On the history of words for sweet potato and potato in Korean*

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Abstract
This study is an attempt to clarify the history of words for the sweet potato and the potato in Korean. It is generally known that the word ‘kokuma’ (sweet potato) is a borrowing from ‘kōkō-imo’, a word used in the Tsushima dialect of Japanese, and the word ‘kamca’ (potato) is derived from a Sino-Korean word ‘甘藷’. However there still remain many unresolved problems so that in this paper I will try to explain the historical relationship among various forms used for (sweet) potatoes, by drawing linguistic maps based on the data collected by Ogura Shinpei. One of the most striking findings observed in this study is the geographical distribution of the familiarized forms for these two kinds of crops. A familiarized form refers to a form historically made by attaching a suffix ‘-i’ to animate noun stems, including plants. Both ‘kokuma’ and ‘kamca’ have various familiarized forms but their distributions show a clear contrast. In the case of ‘kokuma’, familiarized forms center around the southern region whereas in the case of ‘kamca’ they center around the northern region of the Korean peninsula. This can be interpreted as reflecting their routes of transmission.

1. Introduction
The sweet potato and the potato were both brought to Korea from abroad in the 18th century or later. In modern standard Korean the sweet potato is called ‘kokuma’ and the potato ‘kamca’. The history of words for these crops is complicated because there are various other words referring to these crops, and in some dialects the sweet potato is called ‘kamca’ and the potato by a different name. The etymology of these forms has also attracted the attention of several researchers because they show a variety of different origins, i.e. Japanese, Chinese and Sino-Korean.

In this study I will first briefly review previous studies on this topic, and then classify various word forms for these two kinds of crops using the data collected by Ogura (1944) and present two linguistics maps for them. Besides these maps I will also present historical data for these forms appearing in the past literature of the Korean language. I will then discuss the main points made by

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preceding studies and present several new findings obtained from this study, thereby taking into
consideration both linguistic maps and data from written records at the same time. One of the most
interesting findings of this study is the peculiar geographical distribution of the **familiarized** forms as
will be explained in the following sections.

2. **Preceding studies**

2.1 **Ogura Shinpei (1920) “The introduction of sweet potato into Tsushima and Korea”**

In this pioneering work he first made a brief account of how sweet potatoes were introduced to
Tsushima, a Japanese island located between Japan and Korea. And then he argued that they were
brought to Korea via Tsushima, by the order of the commander of the 1764 Korean diplomatic
mission to Japan. He found the Tsushima name for the sweet potato was mentioned in the
commander’s diary, so that he concluded that the Korean word ‘kokuma’ must have been derived
from the Tsushima word ‘kōkōimo (孝行芋).’

2.2 **Ogura Shinpei (1944) “On the sweet potato”**

In this work he modified his earlier thoughts explained above by adding the results of his fieldworks
on Korean dialects, and in doing so he noticed that in some places the sweet potato was called
‘kamca’ which was used for the potato in the standard language, so that he newly added an account
on the history of the introduction of the potato in Korea together with a description of words used to
refer to it. As for the sweet potato he classified the words referring to it into the following four
groups:

- kam-dʒa
- kam-dʒa with various prefixes
- ti-gwa
- ko-gu-ma

As for the **kam-dʒa** group, he observed that the same word was used to mean the potato in some
dialects, and in such areas the sweet potato is called **kam-dʒa** with various prefixes in order to
distinguish them. Since it is known that the sweet potato was brought to Korea via Tsushima together
with the name **ko-gu-ma**, the existence of the word **kam-dʒa** for the same crop made him believe that
there must have been another route for the introduction of the sweet potato. So he guessed that sweet

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1 In Ogura (1944) every word appears in a phonetic transcription, and each syllable separated by a
hyphen. I will follow his notation when I cite directly from his works below. Otherwise a phonemic
transcription is used. The system of phonemic transcription used here is partly similar to the Yale
Romanization but is different in avoiding the use of digraphs (e.g., ‘ŋ’ for ‘ng’, ‘ë’ for ‘ay’, ‘e’ for
‘ey’, etc.).
potatoes were introduced not only from Tsushima but from China independently, and the China route brought about the name *kam-dʒa*. As for the remaining form *ti-gwa*, he notes that it is the result of direct borrowing from the Shāndōng (~山東~) dialect of Chinese ‘地瓜 (sic)’.  

