Chapter 1

Esperanto and Planned Languages

The history of planned languages really begins in the seventeenth century. The requirements of order, harmony, and purity of style, characteristic of classicism, brought national languages to what seemed their highest perfection. The literatures that blossomed in these languages, while declaring themselves faithful to Greek and Latin models, claimed equal privileges and equal value. While a humanist like Juan Luis Vives could not imagine an international language other than Latin, Comenius (Jan Amos Komenský), a century later, could not imagine Latin continuing to play that role. However, not only the growing awareness of linguistic difference and diversity—the first Quechua grammar appeared in 1560—and not only the declining suitability of Latin, but a fundamental unhappiness with all natural languages led the philosophers of the day to concern themselves with the language problem. They questioned the epistemological value of words as means of thought and cognition, and some even

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believed that language learning was more damaging than useful because it drew attention to words rather than things. They sought to construct a universal knowledge system, in which words or symbols would have a regular and logical, rather than arbitrary and incoherent, relation to reality. Accordingly, they analyzed mind in terms of ideas, listing these ideas and their components and assigning a specific symbol to each.[1]

This approach is exemplified in a letter from René Descartes to Marin Mersenne (20 November 1629). Descartes acknowledges that a simplified or refurbished grammatical system that could be learned in five or six hours would be a useful discovery. But in his view the learning of artificial words would be as difficult as learning the words of a national language, unless they could be derived from one another through a logical sequence conforming to the structure of the mind, "that is, by establishing order among all elements of thought in the human mind, just as there exists a natural order among numbers." Much as in a single day we can learn to count to infinity, so we would be able to learn the names of all things. "And if one were to analyze human thought in all its constituent elements, and if everyone agreed with this analysis, I daresay that a universal language, easy to learn, pronounce and write, would follow, and that, more importantly, this language would aid judgment by presenting all things to the individual so clearly that error would be virtually impossible."[2]

There was widespread agreement on the utility of a universal language, but it was also widely believed that it would be useful not only as a means of communication but also as a classifying and clarifying device—in fact as a general tool for finding and testing truth. Two years before his death, Gottfried Leibniz dreamed of a language "in which all reasonable truths would be reduced to a kind of calculation . . . and errors, except those of fact, would be nothing more than errors of calculation. It would be very difficult to create or invent this language or character, but extremely easy to learn it without a dictionary. It would also serve to estimate degrees of probability when we lacked sufficient information to arrive at certain truth."[3]

The universal-language projects that appeared in increasing numbers from about 1650 on used as their starting point the Cartesian postulate that "invention of this language depends on true philosophy." Posited on the classification of ideas, they constituted coherent systems ordered around sets of fundamental

concepts. Thus the "philosophical language" of the Scotsman George Dalgarno (London, 1661) distinguishes seventeen classes of ideas, each designated by a capital letter, from which all related ideas can be derived through combinations of Greek and Latin letters: N = living being; Nη = animal; NηK = quadruped; NηKa = horse.[4]

The continuity of such languages from the seventeenth to the twentieth centuries is remarkable. In 1795 J. Delormel presented to the French government a project based on the same principles: Ave = letter; Alve = vowel; Avi = syllable; Avau = word; Alvau = name. In 1852, just thirty-five years before Esperanto, a project by Sotos Ochando had a similar structure: A = things; Ab = material objects; Aba = elements; Ababa = oxygen. Such systems developed into mere classifications: it is no surprise that the famous Decimal System of Melvil Dewey produced the project Translingua, in which 7131 was a lion (7 = animals), [1]7131 a lioness, 7131^2 leonine, and so on.

Thus, as Cartesian theory developed and was put into practice over the centuries, it tended to emphasize classification and to overlook language itself. It was not concerned with what conventions were to be used to distinguish ideas and their relationship to one another: one could equally well choose an alphabetical or a numerical system, or a combination of the two, or indeed any other system. Most projects, however, fit into two categories: pasigraphies and pasilalia.

PASIGRAPHIES

A pasigraphy, or universal character, is a purely visual writing system. Pasigraphies can use letters, numbers, signs, ideograms, hieroglyphics, or even musical notation, as in the case of Jean Sudre's Solresol (1866). They derive from the tradition we have just encountered and are based on the classification of ideas. Pasigraphies flourished until the end of the nineteenth century: for two hundred years linguists believed that pasigraphy would have to form the basis of any universal language.

