ANALYZING DIALECTOLOGICAL DISTRIBUTIONS OF JAPANESE

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Abstract

Classification characterizes the first era of Japanese geolinguistics. After then, Japanese geolinguists had concentrated to analyze each geographical distribution. They focused on the distances and the topographical features. In particular, the lines of transportations tended to be raised for the analyses. But other geographical information plays important roles in the analyses of dialectological distributions. The overlay of the dialectological distributions and the topographic maps would be ideal as research methodology; however the topographic maps include a number of features. Geographical Information System (GIS) enables us to treat much geographical information which was once too difficult and heavily complicated to handle. GIS-based comparison between the geographical data and the language data projects a completely new perspective. Geolinguistics is now in the stage to widen its orientation to general science. At the same time, geolinguistics can study the human beings through analyzing the dynamism of interaction between dialectological distributions and geographical information.

Key words

Japanese geolinguistics, classification dialectology, dialectal radiation theory, principle of neighboring distributions, geographical information system

1. Introduction

In Japanese dialectology, application of linguistic atlases is as same as analyzing of them. In this paper, changing trends of geolinguistics in Japanese dialectology are shown based on the various viewpoints to analyze the dialectological distributions. Through this work, the direction of geolinguistics will be viewed.

2. The classification dialectology and the dialectal radiation theory

The first dialectological atlas *Grammatical Dialect Atlas* edited by the Language Research Commission of the Ministry of Education in Japan had made a discovery of the boundary of the eastern and western dialects, and isoglosses were drawn as in Figure 1 (Shimmura 1904). This discovery gave an important cue to resolve a basic problem which was how many dialects were in Japanese and where were the boundaries. Misao Tojo set up a classification dialectology as a central subject in dialectology, and Tojo (1954) shown the conclusion as the Figure 2. After Tojo, Dialectological Circle of Japan (1964) worked on this problem as an exerting subject for academic community.

On the other hand, Kunio Yanagita opposed this trend making dialectology to concentrate on the classification dialectology. Yanagita (1930) insisted a dialectological radiation theory as a main subject in dialectology. Tojo and Yanagita opposed to each other for the purpose of dialectology.

Both of the classification dialectology by Tojo and the dialectal radiation theory by Yanagita were before the detailed analysis of the distributions based on the maps. Arguments with concrete and confidential dialectological maps left to next generations.
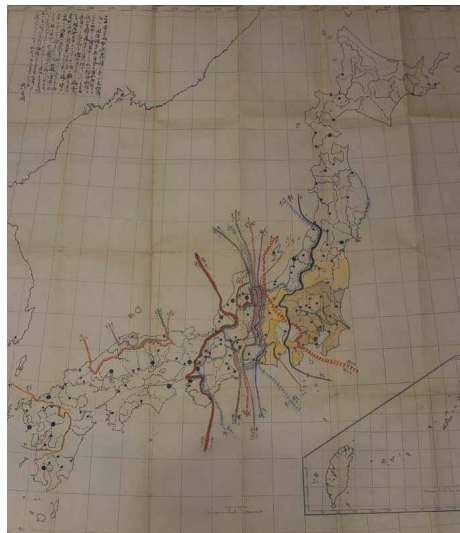

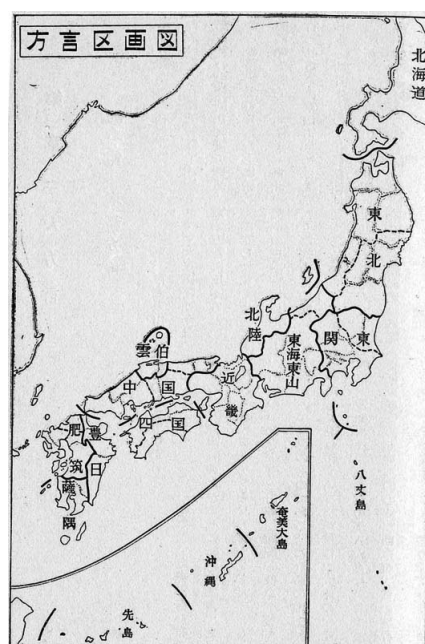Figure 1. The isoglosses by Shimmura (1904)

Figure 2. The division of Japanese dialects by Tojo (1954)

3. Geolinguistics as a historical linguistics

The Itoigawa survey carried by Sibata and others proved that dialectological distributions and the maps visualized them can be a rigid scientific field with showing the selecting way of localities and informants and with establishing the cartographic methods. It can be said that geolinguistics of Japanese started from here as an independent field to study.

