

# THE JAPANESE LANGUAGE IN THE POSTWAR PERIOD

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## 1. THE JAPANESE LANGUAGE AND ITS SPELLING

### 1.1 *The Immediate Postwar Period*

For the Japanese, the loss of the war was a severe blow to their self-confidence as a people. Naturally, this also had an effect on the way people perceived their language. There were some who suggested that the Japanese language lacked an international dimension and that this had contributed to Japan's isolation in the world and the ensuing tragedy of World War II. They favored getting rid of Japanese altogether and switching to French or English. It was during this period that the well-known author, Shiga Naoya, advocated the adoption of French as the national language in Japan.

Although there is no way to gauge how serious Shiga's suggestion really was, it was not without historical precedents. Mori Arinori had made similar proposals in the early Meiji period, advocating the adoption of English as the national language. At that time, just after the opening of Japan to the outside world, Mori and others like him were dazzled by European and American civilization which they perceived as overwhelmingly superior to that of Japan.

On the more realistic side of things, there was a rather strong school of opinion advancing the notion that the difficulty of the Japanese writing system with its intensive use of Chinese characters (*kanji*) was a stumbling block to Japan's democratization. The adoption of *tōyō kanji*, a standardized and numerically reduced set of (about 1850) Chinese characters for daily use in Japan, and the establishment of the modernized system for the use of kana, the Japanese syllabaries, in 1946 – rather soon after the conclusion of the war – took place with these ideological issues in the background. Furthermore, the simplification and modernization of written Japanese was enacted at a time when those with conservative views on the national language and writing system were at their weakest politically.

It was in the same spirit of political and social reform that the Literacy Test for Japanese was promulgated on a nationwide basis in 1948. In the opinion of the Occupation Forces whose mission it was to "democratize" Japan, the complexities of written Japanese with its many Chinese characters had contributed to a supposed low rate of literacy among the Japanese and predisposed them to submit to the will of the militarists before

and during the war. For this reason, the Civil Information & Education Section (CIE) established experimental schools teaching romanized Japanese and sponsored publication of a newspaper in romanized Japanese. The Bureau envisaged the ultimate abolition of Chinese characters in written Japanese and the adoption of a romanized script.

Much to the credit of the United States, the absolute power of the Occupation Forces was never used to issue an order to immediately abolish the use of Chinese characters or introduce a romanized script for Japanese. Nevertheless, as a preliminary to attacking the problem of literacy, the Occupation Forces ordered that a literacy survey be taken to verify just how low the level of literacy was among the Japanese. The fact that the survey was conducted in an even-handed and uncoercive way was in stark contrast to the way other policy decisions such as land reform and the *zaibatsu* breakup were carried out. Perhaps there was a sense that an extremely important cultural issue was being dealt with.

Upon issue of the order to launch the literacy survey, it was conducted in the summer of 1948. In order to obtain a representative sample for the entire country, 270 locations nationwide were chosen in a two-step random sampling process. At each locality names were then drawn from resident cards on file yielding 21,008 survey respondents. Survey respondents were gathered together and administered a written test. Written mainly in kana, Chinese characters and numerals, the test had 90 questions and was designed to examine the respondents' vocabulary knowledge and reading comprehension. Each question was worth one point, for a total of 90 points. Point conversion was then performed to yield a total of 100 points.

The results of the survey were published in 1951 in the form of a report (Yomikaki Nōryoku Chōsa Iinkai 1951). According to this report, on the basis of a 100 point system, the nationwide average on the literacy test was 78.3 points. Furthermore, survey results showed that the level of total illiteracy in Japan was an extremely low 1.7%, verifying the effectiveness of Japan's compulsory education system.

Finally, and most importantly, on the basis of the survey results, it was decided that the mixture of Chinese characters and Japanese kana which formed the basis of the Japanese writing system should be maintained.

### *1.2 Subsequent Changes in the Writing System*

Once the chaotic period just after the war was over, conservative voices on the subject of the Japanese language and its writing system grew louder. Gaining in power on the Japanese Language Council (*Kokugo Shingikai*), conservative factions called for a halt to the introduction of *tōyō kanji* and the modernized kana-system, and a restoration of the prewar system. The

debate was so acerbic that the conservatives threatened to resign from the Council unless their demands were met.

