Introduction

In the history of the International Auxiliary Language Association — and of the auxiliary-language movement as a whole — the publication of the Interlingua-English Dictionary marks an important step ahead. We do not present it to the world as an inspired new departure, a cure-all, if it were generally accepted, for every ill resulting from the confusion of tongues. We merely claim to have "summarized the past" by producing for the first time a dictionary of the international language, based on a rigorously consistent and scientifically exact application of the one fundamental idea adhered to by most interlinguists of the past three quarters of a century. We share with our predecessors the view that the world need not wait for the creator of an ideal universal tongue because it is a fact that the international language exists potentially in the common elements of the speech forms of huge segments of civilized mankind. On this fact we have based the principles and rules and the devices which have governed the making of the Interlingua-English Dictionary.

Our efforts are so clearly connected with those of our predecessors that it is both impossible and superfluous to acknowledge in detail our indebtedness to them. We do not present a new work detached and distinguished from theirs but rather the common answer to our quest and theirs for a standard presentation of the international vocabulary. If we have been successful in this, the lasting significance of our work is assured. The practical interlinguist will be struck by the fact that this volume contains no proposal for a grammatical system to operate the international vocabulary nor a section which supplements the Interlingua-English Dictionary by leading into the international vocabulary from English. The demand for these and similar additional tool publications is legitimate, but it can only be fulfilled on the basis of a systematic recording of the international vocabulary. To furnish such a basis, to represent such a systematic recording, is the purpose and aim of this Dictionary. In it the international vocabulary, which numerous interlinguistic systems have used, are using, and will use in various ways and to various degrees of consistency, appears now at last in a methodical assembly ready to serve interlinguists of all schools in their various needs and likewise to form the standard and norm of future complementary and specialized publications—grammars, dictionaries, and handbooks in various languages concerned with various forms of the interlingua.

As a summary account of the whence and wherefore of the Dictionary, the following material is organized under several heads. The first section, "Theory and Principles," discusses the objective data which have determined our approach. It is a restatement of the considerations and conclusions which have guided most interlinguists since the time of Dr. Zamenhof's original conception of Esperanto.

The second section, "Method and Techniques," constitutes a practical laboratory manual and offers a description of the procedure followed in gathering and arranging the material included in the Dictionary.

The international vocabulary is as much subject to further growth as are the vocabularies of all national languages, but its future problems must not be left to depend on subjective decisions. Their solution must result from the application of a specific technique to whatever the international linguistic facts may be. Thus the methodological section is to serve simultaneously the normative functions which in similar cases under different conditions are vested in linguistic academies.

The concluding sections represent a user's guide and show the machinery of the Dictionary in operation.

Theory & Principles

International Languages

In modern times protagonists of the idea of a neutral auxiliary language have come to rely less and less on arbitrary devices. They have been restricting their endeavors more and more consciously to the arrangement and processing of words and rules of grammar which they have culled from existing natural languages. These words and rules — so the argument seems to run — need not be introduced from scratch; they are and have been in practical use. No one can doubt their qualifications to serve efficiently and well.

This trend no doubt has played into the hands of those who advocate the adoption of one of the major existing languages as the most promising choice for a universal auxiliary language. To a certain extent their proposals might seem to agree with the lessons of the history of interlinguistics and auxiliary languages in general. However, that history tells us also that no national language has ever been used for auxiliary purposes unless its native speakers had established themselves as a people in a position of political or cultural hegemony. A national language used as a secondary world language implies on the part of its speakers a claim to universal superiority, and no people is in a position to make such a claim and force all parties concerned to agree.

Secondary or auxiliary languages are a very old and very common phenomenon. Late Greek served as one. As such it was particularly important since the New Testament was written and propagated in it. The case of medieval Latin is very similar and so, albeit in different fields and on different levels, are the examples of contemporary Pidgin English, of Swahili or Kiswahili in East Africa, of Hindustani, Mandarin Chinese, and of literally dozens of other so-called lingua francas. None of these, however, was a man-made auxiliary language, and no man-made auxiliary language has ever equaled the least of them in practical everyday importance.

Extranational languages have never attained their range as the result of man's desire to understand his neighbors across the border and to avoid or overcome friction, war, and hatred, which are often regarded as unavoidable results of our numerous language borders. Actually languages of more than nationally restricted use have always been established in their role as secondary or auxiliary languages in foreign parts by potent needs either of a purely utilitarian or of a generally cultural kind.

In one way or another these languages were connected or actually identified with an "expansive movement" which promoted them as in turn they served and promoted it.

Medieval Latin, to mention but one example, owed its wide range to the missionary "dynamism" of the Church, while the Church, in turn, could not have accomplished its task without the universality of its language.

These data may justify the generalization that no secondary auxiliary language of major or minor scope has ever been accepted and used if in back of it there was not a specific force which promoted it because it needed it as a practical tool.

Applied to the problem of a modern auxiliary world language, this means that either the modern world can claim to have initiated an expansive movement of the kind alluded to in which case the modern world must already have a language of its own that cannot and need not be superseded by a product of man's making — or there is no such movement — in which case all our efforts to establish a universal auxiliary language are a clear waste of time and energy because none can exist.

The first of these alternatives is right. The modern world is pervaded in all its parts and phases by a powerful influence which has reduced

the vastness of the globe to a matter of hours and has diffused things and ideas and problems to every corner of every continent. If one simple label is wanted to designate the force responsible for all the good and all the evil that distinguishes our contemporary world from that of centuries past, we may call it the power of science and technology. But if we go on to ask, has not this world-wide sweep of science and technology carried with it to all corners of the world a language of its own, somewhat in the manner of the medieval Church of Rome which took its Latin language with it wherever it brought its expansive influence to bear, the answer is a peculiarly hesitant one. Yes, in a way there is such a language. We often speak of the language of science and technology. But if this is to lead to the conclusion that that language should then be regarded as the one and only possible auxiliary world language of modern times, we suddenly realize that the language of science and technology is no language in the full sense of the word but at best a vast body of international terms and phrases which appear in our various languages under a corresponding number of slightly varying forms.

Unfortunately we must not analyze further the fascinating suggestion that it is perhaps quite natural that science and technology should be incapable of going beyond the world-wide diffusion of a vast number of specifically technical terms and of evolving from them a full-fledged language, because this inability may very well be correlated with the fact that the world of science and technology is one of discrete ideas which do not fall into a complete and coherent pattern, or in other words, that the "language" of science and technology is not really a language because the thought of science and technology is not really a philosophy.

In interlinguistic terms all this means that even though the "language" of science and technology is not a full-fledged language, even though it can supply us only with a vast number of words and phrases of international validity in various peculiarly national but easily recognizable forms, it does represent a nucleus of a complete language. It does represent fragments of the only international language we have. And the task of the practical interlinguist turns out to be the selection and arrangement of international words and subsequently their expansion into a fully developed language - a language, of course, which, though it may have its base and its *raison d'être* in the vast domain of technological data, will draw on and cover the arts and all other human endeavors down to the most humble concerns of our daily lives.

International Words

In the widest sense, an international word is a word which occurs in more than one national language. The German words *Haus* and *Automobil*, for example, are identical with the English words *house* and *automobile* despite slight differences in spelling and pronunciation. Their meanings are of course essential parts of them. If they were semantically distinct, as are English *also* and German *also* for example, they could not be viewed as identical words.

There are two types of international words. German and English *Haus* and *house* represent a type which owes its international range to the common descent of two or more languages; words of this type are international by cognateship in the restricted sense of the term. On the other hand, the internationalism of German and English *Automobil* and *automobile* is due to the transition of words from one language to another; words of this type, though sometimes loosely called cognates, should be distinguished as international by loan and diffusion.

In its most comprehensive sense, the term "international word" would take in a huge number of words which occur in but a very few languages of minor significance. International words differ strikingly in their range. From a practical point of view only those international words need be considered which have a fairly wide range of occurrence throughout the regions of the world inhabited by peoples who participate in international intercourse and are consequently apt to take an interest in its simplification.

If international words differ as to their range, they may likewise be grouped as to their language of origin or "center of radiation." There are important and unimportant centers of radiation, and words of wide international range spring from either.

