

Language Regimes in Transformation

Future Prospects for German
and Japanese in Science, Economy,
and Politics

edited by

Florian Coulmas

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Changing economic values of German and Japanese

Fumio Inoue

Introduction: the perspective of econolinguistics

This paper is an essay on the econolinguistics of two major languages of the world today, German and Japanese. The economic value of these languages will be assessed on the basis of changes in the number of foreign learners. First, the present status of German and Japanese in the world will be ascertained. The situation of German in Japan will then be considered on the basis of various statistical data. Finally, after a theoretical discussion, future prospects of the two languages will be analysed.

To begin with, let us consider the framework of this discussion, which is econolinguistics. In discussing the present status of German and Japanese, the power of English cannot be ignored. English exercises a strong influence at the lexical level of loanwords all over the world (Miyazima 1992), as well as with regard to “corpus (language) planning”, to use a sociolinguistic term, but these aspects will be ignored in this paper.¹ Attention will be focussed on the aspect of “status planning”, that is, the social use of languages, although, at this point, increases and decreases in the number of native speakers will be ignored.

German and Japanese are not in danger of extinction. They are national languages and official languages; moreover, they are two of the most popular languages studied as foreign languages in higher education. In other words, they are languages with a high market value. The domains or situations of usage are still safe and stable, although some domains are being invaded by English (e.g., technical terms in science and commercial terms in economy and commerce). Here we will concentrate on domains outside the core areas of the two languages, that is, foreign language education for second language learners.

To state the conclusions of this paper first, in the world today, foreign language education is governed by economic principles. The study of exotic languages by aristocratic dilettantes, as in the 18th or 19th centuries, has become rare, and learning modern languages in order to acquire knowledge of advanced societies became prevalent in the 20th century, with a heavy concentration on English by the end of the century. In this sense, German and Japanese have been in a

similar situation for nearly a century. Thus common criteria can be applied when constructing projections about the future development of the two languages. Although English is steadily expanding its lead over all other languages, the market value of German and Japanese is not depreciating, because, in future, developing countries will produce more language demand in the course of internationalization.

1. The status of German and Japanese in the world today

First, the status of German and Japanese in the world of today in terms of popularity will be ascertained. This is done on the basis of data gathered in a large-scale international survey on Japanese, conducted in the 1990s by the National Institute for Japanese Language, Tokyo (Shin-puro Nihongo 1999). Various questions were asked in order to measure the status of languages. The most appropriate question for future predictions is analysed here. That is: the language which will be essential or indispensable for international communication in the future. The results of about 1,000 samples each in 28 countries were calculated separately. Adding up the results of the 28 countries in a simple sum does not mean much, for if, for example, the percentages of Singapore and China are added and divided by 2, the weight of the Singapore responses are disproportionately large. Therefore, a graduate student at Tokyo University of Foreign Studies calculated the actual popularity of languages by multiplying the population size of survey countries by the percentages of survey results. On the basis of this survey, he drew up a similar calculation for all the countries of the world (Kigoshi 2004).

The results are shown in Figure 1. According to this estimate, the prediction of the future importance of languages is in the order English, Chinese, French, German, Japanese, Spanish and Russian. English is acknowledged as by far the most necessary language for world communication. In Figure 1, vertical columns of the languages can be divided into the countries surveyed. It is clear from the graph that the answers of Chinese respondents are decisive for the order of languages. Japanese received high marks partly because of the positive response in neighbouring China, with a population of 1.3 billion, while German was ranked highly by neighbouring European countries.

Thus far, we have observed the status of German and Japanese languages in the world.