In this meaning, Shibata (1969) *Methods in Linguistic Geography* had taken a role as a bible in Japanese geolinguistics. Shibata (1969: 11 and 27) defined geolinguistics as one of the methods of historical linguistics. Shibata (1969) showed 8 clues to get diachronic truth from dialectological distributions.

The mostly respected one was the distributions of each word in above 8 clues. And two principles which were principle of neighboring distributions and principle of marginal distributions were especially followed in Japanese geolinguistics.

Figure 3 shows dialectological distributions of 'to ride piggy-back' from *Linguistic Atlas of Itoigawa*. Shibata (1969) interpreted the history of dialectal words as that TENGURUMA is the oldest and SHISHIKAKA is the next oldest and KAKKARAKATSU is

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middle older and KATTENDONDON is newer and OCHIGOSAN is the newest with applying the principles.

It can be thought that the methods of geolinguistics shown by Shibata were the upgraded one followed the Yanagita's dialectological radiation theory as the stood one for to be used in analyzing with scientific ways. At the same time the methods were based on the European geolinguistics which were introduced through a translation of Dauzat's work (Dauzat 1922), then Shibata aimed to establish the universal methods to study geolinguistics.

On the same point Mase the partnership in Itoigawa survey also had took an important role to establish the Japanese geolinguistics, and he utilized the European studies. Mase (1969b) explained the basic notions of language change as homonymic clash, paronymic attraction, folk etymology and contamination based on the concrete data of facts in dialectological distributions, and it made characteristics of geolinguistics clear as a historical linguistics.

Figure 4 is explanation map for homonymic clash in Nagano prefecture from Mase (1969b). The map on the left side shows the distributions of *mompe* 'a kind of trouser', and the map on the right side shows the distributions of 'straw shoes'. FUNGOMI is homonym in each map, but this word is not used as homonym in any area, the distributing areas of FUNGOMI in each map divided each other.
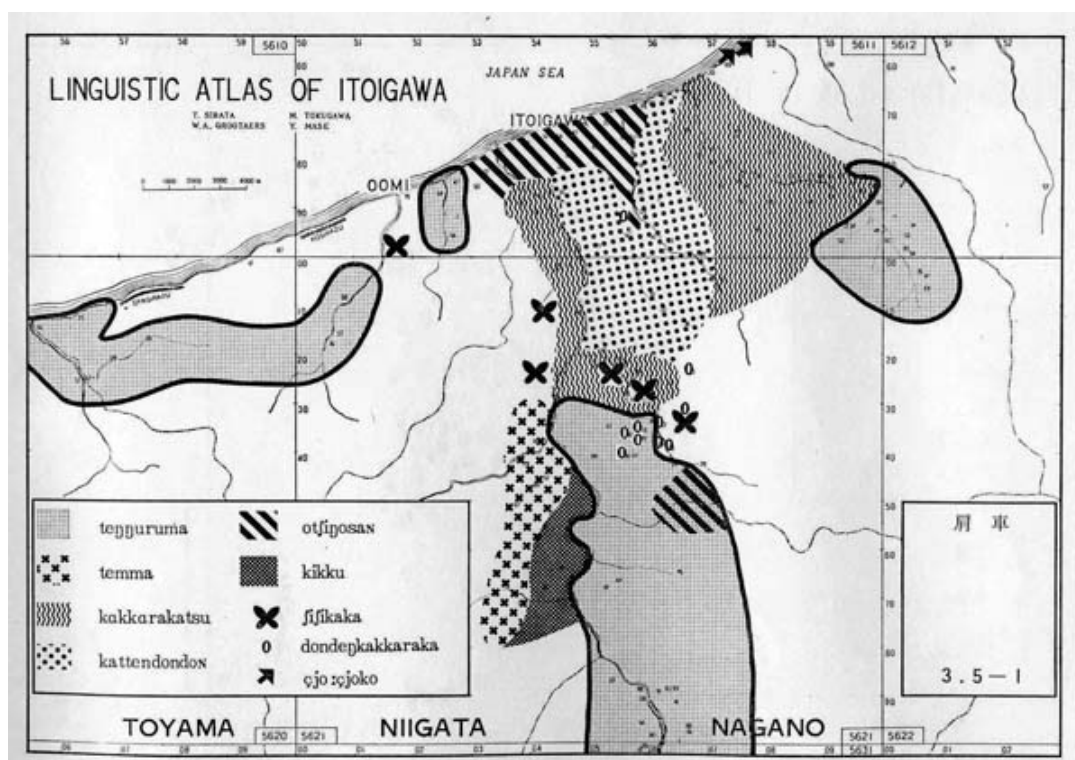
Figure 3. Distributions of 'to rode piggy-back' from *Linguistic Atlas of Itoigawa*
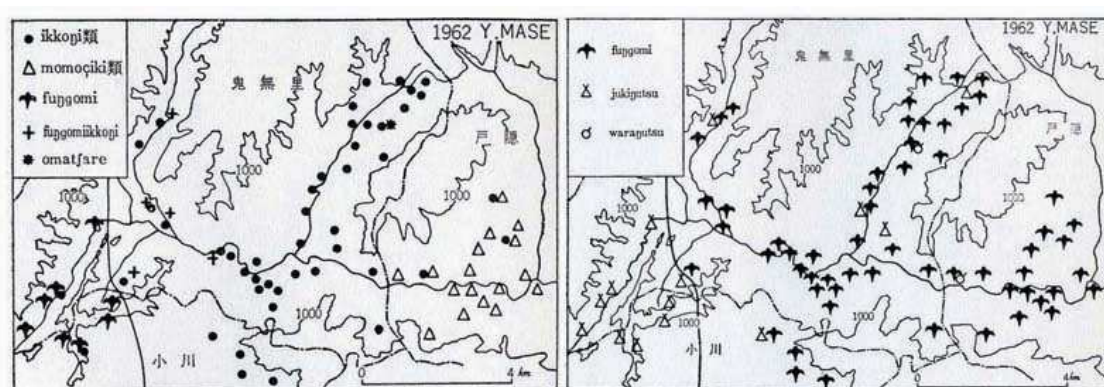