Although there was not much resistance to the abolition of restrictions on the use of Chinese characters, for those who had grown accustomed to the modernized kana-system, especially those who had been taught the new system in school, resistance was very strong to reintroduction of the more idiosyncratic old system.

In spite of the fact that postwar modifications in Japanese orthography were put in place as a precursor to completely phoneticizing and romanizing the written language, the inevitable difficulties bound up with such a switch would probably have been insurmountable. It would have been both difficult and impractical for a whole nation with a relatively high level of literacy to simply abandon its written language in favor of a new system of notation. Of course, there have been cases where whole nations have adopted new writing systems (Turkey and Indonesia are good examples), but such reforms have invariably occurred during periods of great political upheaval in countries where literacy rates were very low to begin with. Finally, there is no indication that the Japanese public were particularly in favor of a writing system that was more phonetic than the present one. On the other side of the coin, from the standpoint of phonetic representation, the readoption of the old kana-system would have been a real step backwards. The fact that it would have forced people to learn a new orthography which does not correlate phonetically with the modern spoken language put the whole idea in the realm of absurdity.

With respect to the notation of modern Japanese, another important fact that should not be overlooked is the standardization of the *okurigana*, the kana that combine with the Chinese characters to render verb conjugations and other affixes.

Having modified the written language as described above, in 1966 the Japanese Language Council embarked on a revision of the postwar system of notation for the language. This work was completed in 1991 and I will discuss the results of these revisions below.

The *tōyō kanji* (a set of 1,850 Chinese characters) were renamed *jōyō kanji* ('Chinese characters in common use') and 95 more Chinese characters were added to the set for a total of 1,945 characters. With respect to the prescribed use of *okurigana*, revisions reflect the tendency to reduce the number of additional kana. (In English, for example, this would correspond to an orthographic change such as '2d' in place of '2nd' as an abbreviation for 'second.')

One could also point to a more intensive use of Chinese characters in place of kana as a sign of the times.

More than anything else, the spirit in which revisions were made changed a great deal during the period after 1966. There was a shift in

viewpoint from restrictions and standardization to criteria and fundamentals. The purpose of revisions was in no way intended to impose restrictions on individual usage or on writing in the sciences, arts or other specialized fields. The trend away from restrictions on usage marked a major change in the viewpoint of the Japanese Language Council in their second stage of postwar revisions.

### 1.3 Chinese Characters Used in Personal Names

Although I have pointed out that there was a trend away from setting restrictions in writing, restrictions on the usage of Chinese characters in personal names remained in full force.

With the promulgation of *tōyō kanji*, a separate set of Chinese characters permissible in personal names was also established. Nevertheless, the Family Registration Law stipulated that the names of children born subsequent to passage of the law could only employ *tōyō kanji* or kana (excluding variant forms). There was a great deal of public dissatisfaction with this law, since many Chinese characters traditionally used for personal names had not been included in the *tōyō kanji* set. And, since the naming of children in Japan often expresses the parents' special desires for the future of that child, there were those who argued that limiting the set of Chinese characters permissible in personal names was an abridgement of their freedom of expression and therefore unconstitutional. This argument won a considerable degree of public support.

For the officials who had promulgated postwar language policy, this debate threatened to put their cherished policy objectives in jeopardy and pave the way for introduction of the old writing system. To avoid this, they struck a compromise in which an enlarged set of Chinese characters was designated for use in personal names. The first set of *jimmeiyō kanji* ('Chinese characters for personal names') was designated in 1951.

There were two subsequent revisions of the *jimmeiyō kanji* and today the set contains a total of 384 Chinese characters. Although these tactics may have calmed public opinion, they were once again made in the spirit of restricting the scope of character usage. And yet, in spite of the fact that this list of additional characters was rather large, very little dissatisfaction with it on that score was voiced.

Of course, the large number of non-standard Chinese characters used in personal and family names (the so-called 'misspellings' and 'non-standard forms') made it extremely inconvenient for the Ministry of Justice to automate and streamline family registry operations. What's more, the fact that so many non-standard Chinese characters had found their way into family registries established a precedent of official recognition. The obli-

gatory input of non-standard forms into the system continued to place a heavy burden on registry offices. This was remedied with the revision of the registry system in 1991 giving officials the authority to correct non-standard forms for registry entries. Although the revised system still recognizes an extremely large number of 'exceptions', there are those who are in opposition to having their family names, handed down to them by their ancestors in a certain form, called 'misspellings' or 'non-standard forms'. However, even though individual cases may provoke hassles at registry office counters, the situation does not seem to be particularly serious at the moment.