The word *igloo* for instance has a very respectable range. It occurs in Eskimo, English, French, Russian, and in many other languages. But Eskimo, from which the word stems, is not therefore a significant center of radiation.

Such minor "centers of radiation" can be disregarded without a resulting loss of important items in the international vocabulary provided it be ascertained that the possible contributions of every disregarded center come into consideration elsewhere. Neglecting the Eskimo center of radiation will not imply the loss of the international word *igloo,* if English, Russian, French, or any of the other languages which know the word, are kept under observation.

The restriction of the number of languages examined with regard to their stock of international words does not imply the exclusion of international words of all sorts of remote origins from the resulting list.

For practical reasons the sphere in which "international words" are to be collected must be restricted, but the purpose of getting together the most generally international vocabulary possible can best be served if the restricted sphere fulfills two requirements: first, it must be a powerful center of radiation of international words, one that has contributed largely to the stock of international words throughout the rest of the world; secondly, it must have a high degree of receptivity with regard to the material radiating from other languages.

As for the second of these requirements, English represents a well-nigh ideal fulfillment of it. Hardly another language can compete with English in its "receptive power." Indeed, a list of words of wide international range outside the orbit of English would include few important groups with the possible exception of a fairly substantial vocabulary "radiated" from the Islamic world to Spain, Eastern Europe, and parts of Asia but not to the English-speaking world.

The first requirement, concerned with the power of radiation of international words, is a more complex matter. There is no one language that stands as far above all others in regard to the bulk of its contributions to the international vocabulary as does English in regard to its ability to assimilate foreign words.

The most important group of international words is doubtless the body of technical terms in science and technology. In the large majority of cases the international technical terminology is built up of Latin and Greek or Greco-Latin elements. It is not on the whole the contribution of any one language, not even of Greek and Latin taken together, for it includes a considerable number of terms which, though consisting of classical elements, were completely unknown to the native speakers of both the classical languages. Socrates spoke Greek all through his life but he never used the telephone and did not know that the word for it comes from his mother tongue.

Words of this type may be grouped under the head of their common origin in a kind of theoretical Neo-Latin which is not spoken anywhere but appears unfolded in the several contemporary Romance languages. Taken as a group and viewed as joint executors of the Latin heritage and hence as representing most fully the Neo-Latin source of most of the international technical vocabulary, the Romance languages are the most potent center of radiation of international words.

Variants and Their Prototypes

The determination of what words are to be regarded as part of the international vocabulary is one thing; the determination of the forms under which they are to be listed is another. The language of origin of a given international word cannot help solve this problem. For instance, the German word Statistik and the English word penicillin (they are German and English in origin) would, if spelled Statistik and penicillin as items in a list of words of wide international range, still be German and English and not "international." Their forms must be "internationalized," that is, be normalized or standardized on the basis of the variants under which they occur in the national languages. The resulting prototypes are neither English nor German, not Latin or Greek, neither this language nor that, but in them the variants occurring in this language as well as in that can immediately be recognized. Neither German Statistik nor of course English statistics or French statistique can qualify as an international form. In the international vocabulary the word must be represented by a form of which Statistik and statistics as well as statistique are variants determined by idiosyncratic peculiarities characteristic of German, English, and French respectively.

The process of viewing together the variant forms of international words in order to arrive at normalized, or standardized, prototypes cannot comply with a verifiable methodology applicable to ever new cases, unless the variants themselves, and hence the languages to which they belong, have a common basis in which the principles of normalization or standardization may be rooted.

The Romance languages do have such a common basis in Latin. They represent furthermore the most potent center of radiation of international words and are thus on two important counts a research sphere in which the garnering of international words appears to be most promising.

Source or Control Languages

English answers most fully the requirement of receptive power in regard to international words of foreign origin. The Romance languages comply best with the requirement of productive radiation of international words. The best restricted sphere of languages in which to carry out a systematic collection of international words is consequently a combination of English and the Romance languages. We refer to these languages variously as source or control languages.

The inclusion of English does not interfere with the desideratum that the languages to be scrutinized for the compilation of the international vocabulary should be possessed of a common basis. English does share the basis which holds the Romance languages together. Its vocabulary is so strongly romanic that in this respect - whatever the situation may be in other respects - it is a Romance language.

The Anglo-Romance group of languages can boast an aggregate of close to half a billion speakers. This quarter of mankind includes no considerable ethnic group uninvolved or uninterested in international concerns. Nor, to be sure, does it include all the populations of the globe that are involved and interested in international concerns but certainly most of them.

A few examples may serve to show that the Anglo-Romance group of languages does constitute a sphere of source languages in which international words of the most varied origins can be gathered. The Hebrew word for "hell," *G Hinnm*, is widely international, but to get it into the international vocabulary, Hebrew need not be investigated for the word appears in English as *Gehenna*, in Spanish as *gehena*, in Italian as *geenna*. The Arabic word which appears in English as *alcove* can likewise be garnered in the restricted sphere, for it appears in Italian and Portuguese as *alcova*, in Spanish as *alcoba*, and in French as *alcove*. An example of an international word of Russian origin is that appearing in English as *mammoth*, in French as *mammouth*, in Spanish as *mamat*, and in Italian as *mammut*. A German example is English *feldspar*, French *feldspath*, Italian *feldispato*, Spanish *feldespato*.

The reasoning in favor of a restricted sphere of assemblage of international words does not preclude the possibility of shifting its boundaries in the interest of a richer haul. In lieu of one or two of the languages of the Anglo-Romance group one or two other languages of at least equal significance in the international field may be included, provided, of course, that the items examined are still held together by a common basis, which means, that their center of gravity remains in the Anglo-Romance sphere. In the compilation of this Dictionary the sphere of research has been permitted to shift only so as to include German or Russian or both. The decision not to use the same procedure for other languages was reached after ample tests had demonstrated that the consequent complication of our methodology would not have affected the results in any appreciable way.

Summary

Of all languages that ever attained more than national usefulness it can be said that they were carried beyond their original confines by an expansive cultural or utilitarian dynamism. They functioned as indispensable cultural or utilitarian tools. Modern internationalism is largely conditioned by science and technology in the most comprehensive sense. The language of science and technology is the modern international language or interlingua. It is not, strictly speaking, a complete language but is rather a very comprehensive body of international terms which constitute the nucleus of an interlingua. The international vocabulary has absorbed materials of the most varied origins but its center of gravity lies in the sphere of the Greco-Latin tradition. It can be collected within the confines of a homogeneous group of source or control languages which not only represent the Greco-Latin tradition in our time but have likewise absorbed all significant international words radiated from other centers. This group is the Anglo-Romance group of languages with German and Russian as potential contributors.

METHOD AND TECHNIQUES

Eligibility of International Words

Words are eligible in the international vocabulary if they have currency throughout the Anglo-Romance sphere of languages. The language units to be examined individually are Italian, French, English, and Spanish and Portuguese combined. The combination of the two Iberian languages is indicated not because their separate importance could be doubted but because their significance in the pattern of the Romance languages is similar. The absence of a word from the vocabulary of one of the units listed is often a coincidence which cannot suffice to bar it from the international vocabulary. German or Russian may take the place of any of the Anglo-Romance source units. In sum, a preliminary formulation of the criterion of internationality runs as follows: A word is to be accepted as international when its presence is attested - in corresponding forms and with corresponding meanings - in at least three of the language units, Italian, Spanish and/or Portuguese, French and English, with German and Russian as possible substitutes.

The practical application of this rule encounters a number of specific problems.

1. The decision as to whether a word exists in a given language is not always a clear and simple matter. It is neither possible to limit oneself to the listings found in a set of chosen dictionaries nor to consider every obscure entry in the most exhaustive compilations. Technical terms should be looked for in technical dictionaries while everyday expressions should be traced in average dictionaries of the everyday language. Furthermore, the investigation cannot in all instances be limited to the current modern vocabulary. For instance, while the modern French word *tuer* 'to kill' shows no relationship to the Italian word *uccidere* of the same meaning, there are traces in French of the older *occire*, and even in Spanish, whose normal word for 'to kill' is *matar*, an old verb corresponding with Italian *uccidere* and French *occire* has survived at least in the participial form *occiso*. In this case — and similarly in similar ones — one may reason that hidden behind, and represented by, *tuer* and *matar* there are older forms corresponding with Italian *uccidere*, so that the requirements of internationality are fulfilled in regard to a word for 'to kill' which corresponds directly to Latin *occidere*.

