

## MAPPING JAPANESE DIALECTS

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### Abstract

The first Japanese dialectological atlas was published at the beginning of 20<sup>th</sup> century, but at that time methodology was not established enough. *Kagyuuokoo* published on 1930 is characterized by its correspondence method. On the middle of 20<sup>th</sup> century geolinguistic survey was conducted at Itoigawa area. The purpose and the method of geolinguistics were first proposed by this research. At the same time, National Institute for Japanese Language investigated all over Japan, and edited *Linguistic Atlas of Japan* (LAJ) and *Grammar Atlas of Japanese Dialects* (GAJ). Since LAJ and GAJ inspired research activities in Japanese geolinguistics, more than 400 linguistic atlases have been published in Japanese dialectology. 100-year history of Japanese geolinguistics has revealed that dialectal data include both linguistic information and geographical information, which must include the spatial data. Mapping itself is an outcome of the examination to each hypothesis, and it would lead to model the geographical information.

### Keywords

Japanese dialectological atlas, history of Japanese geolinguistics, method to make dialectological map, purpose to make dialectological map, regional dialectological atlas

## 1. Introduction

It had started at the beginning of 20<sup>th</sup> century to make the dialectological maps in Japan. Over 400 dialectological atlases had been published for around 100 years. Some of them cover all over Japan, but others treat small areas. This paper reviews the history and future of making dialectological maps in Japanese dialectology.

## 2. Phonetic Dialect Atlas and Grammatical Dialect Atlas

The first dialectological atlases in Japan are *Phonetic Dialect Atlas* including 29 maps published in 1905 and *Grammatical Dialect Atlas* including 37 maps published in 1906. Both of them were edited by Language Research Commission in the Ministry of Education. Figure 1 shows a map of negative suffix in the *Grammatical Dialect Atlas*.



Figure 1. Distributions of negative suffixes from *Grammatical Dialect Atlas*

The purpose to publish atlases by national institute was to establish a standard language which is common to all over the land as a modern nation. In spite of succeeding the purpose or not, the biggest conclusion of the atlases was discovery of the boundary of the eastern and the western dialects.

The Commission asked each local prefecture office to survey dialects with simple questionnaires, and ordered the data gathered by the offices. The Commission used the ordered data, and drew the maps with coloring and hatching each area. The report books of each survey were published at the same time of publication of the atlases, and the books included explanation of the distributions of dialects and the ordered data of the survey.

### 3. Kagyuukoo

A folklorist Kunio Yanagita published *Kagyuukoo* ‘*On the Dialectal Lexicon of the Snail*’ in 1930. The main conclusion of *Kagyuukoo* is as followings.

There are so various dialectal forms meaning a snail (*kagyu* is ‘snail’), but they are vestiges of lexicons which had been used at the historical central area Kinai (including Kyoto). Words meaning a snail had been radiated from Kinai for 1,000 years, and they had diffused from the centre to outer area. Older words distribute on the outer areas, and newer ones on the inner area. On this way diachronic change at the central area reflects on the distribution of dialectal words.

Yanagita called this theory as *hoogen shuukennron* ‘dialect radiation theory’. This theory attracted dialectologists and folklorists by the idea to connect the different dimension of time and space.

Data for *Kagyuukoo* were collected by correspondence. Figure 2 shows the dialectological map of snail carried on *Kagyuukoo*, and the distribution was mapped with the colored characters.



Figure 2. Map of dialectal forms of snail from *Kagyuukoo*

#### 4. Itoigawa survey

Four dialectologists, geolinguists and linguists had surveyed Itoigawa area in Niigata Prefecture to get the dialectological distribution data between 1975 and 1961. This survey was done with scientific way as directly collecting data from informants with constant characters. The results of Itoigawa survey was published on *Itoigawa Gengo Chizu* 'Linguistic Atlas of Itoigawa' between 1988 and 1995 with 3 volumes (Figure 3), and brought some important studies as Shibata (1969), Grootaers (1976), Mase (1992) and Tokugawa (1993).

Especially Shibata (1969) showed concretely and clearly the following 4 points for Japanese geolinguistics through the Itoigawa survey.

The first one is purpose to research dialectological distributions. The second one is method to research dialectological distributions. The third one is the way to draw dialectological maps. The fourth one is how to interpret the dialectological distributions.

From the view point of mapping the distributions of dialects, it is important to be shown the method in which treating the surveyed spots as points and changing the

dialectal forms into symbols as like triangles or arrows to express the interpretations for example diffusing directions.