The word *pasigraphy* appeared for the first time in a treatise by J. de Maimieux entitled *Pasigraphy, or the First Elements of a New Art and Science of Writing and Printing in a Language to Be Read and Heard in All Other Languages without Translation* (Paris,

1797).[5] The whole system was based on twelve fundamental signs which, when combined in threes, fours or fives, formed the entire vocabulary. However, the principle existed long before the term was coined. In 1668 the English bishop John Wilkins published *A Real Character and a Philosophical Language*, in which he distinguished forty classes of ideas, each divided into subclasses and species. Each division had its separate sign, and these could be combined to form compounds. Parts of speech were indicated with precision and simplicity. The celebrated architect Christopher Wren presented Wilkins's idea to the Royal Society, which received it favorably (Shapiro 1969).

Inspired by the ideals of reason and optimism that swept Europe during the eighteenth century, many projects appeared, among them those of György Kalmar (1772) in Hungary, Christoph Berger (1779) and J. Z. Näther (1805) in Germany, and J. P. De Ria (1788) in Switzerland. Thanks to developments in linguistics, as well as in commerce, industry, and social theory, the tradition received fresh impulse in the nineteenth century. The Pasigraphical Society of Munich, for example, counted among its members the distinguished linguist Richter, the Egyptologist Lauth, and the diplomat Sinibaldo De Mas, who himself invented a pasigraphical system. In Paris in 1856, the International Society of Linguists came out for philosophical languages based on the principle of classification and for writing systems using this same principle. While authentic planned languages like Volapük and Esperanto were coming into being, pasigraphies continued to appear: Janne Damm (Leipzig, 1870), Stepan Baranovski (Kharkov, 1884), Joseph Orsat (Paris, 1910), Jakob Linzbach (St. Petersburg, 1916). A symbol system by S.A. Kukel-Krayevski appeared in 1921. Among more recent projects are Picto (K. J. A. Janson, 1957) and Antaŭ-Projekto (Jean Effel, 1968). Wsewolod Cheshikhin (1919) and Friedrich Robert Gilbert (1924) proposed the use of Chinese ideograms as a universal writing system.

PASILALIA

Pasilalia are audiovisual conventions generally employing letters, or sometimes signs, with a precise phonemic value, such that they can be combined into pronounceable words. They are universal languages in the true sense, in that they can be spoken

as well as read. They can be classified, according to their relation to natural languages, as a priori or a posteriori languages.

A Priori Languages (metalanguages, schematic languages)

These languages are based on preconceived theoretical schemes and classifications, and not on the conscious imitation of natural languages. However, although their vocabularies appear to be the arbitrary inventions of their creators, it is remarkable that their grammars show little innovation and their authors remain content to simplify or systematize the grammars of national languages. The Indo-European grammatical categories are represented in nouns, adjectives, verbs, conjugation, declension, and so on, and the principles of word building for the most part reflect Indo-European morphology. Thus, Comenius (1592–1670) conjugates the root *ban-*'be' by means of suffixes showing person and prefixes showing tense:

present:	*bana*	*bane*	*bani*	*baná*	*bané*	*baní*
past:	*pabana*	*pabane*	*pabani*	*pabaná*	*pabané*	*pabaní*
future:	*fabana*	*fabane*	*fabani*	*fabaná*	*fabané*	*fabaní*

A Posteriori Languages (naturalistic languages, pseudolanguages)

These languages consciously imitate, in varying degrees, natural languages. Rather than classifying ideas in terms of some abstract "philosophical" order, they conform to the principles of existing languages, even as they simplify or regularize them. We can classify them according to their degree of resemblance to natural languages, using the term *naturalistic languages* for those closest to natural language.

The following examples illustrate the degree of resemblance between planned languages and natural languages:

French	*père*	*mère*
A priori planned languages:		
Letellier's project (1855)	*ege*	*egé*
Menet's project (1886)	*fat*	*ɩfat*
A posteriori planned languages:		
Volapük (1879)	*fat*	*mot*
Esperanto (1887)	*patro*	*patrino*
Ido (1907)	*patro*	*matro*
Interlingua (1951)	*patre*	*matre*

In C. A. Letellier's language, a root chosen arbitrarily to denote the family is given an inflection to specify various family relationships. In natural languages, of course, these relationships are expressed through different words. Different words are also used in the most naturalistic a posteriori languages, of which Interlingua is here the best example, but Volapük also has separate roots for 'father' and 'mother', derived from English. In Esperanto the root *patr-* and the feminine suffix *-in-* are drawn from natural languages, but Esperanto, unlike more naturalistic languages, derives the feminine systematically, by means of the same suffix. In this regard it resembles the projects of Charles Menet (who nevertheless uses a feminine prefix rather than a suffix) and Letellier, who derives the idea of mother from an anterior idea (father). There are national languages that use similar principles, but irregularly; thus Arabic *waalid* 'father' produces the form *waalida* 'mother'. Linguistic naturalism, an important principle in Ido and Interlingua, is accordingly a purely relative matter, useful for purposes of classification and not because of its semantic validity.