2.3 Fujii (2002)  
This monograph, based upon his own previous study (Fujii 1993), is perhaps the most detailed study on this topic published so far. The following is the summary of his main points.

- The Tsushima forms for the sweet potato such as ‘kōkomo’ or ‘kokomo’ were brought to Kyŏngsang-namdo, southeastern part of Korea and it was first pronounced as ‘kokome’.
- Its pronunciation changed to ‘kokuma’ when it was transferred to Kyŏnsang-pukto’.
- The form ‘kamca (甘藷)’ was brought to the Cheju island from a variety of the Fūjiān dialect of Chinese and it was pronounced as ‘kamcé’ or ‘kamcʌ’. Then it was transferred to Chŏnrado, southwestern part of Korea.
- The form ‘mu-kamca’ found in the Ch’ungch’ŏngdo province was so named because a white variety of the sweet potato was brought to that area.
- The form ‘tigwa’ was brought to from Shāndōng Chinese, following Ogura (1944).
- As for the potato, it was first brought to Chŏnrupukto by a Dutch missionary Gutzlaff in 1831, following Ogura (1920).
- The form ‘puk kamca’ (lit. northern *kamca*) was so named by the Chŏnranamdo people, because potatoes were first introduced in the Chŏnrupukto and the Chŏnranamdo people had to distinguish it from ‘kamca’ (sweet potato) which was already brought to there.
- The forms ‘haci kamca (lit. summer solstice *kamca*), pori kamca (barley *kamca*)’ were named because of its harvest time.
- The sweet potato imported from Tsushima was a red colored variety while the one from China was a round white colored variety.

Among his claims and findings, the distinction based on color and shape varieties of the sweet potato is very interesting and certainly calls for attention, but I don’t agree with many other points he has made. For example, as for the introduction of the form ‘kamca’, his discussion is based on a document called ‘Nanzan Zokugo-ko (~南山俗語考~), a kind of early modern Chinese glossary made in Satsuma in the 18th century, but I am not sure about the reason why this document is relevant in discussing Korean words for potatoes. Also, I disagree with him about the earliest form of the word.

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2 The correct notation should be ‘地瓜’.
for ‘kokuma’ and the meaning of the suffix ‘puk-’ (northern) used in Chŏnranamdo for reasons I will explain in the rest of this paper.

3. The introduction of sweet potato and potato into Korea

As has been already mentioned in Ogura (1920), one of the earliest records is found in a diary written by the commander of the 1763—64 Korean diplomatic mission to Japan, Cho Ŭm (趙曮, 1719—1777), in which it is recorded that he found sweet potatoes in Tsushima, a Japanese island located in between Korea and Japan, and ordered to bring them to Pusan in order to save people from famine. Soon after the initial planting in Pusan, literature and records on sweet potatoes, such as the method of cultivation etc., appeared quickly, indicating that this route was successful.

As for the China route, there is virtually no historical evidence. However, it is interesting to note that a scholar named Lee Kwangrye (李匡呂) heard about the sweet potato and tried to import the seeds of sweet potato from China several times unsuccessfully, and finally in 1762 he succeeded in obtaining some but it turned out that they were all rotten on the way from China to Korea (No Sŏnghwan 2010). Considering that the sweet potato was introduced from Tsushima in 1763, we have no evidence in favor of the China route theory.

Compared to sweet potatoes, historical records on potatoes (Irish potatoes) are few. There have been two theories on the introduction of the Irish potato. According to one theory, it was first introduced to Korea by a German missionary Gützlaff when he landed on the Chŏnra province in 1832 (Ogura 1944). Another is based on an encyclopedic description written by Lee Kyugyŏng (李圭景, 1788—1856) in which he noted that potatoes were brought to Korea from China across the northern border in the early 19th century. We are not sure which theory is correct, but the potato seems to be introduced in the early 19th century in either case. And as will be shown in this paper, geolinguistic consideration can shed some light on this problem.

