Diachronic Correspondence in the Conjugations of the Verbs of the Japanese Dialects

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1.Introduction

The purpose of this paper is threefold.

Firstly, I wish to propose the notion of conjugation class, which is a particularly effective tool for historical comparative research on the conjugation of verbs in the Japanese dialects. Secondly, I wish to provide an outline of what can concretely be attained through the application of this notion. Thirdly, I wish to show cartographically on various levels how the merger of the conjugation classes is distributed in all the Japanese dialects.

My conclusion is that by looking at the conjugation classes and their subsequent mergers, one can set up a basic model for considering the historical relationships of the verbal conjugations in the Japanese dialects.

2.What are conjugation classes?

In this section I shall explain what conjugation classes are.

They are a way of dividing words into groups which then form the base for the historical comparison of the verbal conjugations in the Japanese dialects.

I shall set up the classes based on the way groups of words correspond to the oldest conjugation framework we have available, and we have then the following nine types of conjugation classes: kami ichidan rui "upper mono-grade class", kami nidan rui "upper bi-grade class", shimo ichidan rui "lower mono-grade class", shimo nidan rui "lower bi-grade class", yodan rui "quadri-grade class", kahen rui "irregular k class", sahen rui "irregular s class", nahen rui "irregular n class", and rahen rui "irregular r class". I consider it unnecessary, however, to posit the category "lower mono-grade" and shall return to this point later.

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1 I would like to thank Peter Hendriks of the University of Wisconsin for help with my English. I am also deeply grateful to my colleague Ms Shirasawa for hand-drawing MAP 1, 2 and 3.
The names of the classes correspond to the names of the conjugations in classical grammar. Note, however, that while the names of the various classes are based on the classical conjugation forms, these conjugation classes are, as I mentioned, but groups of words, and the names themselves do not say anything directly about the current forms of the conjugations in the dialects.

(1) shows some examples for each of the conjugation classes. The verbs are presented in their classical sentence-final form, and in some cases I have also included, in parentheses, the modern sentence-final forms for ease of recognition. The abbreviated name for each class is also listed on (1).

(1)

Kami ichidan rui  "Upper Mono-grade class": [ UM ]
  kiru"to put on",miru"to boil",miru"to see",iru"to shoot",
  wiru"to exist",…

Kami nidan rui  "Upper Bi-grade class": [ UB ]
  oku(okiru)"to get up",sugu(sugiru)"to pass",otu(ochiru)"to fall",
  todu(toziru)"to close", nobu(nobiru)"to extend",
  kju(ku(r)u)"to regret",oru(oriru)"to descend",…

Simo ichidan rui  "Lower Mono-grade class": [ LM ]
  keru"to kick"

Simo nidan rui  "Lower Bi-grade class": [ LB ]
  u(uru)"to get",aku(akeru)"to open",agu(ageru)"to raise",
  atu(ateru)"to hit",du(deru)"to go out",nu(nuru)"to sleep",
  tabu(taberu)"to eat",iru(ieru)"to put in",uwu(ueru)"to plant",…

Yodan rui  "Quadri-grade class": [ Q ]
  kaku"to write",kagu"to smell",sasu"to pierce",tatu"to stand up",
  kahu"to buy",tobu"to fly",kamu"to bite",waru"to devide",…

Kahen rui  "Irregular K class": [ IK ]
  ku(kuru)"to come",….(compound verbs)

Sahen rui  "Irregular S class": [ IS ]
  su(suru)"to do",….(compound verbs)

Nahen rui  "Irregular N class": [ IN ]
  sinu"to die",inu"to leave"

Rahen rui  "Irregular R class": [ IR ]
  ari(aru)"to exist",wor(oru)"to exist"

rui=\text{"class"}
If one compares the conjugation classes across all the dialects, it is evident that each dialect has different forms and systems for its conjugations. However, if one pays attention to conjugation classes as an arrangement of word groupings, then one can see clear correspondences between the various dialects, and also with the central language - that is, the Kyoto dialect of the classical period.

In other words, depending on the conjugation system of each dialect, in some cases two or more conjugation classes have come together as one, while in other cases a single conjugation class has tenaciously maintained its independence.

Furthermore, this leads one to predict that these correspondences have a diachronic relationship underlying them.

This diachronic prediction can be substantiated in the following way. If it were the case that the current state of the conjugations in the dialects were the result of a totally random flow, then one would not be able to explain the actual fact that there are correspondences between the conjugation classes. That is to say, because one can see correspondences, this means that there must be a diachronic relationship between the conjugations of the various dialects.

