scientific texts, is perfectly translatable. This conclusion would seem to be in contradiction to the fact that translation of all kinds, including aesthetic translation, is being constantly practiced, to an ever growing extent. This fact, however, proves only that the mediating function exercised by translation is indispensable in interlingual communication. It does not have any bearing on the theoretical assumption of translatability. What we have here is, in fact, an interesting situation where practice is divorced from theory, even to the point of contradiction.

In a way even Croce, who categorically denied the assumption of translatability, was faced with the problem of accounting for the fact that translations, even of works of poetry, are being made and even made with success. His solution to the problem was to define a good translation as a different and new aesthetic expression.

However, the growing volume of translation, or even the hypothetical possibility of achieving, by chance, a perfect aesthetic translation, do not constitute a proof of the assumption of translatability. This, in a way, is not even sufficient empirical proof, for, ultimately, there is no way of judging objectively whether or not a successful translation has been achieved. One can, in fact, never ask simply: Is this a good translation? All one can ask is, whether a translation achieves a certain purpose for a specific kind of person. Thus, while the translation of a scientific text can achieve its purpose even while it is deficient in style, the same cannot be said for a literary text, or even for a translation of an article in the daily press. Or, to take another example, when an anthropologist translates legends and folklore of a certain tribe--his purpose is to convey every possible shade of meaning and association, and to this end he is often ready to forego not only stylistic niceties but even the very coherence of his own version.

At the earlier stages in the development of mechanical translation, some researchers in the field believed that it would be sufficient, for purposes of scientific translation, to have the machine translate only the word roots, leaving the grammatical inflections in the original language. These word endings, they argued, could be easily learned and the time an effort gained by such a method would certainly

compensate the readers concerned for this inconvenience.
A text consisting of word roots in one language and inflections in another could hardly satisfy a reader who is looking for the niceties of language and style, but it might still be very useful to the scientist concerned who is only interested in the contents of the text and in getting this as quickly as possible.

A translation, then, has to be judged within the broader context of its purpose and of the audience for which it is intended. In other words, it can only be judged by functional criteria.

This, in a sense, is true of any form of communication, for the only means of finding out whether or not a message has been transferred from source to destination is judging by its effect on the recipient, as manifested in his reaction.

But, as has been pointed out, communication by means of translation differs from other communication in that an additional decoding-encoding unit is inserted into the communication channel. Moreover, in this additional unit there takes place a switching of codes; decoding is done in one code, i.e., one language, while encoding is done in a different code. Such a switching of codes might be likened to mechanical processes whereby, for example, sound is changed into electronic impulses. In this case the resulting loss or distortion of information might be described as due

to the "noise" of the communication channel. This might conceivably be the case with mechanical translation. However, insofar as the human translator is concerned, the switching of codes involved in the translation process is not purely mechanical. The translator's choice of equivalents is determined subjectively--or, to use Quine's term, by his own analytical hypotheses of translation. In this sense the translator's function can perhaps best be described by using the concept of gatekeeping.[1]

The translator is a gatekeeper not in the sense of saying "yes" or "no" to messages which come to him along the chain of communication. His function does not involve making choices as to what to pass on and what to suppress. But nevertheless, it is his personal decision which determines the form in which the message encoded by him is to travel along the communication chain. His position becomes one of supreme importance in those cases where, in a situation of face-to-face communication, his services are required in both directions--i.e., translating, or rather, interpreting what A says to B and vice versa. In this case, controlling the feedback as well as the original message, he is actually in a position to affect the entire process of communication. Many international misunderstandings can be traced to just

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[1]Wilbur Schramm, "The Gatekeeper: A Memorandum," Mass Communications. Ed. Wilbur Schramm (Urbana: University of Illinois Press, 1960), pp. 175-77.

such a situation where, through faulty translation, the parties concerned were unable to achieve communication.