   Carried to its extreme conclusions this procedure justifies the inclusion in the international vocabulary of words corresponding with all Latin terms provided their concepts appear in one form or another in the modern languages. At first glance so broad an interpretation of the rule of modern internationality of words might seem arbitrary. Upon closer examination, however, one is struck by the fact that the languages of the Western World are all in the habit of having recourse to classical and predominantly Latin word material whenever new expressions are to be coined, as well in cases where new ideas, facts, and things are to be named as also when a synonym for a traditionally available term is needed.

2. The principle of correspondence of word forms in the various contributing languages needs to be allowed a certain latitude. The English words *automobile* and *fidelity* correspond completely with French *automobile* and *fidélité* or Spanish *automóvil* and *fidelidad*. The second is everywhere a direct descendent from Latin *fidelitas, fidelitat-* and consists everywhere of an adjective made into a noun by the addition of one and the same suffix in various etymologically identical forms. The first is everywhere a modern compound consisting again in all instances of etymologically identical elements. However, in an example like Italian *amaritudine*, it will be found that neither its Spanish nor its French equivalents are in full etymological correspondence. French *amertume* and Spanish *amargor* as also the Italian synonyms *amarore* and *amarezza* have substituted deviating suffixes for the original Latin one. Such suffix substitutions, which are not occasioned by expressive needs, must not be allowed to deny a particular word its full international standing, for with them the deviation in form does not imply a deviation in meaning.

   Numerous examples of this point are supplied by English adjectives which often differ from the corresponding words in other languages by an excrescent meaningless suffix. The suffix *-al* in *fanatical* is meaningless; it does not cause the word to differ in any sense from its synonym *fanatic* and justifies no discrimination between it and French *fanatique*, Italian *fanatico*, etc. The same holds true for the English type *voracious* which has a "superfluous," that is, a distinctively English and meaningless suffix *-ious*. The corresponding French word is *vorace*, Spanish *voraz,* etc.

3. There are numerous words which, paradoxically, do not occur in a particular language but are potentially present in it. In English, for instance, the derivational types of *versatile-versatility, visible-visibility*, etc. are so normal that the exceptional occurrence of an isolated *proximity* without a corresponding adjective strikes the student as a peculiarly English "accident." There ought to be an adjective **proxim* or possibly **proximous*. The frequency and clear-cut character of the English affix *-ity* permits the assertion that behind the noun *proximity* there exists — potentially if not in fact — an adjective which can join the actually existing Italian *prossimo* and thus contribute to the international standing of the simple adjective behind its derived noun. This same reasoning could not apply if the adjective in back of *proximity* did not exist anywhere. On the other hand it does apply in cases where the situation is reversed, that is, where the simple word is fully international while it is the derivative which is merely "potentially" available.

   The affixes which, when occurring in formations of limited range, carry them nevertheless into the international vocabulary, must be both frequent and clear. All those found to qualify under this head are represented by special entries in the body of the Dictionary. A complete list appears below on pp. Xlvif.

   What has been said about affix formations of limited range applies likewise to compounds. The Italian word for 'match, lucifer' is *fiammifero*. It is a compound of elements which are completely international and quite unambiguous. The word as such occurs in but one language, but the representation of its elements in all the contributing languages justifies the claim that the word is potentially international. In a considerable number of cases where ideas of full international range happen to be represented by numerous and etymologically quite unrelated terms, adequate renderings in the international vocabulary can be found by examining all the monolingual renderings in regard to their potential representation in the source languages as a whole.

   Form of International Words. — The forms under which the international words are listed must be neither Italian nor French, Spanish, Portuguese, English, German, or Russian; they must be international. This implies that everything is to be eliminated from them that is a characteristic feature of but one particular language. If the Spanish word for 'earth' is *tierra*, the international form of it must not contain the diphthong *-ie-* which is a typically Spanish development. The international form corresponding to French *aimer* must not end in *-er* which is a typically French development. Or again, if the word *voracious* is qualified to enter the international vocabulary, it cannot appear there with the final syllable *-ious* because that is a peculiarly English excrescence.

On the other hand, the international form of a word must be such that every idiosyncratic feature of its representation in one particular language must be explicable as a monolingual transformation of it. It must be the prototype of which all contributing forms are specialized variations. For example, the prototype of French *terre*, Spanish *tierra*, Portuguese and Italian *terra* is *terra*. The French final *-e* and the Spanish diphthong are specifically French and Spanish developments from the original neutral final *-a* and the original neutral monophthong *-e-* respectively. The resulting international form *terra* may look like the Italian, Portuguese, and Latin forms, but it is "international" and not Italian, not Portuguese, and not Latin. In a great many instances the prototype and hence the international form of a word does coincide with its etymological origin, that is, in the case of words derived from Latin, the Latin ancestor form. But this is not necessarily so. If the diphthong of *tierra* were not a Spanish peculiarity but occurred in Italian and French as well, the prototype and hence the international form would not be *terra* but **tierra*.

A more typical (and more complex) instance is that of Latin *causa* which appears in the modern languages as two distinct words, one represented by Italian, Spanish, Portuguese *causa* and French, English *cause*; the other by Italian, Spanish *cosa*, Portuguese *cousa*, and French *chose*. The prototype of the former is *causa*, that of the latter *cosa*, from which the French initial *ch-* and final *-e* as well as the Portuguese diphthong *-ou* are peculiarly French and Portuguese deviations, explicable in terms of specifically French and Portuguese sound laws. The transformation of Latin *-au* into *-o-* is a development characteristically international.

In keeping with the general goal of evolving non-specialized international forms, the prototypes must not be determined by a trait occurring in but one language. A monolingual trait is to be disregarded provided such a procedure does not reduce the international range of the result below the stipulated minimum. To refer again to the example of Latin *causa*, in the branch yielding the prototype *cosa*, all contributing forms with the exception of Portuguese show the vowel *-o-*. If the Portuguese *-ou-* were not a specifically Portuguese diphthongization of an earlier *-o-* but rather a survival of the Latin diphthong *-au-* the resulting form should still show no diphthong since three languages — Spanish, French, Italian — exhibit a simple *-o-*.

Terminations

Like all other formative elements, suffixes too appear in fixed prototype forms which do not vary erratically from one case to another. If it is an historical fact that the suffix in English *agile* and that in *fossil* are the same, and if furthermore the other contributing languages show them to be alike (as they actually do), then the English difference between this particular *-ile* and this particular *-il* must leave no trace in the international forms.

The common form from which the suffix represented by English *-al* has evolved in the various languages is a form technically known as the crude form of the Latin oblique cases of *-alis*, that is to say *-ale*. This *-ale* is the ancestor of all the contributing variants but its full spelling is maintained only by Italian. All the other control languages omit the final *-e*. Therefore the prototype serving as the international form of the suffix omits it likewise and appears as *-al*.

Somewhat more complex is the case of the parallel suffix evolved from Latin *-ilis*. It, too, appears in Italian with a final *-e* in all cases, but the alignment of a pair of illustrations like English *civil, agile*, Spanish *civil, agil*, Italian *civile, agile*, and French *civil, agile* leads to the introduction of two prototype forms, the one, *-il*, bearing the stress and omitting the final *-e*; the other, *-ile*, equipped with a final *-e* and occurring after a stressed syllable.

These data can be looked at inversely so that — as a general rule applying to the forms entered in this dictionary — a final *-e* after *-l* (and likewise after *-n-* and *-r-*) turns out to be an indication that the stress must fall on the third last syllable, as in *agile* (as against *civil*), in *automobile* (as against *infantil*), as in *ordine* (as against *asinin*), as in *arbore* (as against *professor*), etc. — See also under "Pronunciation," p. liii below.