Figure 4. Homonymic clash of FUNGOMI both in the map of *mompe* 'a kind of trouser' (left side) and the map of 'straw shoes' (right map)

4. Geographical information

Japanese geolinguistics has developed with analyzing histories of words. In these analyses mostly used spatial data have been potions of the distributions of each word. Other geographical information (i.e. history of the objects or social characteristics of the

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area) had not been slighted. Especially geolinguistics in the forepart positively used those kinds of geographical information (Mase 1964 and Mase 1969a). This trend of geolinguistics which is not concentrated just on language data attracted, at the point to approach activities of humankind through language. But the reconstruction of language history based on the arrangements of distributions came to be a central subject in geolinguistics, and direction of geolinguistics was thorough gone through verifying the history checked with classical literatures (Kobayashi 2004).

Using geographical information other than the dialectological distributions as arrangements of dialectal words has difficulties to be in shape on concrete steps. For example figure 5 shows the distributions of 'wild millet' in Toyama prefecture, and Sanada (1979) thought that *oro* is the old word in this area because of the divided distribution area of *oro* (marked by trapezoid symbols) with showing the river lines and roads, but on the other hand less community of upper reaches of each river was not demonstrated in the map but stated in sentences of the paper. It must be possible to show it in the map drawn with altitudes, but it is troublesome to make such maps in handworks. These difficulties had obstructed to use divers geographical information out of language.

But the usage of many kinds of geographical data including topographies should be primarily recommended because of treating the language data on the geographical space. Geolinguistics has an advantage to use the non-linguistic geographical information. If there is a difficulty to use, it should be broken through for the progress of geolinguistics.
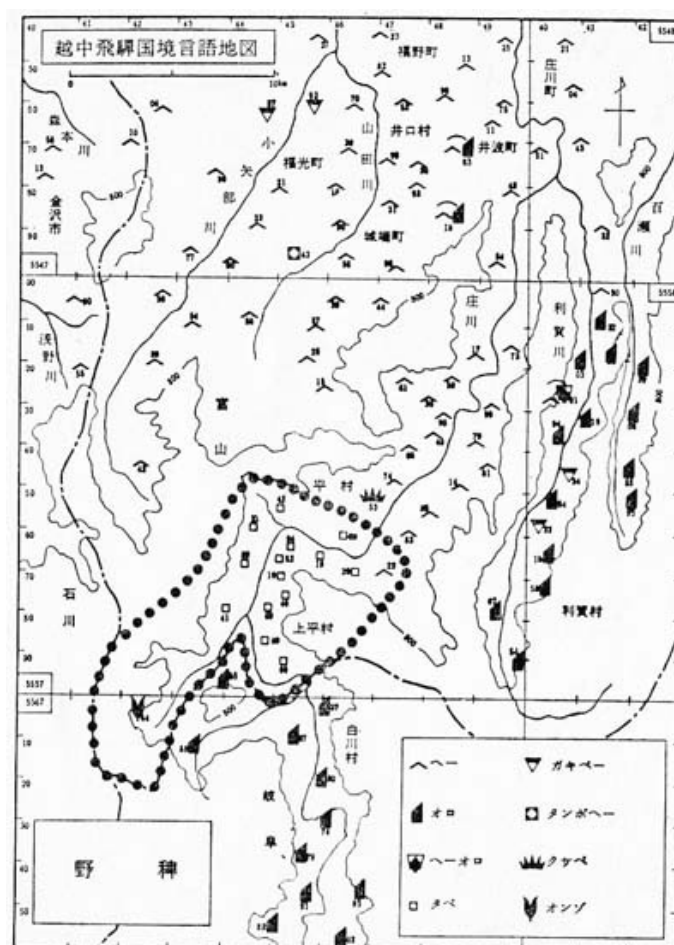
Figure 5. 'Wild millet' in Toyama prefecture