Throughout this paper the assumption has been made that the translator is concerned, in good faith with achieving the best possible version of the original. This, in fact, is a basic ethical demand of his profession. However, the possibilities of intentional distortion, affected in the process of switching codes and thus subtly camouflaged, are very great, and are often made use of in practice. The study of such misuse of translation does not lie within the scope of the present paper, however. It should be emphasized that distortions occur even in the case of translations rendered in perfectly good faith. In this sense the propagators of an international language are probably right when they argue that no true international understanding is possible as long as communication has to take place across a barrier of language.

Mechanical translation, eliminating the human agent together with his ingrained biases or subjective hypotheses of translation, might perhaps afford an alternative solution. But this would be the case only when this method is developed beyond the stage where it is effective only in those areas where its very success depends on the use of univalent terms in a well-defined and narrow context.

Short of an international language or a highly developed method of mechanical translation, the only practical solution to the problem of communication through

the language barrier seems to lie in perfecting the art of translation, in spite of the serious theoretical problems involved.

Human translation being an individual activity, performed according to the translator's own disposition to translate and his own set of analytical hypotheses, it is difficult to set down hard and fast rules about translation. There are, however, some general principles about which there is more or less general agreement among translators.

Portasio Maymi, a graduate student at the University of Washington and himself a translator of many years experience, sent out questionnaires to a number of experienced translators in an effort to establish what principles of translation are most commonly accepted by members of the profession.[1] He found significant agreement among the respondents on some 30 principles of translation, most important among which were the following:

(1) The principle of accuracy.--A translator should give an accurate transcript of the substance of the original.

(2) The principle of adaptation.--A translation made impossible by the nature of the language or the subject should be accomplished by the process of adaptation.

(3) The principle of completeness.--The translation should provide a complete transcription of the substance of the

[1]Portasio Maymi, "General Concepts or Laws in Translation," Modern Language Journal, Vol. XL (1956), pp. 13-21.

original.

(4) The principle of grammatical variation.--Translation necessarily requires grammatical variations, involving parts of speech and syntactical structures, from the forms peculiar to the original language to other forms typical of the language of rendition.

(5) The principle of idiomatic quality.--A translation should follow the idiomatic patterns of the language into which the rendition is made.

(6) The principle of style.--A translation should reproduce the style of the original as closely as permitted by the idiom of the language of rendition.

A method often used in practice in order to eliminate distortions and misunderstandings resulting from faulty translation, is the use of double or even triple translation, i.e., having the same text translated by two or more independent translators and then combining their versions. Such a method has been used, for example, in the course of international opinion surveys, where clear and unambiguous questions were of supreme importance.[1]

Another, rather intricate method of translation is that of multiple-stage translation, suggested by the American linguist C. F. Voegelin, for the purpose of translating texts

[1] Max Barioux, "Techniques Used in France," Public Opinion Quarterly, Vol. XII (1948), pp. 715-18.

from American-Indian languages.[1] This method is designed to improve translation by having the translator proceed in stages, eliminating a particular difficulty of semantics or syntax at each stage of translation. Thus, at one stage the translator copes only with semantic problems, while at a later stage he solves those of syntax, and so on.

The systematic training of translators in methods and techniques of translation is possible in spite of the fact that translation depends ultimately on the individual's own manner of solving the problems of translation.

Also, it must be realized that the translator, and the interpreter in particular, is not just a person who happens to have proficient knowledge of two languages. In recent years the professional standing of the translator has been strengthened by the formation of professional unions of translators in various countries, and also of an international federation of translators (FIT). These organizations are concerned not only with the economic aspects of the translator's trade and with the ethics of the profession, but also attempt to improve its standards of performance.

Another indication of the professional status of translation is the fact that nowadays translation and interpretation are being taught in institutions of higher learning.

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[1] C. F. Voegelin, "Multiple Stage Translation," International Journal of American Linguistics, Vol. XX (1954), pp. 271-80.

The first institution of this kind--the School of Interpreters of the University of Geneva, was established less than twenty years ago. Since then other schools have been founded, the most important of which are the Institute of Language and Linguistics at Georgetown University, Washington, D. C., and the School of Interpreters of the University of Mainz, Western Germany.