Based on these correspondences, then, what sort of diachronic changes are possible?

One is that the group of words which belong to a conjugation class undergo changes together as a unified group. This is a natural conclusion to the explanation that a group of words acts together as one type.

Secondly, there is the fact that one cannot explain the history of the dialects by comparing them to the process of historical change undergone by the central dialect.

The argument can not arise that the dialects do nothing but reflect a certain stage of the central language due to the fact that even if the classes do correspond it is only because the dialects have a phonological correspondence to the central language.

The situation in each area, when viewed from the point of view of conjugation class, does not necessarily reflect the history of the central dialect as we know it. Even if their origins were the same as that of the central language (and this is but one possibility), there should be differences in the way the classes developed towards their current state in each dialect.

Based on this, then, it should be possible to trace the lineage - that is to say the historical relationships - of the conjugations in the dialects through a comparison of the correspondences of the conjugation classes.
In other words, we have here the hypothesis that if one proceeds by comparing the conjugation classes in the various present-day dialects, one can close in on the history of conjugation in the whole of the Japanese language.

Furthermore, I would like to again make it clear that this hypothesis does not just boil down to how the dialects branched off from the central language.

Using this as a point of departure, I shall continue to look at the conjugation classes, taking them to be one tool with which to investigate the history of the language.

3. The merger and independence of the conjugation classes

When words which belong to different classes come to have the same type of conjugation, I call this “merger of classes”. On the other hand, in cases which one presumes that a class has not merged with others, I shall call this class “independent”. Furthermore, whether classes are independent or not, if there is a demarcation between classes, I shall say that these classes are “distinguished” from one another. I will show the distinctions with slash mark in the following.

Again, I am not taking up the point at the moment of what the actual forms of the conjugations are in the merged situation, but shall explain concretely in what way one should consider the state of affairs.

(2) shows the general form of the conjugation for the Tokyo dialect (which is more or less the same as that of the modern standard language). I have just shown representatives from each of the conjugation classes, but for the most part the words which belong to each category have the same conjugation.

I use a dot to separate the verb from the particles and the inflectional suffixes. The conjugation form is that part of the word separated from the particles and suffixes.

The stem is that part which takes various conjugation forms but which hardly changes itself. The remaining part of the conjugation form is the conjugational suffix.

Differing conjugations are thus to be seen in the differing suffixes.
ONISHI: Diachronic Correspondence in the Conjugations of the Verbs of the Japanese Dialects

(2)
TOKYO Dialect

<table>
<thead>
<tr>
<th>negative</th>
<th>nonpast</th>
<th>conditional imperative</th>
<th>volitional</th>
<th>stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>UM (to see)</td>
<td>mi-nai</td>
<td>miru</td>
<td>mire-ba</td>
<td>miro</td>
</tr>
<tr>
<td>UB (to get up)</td>
<td>oki-nai</td>
<td>okiru</td>
<td>okire-ba</td>
<td>okiro</td>
</tr>
<tr>
<td>LB (to open)</td>
<td>ake-nai</td>
<td>akeru</td>
<td>akere-ba</td>
<td>akero</td>
</tr>
<tr>
<td>LM (to kick)</td>
<td>kera-nai</td>
<td>keru</td>
<td>kere-ba</td>
<td>kere</td>
</tr>
<tr>
<td>Q (to write)</td>
<td>kaka-nai</td>
<td>kaku</td>
<td>kake-ba</td>
<td>kake</td>
</tr>
<tr>
<td>IN (to die)</td>
<td>sina-nai</td>
<td>sinu</td>
<td>sine-ba</td>
<td>sine</td>
</tr>
<tr>
<td>IR (to exit)</td>
<td>aru</td>
<td>are-ba</td>
<td>are-ba</td>
<td></td>
</tr>
<tr>
<td>IK (to come)</td>
<td>ko-nai</td>
<td>kuru</td>
<td>kure-ba</td>
<td>koi</td>
</tr>
<tr>
<td>IS (to do)</td>
<td>si-nai</td>
<td>suru</td>
<td>sure-ba</td>
<td>siro</td>
</tr>
</tbody>
</table>

state of the mergers of the conjugation classes

UM UB LB / LM Q IN IR / IK / IS

From this one can see the following: 1st point: The upper mono-grade, upper bi-grade, and lower bi-grade classes do not differ from one another in conjugation. 2nd point: The lower mono-grade, quadri-grade, irregular n, and irregular r classes do not differ in conjugation from one another, but they do differ from those in 1st. 3rd point: The irregular k and irregular s classes differ from each other, and also from those in 1st and 2nd.