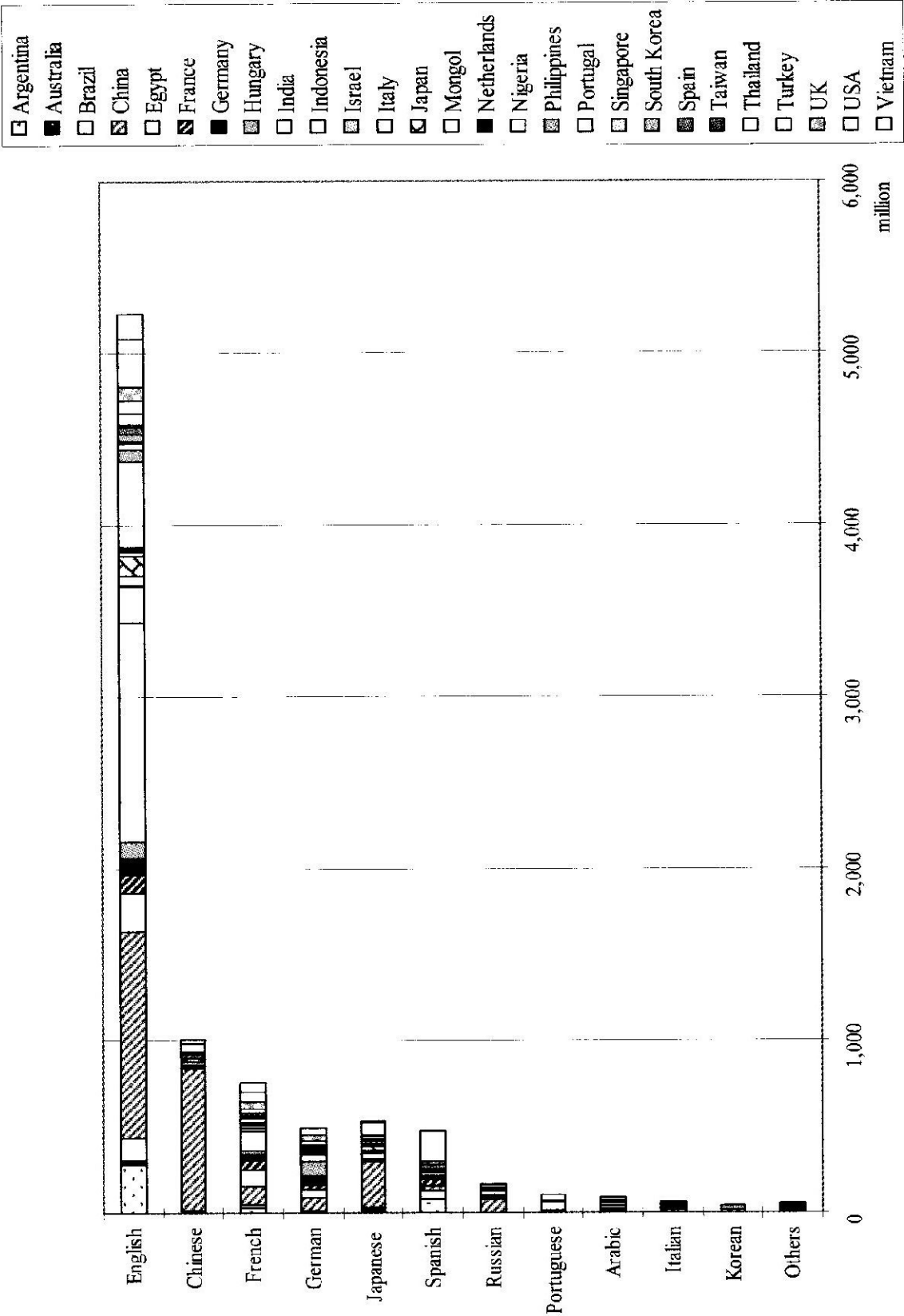


Figure 1. What languages do you think will be essential or indispensable for international communication in the future? (Kigoshi 2004)

2. Three factors of the language market

Next, we will proceed to a theoretical discussion on the reasons why such ordering is given to languages in the world. The conclusion is simple. In the world today, languages have economic value (Coulmas 1992). Previously published theories (Inoue 1997, 1998, 2001a) need some revision, which can be touched upon only very briefly in this paper, however.

The factors that control the market value of languages fall into three categories, as shown in Figure 2. The three factors are (1) population size, (2) economic power of the speech community, and (3) information quantity and cultural elaboration. The first and second factors are concerned with quantity, and the third factor is concerned with quality. The size of a language territory could also be taken into account which, however, largely corresponds to the three decisive factors.

	Geographical scales				
	global	regional	personal	languages	Market value factors
3 factors					
1 Population Quantity	○			Ch En Hind Sp Ar Po Jp	Indice de diffusion = learners / native speakers
2 Economical power Quantity	○	○		En Jp Ge Fr Sp It Ru Ch	GDP GNP trade quantity
3 Information quantity, Cultural level Quality	○	○	○	En Ch Ge Fr Sp Jp Ru / En Ch Jp Ge Sp Fr	books, Internet; personal taste
	Proximity domains effect				

Figure 2. Three factors of market value of languages

2.1. Population of speakers

The first factor is sufficient to explain the vast range of social status of languages in the world, the total of which is sometimes quoted as numbering 3,000 and sometimes as many as 8,000. There are major languages with

more than one hundred million speakers, such as Chinese, English and Japanese; on the other hand, there are minority languages with less than one hundred and sometimes just a handful of speakers. Languages taught as foreign languages in universities and language schools usually have more than ten million speakers. This kind of proportional relation between number of speakers and status of language can be impressionistically represented by a scattergram with the two factors on the x and y axes.

In addition to the total population of native speakers, many other indices should be taken into account to better explain the ranking of languages, as suggested, for instance, by Inoue (2001a). Second language speakers, numbers of countries used, status in the UN, among others, all contribute to the first factor of the language market. Nowadays this is a market on a world-wide scale. However, population is not enough to explain the ranking of major languages of the world, as shown in Figure 1.

2.2. The economic power of languages

In order to understand the ranking of the first ten or one hundred most popular languages, the economic factor, too, has to be taken into account. This factor can be calculated by summing up the GDP or GNP of countries where certain languages are used as official languages, as shown in Figure 3. Since the 1970s, the economic ranking of languages according to this index has been English in first place followed by Japanese and German. In the case of German, the total of the GNP of former East and West Germany and Austria, plus one-quarter of the GDP of Switzerland, is taken as the index value. As Ammon (this volume) has pointed out, several more informative indices such as, for instance, exports have been proposed, and other suggestions will likely be put forth before we arrive at the most effective index.

At the same time, we should not forget that the actual linguistic situation often does not reflect the linguistic market value directly: sometimes language choice is exercised deliberately, ignoring market principles. Metaphorically speaking, this could be called a "planned economy of languages". Language choice in high schools all over the world, and in primary schools nowadays in many countries, is mostly decided by central governments, as in a planned economy. Eastern Europe is a case in point. In Hungary, for example, Russian was taught as an obligatory subject, but a few years after the collapse of the Berlin wall the learners of Russian suddenly decreased.