The classification of planned languages takes as its starting point the distinction between a priori and a posteriori languages— that is, between the tendency to schematize and the tendency to imitate or refer to natural languages. These tendencies are reflected in the word stock (artificial, natural, mixed) and in word building (purely a priori or displaying varying degrees of naturalism). Because of the great diversity of a posteriori languages, this classification lacks sufficient precision: as we have seen, some languages display both schematic and naturalistic traits, while others are difficult to classify because of their incompleteness. Bearing this caveat in mind, we can nonetheless categorize the over five hundred known projects in the following way:

I. A priori languages, characterized by largely artificial, non-ethnic word roots, schematic derivation, and fixed word categories (i.e., "philosophical" languages)
II. A posteriori languages
    A. Simplified ethnic languages (living or dead—i.e., minimal languages)
    B. Mixed languages using ethnic and nonethnic roots
        1. Schematically derived languages with ethnic word

roots in distorted form (e.g., Volapük) or with both artificial and ethnic roots (e.g., Perio, 1904)
  2. Languages with partly schematic and partly naturalistic derivation; ethnic roots of languages in this group are seldom or never distorted (e.g., Esperanto, 1887)
C. Naturalistic languages
  1. Languages with some schematic traits (Unial, 1903; Novial, 1928–1937)
  2. Languages with natural derivation (Occidental, 1922; Interlingua, 1951)

THE EVOLUTIONARY TRENDS OF PLANNED LANGUAGES

The history of planned languages from the seventeenth century to the present shows that a posteriori languages appeared late but spread quickly, while the a priori languages, after years of dominance, disappeared completely or were transformed into cybernetic languages. Because those who first became conscious of the language problem were philosophers and mathematicians, they sought the solution on their own territory, namely in logic, mathematics, semantics, and so on, using abstract methods; but they were little interested in the linguistic and practical aspects of the problem. Their projects imply that language is simply a concretization of preexisting mental structures, and thus they regard it not as a free-standing system but as dependent on the organization of mind. Their projects failed partly because they lacked a practical and easy solution to language barriers and partly because their authors sought solutions in what was in essence a blind alley.

However, among the philosophers a few achieved a remarkable level of sensitivity to language. John Wilkins (1614–1672) and Comenius (1592–1672) defined their projects in terms of a linguistic critique of Latin. Like their contemporaries, they tried to apply the "philosophical" method to their creations, but their analyses demonstrate a high degree of linguistic intuition. Comenius, for example, who wrote his treatise *Via Lucis* in England in 1641 and 1642, viewed Latin as benefiting only a limited number of educated people; its declensions, conjugations, syntax, and irregularities rendered it, in his view, inaccessible to the majority of the population. On the other hand, because

Italian had eliminated such difficulties, it had become popular in many nations, even among the Arabs and Turks. Comenius felt that a still more simplified language would achieve still wider use. Although he adhered to the Cartesian belief that a universal language might remedy the confusion of ideas and lead us to truth, Comenius did not lose sight of the linguistic side of things, returning constantly to questions of facility, precision, and beauty (Spinka 1943).

The earliest a posteriori language projects appeared around 1832, when the German F. A. Gerber published a long since forgotten project. In 1852 a project by Pedro Lopez Martinez appeared in Spain, and this was followed by Lucien de Rudelle's Cosmoglossa (1858) and Jean Pirro's Universalglot (1868). Here is an example of the latter:

> *Men senior, I sende evos un gramatik e un verb-bibel de un nuov glot nomed Universalglot. In futur I scriptrai evos semper in dit glot. I pregate evos responden ad me in dit self glot.*

> 'Sir, I am sending you a grammar and dictionary of a new language called Universalglot. In future, I will always write to you in this language. I request you to reply to me in this same language.'