4. Linguistic materials and maps

4.1 Dialect data

I will mainly use the data collected by Ogura (1944), but occasionally the data found in the dialect dictionary by Choi (1978) and dialect data collected by Han’guk Chŏngsin Munhwa Yŏn’guwŏn (1987—1995) will be used below wherever necessary.

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3 ‘Haesa Ilgi (海槎日記)’, written from 1763 to 1764 by Cho Ŭm (趙曮).
4 Ogura (1944) describes him as a Dutch missionary but in fact he was an anglicized German missionary (Karl Friedrich August Gützlaff, 1803—1851). His description is based on the description made by Horace N. Allen, a medical missionary and diplomat, in his book Korea, Fact and Fancy (1904).
5 ‘Ochu yŏnmun changchŏn sanko (五洲衍文長箋散考)’ written around the middle of the 19th century.
4.2 Linguistic maps

I will use two sheets of linguistic maps showing the geographical distribution of the sweet potato and the potato attached at the end of this paper (Fig. 1 Sweet potato and Fig. 2 Potato). These maps are drawn by using the Seal 7.0J program, developed by Chitsuko and Yusuke Fukushima. It is also possible to compare these maps with the one found in the Linguistic Atlas of Korea (Lee et. al. 2008) for the item ‘kokuma’, although the latter contains data only for the southern half part of Korean peninsula.

5. Classification of the word forms

5.1 Sweet potato

The following forms are found for the sweet potato in the data collected by Ogura (1944). They can be largely classified in the following four groups.

A. ko-gu-ma
   ko-gu-ma, ko-gu-mɛ, ko-go-mɛ

B. kam-dʒa (甘藷 ‘sweet potato’)
   kam-dʒa, kam-dʒɛ, kam-dʒi, kam-dʒɔ

C. prefix + kam-dʒa
   ho kam-dʒa, ho kam-dʒɛ (ho 胡 ‘barbarian’)
   taŋ kam-dʒɛ (taŋ 唐 ‘Chinese’)
   tø kam-dʒɛ (tø 戎 ‘barbarian’)
   mu kam-dʒa, musu kam-dʒa, musi kam-dʒa
   (mu, musu, musi 大根 ‘Chinese (Japanese) radish’)
   we kam-dʒɛ (we 倭 ‘Japanese’)
   ilbon kam-dʒɛ (ilbon 日本 ‘Japanese’)
   jaŋ kam-dʒɛ (jaŋ 洋 ‘western’)
   sadaŋ kam-dʒɛ, sat’aŋ kam-dʒɛ (sadaŋ, sat’aŋ 砂糖 ’sugar’)
   tʃidʒu kam-dʒa (tʃidʒu 済州 ‘The island of Cheju’)

D. ti-gwa (地瓜)

Other than the above data, Ogura Shinpei noted that there were certain areas in which people did not recognize the sweet potato (Ogura 1944(2): 200). These areas are located in Hamkyŏngdo, northeastern border of Korea. This fact suggests that the sweet potato spread from south to north and not yet reached the northeastern border.

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6 This program is available at: http://www.unii.ac.jp/~chitsuko/inet/.
5.2 Potato

The following forms are found to represent the potato in the data collected by Ogura (1944) and they can be classified in the following five groups.

A. kam-dʒa
   kam-dʒa, kam-dʒɛ, kam-dʒi
B. prefix + kam-dʒa
   ʔtaŋ kam-dʒa (ʔtaŋ 地 ‘earth’)
   ʰadʒi kam-dʒa (ʰadʒi 夏至 ‘the summer solstice’)
   kadʒi kam-dʒa (kadʒi 茄子 ‘eggplant’)
   kuŋ kam-dʒa (Ogura (1944) ‘hole?’)
   ol kam-dʒa (ol 早 ‘early’)
   p’ut kam-dʒa (?)
   pori kam-dʒa (pori 麥 ‘barley’)
   puk kam-dʒa (puk 北 ‘north’)
C. kɛŋge (?)
D. tʃiʃil (Ogura (1944) 地実 ‘earth-fruit’, Fujii (2002) 枳実 ‘trifoliate orange’)
E. tʼullɔŋi (slang used by wild ginseng hunters)

By the way the form ‘kamca’ has a homonym with the meaning of a kind of orange, having a different Sino-Korean origin ‘柑子’. Regarding this Ogura (1944) noted the following interesting comment for the data of Hyŏpch’ŏn (陜川) located in Kyŏngsangdo: the accent is placed on the second syllable in the case of potato and on the first syllable in the case of orange. Since Kyŏngsangdo dialects are known to have a distinctive pitch system, it was possible to distinguish them by the location of the accent.