5. Geographical information systems

The obstruction is gotten over with geographical information systems (abbreviated as GIS in the followings). With using GIS not only topographies like traffics, altitude and villages, but also statistic data like demography and rainfall can be treated on maps together with dialectological distribution data, and with repeating scrap and build many data can be verified together.

Figures 6 and 7 show the distributions of conjugations in Kyushu laid on altitude (Figure 6) and density of population (Figure 7). There are new forms explained in language change, and it is possible to see the spatial features of the areas where the linguistic new forms distribute. On each map black circles are the new forms made by contamination. The new forms distribute in high altitude and low density of population

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areas. As in this example, it came to be possible to see the characteristics of areas where the theoretically new language change occurs.

Also on the boundaries of eastern and western dialects which can be said to be the basics of Japanese geolinguistics, relationships between the isoglosses and landforms can be captured as in figure 8, and what's more, 3D view of the landforms around the boundaries can be seen through GIS as in figure 9, then it came to be possible to see the spatial feature of the areas where the unique forms distribute which had not noticed before (Onishi 2007).
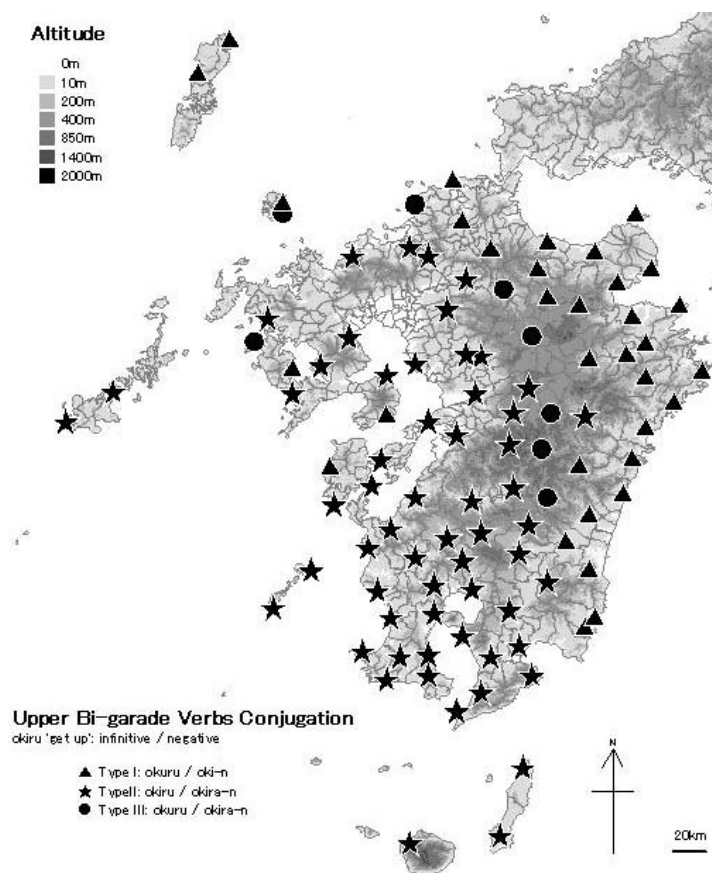

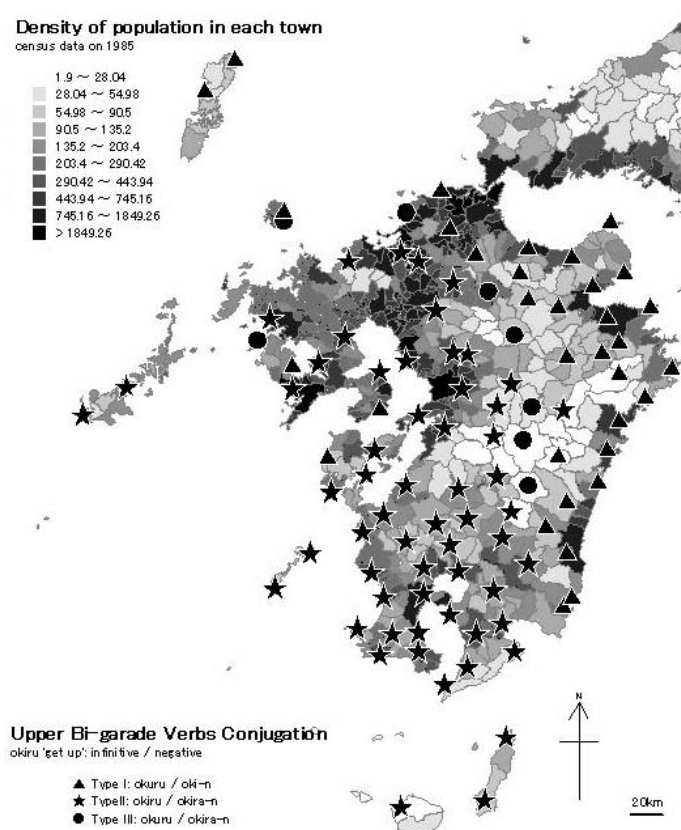Figure 6. Distributions of conjugations and altitude in Kyushu