In the situation of a "liberal economy" various foreign languages were chosen, mainly neighbouring European languages such as German (which was a popular language in the past because of the Austro-Hungarian Empire), but also exotic languages such as Japanese. But recently Hungarian people seem to have noticed market principles at work behind languages, and the choice of English is now increasing.

It is common knowledge that a "planned economy" is sometimes counterproductive. Until recently Japanese was not taught in some East Asian countries, even at university level, because of the unhappy memory of the past. Japan proscribed the teaching of English during the World War II,² but recent research has shown that English was taught in some high schools in rural parts of Japan at the time. On the other hand, planning is necessary for the protection of languages in danger of extinction.³ These clear cases of language choice in a "planned economy" should be ignored in analysing economic factors that have a bearing on the ranking of languages, though it may be difficult to always distinguish them from choice in a "liberal economy".

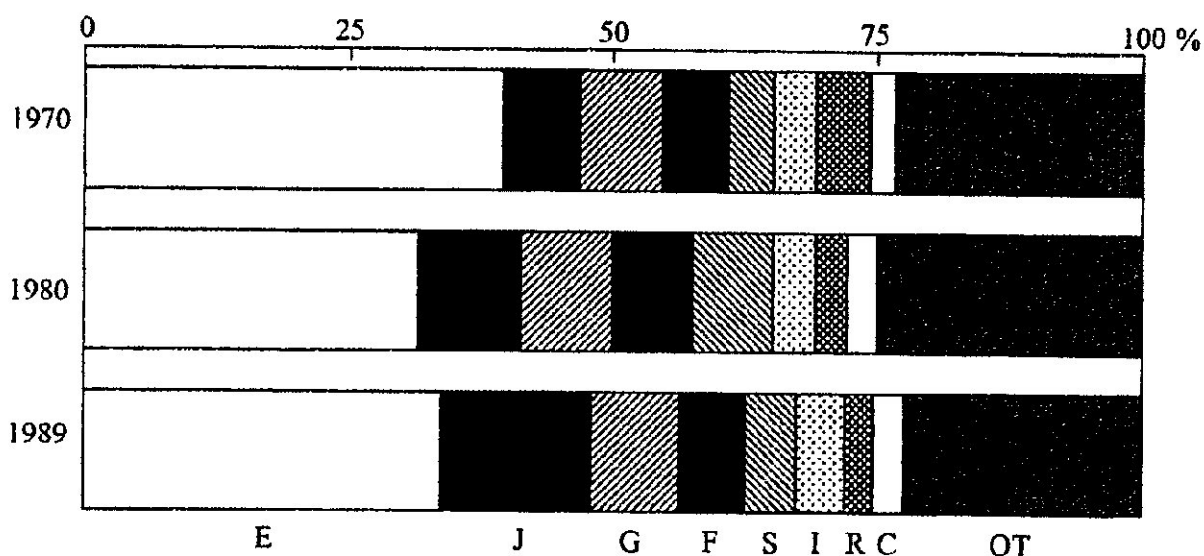


Figure 3. GNP of the languages in the world

E = English, J = Japanese; G = German, F = French, S = Spanish, I = Italian, R = Russian, C = Chinese, OT = Others

The order of languages in Figure 1 can be explained in large measure on the basis of the economic power of languages, a factor which is determined on a worldwide scale. However, geographical proximity also has an effect; with nearby countries transportation costs are lower and the exchange of goods and people is easier, so the incentive to learn the language in question is greater. The relative popularity of Japanese as shown in Figure 1 is

due to the great weight of neighbouring China. The “proximity effect” is crucial for understanding global dynamics, including the language market⁴. In East Asia, its effectiveness is reinforced by another factor, the common script which, not least by reducing transmission costs, turns China, Japan and Korea into a regional group of Chinese character using countries⁵.

2.3. The cultural level or information quantity

In order to explain the status of the first ten or so languages, the present economic power of their speech communities is insufficient. The cultural level of development which has been accumulated from the remote past must also be taken into account. Knowledge recorded in books was the main source of information in the past, as is suggested in Figure 4. In this graph Chinese is exceptional because various materials are published in minority languages. Modern science and technology were written mainly in European languages. English, German and French were therefore indispensable languages in this regard. English, German and French were also studied by those who wanted to acquaint themselves with philosophy and literature in the original form.

Information on Internet sites (home pages) has become more important in our time. English is of paramount importance here, but a great deal of digitalized information has been accumulated in German, Japanese and Chinese, too. These developments take place on a worldwide scale, but they are limited to specific domains. Personal preferences are also influential. For example, people study Italian for cooking, Spanish for flamenco and Japanese for anime or cartoons.

2.4. Individual contributions to the market value of languages

The possibility for individuals to contribute to the market value of languages according to the three factors above is variable. Only a weak correlation can be established. As for the first factor, population size, one individual's contribution is minimal but usually steady. With regard to the second factor, economy, individuals can contribute to some extent, working diligently for a company, for example. If an individual succeeds in creating a big international company, the personal contribution to the market value of his or her language is greater. With respect to the third factor, culture and

information, individual contributions are likewise highly variable. A best-selling author can have a considerable impact, for example. In the past, authors such as Kant, Goethe, Thomas Mann and other scholars and novelists surely helped to increase the number of foreign learners of German. By comparison, Chinese and Japanese writers were less influential in terms of attracting foreigners to study Chinese and Japanese in order to read original literary and philosophical texts without translation.