Evidently, Pirro's aim was to create a synthesis of the principal European languages. The word roots are derived almost unchanged from Latin, Greek, German, English, French, and so on. Any impression of strangeness seems to come more from the association of roots and suffixes of different origins (e.g., the association of the German ending -*en* with the Latin root *respond*-to make the infinitive, or the French suffix -*rai* with the Latin participle *script*- to form the future tense) than from the various borrowings themselves, and the effect of artificiality results more from the general appearance of the language than from the alteration of borrowed words (*verb-bibel, glot, scripten*) or the creation of new ones (*men, evos*). Although Universalglot is for the most part formed from ethnic word roots, to European eyes it seems more artificial than Suma, an entirely a priori system created by Barnett Russell (1943) that gives a slightly exotic impression:

Sia sui te tima poti pito mote mi.

'She has left no message for you.'

We can accordingly conclude that a naturalistic language does not always look natural—a paradox that shows the difficulty of judging planned languages using the criterion of naturalism. As we have seen, this criterion is largely subjective and therefore relative. Nonetheless, it has played an important part in the development of planned languages. Comenius himself emphasized that a language must be beautiful, and this need for beauty caused the authors of language projects to imitate "nature" more and more. Although no serious attempt to define the concept was undertaken, *imitating nature* seems to have meant 'imitating existing ethnic languages'. This tendency was expressed in two ways: either through simplification of national languages or through the creation of syntheses of several ethnic languages.

SIMPLIFIED NATURAL LANGUAGES, OR MINIMAL LANGUAGES

Simplified Ancient Languages

One of the earliest examples is the macaronic Latin of Brother Théophile Folengo (1491–1544), but it is from 1880 on, following Volapük and in reaction to its excessive distortion of ethnic words, that projects to simplify or modernize Latin proliferate.[6] Between 1890 and 1892, George Henderson began publication of his journal *Nuntius latinus internationalis* in London. In Paris in 1901, Fred Isly launched his project Linguum Islianum. In 1902 both Karl Froehlich's Reform-Latein and Edward Frandsen's Universal Latein appeared in Vienna. These were followed by Giuseppe Peano's Latino sine flexione, which produced numerous offspring: Perfect (1910), Semi-Latin (1910), Simplo (1911), Novi Latine (1911), Latinulus (1919), Semprini's Interlingua (1922), Interlingua Systematic (1922), Unilingue (1923), Monario (1925), Latino Viventi (1925), Panlingua (1938), Mondi Lingua (1956).

Although simplified Greek had its supporters (among them Raymond Poincaré and, particularly, Raoul de la Grasserie in his Apolema of 1907), it never achieved the same level of popularity as simplified Latin. In fact the preference of authors of planned

languages for Latin is an important aspect of their history. It shows that European linguists set great store by the criteria of beauty and naturalness, and it oriented the development of planned languages in the direction of imitation of Romance languages, to such an extent that it is often difficult to tell whether a given naturalistic language is a form of simplified Latin or is modeled on Romance languages. Consider the following translations of Ernest Renan's *Prière sur l'Acropole*:

> *Me e nasce, o Dea cum oculos caeruleo, de parentes barbaro, apud bono et virtuoso Cimmerianos, qui habita prope litore de mari obscuro....* [Latino sine flexione]

> *Io nasceva, o dea al oculos azur, de parentes barbare, inter le bon e virtuose Cimmerios, qui habita al bordo de un mare tenebrose....* [Interlingua, of IALA]

> 'I was born, O blue-eyed Goddess, of barbarian parents, among the good and virtuous Cimmerians, who live on the shores of a dark sea.'

Simplified Living Languages

The tendency of the stronger economic powers to seek control through economic expansion and the growth of nationalism inspired various projects for simplifying English, French, or Spanish, or creating inter-Germanic or inter-Slavic languages. In the Slavic territories under Austrian control, several pan-Slavic projects appeared, including those of Juraj Krizanić (1661), Blasius Cumerdei (1793), Joan Herkel (1826), Matija Majar (1865), Stanislav Tomić (1885), and Ignác Hošek (1908). Between 1888 and 1928, Elias Molee produced a series of projects for an American interlanguage based on English and German: Tutonish (1888), Niu Tutonish (1906), Allteutonic (1915), and Toito Spike (1923).

In Germany, first Lichtenstein in his Weltdeutsch (1853) and then Adalbert Baumann in his Wede (1915) proposed simplified versions of German to assist the spread of German culture. The name and date of Baumann's project are significant: *Wede, A Language for the Understanding of the Axis Powers and Their Friends. Munich, in the War Year 1915*. In 1928 Baumann published a modification with an equally significant title: *Oiropa*

Pitschn. The recent movement of the countries of western Europe into an economic union shows the pioneering nature of these projects. A project like Oiropa Pitschn is unsuitable for today because of its partisan goals and its national and racial bias, but the present functionaries of the European Economic Community are in general less language conscious than Dr. Baumann, having so far developed no coherent language policy, preferring, naively and chauvinistically, to try to force their own language on the others.