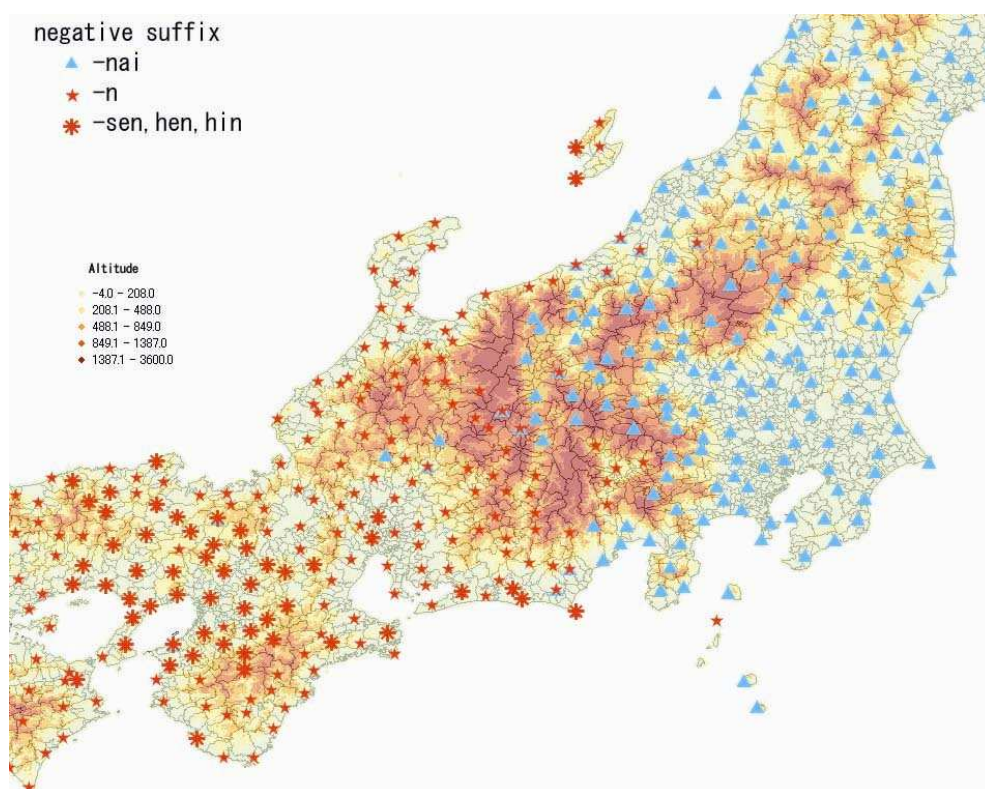Figure 7. Distributions of conjugations and density of population in Kyushu