Termination of Infinitives

The prototype procedure outlined above would yield infinitives in *-are, -ere,* and *-ire*. As in the case of *-al* and *-il,* it is again only Italian that retains he final *-e* systematically. Since, however, English absorbs Romance verbs as a rule without the Romance infinitive termination, it cannot assist French and the Iberian languages to overrule the conservation of the final *-e*. If this English "abstention" is not to allow Italian to settle the question in favor of its own unique usage, there remains only the possibility to let the prototype forms of the infinitive follow the model of comparable cases, as for instance that of the suffixes *-al* and *-il*. Thus the prototype forms of the infinitive terminations appear as *-ar, -er*, and *-ir*.

Since the subdivision of Latin *-ere* verbs in two groups with the stress on the penult and antepenult respectively is clearly traceable within the sphere of the modern Romance languages, the prototype of the infinitive termination might be determined for each of the two cases separately. The resulting distinction of verbs in *-er* with the stress on the last syllable and a smaller group of verbs in *-ere* with the stress on the antepenult would largely correspond to two types of derivation. The verbs in *-er* would show "weak" derivatives in *-it-* plus *-ion, -ire, -ura*, etc., while the verbs in *-ere* would build such derivatives by adding *-ion, -are, -ura*, etc. to a "strong" or modified stem. In this Dictionary no such distinction has been made.

Termination of Adjectives

A special problem is posed by the class of adjectives which maintain in all Romance languages a difference between masculine and feminine forms. Here the prototype procedure collides with a point of grammar which must be discussed at this time although grammatical questions in general have no place in a purely lexical discussion. The prototype of English, French *grand*, Italian, Spanish, Portuguese *grande* emerges smoothly as *grande*. However, in cases like that of the international word corresponding to English *saint*, the outcome is undecided because here the original inflectional system of Latin survives in all the Romance languages not only with a distinct form for the plural but also with distinct masculine and feminine forms. The adjectival prototype of English, French *saint*, Spanish, Portuguese, Italian *santo* would be **sancto*, but that of English *saint*, French *sainte*, Spanish, Portuguese, Italian *santa* would be **sancta*. When used as nouns to represent a male or female saint, the forms *sancto* and *sancta* are satisfactory. But with adjectival functions they would be usable only if the grammar of the international language were to keep up a corresponding gender distinction.

It is possible to envisage the international vocabulary in operation with a grammatical system which does maintain a gender distinction. Attempts in this direction are on record, but they form a decided minority. The procedure adopted in this Dictionary is the one favored by most users of the international vocabulary. All adjectives are treated as though Latin and the Romance languages knew only the one type of adjective in which there is no distinction between masculine and feminine. The resulting dictionary entries exhibit no difference in termination between the types *grande* and *sancte*.

Forms of International Words in Derivational Series

The prototype, as discussed so far, may be defined as the nearest common documented or hypothetical ancestor from which all contributing variants can be developed in accordance with the individual laws and motives operating in the various languages considered. This implies that in the case of Latin-derived nouns and adjectives the prototype is normally neither coincident with nor based upon the original nominative (i.e., the form conventionally entered in dictionaries) but rather that it will have the appearance of the crude (i.e., truncated) form of the Latin oblique cases. This is so because the Romance languages, when — in the course of their development from Latin — they abolished the declensional system of nouns and adjectives, did not normally preserve one case at the expense of all the others; they normally preserved a composite of the various oblique cases. French *pied*, Spanish *pie*, etc. did not develop from Latin *pes* but from Latin *pede* which may be called a combination of *pedem, pedis*, etc. Now it happens to be the stems of the Latin oblique cases (i.e., the stem at the base of the international prototype) which appears again in the derivatives from nouns and adjectives. A word like *temporal* (whether it is considered in its English or any other variant) does not come from the stem of Latin *tempus* but from that of *temporis, tempore*, etc. A word like *pontifical* is not based on the stem of Latin *pontifex* but on that of *pontificem*, etc.

The prototype of English *pontiff* and the corresponding Romance variants which establish the internationality of the word, is *pontifice*. That of *pontifical* and its Romance equivalents is *pontifical*. The continuity of form in the prototype pair *pontifice-pontifical* (in contrast to English *pontiff-pontifical* or German *Pontifex-pontifikal*) is an important feature of the international vocabulary. It permits the interpretation of *pontifical*, as it were, as a special form for special uses of *pontifice* just as, let us say, *brotherly* in English might be called a special, that is, the adjectival form of *brother*. If this feature is to be generally characteristic of the international language, derivatives must always be made to have a bearing on the prototype forms that constitute its vocabulary. For instance, the prototype of Italian *tempo*, Spanish *tiempo*, Portuguese *tempo*, French *temps*, must, in view of the derivatives, become *tempore*, despite the fact that the nearest common ancestor form of those variants is *tempus* — or at least, if French is disregarded, *tempo*. Italian *cuore,* Spanish *corazón*, Portuguese *coraçao, cor*, French *coeur* do not appear as *core*, which would reflect the Vulgar Latin declension *cor, coris* (instead of classical *cor, cordis*) but are standardized as *corde*, in view of the derivative *cordial*, a Medieval Latin formation with the suffix *-ial* on the stem *corde*.

Word Families

The bearing which, in the prototype procedure, derivatives have on their base, establishes in the standardized international vocabulary clear continuities in derivational series. Such series, often clustered in more or less extensive word families, exist in all the control languages. In many cases, however, they have become blurred by peculiar trends or historical "accidents," and it becomes one of the most important functions of the prototype technique to give back to them their due scope. Blurred series like English *letter-literal* or *publish-publication* emerge in the international vocabulary in clear continuities as *littera-litteral, publicar-publication*. This is of the utmost importance for the free formation of autonomous derivatives in an auxiliary language.

The principle which governs the limitation of derivational series or word families in the international vocabulary is that of a parallel between formal and semantic continuities. Since the idea of *causal* is a derivative from that of *cause,* the corresponding standardized words appear in a formally continuous series as *causa-causal*. Since, on the other hand, the idea of *causal* is in no way a derivative from *thing* (although French *chose*, Spanish *cosa,* etc. are historical developments from Latin *causa*), the standardized international word corresponding to *thing* does not appear in the same series but emerges as *cosa*. The prototypes *cosa* and *causa* belong, in terms of the standardized international vocabulary, to two different families, although the corresponding words in the Romance control languages are all members of the one etymological family of Latin *causa*.

These and related aspects of the prototype technique and its results are particularly significant in the case of certain verbs and their derivatives. A more detailed analysis of some verb families may prove useful at this point.

Tener is the prototype of Italian *tenere*, Spanish *tener*, Portuguese *ter*, French *tenir*. The Latin ancestor word is *tenere*, which is the head of a large family of derivatives and compounds. Among the derivatives that are international and appear also in English, are *tenace, tenacitate, tenor*, 'tenacious, tenacity, tenor,' etc. In Latin the compounds of tenere appear with a characteristic vowel shift as *abstinere, continere, obtinere*, etc. (with derivatives of both the types *abstinentia* and *retentio*). The modern languages did not maintain this and similar vowel shifts in the compound infinitives but adapted them to the form of the simple verb, e.g., Spanish *tener-abstener*, French *tenir-contenir*, etc. However, the international derivatives from some of these compounds (*abstinente, continente*, etc.) force them back into the Latin pattern and the infinitives appear in the international vocabulary as *abstiner, confiner, pertiner*, but *detener, intertener, mantener, obtener, retener, sustener*.

In the case of this verb family, the different branches are interlinked by a comparatively clear continuity in meaning. The idea of 'to hold' is everywhere preserved: *confiner* is "to hold as contents" or "to hold back"; *mantener* is "to uphold"; *detener* "to hold in custody"; etc. A case where one branch of an etymological verb family has become completely detached, both in form and meaning, both in the control languages and hence in the international vocabulary, is that of Latin *pendere* 'to suspend' and 'to weigh' with the derivative *pensum* 'something weighted, a weight.' Its frequentative *pensare* 'to weigh' and figuratively 'to ponder, consider' gave rise in the Romance languages to two distinct derivational series. The words for 'to weigh' are Italian *pesare*, Spanish and Portuguese *pesar*, French *peser* (cf. also English *to poise*). They are completely detached, in form as well as in meaning, from the Romance words for 'to think': Italian *pensare*, Spanish and Portuguese *pensar*, French *penser*, whose standardized form is *pensar* and whose derivatives appear as *pensative* 'pensive' and *pensator* 'thinker,' etc. In the modern languages none of these words reveals itself either formally or semantically as a derivative from 'to weigh.' Hence the international word for 'to weigh' is not influenced by them and appears as *pesar*, which may be taken as a derivative from *peso* 'weight' (the prototype of Italian, Spanish, Portuguese *peso*, French *poids*, also English *poise*, from the abovementioned Latin *pensum*); and *peso-pesar* constitute a new family independent from *pensar*.