Spanish, with the Nuove Roman of Johann Puchner (1897), Italian, with Serafin Bernhard's Lingua Franca Nuova (1888), and Swedish, with K. G. Keyser's universal language (1918), also participated in the simplified language movement. Other than the simplified French of the German Johann Schipfer (1839), relatively few French projects were undertaken, though we should mention that of J. Giro (Paris, 1892), which probably inspired A. Lakidé's Fransezin (St. Petersburg, 1893) and Father Benjamin Bohin's Patoiglob (1898). On the other hand, it seems that numerous linguists recognized the extraordinary capacities of English. A few suggested merely superficial reform: Jonathan Swift (1711), James Bredshaw (1847), A. V. Starčevski (1890), Alexander Melville Bell (1888), R. E. Zachrisson's Anglic (1930), J. W. Hamilton's World English (1924). But an important project of great linguistic originality, revealing the remarkable flexibility of English, was C. K. Ogden's Panoptic English (1929), from which he derived Basic English (1935). (See Ogden 1930, 1934.)

Of all these attempts to create minimal universal languages by simplifying natural languages, living or dead, Basic English was the most conspicuous failure, because its emphasis on simplification so limited the language that it killed it. Bohin's simplified French (*le necesit, le concurans, lofr e le demand etr le loi des loi ci gouvern le mond*) seems shocking to the native French speaker because certain basic characteristics of French, such as gender and conjugation, are eliminated. English, with its more limited conjugation and lack of gender markings, does not suffer to the same extent by simplification. Thus Basic English is not particularly shocking to the English speaker, even though it is full of circumlocutions. Consider the following:

> First, their countries seek no aggrandizement, territorial or other. [English]

First, their countries will do nothing to make themselves stronger by taking more land or increasing their power in any other way. [Basic English]

It is immediately apparent that the simplification in Basic English consists not in morphological distortion or in grammatical changes but only in semantic circumlocution: the vocabulary is simplified, not the individual words or the grammar. Hence Basic English conforms to the unconscious laws defining the aesthetic and spirit of the language. However, working with a mere 850 words, the user must constantly invent circumlocutions, which slow down expression and understanding. Furthermore, because new words cannot be created, there are few means to express nuances or to create poetic language. Basic English is certainly natural in appearance, but its capacity for expression is limited to what can be expressed in 850 words. In some respects it is more artificial than many of the so-called artificial languages.

Experiments with minimal languages revealed two principal defects: either they so disfigured the ethnic languages in question that they failed aesthetically, or they so limited expressive capacity that they failed as means of communication. In either case they betrayed their original by losing its uniqueness or its expressiveness. If a planned language is to become international, it must display as much morphological and syntactic beauty and as much semantic richness as an ethnic language. If so delicate and complex a creation is not quickly adopted by a community of users, the subjective biases of its author may easily destroy it. A language project may well be the work of an individual, but only its social acceptance and use will make it a language. This important conclusion came only late in the history of planned languages. It is well illustrated by the instructive history of Volapük, but no author of planned languages, except the author of Esperanto, has so far understood it.

VOLAPÜK

Johann Martin Schleyer, a Catholic priest from Baden, Germany, created Volapük in 1880, seven years before Zamenhof published Esperanto, at a time when awareness of the need for an international language was at its peak in Europe. In the

preface to the first edition of his *Volapük: Grammar of a Universal Language for All Cultured Inhabitants of the Earth*, Schleyer offered the following, still relevant observations:

> Thanks to railways, steamships, telegraph and telephone, the world has shrunk in time and space. The countries of the world are in effect drawing closer to one another. Thus the time for small-minded and fainthearted chauvinism is forever over. Humankind becomes daily more cosmopolitan and increasingly yearns for unity. The amazing universal postal system is an important step toward this splendid goal. With respect also to money, weights and measures, time zones, laws and language, the brothers and sisters of the human race should move toward unity.