Figure 8. Boundaries of eastern and western dialects shown with negative suffix of verbs and altitude
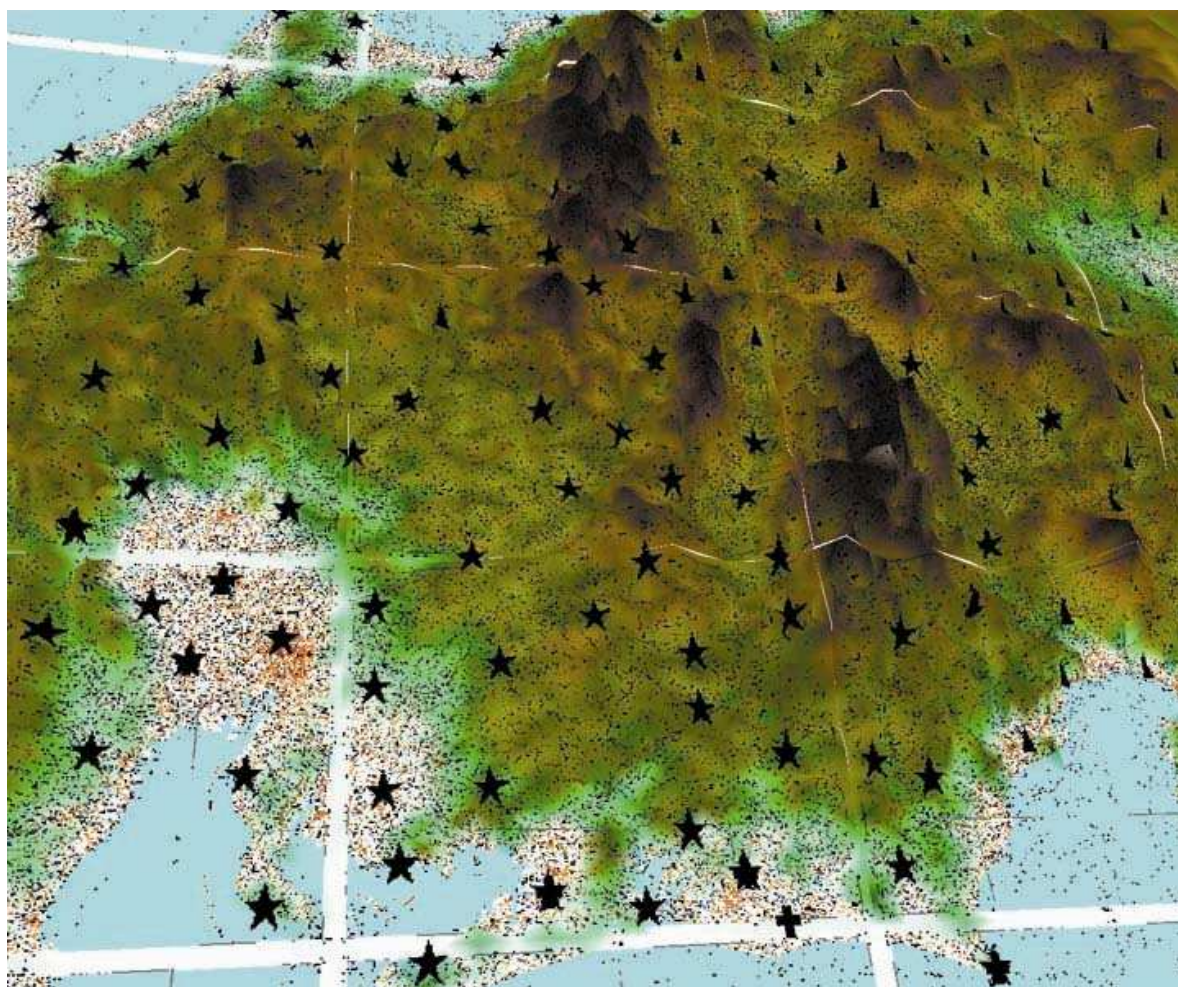
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Figure 9. 3D map of the negative suffix of verbs around the boundaries: triangular symbols show *–nai,*
and star marked symbols show *-n*

6. Direction of geolinguistics

When the relationships between language data and outer language data are gotten through GIS, it appeared that the distributions of dialects show not only the history of language. In eastern Japan, standard forms are used more in the high-polite situation, when areas have high density of population (in other words assuming urban characteristics) as in figure 10 (Onishi 2007).

Moreover it develops that the areas where the honorific forms to the father of oneself are used, have a feature which is that the size of family is small as in figure 11 (Onishi 2007).