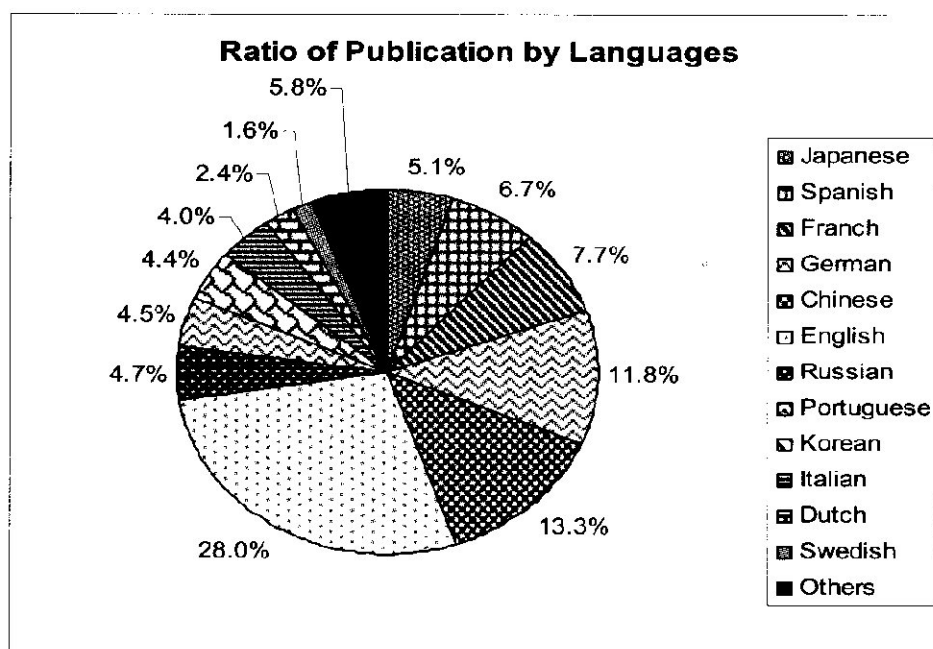


Figure 4.

For a country's literary works to become known abroad they must first be translated. Market principles make themselves felt here, too. Even where the lofty domains of the human spirit are concerned, we cannot get past the economy. The ranking of the languages of the world can be better explained by paying due attention to the economy of culture.

To conclude this section, on the basis of the three factors considered above it can be said that at present the position of German and Japanese in the ranking of the world's languages is similar.

3. The decline of German in modern Japan

Next, let us consider the status of German in Japan. The decline of German in Japan has often been discussed, and it has been analysed from various points of view in Ammon (1994), among others. Additional examples will be examined on the basis of more recent data. Historically, German was

second only to English as a foreign language in higher education. Data about foreigners hired by the Japanese government (*oyatoi gaikokujin*) at the end of 19th century shows that most of them came from English speaking countries (Inoue 2001b). At the same time, it is significant that many Japanese professors who were allowed to study abroad went to Germany. Germany was especially popular among medical doctors and scientists. Prior to World War II, many famous scholars such as Mori Ogai, Saito Mokichi and Kitazato Shibasaburo obtained degrees from German universities.

In the past, the order of most frequently studied foreign language in Japan was English first, then German and French. After World War II it changed to English, French and then German. The Japanese Ministry of Education and Science has repeatedly conducted surveys of foreign language teaching at the university level. According to the data presented in Figure 5, Chinese overtook German in 2003, and the order became English, Chinese, German and French. This is because the number of private universities offering Chinese exceeded that of those offering German. In public and national universities the order of most frequently studied foreign languages is still English, German, French and then Chinese⁶. There have been no changes here. However, private universities are more sensitive to market forces and public demand in language education.

English has been virtually the only foreign language taught in Japanese high schools for some time. However, according to a recent survey by the Ministry of Education and Science⁷, a certain number of high schools offer classes in other foreign languages. In 2003, the order of foreign languages besides English taught in high school was Chinese, French, Korean, Spanish and German. In 1993, German was still in third place, but during the decade that followed it was overtaken first by Korean and then by Spanish.

As shown in Figure 6, already in the 1990s, the order of languages taught at private language schools was English in first place and Chinese second. The recent popularity of Chinese is also observed in Western and Asian countries; students of Japanese are declining, while the numbers learning Chinese are increasing. This global popularity of Chinese corresponds to the economic development of China in recent years.