The situation that can be deduced from these conjugation classes as far as mergers is concerned is the following: upper mono-grade, upper bi-grade, lower bi-grade / lower mono-grade, quadri-grade, irregular n, irregular r / irregular k / irregular s.
(3) is that of my own dialect. I was born in Yao City in Osaka Prefecture, grew up in Nara Prefecture, and commuted to both middle and high school in Osaka Prefecture. I call my dialect the Hanna dialect, and I do not expect that it differs too greatly from others in the central part of the Kinki District.

(3)
HANNA (OSAKA-NARA) Dialect
negative nonpast conditional weak-imperative volitional stem

1. UM (to see) mii-heN miru mi-tara mii mijo -> mi(i)
   UB (to get up) oki-heN okiru oki-tara oki okijo -> oki
   LB (to open) ake-heN akeru ake-tara ake akejo -> ake

2. LM (to kick) kera-heN keru ket-tara keri kero -> ker
   Q (to write) kaka-heN kaku kai-tara kaki kako -> kak
   IN (to die) sina-heN sinu siN-dara sini sino -> sin
   IR (to exit) ora-heN oru ot-tara ori oro -> or

3. IK (to come) kee-heN kuru ki-tara kii kojo -> k

4. IS (to do) see-heN suru si-tara sii sijo -> s

state of the mergers of the conjugation classes
UM UB LB / LM Q IN IR / IK / IS

The actual forms of the verbs do differ from those of the Tokyo dialect, but the situation as to the mergers of the conjugation classes is the same as that of Tokyo: upper mono-grade, upper bi-grade, lower bi-grade / lower mono-grade, quadri-grade, irregular n, irregular r / irregular k / irregular s.

4. Dimensions to the mergers

On the basis of the mergers undergone by the conjugation classes, one can divide them further into dimensions. The lower the number of dimensions, the more differences between the classes, and the higher the number of dimensions, the more merged the classes, as can be seen on (4). As it is the case that as mergers progress the number of dimensions increase, then the lower the number of dimensions, the more differences there are between the classes and the older one can think them to be.
(4)

1 dimensional conjugation
UM / UB / LM / LB / Q / IK / IS / IN / IR

2 dimensional conjugation
UM UB / LM / LB / Q / IK / IS / IN / IR
UM / UB LM / LB / Q / IK / IS / IN / IR
UM / UB LM LB / Q / IK / IS / IN / IR etc. 36 possible combinations

3 dimensional conjugation
UM UB LM / LB / Q / IK / IS / IN / IR
UM / UB LM LB / Q / IK / IS / IN / IR
UM / UB LM LB Q / IK / IS / IN / IR etc. 462 possible combinations

4 dimensional conjugation
UM UB LM LB / Q / IK / IS / IN / IR
UM / UB LM LB Q / IK / IS / IN / IR
UM / UB LM LB Q IK / IS / IN / IR etc. 2646 possible combinations

5 dimensional conjugation
UM UB LM LB Q / IK / IS / IN / IR
UM / UB LM LB Q IK / IS / IN / IR
UM / UB LM LB Q IK IS / IN / IR etc. 8211 possible combinations

6 dimensional conjugation
UM UB LM LB Q IK / IS / IN / IR
UM / UB LM LB Q IK IS / IN / IR
UM / UB LM LB Q IK IS IN / IR etc. 7770 possible combinations

7 dimensional conjugation
UM UB LM LB Q IK IS / IN / IR
UM / UB LM LB Q IK IS IN / IR
UM / UB LM LB Q IK IS IN IR etc. 3025 possible combinations

8 dimensional conjugation
UM / UB LM LB Q IK IS IN IR
UM UB / LM LB Q IK IS IN IR
UM UB LM / LB Q IK IS IN IR etc. 255 possible combinations

9 dimensional conjugation
UM UB LM LB Q IK IS IN IR
Taking this point into consideration, I will now go on to a discussion of the lineal relationships.

5. Lineage based on conjugation classes

In considering lineal relationships, I shall basically adhere to the following principle:
"Classes, once merged, will not separate again along the lines of their previous distinctions."
This means, for example, that if the conjugations upper mono-grade, upper bi-grade, and lower bi-grade merge, then it will in principle not be the case that words belonging to the former upper bi-grade class separate off all at once from the rest, resulting in the state: upper mono-grade, lower bi-grade/ upper bi-grade.

6. Application to the various dialects

Based on an investigation of the state of the mergers as gleaned from relatively detailed synchronic data, I shall now lay out a method for looking at the diachronic relationships of the dialects. The state of the merger of the conjugation classes of several dialects is as is shown on (5).