Above analyses doubt the way of thinking which limits geolinguistics just in historical linguistics. Dialectal distributions must be analyzed with various viewpoints not only in diachronic ways. In this non-limited ways geolinguistics can approach dialectological distributions widely, and collaboration with related scientific field will be easy to realize for to progress the analysis.
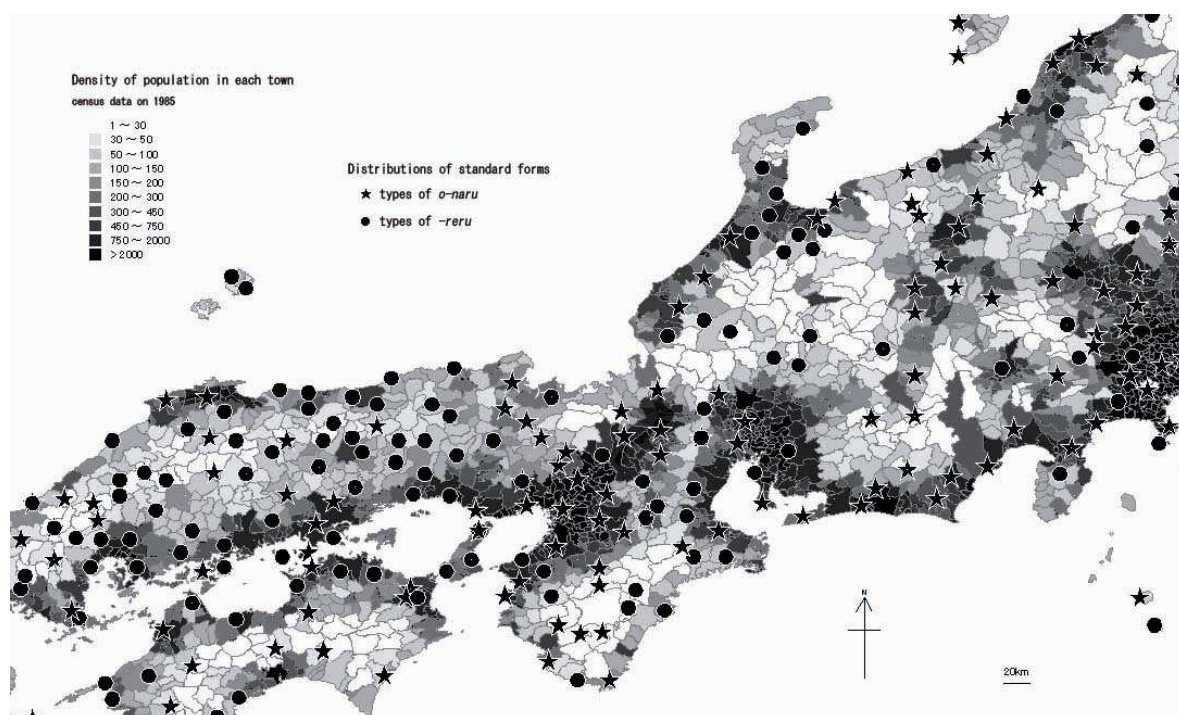

Figure 10. Usage of the standard forms in the high-polite situation and the density of population
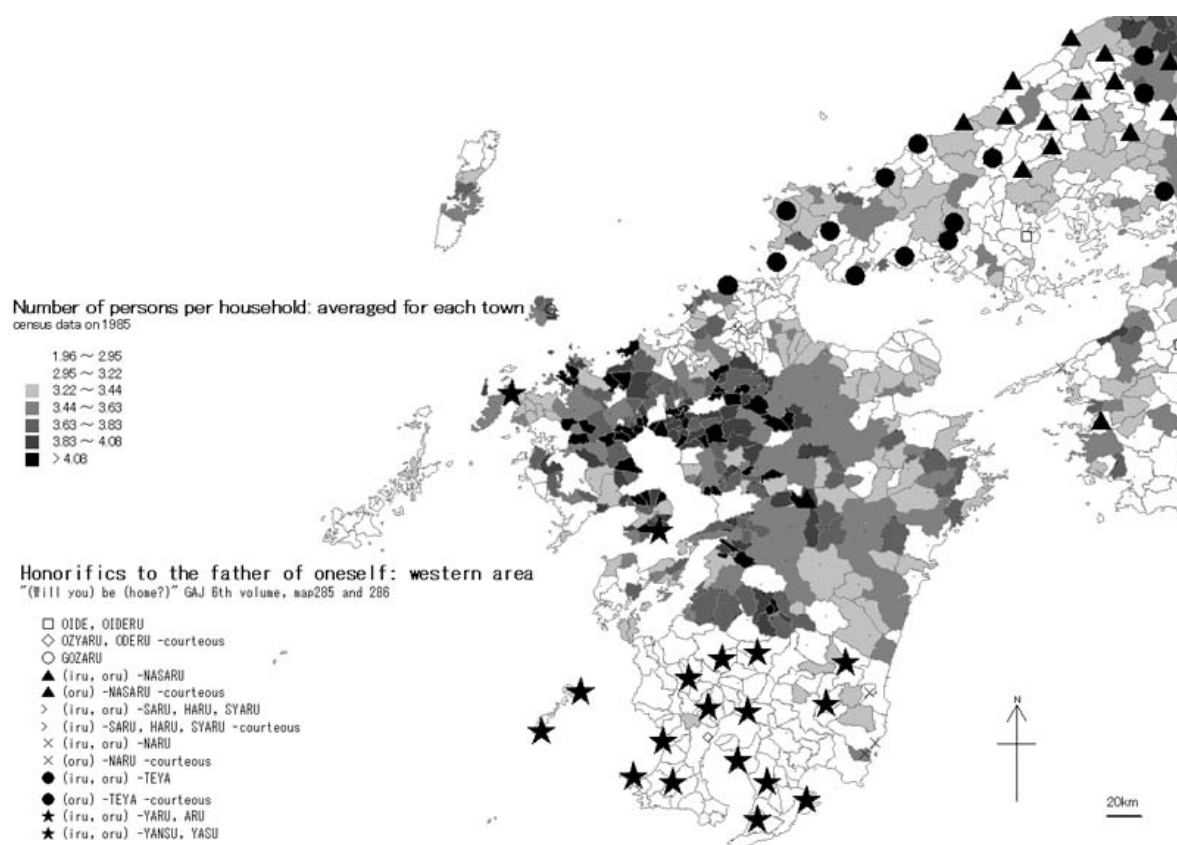
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Number of persons per household: averaged for each town
census data on 1985