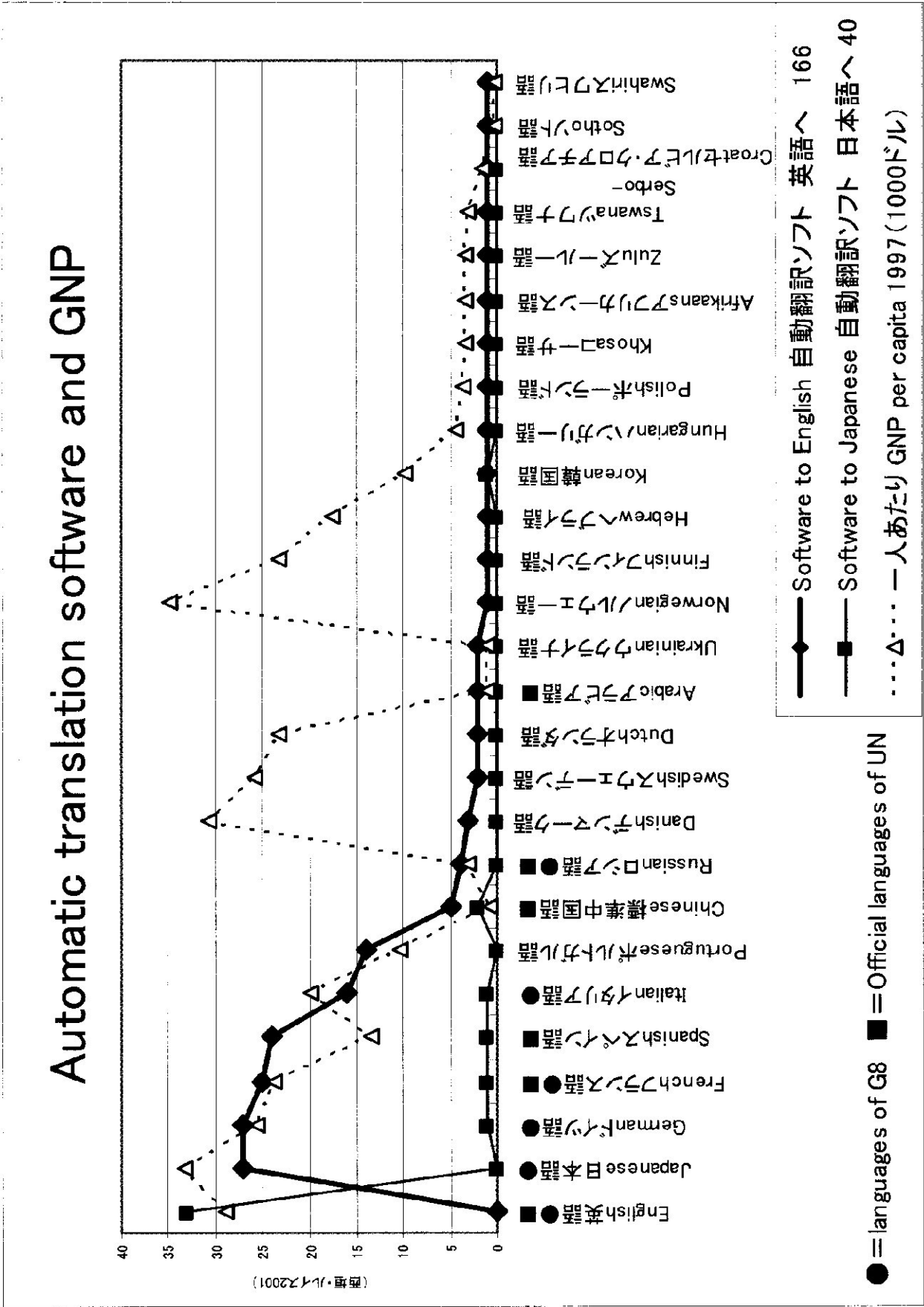


Figure 8.