A slightly different case occurs in the family of Latin *prehendere, prendere* 'to seize.' The derivative *prehensio, prensio* 'act of seizing' is represented in the control languages by Italian *prensione*, Spanish *prensión*, Portuguese *preensão*, French *préhension*, English *prehension*, which yield the prototypes *prehension* and *prension*. The Latin contracted form *prensio* has produced another series entirely detached from the first. This series is represented by Italian *prigione*, Spanish *prisión*, Portuguese *prisão*, French, English *prison*. Phonetically all these national variants have in common the loss of the Latin *n* before *s* and the change of the *e* in the stem into *i*. Semantically, too, no connection is felt between 'prison' and 'act of seizing.' Furthermore, the derivatives built on prison — e.g., *prisoner, to imprison*, and their Romance equivalents — stand in close relation only to their immediate base and not at all to the original Latin family of *prehendere*. Thus there results a detached family *prision, prisionero, imprisionar*, etc.

Non-Latin Examples

The illustrations of the prototype technique presented so far are all concerned with words either derived from Latin or built of Latin material. Additional illustrations are required for the following groups: 1) Words of Greek origin, including classical formations — borrowed directly or transmitted by Latin — as well as neologisms built of Greek word-material. 2) Words of Germanic origin which penetrated into the Romance languages in post-classical times and have become fully assimilated. 3) Foreign words which were taken over at various times from various sources outside the Romance-English language group and which have become assimilated to a higher or lesser degree.

1. In the case of words of Greek origin it happens quite often that formations which have the semantic value of derivatives are formally detached from what might be taken as their base. In the standardized vocabulary they exert consequently no influence on the latter's form. Thus the international form of *therapeutic* has no bearing on that of *therapy*, for although one is clearly the adjective pertaining to the other, there is no direct derivational relationship between them. Both are ultimately derived from an identical third, the Greek verb *therapeuein*. 'Therapy' appears in the international vocabulary as *therapia* and 'therapeutic' as *therapeutic*. The semantic interdependence of the two is formally as little accounted for in the international vocabulary as in the vocabularies of all the control languages. They appear in the Dictionary as two unrelated entries.

   In other instances the formal relationship by derivation which did exist in Greek has been totally severed in the modern languages which treat these words exactly like those of the type *therapia-therapeutic*. This severance is often due to the fact that members of a given derivational series in Greek were taken over by Latin or the modern languages as individual words whose connection with other Greek words of the same family (separately taken over by the same languages) was not made apparent in their forms. Greek *phlegmatikos* was actually a derivative from *phlegma* on the inflectional stem *phlegmat-*, yet this latter word appears in no modern language and certainly in none of the members of the Anglo-Romance control group in a form corresponding to the old inflectional or deriving stem. It is represented everywhere by the Greco-Latin nominative and appears correspondingly in the international vocabulary as *phlegma*, uninfluenced by its companion adjective *phlegmatic*.

   In most words of Greek origin, however, the formal continuity of derivational series emerges in the international vocabulary as clearly as it does in the case of words of Latin origin.

2. Next to Greek, the most important non-Romance contributors to the international vocabulary are doubtless the Germanic languages and dialects. Their role in the international vocabulary gives rise to two special observations.

   There are a good many instances of English words of Germanic origin which are related to words in the other control languages by Indo-European cognateship. Examples are *beech* and Spanish *haya*; *father* and Italian *padre*; *brother* and French *frère*; etc. In all such instances the Germanic form (provided of course there is perfect formal and semantic correspondence) can be considered a contributing variant that adds to the international range of the word in question. As for the prototype technique, words of this category must be standardized exclusively on the basis of their Romance variants. Here the inclusion of Germanic cognate forms would produce prototypes on an Indo-European basis which is much too narrow to support an international vocabulary. Thus French *frère* Italian *fratello* (with a suffix that may be disregarded), and English *brother* establish the internationality of a word which is represented by the standardized form *fratre*, determined without reference to the Germanic variant.

   A related and considerably more important problem is that of words of Germanic origin represented by borrowed variants in the Romance control languages, whether or not they are supported by an inherited form in English. Most words of this category were taken over by the Romance languages during the early Middle Ages when Germanic supremacy, especially in the fields of law and warfare, made itself felt in all parts of western Europe. If the English form of such words is available (and generally it is), it can again be considered a variant of the Romance forms, fit to add to the international range of the word in question but not suitable to enter into the determination of its prototype. French *hareng*, Italian *aringa*, Spanish, Portuguese *arenque* are all Romance variants of West Germanic *haring* and thus identical by Germanic cognateship with English *herring* and German *Hering*. The meaning of the word raises no new problems. It has full international range throughout the control languages. For the determination of its prototype the inclusion of the English and German variants would produce a result on a Germanic basis. The exclusion of English and German produces the prototype *haringo* which is the form by which this word is represented in the standardized international vocabulary.

3. As for the standardization of foreign words that were borrowed at a more recent date from different sources outside the Romance-English group, a distinction must be made between those which have become fully assimilated in all the languages of adoption and those which, having retained their original form, are always felt to be "foreign." In the first category there are a great many words of extra-European origin which were introduced into the European tongues by way of Spanish or Portuguese. In many instances the Iberian languages show a closer similarity to the phonetic structure of the original than the second-hand borrowers. For instance, the equivalents of English *carafe* in the other control languages are Italian *caraffa*, French *carafe*, and Spanish/Portuguese *garrafa*. The last named, which comes closest to the original Arabic *gharrâf*, would determine the prototype of all the modern variants as **garrafa* if the initial *g-* as a trait limited to one control or source unit could not be overruled by the initial *c-* found everywhere else. The resulting international form is *carrafa*.

   Derivatives from these relatively recent loan words are not very frequent. Where they do occur, they influence the prototype in exactly the same way as in all other cases. An example is the international word for 'tea'. Italian *tè*, Spanish *te*, French *thé*, English *tea* correspond to the name of this plant and beverage in the Amoy dialect of China; Portuguese *cha* and Italian *cia* (a special word for 'teaplant') reflect the Mandarin variant. The combination of these two branches might prove quite problematic if it were not for the existence of the international derivative *theina* which serves to determine the prototype of the base word as *the*.

   Finally, foreign words which have been introduced into the control languages in comparatively recent times and have retained their foreign character, do so also in the standardized international vocabulary. Examples are: *allegro, aria, imbroglio* from Italian; *cargo, matador, rancho* from Spanish; *bouquet, bureau, chassis* from French; *budget, interview, reporter, standard* from English; *hinterland, kirschwasser, landwehr* from German. In some cases the modern languages have built on these foreign loans independent derivatives of which only the endings have to be standardized. Thus we have *interviewar* on *interview*, *standardisar* on *standard*, etc. In the Dictionary such "foreign" words are entered without accent marks and diacritical signs except when such a procedure would suggest an absurd pronunciation. Thus we have French *defaite* instead of *défaite* but German *kümmel*. English words reveal at times by their spelling whether they were internationalized on a British or American basis.

Summary of Definitions

The following formulations are not intended to be self-explanatory. They are summaries of the foregoing analyses which serve to elucidate them and provide pertinent illustrations for them.