  1.96 ~ 2.95
  2.95 ~ 3.22
  3.22 ~ 3.44
  3.44 ~ 3.63
  3.63 ~ 3.83
  3.83 ~ 4.08
  > 4.08

Honorifics to the father of oneself: western area
"(Will you) be (home?)" GAJ 6th volume, map285 and 286

  □ OIDE, OIDERU
  ◇ OZYARU, ODERU -courteous
  ○ GOZARU
  ▲ (iru, oru) -NASARU
  ▲ (oru) -NASARU -courteous
  > (iru, oru) -SARU, HARU, SYARU
  > (iru) -SARU, HARU, SYARU -courteous
  × (iru, oru) -NARU
  × (oru) -NARU -courteous
  ● (iru, oru) -TEYA
  ● (oru) -TEYA -courteous
  ★ (iru, oru) -YARU, ARU
  ★ (iru, oru) -YANSU, YASU

Figure 11. Usage of honorific forms to the father of oneself and the size of family

7. Conclusion

Geolinguistics in Japan had gone forward starting from the classification of dialects to analyzing the history of each word. Japanese geolinguistics is now in the stage to widen its direction from historical linguistics to general science, comparing the dialectological distribution and various geographical data through GIS. There should be trial and errors, and we must compare them in careful ways with considering the characteristics of data. The objective of geolinguistics should be the study of human beings through analyzing the dynamism of interaction between dialectological distributions and geographical information.

References

DAUZAT, Albert (1922) *La géographie linguistique*, Paris: Flammarion (firstly translated in Japanese by Shuji Matsubara on 1938 and published from Fuzambo: Tokyo, secondarily

translated in Japanese by Shuji Matsubara and Kiko Yokoyama and published from Daigakushorin: Tokyo).

DIALECTOLOGICAL CIRCLE of JAPAN (ed.) (1964) *Divisions of Japanese Dialects*, Tokyo: Tokyodoshuppan (In Japanese).

KOBAYASHI, Takashi (2004) *The Method of Dialectological Studies in the History of Japanese Language*, Tokyo: Hitsujishobo. (In Japanese.)

MASE, Yoshio (1964) "The Distribution and the Interpretation of the Dialect of *mompe* (some kinds of trousers) in one Mountain Village", *Kokugogaku*, 59, 40-52. (In Japanese and reprinted in Y. Mase (1922).)

MASE, Yoshio (1969a) "School District and Dialects", *Kokugogaku*, 77, 1-21. (In Japanese and reprinted in Y. Mase (1922).)

MASE, Yoshio (1969b) "Geolinguistics", *Kokubungaku Kaishakuto Kansho*, 34:8, 189-220. (In Japanese and reprinted in Y. Mase (1922).)

MASE, Yoshio (1992) *Studies in Japanese Linguistic Geography*, Tokyo: Ofusha. (In Japanese.)

ONISHI, Takuichiro (2007) "Application of GIS Technology to the Studies in Japanese Dialectology", *Linguistic Atlantica*, 27-28, 76-80.

ONISHI, Takuichiro (2007) "For the Analysis of the Dialectological Distributions" *Nihongokagaku*, 21, 125-142. (In Japanese.)

SANADA, Shinji (1979) *Approach to the Regional Language*, Tokyo: Akiyamashoten. (In Japanese.)

SHIMMURA, Izuru (1904) *The Boundary Lines between the East and West Japanese on Grammar*, reprinted in 1993, Kyoto: Shimmura Izuru Memorial Foundation.

SIBATA, Takesi (1969) *Methods in Linguistic Geography*, Tokyo: Chikumashobo. (In Japanese.)

TOJO, Misao (1954) "Prolegomena" in M. Tojo (eds.), *Japanese Dialectology*, Tokyo: Yoshikawakobunkan, 3-86. (In Japanese.)

YANAGITA, Kunio (1930) *'Kagyuukoo' On the Dialectal Lexicon of Snail*, Tokyo: Tokoshoin. (In Japanese.)