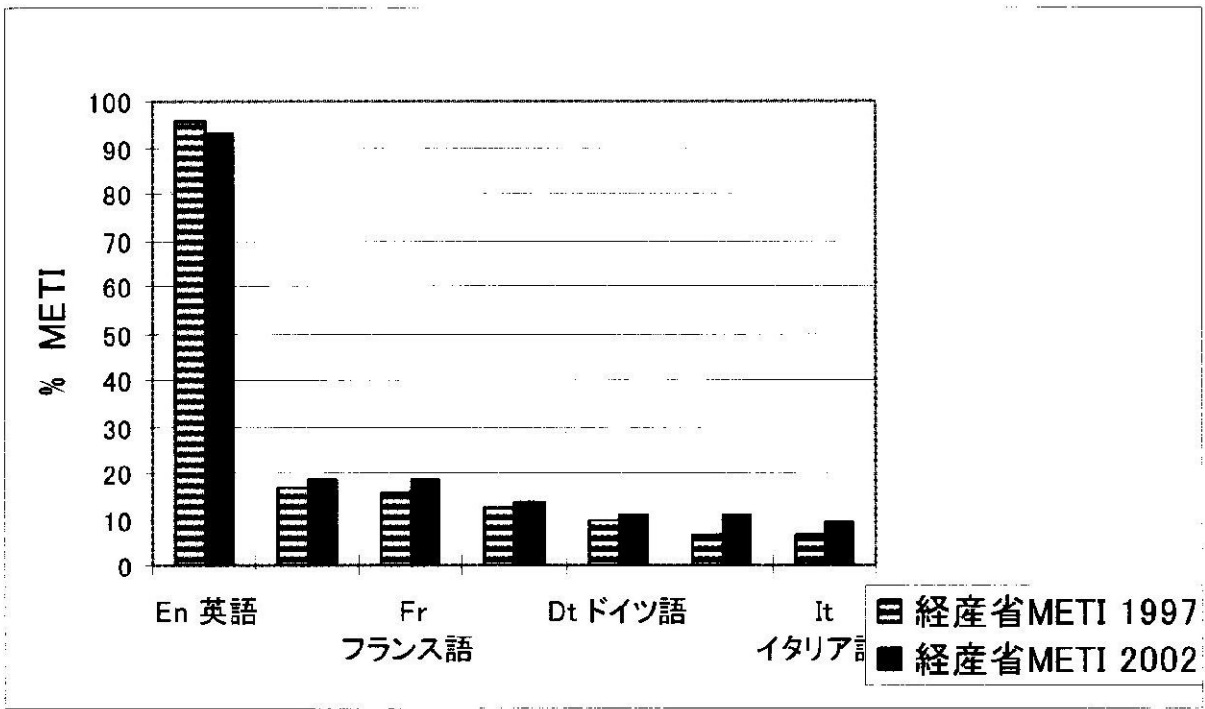


Figure 6. Languages taught in Language Schools in Japan 1997 and 2002

On the other hand, the popularity of German in Japan is declining and the number of German classes in private conversation schools is diminishing. Sales statistics of textbooks of foreign language courses offered by NHK, the Japan Broadcasting Corporation, show a decrease in German teaching materials (Inoue 2000). The unification of East and West Germany was expected by some to boost the popularity of German, but the effect was only ephemeral. In sum, the future prospects of German as a foreign language in Japan are not promising.

4. The future of German and Japanese

In this section the future prospects of German and Japanese in the world will be investigated, considering both positive and negative aspects of the present state of affairs. To this end it is necessary to take into account a variety of social and economic factors.

4.1. "English imperialism"

First, consider a fact that bodes ill for German and Japanese, the power of English. It cannot be ignored in any discussion about the future of German and Japanese in the world.

Tsunoda (1993) presents data about the languages of articles in academic journals that are indicative of the development of the last century.

Fig. 7 Language selection in academic journals

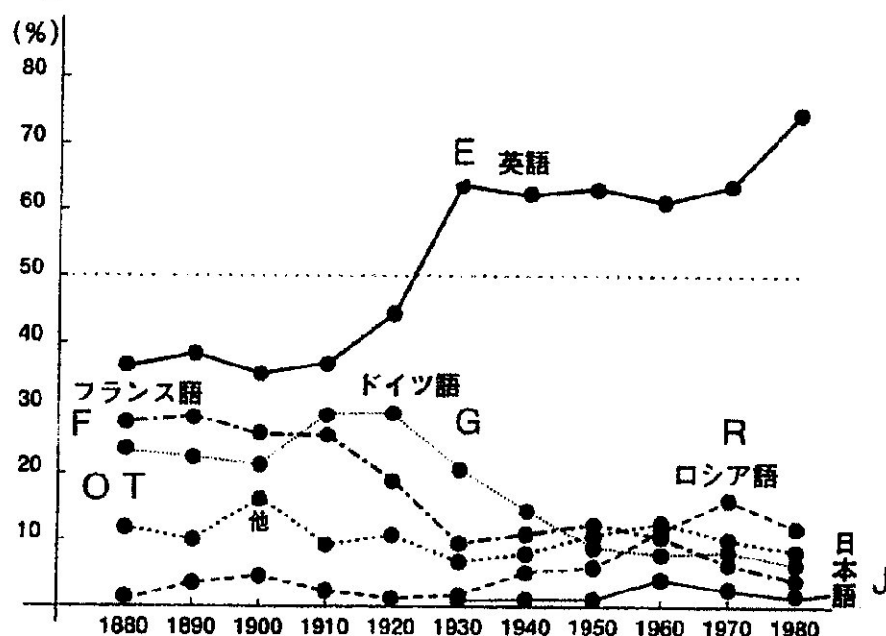


Figure 7.

English has held the top position for the past 100 years. For some time, German and French were competing for second place, and Japanese flourished in the latter half of the 20th century⁸. However, these trends must be regarded as peripheral to the greater trend of English monopolization. The so-called "linguistic imperialism" (Phillipson 1992) of English is becoming stronger in many domains. Considered in the context of geopolitics and world history, the advance of English seems irreversible. Will German and Japanese be downgraded to second-rate languages in the future as a consequence?

4.2. Regional economic areas and the German and Japanese languages

According to one theory, regional differences in the sociolinguistic situation of languages give reason for cautious optimism, but in actual fact regionalization is not a good prospect for many languages. Consider the analogy of a common currency. Most parts of the European Union (EU) now use the Euro. The idea of an association of European countries, which first emerged after World War II, took about fifty years to be realized. Because of the proximity effect within the EU, it is easier for German to hold its own in Europe, where the rights of official languages of EU member states are guaranteed. The regionalization of the economy in the Far East is in the early stages of formation, but the former "Dragon Countries" of the Confucian cultural area – the area of Chinese characters – may yet create an area of common interest in future. Recent observation of the "linguistic landscape" shows that in major cities of these countries, multilingual signs using English, Chinese, Japanese and Korean are spreading, signifying a common language group⁹. This language landscape is reflected in language choices in higher education, especially at universities. If several regional economic areas are formed on the earth's surface in the future, mutual language learning within the area will flourish, and languages other than English may find their own place of existence¹⁰.