<table>
<thead>
<tr>
<th>Dialect</th>
<th>Conjugation Pattern (excluding special forms)</th>
<th>Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOKYO</td>
<td>UM UB LB / LM Q IN IR / IK / IS</td>
<td>6 dim.</td>
</tr>
<tr>
<td>BUNGOTAKADA CITY</td>
<td>UM / UB / LB / LM Q IR / IK / IS / IN</td>
<td>3 dim.</td>
</tr>
<tr>
<td>OITA CITY-MOTOMACHI</td>
<td>UM / UB LB / LM Q IR / IK / IS / IN</td>
<td>4 dim.</td>
</tr>
<tr>
<td>NAGASAKI CITY</td>
<td>UM UB / LB / LM Q IN IR / IK / IS</td>
<td>5 dim.</td>
</tr>
<tr>
<td>KAGOSHIMA CITY</td>
<td>UM UB LM Q IN IR / LB / IK / IS</td>
<td>6 dim.</td>
</tr>
<tr>
<td>TSURUOKA CITY-OYAMA</td>
<td>UM UB LB / LM Q IN IR / IK / IS</td>
<td>6 dim.</td>
</tr>
<tr>
<td>TANEICHI-HIRANAI</td>
<td>UM UB LB / LM Q IN IR / IK / IS</td>
<td>6 dim.</td>
</tr>
<tr>
<td>SUWA (NAGANO)</td>
<td>UM UB LB / LM Q IN IR / IK / IS</td>
<td>6 dim.</td>
</tr>
<tr>
<td>SHIZUOKA CITY</td>
<td>UM UB LB IS / LM Q IN IR / IK</td>
<td>7 dim.</td>
</tr>
<tr>
<td>AKIYAMAGOGO (NAGANO)</td>
<td>UM UB LM LB IS / Q IN (IR) / IK</td>
<td>7 dim.</td>
</tr>
</tbody>
</table>

I shall not present here a detailed conjugation chart, but shall just make a comment about the Suwa dialect. If one excludes the passive and causative forms, the irregular s verbs (such as 'suru', "to do") can be classified synchronically as being of the same type as the upper mono-grade, upper bi-grade, lower bi-grade group. In which case the merger of the classes would be a seven dimensional one just like that of Shizuoka. Thus one has here a different view of the merger depending on the way one takes the framework of the conjugation table. I shall return to this point later.
If one compares even the above ten dialects, one can still make certain comments about their
diachronic relationships. For example, if one compares Bungotakada, having three dimensions, with
Oita City-Motomachi, having four, it is possible that there be a lineal relationship between them.
This is because the merger in the Bungotakada dialect of the upper bi-grade and lower bi-grade
classes results in the situation we find in the Oita City-Motomachi dialect.
On the other hand, if one compares the four-dimensional Oita City-Motomachi with the
five-dimensional Nagasaki, they do differ in having but one dimension more or less, but there is no
possible lineal relationship between them. The reason being that while in Oita City-Motomachi the
upper bi-grade and lower bi-grade classes have merged, they remain distinguished in the Nagasaki
dialect.

7. National distribution

At the National Language Research Institute we are compiling a "Grammar Atlas of Japanese
Dialects" - the GAJ - which, while not focussing on conjugation classes, is still quite useful in this
regard, as various conditions have been standardized, and the data are taken from throughout Japan. I
will show here some maps presenting the distribution of the mergers which have taken place in the
mainland dialects, and which are based on data I have arranged from the volumes of the GAJ which
deal with conjugation - Volumes Two and Three.
Note that from looking at various data for the mainland dialects one comes to understand that the
irregular r class has merged with the quadri-grade, and I shall take that as a premiss for what follows.
First of all, I shall show MAP 1 laying out the state of the mergers for all nine classes, from upper
mono-grade to irregular r. I shall refer to this level of treatment as Level 1.

In actual fact, there are problems with dealing with all the dialects at this level, and those are the problems that arise from giving the lower mono-grade class the same weight as the other classes.

For one, there were unusual circumstances in the origin of this class in the central language, in that it arose at first in the Heian Period, and was not to be found previous to that. It also only contains the one verb 'keru', "to kick".

If one closes one's eyes to these circumstances in the central language, there are still problems looking at it from the point of view of the dialects, and that is that there are many dialects which do not use the word 'keru' itself. In the GAJ, in cases when we have received replies using a different vocabulary item, we have distinguished these replies from those dealing with the grammar, and have treated them solely from the point of view of vocabulary items. That this type of reply has been particularly frequent in this case is clearly shown in the section for 'keru'.