Although it was thought that opposition to the 1991 reforms, like that experienced when the first list of *jimmeiyō kanji* was published, would be seized upon by conservatives and employed as a pretext for returning to the old orthography, this fear seems to have been unfounded.

#### 1.4 What Remains for the Japanese Language Council to Accomplish?

The Japanese Language Council concluded its deliberations in 1991 with its determinations on the notation of loan words.

During the era when the Council perceived its mission as being one of imposing restrictions on usage, an expert committee was named to write a report and issue recommendations on the notation of loan words. Since there was a great deal of opposition to these recommendations in the general Council meeting, a final decision was never reached.

The strong opposition to the recommendations of the expert committee with respect to the notation of foreign words in Japanese orthography boiled down to a clash between two viewpoints. One viewpoint held that loan words had become full-fledged Japanese words and should be pronounced and written in a manner natural to Japanese speakers. The opposing viewpoint was that the pronunciation and orthography of loan words should be as faithful as possible to the foreign pronunciation of the borrowing.

The recommendations of the expert committee emphasized the former viewpoint, whereas the latter opinion was rather strongly represented at the general Council meeting.

Although no final determination was made with respect to this debate, the recommendations contained in the report of the expert committee became the basis for official textbook writing, with newspaper editors following suit. While the most recent determinations of the Council are likewise based on the view that loan words should be treated as Japanese words in terms of pronunciation and orthography, it was also determined that, in some instances, pronunciation and orthography should attempt

to approximate foreign pronunciation. For instance, it was pointed out that although it is acceptable to render the labio-dental fricative *v* with the Japanese *ba* (thereby making *va* and *ba* identical), it is also acceptable, particularly when attempting to more closely approximate foreign pronunciation, to use a less ambiguous Japanese transliteration of *v*, namely a *u* with a voice marking and small *a*. The whole point of this argument is not to set restrictions but to establish an acceptable, flexible norm. As a point of information, in regular Japanese pronunciation, *v* is never articulated as a labio-dental fricative (as it is in English) but is closer to being a bi-labial fricative.

Now that the second period of postwar orthographic revisions is over, what tasks remain for the Japanese Language Council as a new, third postwar phase in its existence begins? In terms of the work accomplished by the Council in its second phase, it might rightly have been renamed the Deliberative Council on the System of Notation of the Japanese Language. However, in future, the Council will undoubtedly return to more fundamental issues relating to the Japanese language and standard usage in the tradition of its first and groundbreaking phase of activities.

## 2. STANDARD LANGUAGE VS. COMMON LANGUAGE

Although we tend to view generally accepted usage as 'standard language', in postwar educational circles we also find occasional use of the term 'common language'. Forms in the 'common language' category are not formally recognized as being standard Japanese and the term 'standard' would be inappropriate to describe them. In contrast to universally accepted standard forms, 'common language' covers forms that are commonly used within certain geographical areas. For instance, when a farmer from a rural district adjacent to Yamagata City goes into the city, he does not speak the pure dialect of his area, but a revised 'Yamagata common language' that will be more easily understood by his urban counterparts. If this same farmer should go to Sendai, he will again change his speech to what could be called 'Tōhoku common language' using forms that will be readily understandable to anyone from the larger Tōhoku region. Finally, if this same farmer goes to Tōkyō, when he talks to Tōkyōites he will speak a national 'common language' with much less of a Tōhoku character. This national common language is often simply referred to as 'common language'. In any case, 'common language' appears to be a spontaneous linguistic phenomenon.

Nevertheless, in the farmer's efforts to communicate with more diverse and geographically distant groups, he is guided by some awareness of

what is standard. Regardless of whether we're talking about average people or scholars, it would be more accurate to characterize the linguistic process at work here as one of normalization or standardization rather than as merely 'spontaneous.' The language ideal that the speaker is aiming for is what I would call the 'standard language.' Now, if our thinking about language were to be based on this kind of descriptive norm, it would no longer be possible for any group in society, now or in future, to stand up and claim that this or that form of speech was the standard language. However, I don't think there is any need to taboo the notion of a prescribed standard language which would allow the eternal and unrealizable dream of universal communication on the planet.