1. Eligibility. — *A word is eligible in the international vocabulary if it occurs — with corresponding meanings and in forms deviating from etymological identity by nothing more than a meaningless affix — in the current or historical vocabulary of at least three of the source units, Italian, Spanish/Portuguese, French and English and also German and Russian; it carries with it all formations differing from it in both form and meaning by the addition or omission of a "normal" affix, provided such formations occur in at least one of the units listed.*

2. Form. — *The form under which a duly admitted word enters the international vocabulary is the prototype or nearest documented or theoretical ancestor form common to all its variants as well as to the stems of their derivatives in the contributing languages; it is determined in such a way that its variants in the source languages and the stems of their derivatives deviate from it only in accordance with the characteristic behavior of the languages they represent — with the proviso that the resultant form must never be conditioned by a trait restricted to one single contributing variant.*

Meaning of International Words

The criteria which determine what shall or shall not appear in the standardized international vocabulary are all concerned with words considered simultaneously as *forms* and expressions of *meanings*. Both the form and the meaning of a given word must have the required international range to assure the word of representation in the standardized vocabulary. Yet, while the problems arising in this connection are smoothly covered by a set of rules in so far as they are concerned with matters of *form*, the implications of the internationality of meaning are often delicate.

Negatively speaking, a word which is represented in the required number of control languages by "identical forms" with different meanings, must be excluded from the standardized vocabulary. The point may be illustrated by reference to the standardized form *planger* which corresponds to Italian *piangere*, Spanish *plañir*, French *plaindre*, and (archaic and dialectal) English *to plain*. The Latin ancestor form *plangere* signified 'to beat (with a noise); to beat one's breast (in grief); to lament aloud.' The Italian variant means 'to weep, sob, or wail'; the Spanish form signifies 'to groan, lament'; the French one, 'to pity'; in English the word formerly had the meaning of 'to complain.' The different languages went different ways in developing the meaning of their variants, and the word would not be represented at all in the international vocabulary if it were not for the phrase *planger se de* 'to complain of or about,' for which the Romance variants supply the required three-language agreement.

Now, the various meanings of the simple verb *planger* in the ethnic languages might still be recognized as vaguely related, and it might be argued that the discrepancy in the meanings of Italian *piangere* and French *plaindre* differs only in degree from the discrepancy in the meanings of for instance French *liberté* and English *liberty* which are not quite alike either. However, in the case of *liberté-liberty* the divergencies are concerned with overtones and connotations due to specific associations and traditional usage. On the other hand, it is the very concept of French *plaindre*, not a peculiar set of connotations, that differs from that of Italian *piangere*, and if for the two a common conceptual basis were to be found, it would have to be traced back to Latin and could not be said to be available in either one of the modern variants.

If a concept in this sense is defined as a nucleus of thought crystallized in a word form as its adequate expression, it follows that *liberté* and *liberty* represent the same concept; *plaindre* and *piangere* represent different concepts. The connotational divergencies in the first example do not affect its representation in the international vocabulary; the conceptual differences of the second exclude it as such from the international vocabulary. That it does occur in it as part of the reflexive *planger se* is a different matter.

The meaning to be established for a given international word is the nuclear concept which its ethnic-language variants have in common. This does not signify that an international word cannot be modulated by connotations, emotional overtones, and the like. All these things, precisely as in each one of the ethnic languages, are matters of style. If, let us say, the international word *perla* has been established as the form representing the concept 'the shelly concretion of nacre found in the pearl oyster and used as a gem,' there is obviously no reason why it should not be used with reference to an efficient houseworker. In doing so the basic definition is not abandoned, just as the use of the English word *pearl* in such a context does not imply that the word stands for the concept 'efficient houseworker' but merely that it is to be suggested that the efficient houseworker is as valuable as the shelly concretion in the pearl oyster. Here the semantic continuity between the conceptual core and the metaphor is not broken. If it were broken, the meaning "efficient worker" would be a second concept represented by the same word form. An illustration of this latter type is the English word *star* which can be used for a luminary of the stage or screen without the implication that he or she may be compared to a celestial body. This particular development by the way is not international. The German or French words for 'a celestial body' can of course also be used with reference to a superior actor or actress but not without the clearly metaphorical implication that the person in question is to be called a celestial body in the firmament of the Thespian art. In both the languages mentioned the detached meaning of English *star* (the concept 'a superior actor or actress') is often represented by just that word borrowed in its English form.

In cases where the semantic break between a conceptual core and a mere metaphoric extension is sufficiently international or occurred at an early time in the language of origin of a given word, the result is that the international form stands for two or more conceptual cores. Thus, from the Latin point of view there was a perfect continuity in the semantic development of the verb *intendere:* from 'to stretch out or towards something' by way of 'to attend, direct one's attention to' to 'to intend, purpose.' From the extension 'to direct one's attention to,' Medieval Latin developed the new core meaning or concept 'to understand' which survives in the Romance languages. The current meaning of French *entendre* "to hear,' is a further development of 'to understand' and remains monolingual. Internationally, 'to intend, purpose' and 'to understand,' although they both are offsprings of the same semantic ancestor ('to direct one's attention to'), appear as two distinct concepts. They constitute the two basic meanings of the international word *intender*.

Concepts in the sense here envisaged are naturally not always international. The nucleus of thought, 'with one's hands on one's hips,' expressed by the word 'akimbo,' is clearly monolingual. Other languages can circumscribe it with the help of a phrase, e.g., French *les mains sur les hanches*, but from the French point of view this is as little a concept as *les mains sur les épaules* 'with one's hands on one's shoulders.'

English is particularly rich in terms of this sort. Most of them are represented by words belonging to the Germanic stock of the vocabulary, as *bleak, to befriend, brittle*, etc.; but there are also a good many English words of Romance origin which the language uses to express peculiarly English concepts, as *casual, eventual, domineer*, etc.

These and similar monolingual concepts are not represented as such in the international vocabulary. They are units of thought or ideas which have crystallized as clear nuclei in definite word forms only in one language. The other languages express them by various noncrystallized phrases, and so does the international vocabulary which must follow international usage.

The International Vocabulary

This Dictionary comprises some 27,000 entries. It is not a complete compilation of the international vocabulary and could not be intended to be complete.

A bold guess as to the number of international words which the methods outlined above would yield if exploited to the last might run into several hundred thousands. The large majority of the items included in such a "complete" body of international words would be highly specialized terms. Being predominantly technological and scientific or generally learned, their weight contributes greatly to the argument that the international language exists potentially in the ethnic languages and merely waits to be extracted from them. However, many terms in this category are so completely international that after we have found them in one language we feel justified in using them in any other, including the international language, without first consulting the corresponding dictionaries.

If we find the English word *cyclonoscope*, we need hardly know what it means, let alone consult a dictionary, to conclude that the German equivalent is *Zyklonoskop*, the French form *cyclonoscope*, the variant in Italian *ciclonoscopio,* etc. For the fact of the matter is precisely that words of this kind are not just English, French, German, etc. but international. The international version of *cyclonoscope* is *cyclonoscopio.*

But we may go farther. Not only are there innumerable technical terms in international use, but an additional infinite number which are not to be found anywhere exist potentially in all the languages within the orbit of the international vocabulary and hence in the international language itself. When, for example, the philosopher Lovejoy, for his own purposes, introduced the term *retrotensive* in one of his works, his readers were of course given an explanation of what the new coinage was meant to express, yet translators could consult no dictionary on how to render the term in any other language. Still, they had no difficulty in determining that the Spanish, Italian, Portuguese forms must be *retrotensivo*, the German form *retrotensif*, the French form *rétrotensif* etc. Or another example: If an inventor came along with a new gadget designed to expel cigarette butts from the holder the moment a certain degree of nicotine concentration were reached and if this inventor wanted to call his gadget an *autoejector*, there could be little doubt about the foreign names for the instrument upon its arrival on distant shores in the wake of the spread of civilization. The Germans would call it *Autoejektor*, the French *autoéjecteur*, the Italians *autoeiettore*, etc.

The point to be borne in mind is that the translator from English into any other language within the orbit of the international vocabulary is immediately able to render words like *retrotensive* and *autoejector* not because he understands what they mean but because he is aware of their structure. If such an awareness of structural patterns on the translator's part enables him to state what such and such an English word of obvious internationality must be in French, Spanish, Portuguese, Italian, German, Russian, and numerous other languages as well, a similar ease of rebuilding such terms in the international language can be attained on the basis of a corresponding awareness of the structural patterns prevailing in the international language. The Dictionary had therefore to be made to include ample illustrative material of all manner and kind of formations from all branches of man's scientific and technological endeavor.