This process of professionalization is in fact similar to what has been happening in other areas of mass communications. Similarly, it is the result of two interdependent factors: A growing realization of the need for improving the standards of performance, and a growing market demand for the services of the translator.

In the last twelve years, for example, the volume of translations published in book form has grown by 350%, and the number of countries in which translations are published has been doubled. In some fields the figures indicate an even greater rate of growth. Thus, translations of works in natural and exact sciences have increased by 900% during this period, while works of applied science have increased by 700% and the translation of works on law, social sciences and education has grown by 500%.[1] Published translations in these fields, moreover, constitute only a part of the total translation activity going on in the world. Most translations

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[1]See Appendix, Table 2.

of scientific papers are never published in book form, but only circulated in various other methods among scientists.

In the mass media too, the need for translation is ever growing. Dubbing of films and foreign language radio broadcasts are outstanding examples of the use of translation in the mass media. Hundreds of films are dubbed yearly in Italy, France and Spain, and a considerable part of the television shows screened in Western Germany are dubbed versions of American shows. International broadcasting has come to be regarded as the principal tool by countries seeking to speak directly to each other. Hundreds of transmitters pour out thousands of hours of programmes every week directed at every corner of the globe and broadcast in almost every language and in a great many dialects.[1] A considerable part of these broadcasts consists of translated fare. The Voice of America, for example, broadcasts in 41 languages, an average 128 hours a day. In 1956 the daily average of the U.S.S.R. exceeded 100 hours, and that of the United Kingdom was higher than 80.[2] For various reasons, partly of technical nature, international broadcasting consists mainly of spoken programmes, in the preparation of which the services of the translator are altogether

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[1]George A. Codding, Jr., Broadcasting Without Barriers (UNESCO, 1959), p. 59.

[2]Ibid., p. 60.

indispensable. Translators are also employed for purposes of monitoring the broadcasts of the various broadcasting stations. Thus, for example, the BBC has a monitoring service reporting foreign broadcasts throughout the world in 50 languages.[1]

The need for the services of the conference interpreter is also constantly growing as the number of international organizations increases and their meetings become more frequent.

The professional training of the translator thus involves not only general techniques of translation and interpretation but also a great deal of specialization according to the various subject areas.

The great increase in the volume of translation and the growing need for professional translators are recent developments. The theoretical aspects of the translation process have, so far, not been treated comprehensively and systematically. Nor has there been much research in this area. If this paper should, in any way, serve to emphasize the need for such treatment of the subject of translation, possibly within the wider framework of communication research, the writer would feel amply rewarded.

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[1] *Ibid.*, p. 63.

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APPENDIX

STATISTICAL INFORMATION ON THE PUBLICATION OF TRANSLATIONS

The following tables are based on Index Translationum,[1] a yearly publication now compiled by UNESCO, listing all the translations published in various countries each year. The material included in each volume lists, as a rule, the publications which have appeared two years before. Thus, for example, Vol. XII (1961), lists the publications of 1959. The Index only includes translations which have appeared in book form.

Table 1, based on Vol. XII (1961) includes information arranged by subject matter and country of publication, on all the translations which have been published in 1959.

Table 2, is based on Vols. I-XII (1949-1961) of the Index Translationum. It is arranged by year (of publication of the index) and subject matter, and also includes a column showing the number of countries included in the Index each year. The purpose of this table is to demonstrate the growth in the volume of translation which has taken place in the last twelve years.

Tables 3 and 4, are based on the pre-war editions of the Index Translationum, which were published by the International Institute of Intellectual Cooperation of the League of Nations. This publication appeared four times yearly.

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[1] Index Translationum, Paris, UNESCO.

Table 3, based on the July, 1939 edition of the Index, shows the total number of translations published in 14 countries during the year 1938. Table 4, based on the very first number of the publication (July, 1932), includes information for the year 1932.