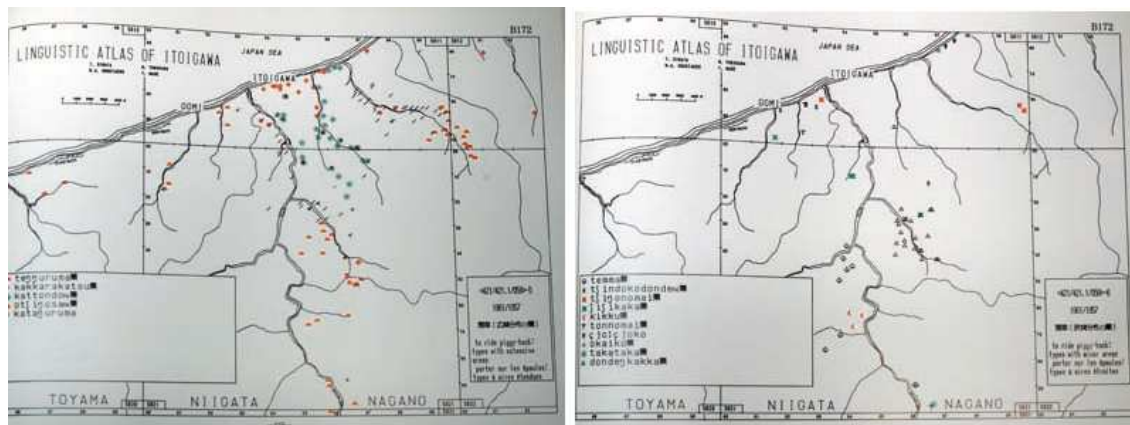


Figure 3. Dialectal map of ‘to ride piggy-back’ from *Linguistic Atlas of Itoigawa*. Left: types with extensive areas. Right: types with minor areas

## 5. Linguistic Atlas of Japan

Almost at the same time of Itoigawa survey, the National Institute for Japanese Language (formerly named the National Language Research Institute) planned to make a dialectological atlas viewing all over Japan, and carried out the survey from 1957 to 1965.

Surveyed localities were 2,400, and informants were male born before 1903. The data were gathered by fieldworks directly from the informants corroborated with 65 professional dialectologists who were professors at local universities. Surveyed items were around 300 which were almost lexical items for example ‘snail’, ‘icicle’ and ‘corn’. The results of the survey were published in *Nihon Gengo Chizu ‘Linguistic Atlas of Japan’* with 6 volumes including 300 maps between 1966 and 1974 (Figure 4).

At this period, the concrete purpose and methodology were shown by the analysis of Itoigawa survey, and the materials to analyze were fulfilled by the dialectological distribution data of all over Japan through the publication of *Linguistic Atlas of Japan*. This researching situation inspired Japanese dialectologists so much, and geolinguistics in Japan went on development widely and in some great ways.