6. Examples found in written records

Aside from several occurrences of ‘kamcye’ (甘藷) written in the context of Hanmun (漢文), the oldest record of the word denoting either the sweet potato or the potato transcribed in the Hangul

7 The origin of this form in unknown but it might be possible that this form was derived from ‘kamci’, a variety of the form ‘kamca’, through the following linguistic change including hypercorrection.

\[
\text{kam}dʒi \rightarrow \text{kam}gi \rightarrow \text{kɛ}ŋgi \rightarrow \text{kɛ}ŋge
\]

But there is a problem in this hypothesis: we have many examples of hypercorrection ʧi > ki occurred in the early-modern history of Korean but typical cases seem to have occurred at the word-initial position.
script seems to be found in *Kwangjaemulbo* (廣才物譜), a hand-written manuscript compiled around the middle of the 19th century.

\[\text{甘藷} (\text{kamcy}^8) \text{ 根似芋味全山藥珠之人惟種之以充} \ldots \text{ (3. 柔滑類 2b)}\]

At the end of the 19th century examples of these words are found in many dictionaries and grammar books published by western missionaries, newspapers and journals.

*Dictionnaire Coreen-Francais* (韓佛字典, 1880) par les missionnaires de corée de la société des missions étrangères de Paris

감そも (kamc\(\text{ʌ}\)). Pomme de terre, patate, igname.

남감そもそも (nam-kamc\(\text{ʌ}\)), 南蔗. Pomme de terre du sud; igname; patate douce (tubercule).

북감そもそも (puk-kamc\(\text{ʌ}\)), 北甘. Pomme de terre du nord, patate ordinaire de France.


감そも (kamc\(\text{ʌ}\)). The potato.

남감そもそも (nam-kamc\(\text{ʌ}\)), 南薯. Sweet potatoes (*lit. south potatoes*).


Potato, *n*. 감そもそも (kamc\(\text{ʌ}\)). Irish —, 북감そもそも (puk-kamc\(\text{ʌ}\)). Sweet —, 南감そもそも (nam-kamc\(\text{ʌ}\)).

*Kukhan hoiŏ* (國漢會語, 1895)

감자 (kamca) 蔬

북감자 (puk-kamca) 北甘

*A Korean-English Dictionary* (韓英字典, 1897) by J.S. Gale

고그마 (kokima) 南甘 (nam-kamc\(\text{ʌ}\)) 南薯 → 남감 (nam-kam)

*Maeil Shinmin* (毎日新聞, 1898)

피즙을 것곡식에 보리 감자 (kamca) 것친 결로 일심을 지나가미

*Sinhak Wolbo* (神學月報 1904)

무와 배채와 감자 (kamca)어 [sic. 감자와] 다른 채소와 곡식을 (4:301)

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8 In the examples below, the phonemic transcription placed just after the corresponding Hangul notation is added by the author.
The Unabridged Korean-English Dictionary (1931) by J. S. Gale.

감자 (kamca) s. 薯 (감자一서) Potatoes.
고구마 (kokuma) s. 甘薯 (고구마一서) Sweet potatoes.
고구마 (kokina) s. Sweet potatoes. Also 고구마 (kokuma).
남감 (namkam), 남감 (namkanca)

It is interesting to note that in many dictionaries cited above the word ‘kamca’ appears in two forms: One is prefixed with ‘puk-’ (northern) and the other with ‘nam-’ (southern), the former corresponding to the (Irish) potato and the latter the sweet potato. Although we find only the former form in any dialect data reported so far, the existence of the latter helps us to understand the meaning of these prefixes.

7. Discussion

Among the main points made in preceding studies I agree with the following:

• The sweet potato was introduced from Tsushima by the diplomatic mission to Japan in the 18th century, and (at least a part of) the name ‘kokuma’ is derived from the Tsushima word for the sweet potato ‘kōkōmo (孝行芋)’.