With unity in mind, Schleyer at first proposed a universal phonetic alphabet based on the Latin alphabet, with thirty-eight letters, by means of which, he believed, it would be possible to transcribe all languages. In this same connection he also proposed orthographical reform for German. In Volapük he retained only twenty-eight phonemes and took care to insure that their combination would be easy to pronounce, clearly audible, and aesthetically usable. His grammar was regular but difficult. There are four cases: nominative, genitive, dative, and accusative. Conjugation involves numerous prefixes and suffixes; thus 'I would have been loved' is rendered as *pilöfoböv* (*p* = passive prefix; *i* = pluperfect prefix; *löf* = the root 'love'; *ob* = first person singular; *öv* = suffix denoting the conditional. Although word roots are drawn from national languages, their form is so simplified that they are barely recognizable. 'World' becomes *vol*, 'speak' becomes *pük*, the German *Berg* becomes *bel*, and *haben* is rendered as *labön*. 'Animal' is *nim*, the adjective 'content' is *kotenik*. Affixes are used for word derivation: *pük* = 'language'; *gepük* = 'reply'; *lepük* = 'assertion'; *pükik* = 'linguistic'; *püköf* = 'eloquence'; *püköfav* = 'rhetoric'. Here is a sample:

> *Reidanes valik lüvipobs nulayeli läbikä benüköli. Dünobsös obs valik in vob kobik dini Volapükatikoda!*

> 'To readers we wish a happy and prosperous new year. May we all working together serve the cause of the universal language!'

Volapük spread rapidly among the middle class and intellectuals, to whom it was specifically directed. At the time, the Western middle class had no common means of understanding, since English had still not gained a dominant position over the other European languages. Only after the United States had established its economic superiority did financial and commercial circles adopt English, imposing it on their dependents. Volapük therefore appeared at the right moment. Because it was worked out in much greater detail than many other contemporary projects, it encountered immediate but ephemeral success. Within ten years, some twenty-five periodicals were appearing regularly, 283 Volapük societies had been founded, and textbooks existed in twenty-five languages. A standardizing academy was established, which soon began discussion of reforms. This was the critical moment that comes to all successful planned languages. Schleyer refused to compromise and rejected all suggestions for improvement. His intolerance caused first a schism and then collapse. The year was 1889; language projects were everywhere; a new one based on very different principles and ideas, called Esperanto, had just been born.

Volapük is important in the history of planned languages because it was the first to move successfully from theory to practice. Zamenhof acknowledged that Schleyer was the true initiator of the movement for an international language. In contrast to his predecessors, and even many of his successors, Schleyer tried to provide his language with a social foundation. Through the press, the Volapük societies, the academy, and numerous speeches, he gained a certain following among the public. But he did not understand that the shift from individual creation to collective practice implied self-sacrifice and tolerance appropriate to the spirit of a universal language. Schleyer's wish was that Volapük should remain not only the language of a cultured elite but also his own personal property. He defended his rights as author and opposed all change, even though his invention had already become a means of common expression and had entered the phase of collective development.[7]

For a further decade, Volapük continued to evolve in spite of Schleyer, but in a state of schism and disorder that proved suicidal. Modifications abounded: Emile Dormoy's Balta (1887), Nuvo-Volapük of Auguste Kerckhoffs (1887), Juraj Bauer's Spelin (1888), Fieweger's Dil (1893), Wilhelm von Arnim's Veltparl

(1896), A. Marchand's Dilpok (1898). It should be noted that these projects were increasingly naturalistic and Latin-based. In 1891 the Volapük Academy, torn among conflicting parties, elected Woldemar Rosenberger as its president. He moved its researches in a new direction; transformed into the Akademi Internasional de Lingu Universal, it developed the project Idiom Neutral (1902), which in turn passed through several reforms and emerged with a clearly Latin-based structure.

NATURALISTIC LANGUAGES

We have seen how, after it became clear that the purely "philosophical" languages (based primarily on seventeenth-century notions of reason) did not in fact work, the authors of language projects turned to naturalistic languages with varying degrees of schematization and with a growing bias toward Latin. This development was in line with the projects for minimal languages, among which those derived from Latin were the most numerous. Since 1887, the year of Esperanto's publication, most interlanguages have tended to belong not only to the Indo-European family but specifically to its Romance branch—a sign in itself of the extent to which Latin has influenced the civilization of Europe and America, where these planned languages came into being.

In 1887 the American Philosophical Society became interested in the question of a universal language and concluded that it should have the following characteristics: (1) the orthography should be phonetic, (2) there should be only five vowels (*a, e, i, o, u*), (3) it should be written with the Latin alphabet, (4) the grammar should be simple, and (5) the vocabulary should be drawn from Indo-European languages, primarily the Romance languages, not only because they were widely spoken but also because their lexicon could be easily assimilated.