At least since the beginning of the Meiji Era when feudalism was abolished, the Japanese people have been impelled by a strong bent towards centralization. Even in the latter stages of Japanese feudalism, the Edo Shōgunate was itself a centralized feudal system (though this may be a contradiction in terms).

Language was subjected to this same centralizing force. People placed the standard language in a position superior to that of local dialects. Even dialect speakers themselves aspired to use the standard language with all its connotations of superiority. With the introduction of government-designated textbooks at the beginning of this century, the officially promulgated standard language became a universal medium of education in the country.

Initially, of course, the impact of the standard language was felt more strongly in writing than in speech. But with the advent and spread of the radio during the Taishō Era (1912–1926), everyday speech norms were also influenced by the standard language. By around 1950 when I began doing dialect studies, there was only a single person, an old woman from Iwate Prefecture, who was unable to understand my Tōkyō dialect. In other words, by that time the standard language was universally understood throughout the country. The rapid popularization of television in the late 50's and early 60's sparked the use of the standard language as the language of everyday speech throughout Japan. Compared to the thirty years in which the radio was on its own, thirty years of television have had an even more profound impact with respect to nationwide mastery of the standard idiom. For instance, in the Nagasaki area where standard *se* is pronounced *she*, middle-aged and older teachers reported to me that a teacher who informs his pupils that he or she pronounces *se* as *she* is subjected to ridicule by his students.

Although it appears that dialects are gradually disappearing in Japan, there are many dialect speakers today who are completely bilingual, maintaining their own local dialect and, at the same time, possessing mastery

of the standard language. When speaking to someone from the same area, they communicate in the local dialect, switching easily to standard Japanese as the need arises.

Fortunately, stories from the beginning of the postwar period until the late 60's about people from the provinces coming to Tōkyō to find work and being ostracized for speaking dialect (or possessing a strong dialectal accent) are now folk history. At the time, however, some dialect speakers developed phobias about their speech and, in the most extreme cases, committed suicide as a result.

Although there is strong momentum towards language standardization and away from dialects, a process that would appear to augur the extinction of Japanese dialects in the near future, there are still many members of dialect communities who prefer to use their native idiom with each other. Furthermore, the fact that new dialects are still springing up, particularly with respect to vocabulary, would indicate that dialects in Japan are not going to disappear as quickly as some might think.

In a public opinion survey on the Japanese language, conducted by NHK (Japan Broadcasting Company), respondents were asked questions like: Should local dialects or standard Japanese be used as the medium of instruction in schools? Should provincial news programs broadcast local news in dialect or standard Japanese? The majority of respondents opted in both instances for standard Japanese. Those who were in favor of promoting dialect use tended to be high school graduates living in large cities. In spite of preconceived notions about the level of universality and acceptance of standard Japanese, there are segments of the population with minimum educational attainments for whom standard Japanese is a second language. On the other side of the coin, the level of support for standard Japanese in the rural towns and villages of the country is overwhelmingly strong. In other words, dialect supporters in the survey are essentially urban dwellers with no more than a high school education who speak standard Japanese in their daily lives but who, for sentimental reasons, have chosen to champion dialect.

### 3. WRITTEN AND SPOKEN LANGUAGES

Historically, the Japanese have been inclined to put more stress on the written than the spoken language and this tendency persists right up to the present day. Proponents of the spoken idiom have been given short shrift in a universe of discourse where eloquence is equated with silver and silence with gold. Oratorical skill is not something that has been consciously cultivated in Japan. For instance, the art of debate is not practiced



at all in the Japanese educational system. There was some emphasis on oral recitation in prewar Japan, but this was done away with in the postwar educational system. Though recitation can hardly be equated with the pure spoken idiom, this pedagogical technique fell into disrepute in the postwar period. This had to do, of course, with the militaristic content of the texts which people were forced to recite and memorize in Imperial Japan.

As might be expected in a situation like this, neither oral education nor phonetics have thrived. In fact, these subjects are almost completely ignored in teacher training courses. It is only very recently that some scholars have begun to rethink this state of affairs and make their voices heard, but no concrete action has been taken as yet.