In Tables 1 and 2, the subject matter of the translations is divided into 10 categories, designated as follows:

0 - General, bibliography or subjects not fitting other categories

1 - Philosophy, including Psychology

2 - Religion and Theology

3 - Law, Social Sciences and Education

4 - Philology and Languages

5 - Natural and Exact Sciences

6 - Applied Sciences

7 - Arts, Games and Sports

8 - Literature, including books for children

9 - History, Geography and Biography

The countries of publication are listed according to the alphabetical order of their names in French.

TABLE 1

TRANSLATIONS PUBLISHED IN 1959 BY COUNTRY AND SUBJECT*

Country	0	1	2	3	4	5	6	7	8	9	Total
Albania	-	-	-	4	-	-	-	-	41	-	45
Germany	4	81	160	113	3	89	74	87	1280	177	2068
Andorra	-	3	18	3	-	-	1	2	-	-	27
Argentina	1	35	12	60	2	12	18	16	173	44	373
Australia	-	-	6	-	-	-	-	-	1	-	7
Austria	-	1	13	-	-	3	5	-	75	10	107
Belgium	6	41	142	33	5	51	57	52	747	114	1248
Bolivia	-	-	-	-	-	-	-	-	-	1	1
Brazil	3	45	51	80	-	37	38	5	175	67	501
Bulgaria	1	20	10	130	-	33	100	25	218	32	569
Cameroon	-	-	1	-	-	-	-	-	-	-	1
Canada	-	1	16	2	-	1	-	-	10	5	35
Ceylon	-	-	4	6	1	10	3	1	39	14	78
Chile	-	1	3	6	-	-	-	-	28	7	45
Rep. of China	1	6	12	22	-	6	3	4	27	15	96
Colombia	1	-	-	-	-	-	-	-	-	1	2
Rep. of Korea	1	47	16	58	3	7	16	2	153	19	322
Cuba	1	1	-	-	-	-	-	-	1	-	3
Denmark	4	13	30	7	-	17	17	30	606	85	809
Spain	-	57	148	85	5	45	121	39	589	120	1209
U.S.A.	4	56	207	75	4	83	67	85	346	186	1113
Ethiopia	-	-	6	1	-	-	-	-	2	-	9
Finland	4	10	45	8	-	18	40	18	93	50	586
France	5	86	140	57	-	76	91	48	807	152	1462
Ghana	-	-	-	-	-	-	-	-	-	-	0
Greece	1	6	9	11	-	2	8	6	41	22	106
Guatemala	-	-	-	1	-	-	-	-	-	-	1
Haiti	-	-	1	-	-	-	-	-	-	-	1

*Index Translationum, Vol. XII (Paris: UNESCO, 1961).

TABLE 1--Continued

Country	0	1	2	3	4	5	6	7	8	9	Total
Hungary	-	7	4	15	-	10	18	4	292	23	373
India	2	21	92	60	5	24	28	4	338	109	683
Indonesia	1	2	7	9	-	6	3	1	3	9	41
Iran	-	4	1	3	-	2	6	1	42	18	77
Ireland	-	-	12	-	-	-	1	-	1	5	19
Iceland	-	3	-	3	-	3	2	3	98	14	126
Israel	5	17	43	106	5	23	23	43	287	103	655
Italy	1	85	123	77	-	49	87	53	603	143	1230
Japan	-	62	39	179	26	72	83	43	560	65	1129
Liberia	-	-	4	-	-	-	-	-	-	-	4
Luxembourg	-	-	-	-	-	-	-	-	-	1	1
Morocco	-	-	-	-	-	-	-	-	-	1	1
Mexico	-	-	7	5	-	-	-	1	-	6	19
Monaco	-	2	-	-	-	-	-	-	2	-	4
Norway	-	1	26	6	-	5	15	4	492	62	611
New Zealand	-	-	-	-	-	-	-	-	1	-	1
Netherlands	-	49	90	33	1	37	32	41	820	124	1227
Panama	-	-	1	-	-	-	-	-	-	1	2
Peru	-	-	2	-	-	-	-	1	-	-	3
Philippines	-	-	5	-	-	-	-	-	-	-	5
Poland	-	19	34	110	-	43	68	23	357	38	692
Portugal	-	27	66	10	-	8	10	5	663	54	843
U.A.R.											
Egyp. Prov.	5	30	6	34	1	11	12	5	122	38	(264)
Syr. "	1	2	-	-	-	1	1	-	1	2	(8)
Rumania	5	6	6	109	-	35	79	8	195	18	461
United Kingdom	2	16	126	35	2	50	46	75	276	122	752
Holy See	-	-	1	-	-	-	-	-	-	-	1
Sweden	2	13	35	16	5	23	71	26	745	86	1022
Switzerland	1	19	62	42	-	11	32	52	269	79	567