This last observation was confirmed in 1888, when the author of Mundo-Lingue, the Austrian Julius Lott, having compiled a dictionary of seven thousand international words, noted that most of them were derived from Latin. In 1947 the International Auxiliary Language Association (IALA), which had been founded in 1924, submitted the results of its work to public scrutiny. Those questioned were asked to choose among four

variations, and the people from non-Latin countries chose those that most resembled Latin. All important projects appearing after Esperanto, such as Jespersen's Novial (1928), Edgar von Wahl's Occidental (1922), Interlingua (1951), Romanid, by the Hungarian Zoltán Magyar (1956), and the various projects derived from Esperanto (Ido, 1907; Reform-Esperanto, 1910; Latin-Esperanto, 1911, and so on) have displayed a high degree of latinization.

At the same time, these projects reveal another evolutionary tendency: they are so naturalistic that they imitate the very arbitrariness and irregularity from which they were designed to escape. The term *naturalistic languages* is used for those a posteriori languages that, in addition to their tendency toward latinization, abandon the principles of fixity and schematization inherited from a priori projects: several graphemes represent various phonemes depending on their position in the word; a given grammatical category can be represented through various endings (for example, in Interlingua and Intal singular nouns can end in either a vowel or a consonant); roots have no fixed form, and so on.

If naturalism produces imitation of the defects of nature, it also returns, in the name of subjective aesthetic criteria, to complexity and confusion of the type that planned languages seek to eliminate. The phonetic system for such languages is not fixed. In Interlingua, for example, the letters *g*, *j*, *s*, *x*, *y*, and *z* represent two phonemes each, *c*, *ch* and *t* represent three, and the original pronunciation is allowed for certain borrowed words. Although it is easy for a European to read, in practice Interlingua can be used only as a written language, a role to which the pasigraphies were also limited and which any national language can play. At the same time, naturalistic morphology reintroduces irregularity within categories, rendering them recognizable only through their sense and not through their form. This implies that the problem of comprehensibility has been solved in some other way, since in all nonnaturalistic languages comprehensibility is primarily a function of fixity of form. In Volapük, for example, *elilädob* can only be the first person singular (*-ob*) of the perfect indicative active (*e-*) of the verb *lilädön* 'to read'. While a language that is still essentially schematic, like Ido, uses only one affix for one function (e.g., *igar* 'to render in a certain way'), a naturalistic language like Mundo Lingue uses several synonyms: *-ificar*, *-efar*, *-ifar*, *-ilitar*, *-isar*. This variety produces neither

facility nor simplicity, and it is unclear by what aesthetic or other advantage naturalism compensates for the loss of logical and regular derivation.

Universel (Menet)	Spelin	Esperanto	Interlingua	Italian	English
gov	yoebif	bovo	bove	bue	bull
ıgov	yobif	bovino	vacca	vacca	cow
govol	yubif	bovido	vitello	vitello	calf

ESPERANTO AND THE PLANNED LANGUAGES

Seeking to rationalize language, the first authors of planned languages tried to reduce it to a systematic classification of ideas. Important traces of such schematism are evident in Esperanto. The history of interlanguages began to develop rapidly, however, only when linguists became aware of the fact that the aim of language is spoken use. At this point purely oral criteria intervened, and the trend toward naturalism emerged from these criteria, with aesthetics in the lead. This explains in part the Latin nature of Esperanto and its successors, as well as the return to irregularity in the naturalistic languages. Although Esperanto borrows its lexicon from natural languages, its derivation and inflection retain a regularity and a schematic quality that clearly distinguish it from its naturalistic rivals.

No one has ever provided a serious definition of the criteria of naturalism. This being so, we might speculate as to whether it should be regarded as unnatural for a thinking being to create a rational and logical language. Arguably, such an activity conforms better to rational human nature, and hence is in itself more natural, than eternal dependence on so-called natural language. If we regard as natural only those attributes with which we are born, all the achievements of civilization become unnatural; thus we might declare all numbers—except one, two, and three—artifical because they do not exist in the most ancient languages.

Apart from psychological resistance to artificial language, which adds a pejorative nuance to the adjective *unnatural*, we can note that the essentially empty concept of unnaturalness was developed not during the rational seventeenth and eighteenth centuries but in the postromantic period in reaction to the rationality, universality and, in a word, classicism, of the previous centuries. Although the requirement of beauty is subjective,

authors of planned languages must treat it as a psychological fact. It seems that a balance of aesthetic and rational tendencies produces a compromise between the schematic and the naturalistic. Esperanto puts this compromise into effect. Born in a period when Volapük was at its zenith, it profited from its predecessor's errors—and it was already fairly well established by the time the numerous projects for minimal latinized planned languages began to place increasing emphasis on naturalism.