• In some dialects another form based on the Sino-Korean word ‘kamcke (甘藷)’ was also used to refer to the sweet potato. However this does not mean that it was directly borrowed from a variety of Chinese as has been stated in Ogura (1944) and Fujii (2002). As I already noted above this word was used in the context of Hanmun (漢文), so that the use of this word can be seen to be based on the literary language.

• In the dialects where ‘kamcke’, not ‘kokuma’, was used for the sweet potato, a prefix was added to the word ‘kamcke’ to represent the (Irish) potato in order to distinguish it from the former.

What follows is a summary of new findings made in this paper:

• If we look at carefully the two maps, we sometimes find forms made by adding the suffix ‘–i’ (in a historical sense). For example the form ‘ko-gu-me’ was historically made by adding the suffix ‘–i’, i.e. ‘ko-gu-mai’ of which the last syllable became a monophthong in the modern language. This can hold true for ‘kamdʒə’ and ‘kamdʒe. Therefore we can assume the historical relationship of various forms in the following way:

‘kokuma’ (sweet potato)

koguma > koguma-i > kogume
‘kamca’ (potato)

\[
\text{kamdʒə} > \text{kamdʒə-i} > \text{kamdʒe} > \text{kamdʒi}
\]

• I will call the form with the suffix ‘-i’ a familiarized form. A familiarized form refers to a form historically made by attaching a suffix ‘-i’ to animate noun stems, including plants, in order to express some kind of intimateness, familiarity and so on. Both ‘kamca’ and ‘kokuma’ have a variety of familiarized forms but their geographical distributions show a clear contrast. In the case of ‘kamca’, familiarized forms center around the northern region whereas in the case of ‘kokuma’ they center around the southern region of the Korean peninsula. Assuming that the more people get used to a thing, the more they tend to use familiarized forms for it, the geographical distribution of familiarized forms can be interpreted as reflecting their routes of transmission. That is to say, the sweet potato spread from south to north and the potato from north to south. In the above I have mentioned that there are two theories for the introduction of potatoes and this finding clearly favors the northern theory. And this is compatible with the fact that the two kinds of potatoes were distinguished by adding the suffixes ‘puk- (northern)’ and ‘nam- (southern)’ around the end of the 19th century as has been shown above.

• The modern form for the potato ‘kamca’ seems to have emerged separately from ‘kameye’ but exact process of this is still unclear. It might be the result of a simple assimilation process, but when we think about the origin of this form, we should take into account the fact that it has a homonym ‘kamca’ (柑子) which is used for a kind of orange. As I mentioned above, in one place in Kyŏngsangdo the two are distinguished by the place of the accent so that in some places a kind of confusion was taking place because of the similarity of these words. Moreover, this leads to the solution of hitherto unknown motivation for the word ‘ˀtaŋ kam-dʒa’. Because the orange bears fruit in the air and the potato in the earth (ˀtaŋ), this form can be interpreted as a way of distinguishing the two. If we think about only two kinds of potatoes the prefix ‘ˀtaŋ’ is meaningless, but by taking into consideration the existence of the homonym we can understand the motivation of the prefix.

8. Concluding remarks

Lastly, I would like to mention one remaining problem. In the novel ‘Kamca (potato)’ written by Kim Dong-In (1900—1951) in 1921, the word ‘kamca’ is generally believed to mean the sweet potato (e.g., Hatano 2013). However the dialect data is not necessary in accordance with this view, because Phŏng’ando, where the writer was born and the stage of the novel is set, is not the typical

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9 In this study I was reminded of the usefulness of drawing linguistic maps. I was unable to notice the difference in geographical distribution of familiarized forms before doing so.
area where the form ‘kamca’ is used for the sweet potato. A more detailed study is required for the use of ‘kamca’ in this area.

References
Ogura, Shinpei (1920) Kokugo to Chōsengo no tame ni (For the sake of the Japanese and the Korean languages). Seoul: Utsuboya Shosekiten.
Fig. 1 kokuma (sweet potato)
Fig. 2 kamca (potato)