Next, there is the problem of analysis. There are cases where the lower mono-grade class is independent, but for the most part if one looks at their actual forms, one can see that they are wavering between the vowel-base forms and the consonant-base forms. On the basis of this it would be possible to come to the conclusion that it is but a transient form, and that it is a separate phenomenon which should be dealt with in terms of the history of the word itself - quite apart from the point of view of conjugation classes.

There is also a problem from the point of view of the theory of conjugation classes, and that is, as I just mentioned, there is only the one verb 'keru' which belongs to the lower mono-grade class in the first place. One is working from the principle that it is precisely because the connection between classes and verbs is arbitrary that one can consider the lineage of the classes, and the lower mono-grade class has problems from the point of view of this all-important arbitrariness.

As one can see, many questions arise if one allows the lower mono-grade class to have independence as a class. As a result, I shall not be considering it a class, and shall continue by excluding from consideration the verb 'keru'.

MAP 2 is a map of the mergers based on the eight verb classes: upper mono-grade, upper bi-grade, lower bi-grade, quadri-grade, irregular k, irregular s, irregular n, (and irregular r). I shall refer to this level of treatment as Level 2. If one takes into consideration the problems with lower mono-grade in the Level 1 treatment, then it would seem that this level shows a situation somewhat closer to the historical truth.
What I am about to say may seem irrelevant, but if one puts a filter on the lens of one’s camera when taking a photograph, it often happens that a certain aspect of the subject comes more clearly into view compared to when one does not use such a filter.

I would like to take this into consideration now. A little while ago I illustrated the state of the mergers based on data gathered from all the dialects, and noted that in the case of the Suwa dialect if one excluded the passive and causative verbs forms, then it would be possible to see the irregular s class as merged with the upper mono-grade, upper bi-grade, lower bi-grade class. It would appear that such a consideration is possible for dialects other than that of Suwa as well.

On the MAP 3, I shall try, then, to look at the state of the mergers excluding the passive and causative forms, and shall refer to this level of treatment as Level 3.

Comparing MAP 3 of Level 3 to the map of Level 2, one might call it a view of the subject through a filter which blocks out the causative and the passive.

What is noteworthy about the Level 3 view are the movements of the irregular k, and the irregular s classes. Compared to Level 2 one can see that many areas appear where the irregular s, in particular, has merged with the upper mono-grade, upper bi-grade, lower bi-grade class. Also - although less widespread - there are areas where the irregular k and the irregular s have merged.
By the way, as to what kind of conjugation form should be screened out with a filter is still an area for further debate. For example, one would predict that the application of a filter to hide the imperative form would give yet another view. I would imagine that in the Kanto region there would appear areas where the irregular k class would merge with the upper mono-grade, upper bi-grade, lower bi-grade class.

However I think that the screening out of the causative and passive forms means something quite different, grammatically speaking, from screening out the imperative form. Of course, as the conjugational form differs, the grammatical meaning also differs. However, more than this, it is a problem of the position or relative weight of the passive and causative versus the imperative in the conjugation system as taken in a wider grammatical and semantic sense. While the causative and passive forms are derivational, the imperative is inflectional. It is important that one pay attention to the question of what sort of grammatical meaning is distinctive to each sort of filter.

8. Conclusion

In this paper I have explained what the idea of conjugation class is, and have laid out some basic pointers in the direction of what sorts of enquiries one can pursue through its concrete application. Subsequently, we saw that it is possible to concretely investigate diachronic relationships by looking at conjugation classes and their mergers. In this sense, one might well say that the notion of conjugation class is valuable as a diachronic measure.
Furthermore, by applying this measure to all the dialects we saw that when setting up the classes, there was no need to establish the class of lower mono-grade, and that if one limited one's view of the conjugational forms somewhat, then hidden aspects of the merger came forth.

Before I finish, I would just like to say a few words about further applications.

One wonders whether this kind of model would only be useful for Japanese. Might it not also be a valuable tool for other languages, such as Korean or the Altaic languages, for example, or perhaps even the Indo-European languages.

Further, would it be possible, as what one might call "classology", to use this method in areas other than conjugation, and if so, in what areas?

I would think that in principle it would be applicable in any situation where there is an arbitrary relationship between a framework and groups of words. If that were the case, would it perhaps be applicable in investigating gender in Indo-European languages? To the best of my knowledge, in the Scandinavian languages the relationships between each gender and the words which take that gender are to be considered arbitrary.

One expects the idea to broaden out even from here. At least as far as Japanese is concerned, it has been used quite productively in studies of accent.