The fact that Esperanto, alone among the planned languages, acquired a large community of speakers, merits special attention. Today it is used by individuals and social groups for a wide variety of purposes. Through Esperanto, students, professional people, travelers, scientists, and so on, not only satisfy the practical need to communicate, but also become aware of their own uniqueness and advantage compared with their fellows who do not use Esperanto. This awareness leads to the development of what might be described as a specifically Esperantist consciousness, and it is common to hear people refer to Esperanto as "their" language. The unique phenomenon of an artificially created but living language cannot of course be explained in linguistic terms alone. To study Esperanto in the same way as we studied any other language project—that is, from a purely linguistic point of view—would only partially account for its growing success. The aid of the psychologist and sociologist must be sought. Above all, we should explore why it was created and why it is increasingly learned in very different countries by very different social groups.[8]

The following chronology (table 1) presents only a few of the major projects. It helps to situate Esperanto in the history of planned languages and it emphasizes—

- the relative continuity of the various systems;
- the large number of mixed a posteriori projects since Volapük;
- the bias of authors of planned languages toward minimal languages between 1900 and 1935, when Basic English appeared as an insuperable technical success;
- the numerous naturalistic languages between 1922 and 1951;
- the Western character of interlinguistics;
- the contributions of the countries of continental Europe: Britain is underrepresented among the mixed a posteriori projects compared to France and Germany.

TABLE 1
A Chronology of Planned Languages.

Year	A Priori	A Posteriori Mixed	A Posteriori Naturalistic	Simplified	Pasigraphy
1876					Damm (D)
1879		*Volapük* Schleyer (D)			
1884	Maldant (F)				Baranovski (SF)
1886					Rosental (I)
1887		*Esperanto* Zamenhof (PL)			
1888		*Spelin* Bauer (YU)		*Germanic English* Molee (USA) *World English* Bell (GB)	
1889	*Spokil* Nicolas (F)		*Mundo Lingue* Lott (A)		
1892		*Balta* Dormoy (F)			
1893		*Dil* Fieweger (D)			
1896		*Veltparl* Von Arnim (D)			
1898		*Dilpok* Marchand (F)			
1899		*Langue Bleue* Bollack (F)			Hilbe (A)

(continued)

TABLE 1
(Continued)

Year	A Priori	A Posteriori Mixed	A Posteriori Naturalistic	Simplified	Pasigraphy
1902			*Idiom Neutral* Rosenberger (Russia)	*Tutonish* Molee (USA)	
1904	*Perio* Talundberg (D)			*Latino sine flexione* Peano (I)	
1907		*Ido* Couturat (F)			
1908	*Ro* Foster (USA)			*Apolema* La Grasserie (F)	
1910		*Novesperanto* R. de Saussure (CH)		*Hošek* (CS) *Semi-Latin* Moeser (A)	Orsat (F)
1911	*Molog* De Sarranton (F)			*Simplo* Ferranti (I)	
1915		*Nepo* Cheshikhin (Russia)		*Wede* Baumann (D)	
1916					Linzbach (Russia)
1918				Keyser (S)	
1920	*Beobi* Gordin (Russia)				
1922			*Occidental* Von Wahl (D)		
1925	*Loqa* Nield (F)	*Esperido* Raymond (USA)			

Year	Language	Author (Country)
1927	*Novial*	Jespersen (DK)
1929	*Panoptic*	Ogden (GB)
1930	*Anglic*	Zachrisson (S)
1935	*Latinesco*	MacMillan (GB)
1935	*Basic*	Ogden (GB)
1943	*Suma*	Russell (USA)
1943	*Interglossa*	Hogben (GB)
1943	*Esperantuisho*	Železný (CS)
1943	*Interlingua*	I.A.L.A. (USA)
1956	*Intal*	Weferling (D)
1956	*Romanid*	Magyar (H)
1957	*Picto*	Janson (GB)
1961	*Neo*	Alfandari (B)
1961	*Unilo*	Jørgensen (DK)
1963	*Malfalsito*	Roussel (F)
1965	*Unilingua*	Agopoff (F)

Abbreviations: A: Austria; B: Belgium; CH: Switzerland; CS: Czechoslovakia; D: Germany; DK: Denmark; F: France; GB: Great Britain; H: Hungary; I: Italy; PL: Poland; S: Sweden; SF: Finland. Language names, where known, appear first, followed by authors' names.