The fact that the discussion of issues relating to the Japanese language so often centers on questions of notation and that debate in the Japanese Language Council has also focused primarily on this issue, probably derives from the Japanese bias for the written language.

In discussing issues relating to the written language, an amazing postwar development that cannot be overlooked is the changeover in official documents from vertical presentation (i.e., Chinese characters and kana arranged in columns to be read from top to bottom with the columns themselves arrayed from right to left on the page) to horizontal presentation (i.e., lines of text read from left to right across the page like the European languages). This changeover is by no means restricted to official documents, either. Horizontal presentation has become the rule in business correspondence and for many other forms of written communication throughout society. Although vertical screen presentation is possible with many computers and word processors, horizontal presentation is the preferred norm. A look at students' notebooks also reveals that they prefer to take notes writing left to right across the page.

Nevertheless, in spite of the preference shown for horizontal presentation in many forms of written communication, newspapers, most magazines and books continue the tradition of vertical presentation. This would seem to indicate a belief among publishers that readers are more accustomed to reading Japanese in vertical presentation. But then again, perhaps not. In schools, for instance, only textbooks for Japanese classes feature vertical presentation. In China, where vertical presentation of the characters was an ancient tradition, under socialism all books are now written in horizontal presentation from left to right.

## 4. LANGUAGE CHANGE

## 4.1 How Should We View Language Change?

As is undoubtedly true of other languages in the world today, the pace of language change in Japan is accelerating. One factor in this process of change is the drift towards language standardization discussed above. Another important reason for the accelerated pace of change is the universality of mass media.

In terms of how this process of language change is generally viewed, people's attitudes have hardly budged. That is to say, people in the same language community tend to have an unpleasant reaction when confronted with speech forms different from their own. In cases where more than two different variations of the same form coexist (so-called unstable forms), there tends to be an extremely high level of convergence between the form that people think they should use and the form they actually use.

Nevertheless, it should be noted that there appears to be a somewhat higher level of tolerance recently to the accelerated pace of change. For instance, potential forms (indicating capacity or ability) in Japanese are generally formed either by infixing '-re-' or '-rare-' in the verb: *nomu* ('to drink'), *nomeru* ('to be able to drink'); *taberu* ('to eat'), *taberareru* ('to be able to eat'). Since the '-rare-' form is phonologically more complex, there are already many speakers who tend to infix the simpler '-re-' in its place. So the standard *mirareru* ('to be able to see') and *kirareru* ('to be able to wear') are realized in speech as *mireru* and *kireru*. Although at some point I would like to see a newly formed Japanese Language Council debate the issue as to whether or not forms like these should be recognized as standard, in this particular instance I personally believe that it is still too early. The reason is that this phonological reduction has not yet found its way into what could be considered widespread usage and is hardly observed at all in written Japanese. This second reason plainly reveals once again how the written language is overstressed. The canons of the written language (as opposed to the spoken language) tend to be considered the more correct.

How should we view this process of language change? We can either ascribe to the view that language is a dynamic, changing process and accept this or we can try to conserve earlier forms of the language as a model and deplore change. One's attitude in this regard is bound up with one's individual view of language, one's view of life, and, in the larger picture, with one's world view.

In reality, however, even the speech of those persons trying to conserve older forms is influenced by the language being used around them. Today

many Japanese who were raised as children in Japan's former colonies are returning on sentimental journeys to these places. When they meet old servants who used to work for their families, they are surprised at how old fashioned their Japanese is. When asked where that person learned his or her Japanese, they are often told, "From your mother." And yet, today the speech of that visitor's mother is neither old fashioned nor particularly different from the language being spoken by the younger generations around her. The point here is simply that we are not aware or conscious of the changes taking place in the language that we speak every day.

#### 4.2 Feminine Speech

There are many people who point out the fact that women's speech in the postwar period has become more masculine. This observation is often made with an undertone of negative criticism.

Actually, there is a verifiable trend for women to use masculine forms of speech. The trend is particularly noticeable among younger women, who deliberately use masculine speech forms to show their contempt and opposition to weak women and to their feminine associates who constantly defer to men. However, this type of speech is most often observed in conversations between women, especially women in the same age group. In other words, the influence of these speech habits is restricted to conversation among a rather limited group.