However, the status of a regional language is not everlasting. A similar process was observed in the past with regard to the decline of Japanese dialects¹¹. Small-scale dialectal differences disappeared and dialectal expressions used in larger areas spread wider; at the same time, local common languages flourished. However, the standard language has eventually prevailed over intermediate varieties, with the result that local differences are completely disappearing. It is safe to predict that present dialectal differences will eventually disappear from Japan.

The role of German and Japanese in regional areas may be compared with the substitution of Japanese dialects by the standard language in Japan. It is likely that the world-wide advance of English will lead to a decrease in vitality of major languages such as Japanese and German. Thus the effects of regionalization on these languages may not be as positive as they seem.

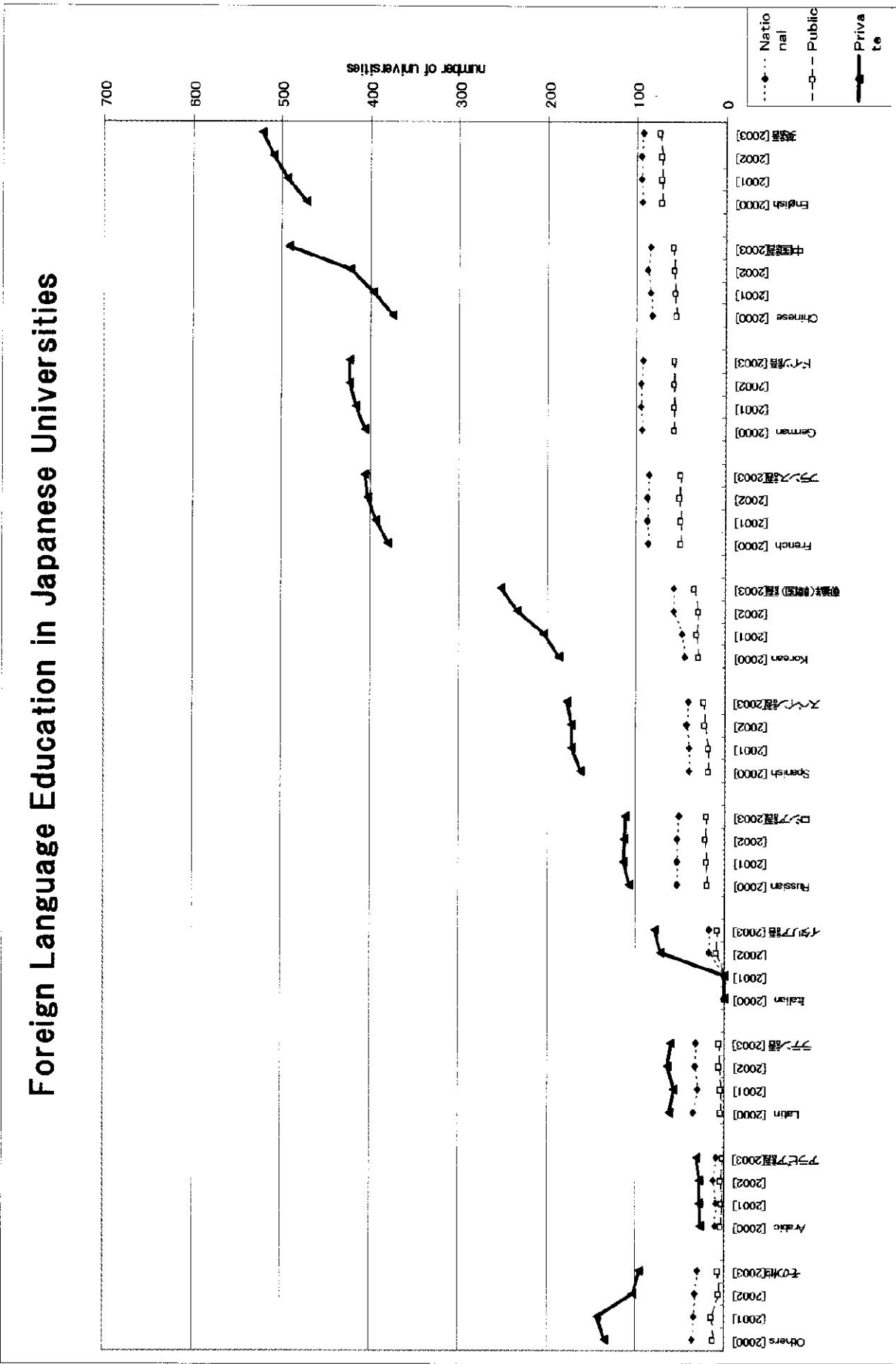


Figure 0.5

4.3. Automatic translation

Conversely, some seemingly ominous developments, such as machine translation, may actually harbour promising prospects. If automatic translation becomes more realistic and easily applicable, ordinary people will feel even less need to learn foreign languages. Automatic translation free of charge is available on certain Internet sites, and ever more translation software is being developed and marketed. As shown in Figure 8, most translation software is centred on English. There is a conspicuous correlation between the languages for which translation software is available and the average GNP per person of the countries where they are spoken. Economic principles seem to be at work here. For example, Japanese-German translation software is scarce. The quality of machine translation is not yet satisfactory, depending as it does on the quantity of the software. Programmes for automatic interpretation of voice input are still in an embryonic state. This means that automatic translation is not yet a counter-incentive for foreign language learning. On the contrary, the necessity of translation will be felt more keenly, which will stimulate language learning.