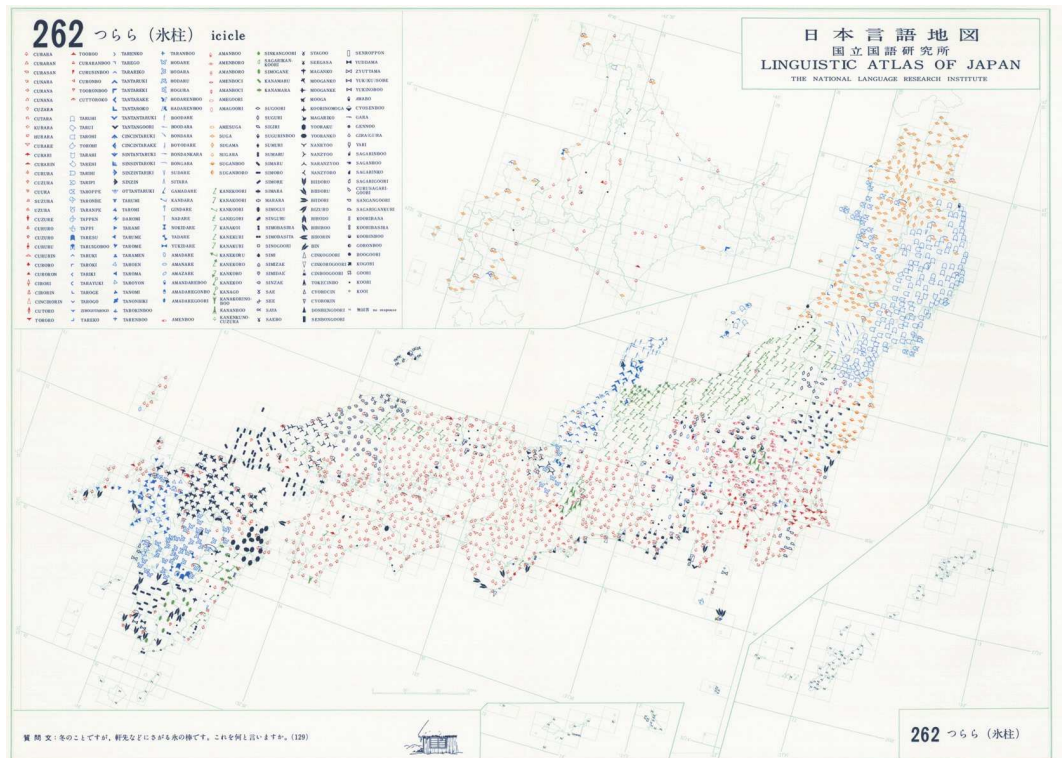


Figure 4. Dialectal map of ‘icicle’ from *Linguistic Atlas of Japan*

## 6. Grammar Atlas of Japanese Dialects

On 1970s and 1980s after the publication of *Linguistic Atlas of Japan* geolinguistics was in a mainstream of Japanese dialectology. But at that time, lexical data of dialectological distributions were gotten through *Linguistic Atlas of Japan*, grammatical or morphological data for dialectological distributions of all over Japan had depended on the old data of *Grammatical Dialect Atlas* for a long time.

Since the items of *Grammatical Dialect Atlas* limited and the distributions are shown with colored and hatched areas and the mapping ways are not clear, it is difficult to hold the detailed distributions, and the reliability of the data is not so well. More reliable and scientific data of distributions for grammatical fields had been required.

National Institute for Japanese Language made up new plan to survey the grammatical distribution of all over Japanese dialects after the products of *Linguistic Atlas of Japan*. For this plan, 807 localities were surveyed from 1979 to 1982 collaborated with 73 dialectologists using around 300 grammatical questionnaires. The



result of this survey was published as *Grammar Atlas of Japanese Dialects* in 6 volumes with 350 maps between 1989 and 2006 (Figure 5).

It is not clearly shown, but *Linguistic Atlas of Japan* made a point of diachronic interpretation of the dialectological distribution. Sato (1990) who was one of the editors of *Linguistic Atlas of Japan* did not neglect the interpretational methodology adopted for each map by each editor. Through the reviews of *Linguistic Atlas of Japan*, there were made detailed manuals to edit *Grammar Atlas of Japanese Dialects*, and the new atlas were edited with scientific and verifiable methods, and from the beginning it was purposed to open the surveyed data and editing procedures (Kobayashi 1990).

Maps of *Grammar Atlas of Japanese Dialects* were made by computational ways since 5<sup>th</sup> volume published in 2002. Computational mapping requires the connected data of language data and spatial data. All the data of *Grammar Atlas of Japanese Dialects* (including the data before 5<sup>th</sup> volume) made on this view are opened on the following web site constructed with 350,000 data: <<http://www2.kokken.go.jp/hogen>>.

Dialectal distribution data are one of the geographical data treating language information. In general, one map is one of the ways to express geographical data, but not all of the ways. Then the maps in *Grammar Atlas of Japanese Dialects* in publication select each way to express the dialectological distributions. Actually *Grammar Atlas of Japanese Dialects* is not just an atlas, but is a database or corpus of dialectological distributions in grammatical or morphological fields, in spite of the named ‘Atlas’.

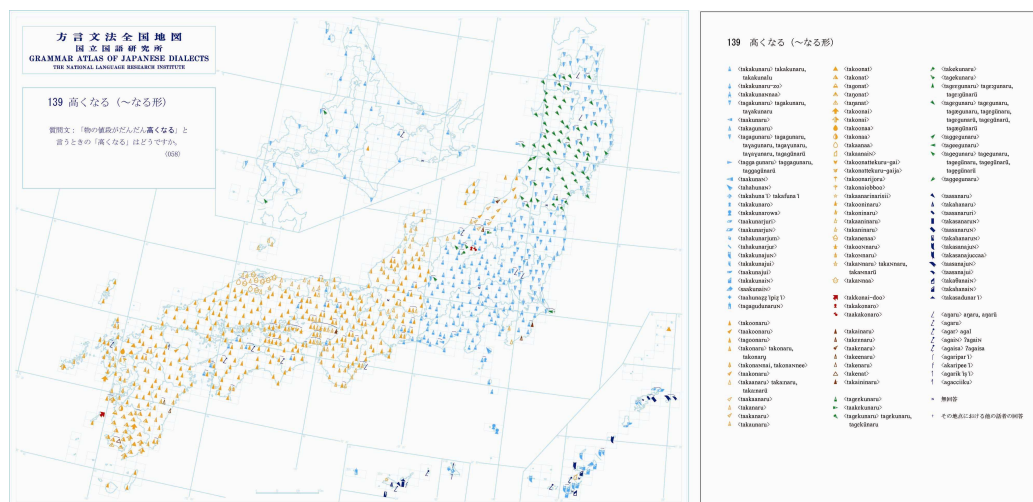


Figure 5. Dialectal map of ‘become to be expensive’ from *Grammar Atlas of Japanese Dialects*

## 7. Regional dialectological atlases

It is a characteristic of Japanese geolinguistics to have made a large number of regional dialectological atlases. And it is another characteristic that the atlases have been made not only by professors in universities but also by some teachers in colleges or high schools.