The account of how the Dictionary was made to fulfill this requirement may be merged with the account of how the body of words included in it was selected.

A dictionary of the international language poses problems sharply distinct from those confronting the makers of dictionaries of fully established languages with a verifiable tradition of usage. If, let us say, a 27,000-word dictionary of English — monolingual or with translations into any other language — were envisaged, the initial task to be dealt with by the lexicographer would be to select from the total body of English words those 27,000 items which his prospective readers could be expected to inquire about most frequently. On the whole the 27,000 most frequent words of the English language would be included.

The 27,000 most frequent words of the international language, however, cannot be thus identified. Neither can we know whether a particular international word is frequent or infrequent, nor can we base the selection of items to be included in the Dictionary on the criterion of their importance in any one of the source languages.

Among the distinctive features of our approach to the question of the international vocabulary is the fact that the starting point must never be the question, "How do you say in the international language 'desk, doughnut, dumbbell,' or whatever else happens to come to mind?" When the parallel question is asked, "How do you say 'desk, doughnut, dumbbell' in French, German, or Arabic?" the answer, "A desk is this, a dumbbell that, and a doughnut does not exist," is possible because the body of words of those languages is fully established and ready for perusal.

The first job to be tackled had to be the compilation of at least large portions of the international vocabulary without any sort of reference to starting points in English or any other individual language. Furthermore, if secondarily the question about the international equivalent of such and such a word from any particular language is admitted, it should be explicitly preceded by an inquiry as to whether or not the thing, fact, or idea in question is international. For if no one can be expected to give the French, Russian or German word for doughnut if he can prove that the thing itself is unknown to the speakers of those languages, the same privilege should be enjoyed by a person speaking or writing the international language.

Inversely the international vocabulary, to qualify as the vocabulary of a full-fledged language, must be able to produce an equivalent for every concept which is truly international. It does not follow that non-international concepts cannot be expressed in the international language. A Russian, German, or Frenchman can very well refer to a doughnut in his own language by using various circumlocutions even though he may find that there is no crystallized term for the thing. Exactly the same — but nothing more — may be expected of the international language.

In the preparation of this Dictionary the technique of checking the internationality of concepts represented in individual languages and of subsequently ascertaining their being covered by the international vocabulary, has been applied after the assembly of an initial stock of international words was completed.

The basis from which the initial compilation took off consisted of complete assemblies of all words in the major source languages belonging to a particular etymological word family. The selection of the etymological families to be so treated was naturally guided in a general way by the knowledge that it would be technically impossible to treat the total vocabulary of the source languages in the manner indicated and that a family like that evolved from Latin *corpus* 'body' or Greek *lithos* 'stone' should have priority over an item like Latin *jurgare* 'to quarrel' (from which we have such obscure words as English *objurgation*) or Greek *limos* 'hunger' (which produces the English term *bulimy* 'a morbid form of hunger occurring in idiots' also known as 'canine hunger').

One result achieved by the method of etymological family alignments is that it permits the student to see at a glance what etymologically corresponding words there are in the various languages under observation. For example, the English word *necessitous* has the Italian correspondence *necessitoso*, it appears in French as *necessiteux*, but nothing like it existed in Latin or exists now in Spanish and Portuguese. The word *necessity*, on the other hand, has etymological correspondences practically every where. English *necessitude* existed in Latin and older Italian but is nowhere really alive.

More important is the fact that the assemblies of complete etymological families bring out the derivational patterns, which are often obscured or disrupted in individual languages, with such clarity that the result may be termed the underlying prototype or international schema of derivation. English *paucity*, for instance, looks certainly like a derivative with the suffix *-ity*, but from the English point of view it is not possible to state from what other word it is derived. The Iberian languages and Italian clarify the question. The base word is represented in them by *poco* and the archaic Italian form *pauco* which serve to explain the English *paucity*. Or again the French word *crétacé* 'cretacious' shows at best a vague or "learned" dependence on *craie* 'chalk.' But when this *craie* appears in alignment with Italian *creta*, the clear Italian pattern *creta-cretaceo* brings out the obscured but latent French continuity *craie-crétacé*.

Active Word Building

The clearer the derivational patterns in a given language, the freer will be the permissible use of new or nonce formations. If no English nouns in *-ity* existed without a base adjective preceding it (that is, if *paucity* were impossible without *paucous*), inversely formations like *strangity* and *sacrity* would seem less impossible.

For the international vocabulary the clarity of its derivational patterns is of such essential importance that it was decided to stress it in this Dictionary by an almost unqualified adherence to the principle that no word is listed without simultaneously admitting all its clear compounds, derivatives, and formations preceding it in a derivational series. If the adjective *marin* 'marine' is listed, it is allowed to take with it the compound *submarin* 'submarine,' the derivative *marinero* 'mariner,' and the form *mar* 'sea' which precedes it. Of course no word is allowed to carry with it dependents not clearly recognizable as such. If the adjective *marin* has a substantival derivative *marina* 'navy,' this word does not appear in the Dictionary as a dependent of *marin* because no one will recognize the signification of *marina* on the basis of his acquaintance with the adjective *marin* plus the termination *-a*. The word *marina* is in the vocabulary by its own rights. It is international in the required sense all by itself.

In order to establish a rule that every word that enters the international vocabulary can carry with it all related formations differing from it by an element of distinct and logical value, a list of standard affixes with standardized forms and standardized meanings must be provided. The selection of these affixes was made possible by a study of the complete assemblies of etymological families previously mentioned.

For the purposes of this Dictionary all the affixes here listed have been considered active or autonomous. That is to say, any word — even though it occur in only one of the contributing languages — is listed in the Dictionary if it is built by means of one of them on a base in full international standing. Every active affix is represented in the Dictionary by a separate entry which includes a full analysis of its meaning or meanings. Inversely, every affix represented by a separate entry in the Dictionary is thereby identified as an active one.

List of Active Affixes

a-	-amento	ante-	-ata	-ator
-abile	amphi-	anti-	-ate	-atori
ad-	an-	-antia	-astra	-atoria
-ada	-an	apo-	-astro	-atorio
-age	ana-	-ar	-ation	-atura
-al	-ano	-ari	-ative	auto-
-alia	-ante	-ario	-ato	cata-
circum-	-ette	-ific	-ition	-osis
co-	-etto	-ificar	-itis	-otis
con-	ex-	-imento	-itive	para-
contra-	extra-	in-	-itor	per-
dia-	hyper-	-in	-itori	peri-
dis-	hypo-	-ina	-itoria	post-
dys-	-ia	inter-	-itorio	pre-
en-	-ian	intra-	-itude	pro-
-ente	-iano	intro-	-itura	re-
-entia	-ibile	-ion	-ive	retro-
epi-	-ic	-isar	meta-	sub-
-eria	-ica	-ismo	mis-	super-
-ero	-ico	-issime	non-	syn-
-esc	-iente	-issimo	-oide	trans-
-ese	-ientia	-ista	-or	ultra-
-essa	-iera	-ita	-ori	-ura
-eto	-iero	-itate	-orio	vice-
-etta	-ifere	-ite	-ose	

As for compounds, every formation is considered active (or autonomous) if both elements constituting the compound occur in other compounds of full internationality which thus serve as models. The international words *telegraphia* and *microscopio* can carry a formation like *micrographia* into the international vocabulary as a logical, self-explanatory compound provided it is found represented in at least one of the contributing languages.

The compounds thus given active standing include the type *portamoneta* 'purse' which consists of a verb form (conveniently described as the infinitive deprived of its final *-r*) plus a noun. The meaning of the compound follows the pattern, "a thing or person that is to perform the action expressed by the first element in regard to an object represented by the second element." The second element may be singular or plural in form depending on the logic of the situation. If, as in *guardacostas* 'coastguard,' the second element is given in the plural, the pluralization of the compound produces no distinct form. 'Coastguards' is still *guardacostas*.

The inclusion of all types of compounds in the Dictionary has not been carried as far as in the case of affix formations.