4.4. A positive aspect: the pie of foreign language learning will become bigger

The factors thus far considered for the most part pertain to the ranking of the world's major languages. The final section of this paper discusses factors relating to the number of learners of German and Japanese. Two main factors are to be considered.

4.4.1. *The trend towards higher education*

The first factor is a trend towards higher education or higher academic degrees. Higher education is increasingly in demand by the world population, and this will automatically boost foreign language education. International communication will increase, leading to increasing demand for language learning worldwide. The absolute numbers of learners will thus increase. In other words, the pie of language learners will become bigger in the future. This means that the economic value of German and Japanese will not de-

crease to the extent that might be expected on the basis of present circumstances.

4.4.2. Increase of multilingual usage

The second factor which will contribute to the future vitality of German and Japanese is the spread of multilingualism rather than bilingualism. Multilingualism will be more prevalent worldwide. A combination of mother tongue and English is likely to be used in some advanced communities, but use of two languages, i.e., this particular kind of bilingualism, will not be sufficient. Part of the population that is now monolingual will become bilingual, and part of the population that is now bilingual will become multilingual. In order to facilitate communication between neighbouring countries, the demand for major regional languages such as German and Japanese is likely to increase.

This trend can be extrapolated from Figure 6, which shows that languages other than English, German among them, were taught in a larger number of schools in 2002 than 1997. The number of English-language schools seems to be decreasing, but this is due to the fact that a growing number of large firms have in-house English-language training. In general, the market value of languages in Japan is appreciating. In other words, the factors which contribute to the positive prospects of languages other than English are (1) the increase in international communication and (2) the increase in language demand by industry and other sectors of the economy.

However, the question of total national expenditures for foreign language education, which is too often ignored, also needs to be considered. For example, in the controversy about making English the second official language of Japan¹², economic considerations were lacking.

5. By way of conclusion: a bright future

The above discussion has demonstrated that the future of German and Japanese may not be as bleak as many observations would suggest. However, this is the biased view of one who has connections with language education. The prediction that languages other than English can survive in the world of the future is significant in another sense. It means that there are still certain tendencies countervailing the strong unifying power of the

spread of English. This is theoretically connected with the perpetuation of linguistic diversity and the continued existence of various mother tongues. The vitality of languages can be measured in various domains and by a variety of factors. The extent to which a language is studied as a foreign language is at the apex of the vitality hierarchy. This index applies to a small number of big languages only. At the other extreme, many small languages are in danger of extinction. However, even powerful languages such as German and Japanese are losing ground to the world language English.

Of the three composite factors of the market value of languages discussed above, the first two, population size and per-capita GNP, can easily be framed in economic terms. However, this is not so easy with the third factor, cultural elaboration and information, because there is much resistance against subsuming cultural and intellectual matters under economic principles. This is quite understandable because while certain properties of language can be theorized and explained in economic terms, others cannot. In this sense language is "invaluable".

Notes

1. See Gottlieb (this volume) on the *jōyōkanji* list of Chinese characters for everyday life in Japan, and Holenstein (this volume) on loanwords and place names.
2. According to Ulrich Ammon (personal communication), the Nazi government decided to teach Japanese compulsorily in Germany. But the Nazi system collapsed before this plan could be realized.
3. Hara (this volume) for a discussion of several cases in Europe.
4. This concept relates to that of "glocalization" and "Japan's third way" discussed by Katsuragi (this volume).
5. Transliteration problems are discussed at length by Holenstein (this volume) who, however, largely ignores the problems of East Asian countries and their non-alphabetic scripts.
6. According to Coulmas (this volume), Tokyo University professors use predominantly Japanese in their research papers for university publications. However, in recent years there has been an increase of the number of papers written in German. One may be forgiven for raising the question whether this is so because, thanks to the decreasing number of students, German teachers have more time to write papers.

7. http://www.mext.go.jp/b_menu/houdou/16/05/04051101/016.htm
8. Maher's study of medical research papers in Japan (this volume) is a case in point.
9. What Andrew Horvat (personal communication) calls an "enabling environment" should also been taken into account in considering foreign language education in East Asian countries. Japanese has a deficit in this regard and it has therefore been difficult for it to surpass German in university education.
10. This idea is correlated with Ammon's (this volume) suggestion of language alliances. It may be more effective, however, if German and Japanese concentrated their defense on their proper regions, Europe and East Asia, respectively.
11. As Katsuragi (this volume) points out, Japanese dialects are often mentioned in language planning reports, but actually almost nothing has been done to support them. Rather, the focus is on the "common language" (*kyōtsūgo*) and the standard language (*hyōjungo*).
12. Heinrich's discussion of "English as the second official language in Japan" (this volume) ignores economic factors, while Ehlich's considerations on the economics of monolingualism versus multilingualism (in this volume) provide an incentive for a more specific research. Cf. Coulmas (1992) in this connection. Most of the language revival movements in the EU discussed by Hara (this volume) are hard to analyze in economic terms because they do not abide by economic principles. As Ammon (this volume) implies, this may even hold for the promotion of German and Japanese abroad, which does not seem to yield a return on the investment.

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