Figure 6 shows the changes of number of publications of dialectological atlases. It shows that the peak time was around 1980 when geolinguistics in Japan was vigorous and many dialectological atlases were published. The number reduced at the end time of 20<sup>th</sup> century. It is thought that the reduction of publication of dialectological atlases was by changes of trend in dialectology and limitation of analysis. But one of the large reasons must be on the decline of traditional dialects. Standardization has developed all over Japan, and the detail distributions and dialectological differences objected by the dialectological maps had reduced.

It is sure that there are reductions of traditional dialects, but on the other hand it should be noticed that there is a tendency too much emphasized the contemporary states. There must be no dialectologists who assert that geographical diversity has disappeared or will vanish in the future.

Surely there is a change, but geolinguistics does not just deal with the changing scene. It is required to meet the change, and there must be a future of geolinguistics corresponding to the requirements.



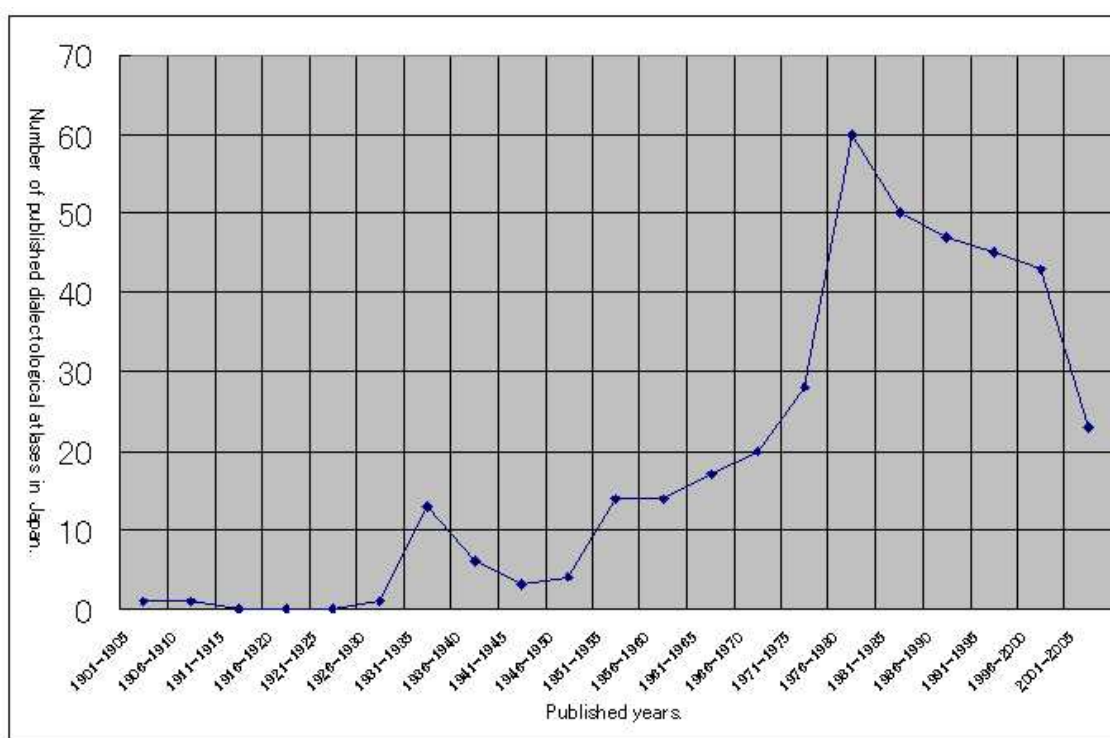


Figure 6. Changes of the number of the published dialectological atlases in Japan

## 8. Conclusions

Mapping Japanese dialects has recorded 100 years history. This history is a history how to correspond the language data and spatial data. The knowledge gotten after the years is that dialectal data is not just a linguistic data but geographical information composed with language and spatial data.

Mapping always depends on one of the modeling methods of the geographical information. Since each edited map is modeled with particular hypotheses, it can show limited information. Geolinguistics must require to explain the dialectological distribution by how and what kind of information. It is required to make good use of many kinds of data. Never stick to edit maps on the same basic maps, whereas there are so many hypotheses based on the diversity of geographical information.

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