Feminine speech in Japanese is especially prevalent in settings where there are strong social differences between the sexes. Consequently, there is not much difference between the speech of men and women who are working more or less as equals on a production line. The use of traditionally masculine forms by women is connected with urbanization. It is happening in the cities where women's social position is improving. However, this same urbanization process in the countryside is having a reverse effect, and fostering the use of more feminine language by women.

At present, however, even women who use masculine speech forms are perfectly capable of using feminine speech. This is in distinction to overseas communities of Japanese, for instance in Brazil and Hawaii, where *nisei* and *sansei* (second and third generation Japanese) women tend to speak a more neutral Japanese and are not fully conversant in feminine speech as spoken in Japan.

#### 4.3 Polite Japanese

One aspect of change in the Japanese language often mentioned recently is the reduced frequency of polite forms in favor of plainer forms. Again,

this observation appears to be verifiably true. According to findings of the National Language Research Institute based on surveys taken at a twenty years interval in 1953 and 1972, the rate of use of polite forms of speech is in decline.

On the other hand, however, it also appears that the use of polite language in the second survey was more nuanced and accurate than that of 20 years earlier. In other words, though speakers may be using polite language less, they are using it more consciously and carefully now than before. Since another twenty years have elapsed since the second survey, a third survey would be instructive, since it could show whether or not the trend toward more nuanced and accurate use of polite language has continued.

The use of polite language is generally determined by the way the speaker perceives a particular social situation and his/her ranking therein. Assuming that Japanese speakers should lose their sensitivity to social events and their awareness of rank, we might expect a gradual disappearance of polite language.

## 5. JAPANESE LANGUAGE RESEARCH

### *5.1 Research on the Modern Language*

The main body of research on the Japanese language is outdated and traditional-minded. However, with the establishment of the National Language Research Institute in 1948 whose primary goal it was to delve into research on modern Japanese, the situation changed considerably.

In terms of methodology, there was a major shift to big surveys. This was made possible by organizing research groups and conducting research cooperatively. These groups conducted a large-scale nationwide vocabulary survey along with an interview survey of respondents.

Employing the Literacy Survey (not itself an interview-style survey) as a starting point for the interview survey, the National Language Research Institute looked at how dialect speakers in provincial areas alternate between standard Japanese (referred to in the study as common language) and dialect. They also surveyed respondents on the extent of standardization, and examined how people actually use polite language. In other words, this was a sociolinguistic survey. Although sociolinguistic surveys would be conducted in the U.S. and other countries in the years to come, it's interesting to note that they took place in Japan much earlier.

This type of ground breaking study had the positive effect of stimulating increased general interest in language research in Japan. In the first

few years after the war, only Tōkyō and Kyōto Universities boasted linguistics departments. Combined new enrollment in the linguistics programs of both schools did not exceed ten students in any one year. Today, in stark contrast, a considerable number of students are majoring in linguistics in colleges and universities throughout Japan. Japanese language studies have likewise become quite popular. The considerable education and research on the Japanese language that took place up to the war almost died out for a time right after the war. However, Japan's phenomenal economic growth has helped to revive this field of studies.

### 5.2 Generative Linguistics

The mainstream of linguistics studies in the period right after the war was generally restricted to descriptive linguistics. However, the emergence of Noam Chomsky's generative grammar had a strong impact on scholarship in Japan and sparked the debut of generative linguistics studies in this country.

Descriptive grammarians adopt an essentially inductive (*a posteriori*) approach. They assume that while all languages are completely different, the common points that can be detected among the differences lead to general rules. Generative grammarians, on the other hand, claim that the general rules of language will never be uncovered using a descriptive approach. Furthermore, assuming that all human beings possess the same language learning capacity and that all languages possess the same deep structure, the task of generative grammar is to describe the rules for 'generating' the different surface structures that are the manifestation of every language. In this sense, generative grammar is a deductive method.

This new school of linguistics marks a complete reversal from conventional methodologies and there are many who believe that it holds the key to unlocking the mysteries of natural language. However, it is an undeniable fact that, with respect to some languages, generative grammar explanations are inadequate unless one is a native speaker of that language. For this reason, generative grammarians claim that they cannot work on certain languages because they are not modern (living) languages.