If, within the limits noted, a consistent effort was made to exhaust derivational series and incorporate all their links in the Dictionary, the families in which the words of the international vocabulary are presented do not of necessity constitute etymological families in the broad sense of the term. The international vocabulary is based on the vocabulary of a series of contributing languages but is not identical with them. In this sense English is based on Western Germanic (as is German) without being identical with it. And as, for instance, the English word *dollar* is not, in English terns, a derivative from the word *dale* although in terms of West Germanic such an etymological interrelation is a fact, so there are word groups in the international language which may very well be etymologically interrelated in terms of the Romance languages or Latin or Greek without therefore being interrelated within the framework of the international vocabulary. An instance of this sort is the international word *prision* which constitutes a word family by itself despite the fact that it is-ultimately — by way of the Romance languages and Latin —related to the international word *prender*.

Free Formation

Among the word families in the Dictionary there are naturally not a few which consist of one single word. They are in a sense potential families. Although the present Dictionary does not include words totally devoid of support in the contributing source languages, there is no reason why the user should not operate freely with the derivational and compounding devices placed at his disposal. He may thus expand single-word families to fuller representation in exactly the manner in which he may add newer formations to any of the larger groups. He may, for example, take the word *jada* 'jade' and derive from it the verb *jadificar* 'to transform into, make look like, jade,' just as he may use the word *pluralista* 'pluralist' to form the adjective *pluralistic*. Nothing can prevent him from making such words except the worry that he would not know what to do with them. He may go farther and form such monsters as *jadification* and *jadificational* or *pluralisticitate*. To be sure, there are psycho-linguistic blocks (rooted in Romance tradition and usage) which will prevent the majority of users from forming such words as well as others of the theoretically altogether possible type of *jadal* or *pluralistal*.

The Dictionary includes a fair number of doublets which cannot be kept out of the international vocabulary because they happen to be international. Most of them owe their occurrence to the principle of complete derivational series. There is for instance the international word *vindication* which carries with it the infinitive *vindicar* supported both by English 'to vindicate' and international derivatives and compounds of the type *vindication, revindicar*, etc. These forms having been established and included in the international vocabulary, the contributing languages present the additional correspondence French, English *vengeance*, Spanish *venganza*, which justifies the adoption of a doublet verb *vengiar*. Since the Dictionary is not meant to legislate within the frame of what has been described as the international vocabulary, it must refrain from expressing a preference in favor of one of two equally international forms of the same word. The user may take his choice. Similar consequences result from the principle that the deriving stem of a particular series of words determines the form of the base word. Both *iridescentia* and *irisation* are fully supported international words. The former carries with it the base form *iride* 'iris' (supported by Italian); the latter would justify the inclusion of *iris* even if it were not international in itself. Hence the doublet *iris-iride*.

The endeavor to make this a comprehensive dictionary of the international vocabulary implied an open-minded attitude toward previous auxiliary language proposals. The most important effects of this attitude fall in the domain of grammar rather than of lexicography. However, the two domains meet in their common interest in certain types of words with predominantly grammatical functions. Several older auxiliary-language systems operate with forms, especially of conjunctions, prepositions, pronouns, and non-derived adverbs, which do not appear to be incompatible with the principles of assemblage adopted for this Dictionary. All such forms have been included. They are given in brackets; the interlinguistic systems from which they were taken have not been identified.

Acknowledgments

Spelling and Pronunciation

Spelling is written form; pronunciation is voiced form. In the international vocabulary, spelling and pronunciation — like forms — represent the consensus of the source languages. Both are governed by prototype rules evolved from the contributing variants. The resulting system of orthography makes use of the conventional twenty-six letters of the Roman alphabet without special diacritical signs or accent marks. The norm of pronunciation is, generally speaking, "continental." Its values are elastic within type limits, or technically expressed, it permits phonemic variations of sounds not only under the influence of neighboring sounds but also as an effect of the native speech habits of individuals of various language backgrounds.

The English speaker should guard against his native tendency to merge all unstressed vowels in the neutral sound of *a* in Chin*a*. His normal native pronunciation of *b, d, f, k, l, m, p, ph. qu, v, w,* and *z* agrees with the international norm. All other symbols and sounds are tabulated below.

- *a* like *a* in 'f*a*ther';
- *c* before *e, i, y* like *ts* in 'ha*ts*' (or, optionally, like *c* in '*c*ity'); otherwise like *c* in '*c*ats'; *ch* like *ch* in 'e*ch*o, *ch*rome';
- *e* like *e* in 'm*e*t';
- *g* like *g* in '*g*ood';
- *h* as in English (or, optionally, silent); after *r* and *t,* silent;
- *i* like *i* in 'mach*i*ne'; when unstressed before a vowel, like *i* in 'on*i*on' or in 'phob*i*a'); e.g. *bile, biliose, varie;*
- *j* like *z* in 'a*z*ure' (or, optionally, like *g* in '*g*em' or like *y* in '*y*es');
- *o* like *o* in '*o*bey';
- *r* like *rr* in 'me*rr*y' or, better, like *r* in Spanish 'ca*r*e';
- *s* like *s* in '*s*tay'; between vowels, the same (or, optionally, like *s* in 'the*s*e'); e.g. *sparse, abstruse, accusativo;*
- *t* as in English; *ti* before vowels, unless stressed or preceded by *s,* like *tsy* in 'he ge*ts y*ou' (or, optionally, like *sy* in 'we pa*ss y*ou' or like *ty* in 'we le*t y*ou'); e.g. *actor, action, garantia, question;*
- *u* like *u* in 'pl*u*ral'; when unstressed before a vowel, like *u* in 'pers*u*ade' or in 'superfl*u*ous'; e.g. *plural, persuader, superflue;*
- *x* like *x* in fo*x*; between vowels, the same (or, optionally, like *x* in e*x*act);
- *y* unstressed before vowels like *y* in '*y*es'; otherwise like *i* in 'mach*i*ne'; e.g. *Yugoslavia, typo.*

Pronunciations deviating from these norms are indicated in the Dictionary by a simple system of respelling. In it the normal sound values of the interlingua are to be assumed. The digraph *ch* stands frequently for the sound of *sh* in English and has been respelled as *sh*; e.g. *choc (sh-)*. The combination *gi* often represents the sound of *z* in azure. It has been respelled *j*; e.g. *avantagiose (-ajo-)*. Simple *g* has this sound and hence this respelling in the suffix *-age*; e.g. *avantage (-aje)*.

The diphthong *eu* stands for a combination of the normal interlingua sounds of *e* and *u*. Similarly, *ai* stands for *a* plus *i* as in *kaiser*; *au* for *a* plus *u* as in kraut. — Double consonants need not be distinguished in pronunciation from simple consonants. — The double consonant *ss*, however, is always voiceless like *ss* in 'miss.' The sounds of *g* and *k* assimilate a preceding *n* as in English.

Unassimilated guest words, that is, foreign or borrowed words which are identified in the Dictionary as to their origin, retain the pronunciation and spelling of the language of origin. The original diacritical signs are omitted when the languages which have borrowed such words dispense with them too. They do so when the resulting simplified spelling suffices to suggest the intended pronunciation; e.g. *defaite* for French *défaite*, but *kümmel* as in German.

The main stress is normally on the vowel before the last consonant. Words ending in *-le. -ne, -re* preceded by a vowel have the stress on the third syllable from the end; e.g. *fragile, ordine, tempore*. In words formed with the suffixes *-ic, -ica, -ico, -ide, -ido, -ula*, and *-ulo*, the stress falls on the syllable preceding the suffix. The suffixes *-ific, -ifico* are stressed on the first *i*.

Deviations from this system are covered in the Dictionary by respelling with stress marks; e.g. *abbatia (-ía), formica (-íca), thermometro (-ó-)*.

While syllabification may be handled according to derivation, usage in the source languages suggests that preference be given to syllabification according to pronunciation. This means that single consonants belong with the following syllable except for *x* which stays with the preceding syllable; e.g. *ex-a-mi-na-tor*. Consonant groups are divided with the important restriction that *l* and *r* cannot be separated from preceding *b, c, ch, d, f, g, p, ph. t, th*, and *v*; e.g. *al-le-gre*. The combinations *qu, gu,* and *su* are likewise indivisible.