TABLE 1--Continued

Country	0	1	2	3	4	5	6	7	8	9	Total
Czechoslovakia											
Ces.	-	13	9	152	1	41	85	49	527	42	(19)
Slov.	3	4	2	70	5	101	90	12	218	29	(534)
Turkey	4	13	16	30	-	14	41	12	238	13	381
U.S.S.R.	16	90	54	876	2	318	726	79	2763	328	5254
Union of South Africa	-	-	4	-	-	-	-	-	10	3	17
Viet Nam	-	1	2	10	-	-	-	-	44	1	59
Yemen	-	-	-	-	-	-	-	-	-	-	0
Yugoslavia	2	22	13	162	2	29	60	36	493	33	352
TOTAL	87	1038	1953	2916	78	1406	2279	1001	16,213	2691	29,661

TABLE 2

TOTAL TRANSLATIONS PUBLISHED YEARLY 1949-1961 (BY SUBJECT)[a]

Year[b]	0	1	2	3	4	5	6	7	8	9	Total	Number of Countries Incl.
1949	61	358	713	576	18	159	326	224	5,122	1014	8,570	26
1950	57	494	660	1055	20	363	599	317	5,426	1023	10,014	32
1951	80	610	801	2001	67	608	927	381	6,778	1263	13,516	34
1952	110	639	1007	2123	39	607	1393	530	9,721	1665	17,884	44
1953	63	731	1028	1831	44	669	1337	441	8,467	1520	16,130	49
1954	81	783	1097	1886	40	709	1561	680	9,659	1643	18,139	47
1956	100	768	1279	2415	41	748	1797	769	11,603	2156	21,676	48
1957	83	762	1353	2576	56	1109	2463	960	12,420	2492	24,274	51
1958	118	857	1329	3211	58	1170	2558	1004	14,692	2620	27,617	52
1959	118	912	1421	2900	71	1241	2277	881	15,407	2730	27,978	65
1960	84	953	1863	2579	88	1316	2354	1012	16,293	2671	29,213	64
1961	87	1038	1953	2916	78	1406	2279	1001	16,213	2691	29,661	63

[a] According to <u>Index Translationum</u>, Vol. I-XII.

[b] No Index appeared in the year 1955.

TABLE 3

TRANSLATIONS PUBLISHED IN 1938 (BY COUNTRY)*

Country	Translations
Germany	730
Denmark	234
U.S.A.	317
France	782
Britain	317
Hungary	315
Italy	763
Norway	251
Netherlands	557
Poland	640
Rumania	121
Sweden	372
Czechoslovakia	697
U.S.S.R.	364
TOTAL	6460

*Index Translationum, No. 29, July, 1939 (Paris: International Institute of Intellectual Cooperation).

TABLE 4

TRANSLATIONS PUBLISHED IN 1932 (BY COUNTRY)*

Country	Translations
Germany	103
Spain	142
U.S.A.	108
France	224
Britain	110
Italy	228
TOTAL	915

*Index Translationum, No. 1, July, 1932 (Paris: International Institute of Intellectual Cooperation).