Regardless of whether we are discussing descriptive or generative linguistics, research applying either methodology is based on what Ferdinand Saussure called *langue*. Since we come up with areas of language that we still don't understand even when we apply both of these methodologies, I think we need to add yet another dimension to our study, and that is a secondary concept also originated by Saussure, namely, *parole*. The concept of '*parole*' has not received the academic attention it justly deserves.

One constructive outcome of the reappraisal of the concept of '*parole*' has been the resurgence of sociolinguistics in the United States in the post-generative era. Academic circles in Japan react quickly to developments in the United States and Europe. In the postwar period, the influence of the U.S. was particularly strong. This was evinced on the linguistic front in the emphasis placed on English studies and, later, by the shift to sociolinguistics as this field grew popular in the U.S. However, as mentioned before, thanks to the sociolinguistic surveys previously conducted in Japan, there was a great deal of accumulated knowledge and experience in this field already. Unfortunately, due to language barriers, developments in Japan often don't get the coverage they merit. On the other hand, despite the extensive linguistic surveys done in Japan, we cannot deny the fact that they did not result in any of the important theoretical work that is the hard currency of academia. The theoretical side remains a standing challenge for the next generation of linguistics scholars in Japan.

### *5.3 The Impact of Electronics on Japanese Language Studies*

The field of electronics and computers – one of the fastest growing in the postwar era – has deep connections with natural language and has strongly influenced language studies.

First of all, thanks to electronics, the major problem of notation using the thousands of Chinese characters in Japanese has been solved. Even fifty thousand compounds pose no problems for electronic devices. Previously, banks and other institutions with huge monthly mailing lists used the katakana syllabary (51 symbols) for addressing mail. Today, however, automated systems have no trouble handling Chinese characters. The development and widespread use of Japanese language word processing devices have revolutionized the notation of the language. Today, Japanese with its thousands of Chinese characters and two syllabaries can be typewritten in the same manner as any European language.

Of course, there are those who are quick to point out the pitfalls of word processing instead of handwriting Japanese. For instance, people who use word processors need only recognize Chinese characters and not write them. Won't this have a deleterious long term effect on literacy? And, what about literature studies and the writing process? Word-processed manuscripts give us no insight into the stages of development of a literary work and the creative process. On the other hand, word-processed text allows us to operate on a text as never before. For instance, we can scan and search long texts in seconds. The advantages of word-processing explain why Japan has even surpassed Europe and the U.S. in their development and use.

This automation of the writing process will probably lead in future to the development of voice operated typewriters. Based on a phonologic breakdown of syllables consisting of a consonant plus a vowel, there are relatively few combinations in Japanese. This should make it possible to develop voice recognition systems more rapidly and easily in Japanese than other languages.

In terms of grammar, thanks to databases and their use, it should be possible to realize limited forms of machine translation. It is no longer in the realm of fantasy to imagine a voice operated typewriter and a voice synthesizer linked up with machine translation systems. Although it is believed that flawless machine translation will never be possible, people liken R&D efforts in this field to the medieval fixation with synthesizing gold out of other materials. Although the objective would never be realized, the effort itself led to advances in the field of chemistry. With all the advances in the field of artificial intelligence taking place today, however, the possibility that machine translation may indeed prove feasible is stronger than ever.

Electronics has promoted incredibly rapid progress in the field of phonology. For instance, we can electronically analyze the soundwaves produced by the human voice or observe the organs of speech in real time. These techniques have rendered older phonological studies based on unaided aural observations of speech physiology obsolete. These new techniques promise a great deal of progress and a deeper understanding of the role of rhythm (or meter) in human speech.

Linguistics is, more than ever before, the social science closest to the natural sciences. As such, we need to continue studying it as it relates to electronics and artificial intelligence. The interdisciplinary nature of linguistics is by no means limited to the natural sciences, either. As this paper clearly shows, a great deal of research remains to be done in the humanistic interdisciplinary fields of psycholinguistics and sociolinguistics, as well.

Although I have not talked much about it in this paper, another important facet of linguistics about which I would like to see more research is the genesis of language. Another important question is why human beings are the only species on the planet with language competence and the ability to acquire language and how this came about.

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