

Challenges of Multilingual Notation in Comparative Food Culture Research

—The case of translating ‘soy sauce’ across Japanese, English, Korean,
Thai and Vietnamese—

比較食文化研究における多言語翻訳の課題

—ソイソースに関する日本語、英語、韓国語、タイ語、ベトナム語間翻訳の場合—

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Summary:

The author has previously reported on research into soy sauces and salty fermented seasonings around Asia, including Japan, Korea, Thailand, Vietnam, and the Philippines. Common nouns such as product names initially captured in local languages were romanized and then translated phonetically into katakana for the benefit of readers. This report highlights the various problems encountered in that circuitous process, including a lack of romanization standards, limitations of katakana in accurately expressing pronunciation differences, and a disregard for nuanced differences in ingredients or end-products. This report proposes a number of solutions, including adoption of the IPA, and makes clear that the participation of linguists will be critical for effective comparative food culture research going forward.

抄録：

著者は先行研究において日本、韓国、タイ、ベトナム、フィリピンを含むアジアのソイソースおよび塩味系発酵調味料に関する報告を行った。原語で収集された製品名等の一般名詞は、まずローマ字で表記し、読者への便宜を図って原語の発音に近いカタカナ表記を添えた。本報告では、一連の翻訳プロセスにおける課題として原語のローマ字表記規準の有無、原語の発音表記に正確に対応できないカタカナ表記の限界、そして食品の原料と完成した製品の微妙な相違に言語表記が対応できないことなどに言及し、IPAの使用を含めた解決策を提案するとともに、比較食文化研究においては言語学者の参画が効果的かつ必要要件であると結論づけた。

Key Words：Comparative food culture research, IPA (International Phonetic Alphabet), Japanese, Korean, Thai, Vietnamese, multilingual

キーワード：比較食文化研究、IPA（国際発音記号）、日本語、韓国語、タイ語、ベトナム語、多言語

INTRODUCTION

In 2013, *washoku* traditional dietary cultures of the Japanese was designated intangible cultural heritage by UNESCO. Ever since, there has been growing interest in Japanese cuisine, both in and outside Japan. It is important to be aware of the similarities and differences with the food cultures of other Asian countries when talking about Japanese cuisine. There are many common ingredients as well as similar dishes and styles of eating between Japan and its neighbors. Where do they overlap? How do they differ? To answer these questions, we need to clearly document the traditional food culture of each country by examining specific examples. Focusing on ingredients and seasonings that fall under a common name, I, the first author, engage in ongoing research studies compiling detailed comparative food culture information in an effort to clarify cross-cultural understanding.

The soy sauces of various Asian countries are one such example. Japanese *shoyu*, Korean *ganjang*, *si-iw* in Thailand and Vietnam's *nước tương* all differ in terms of raw materials, production methods and usage, and yet they are all translated as 'soy sauce' in English. This gives the impression that they are one and the same. Sometimes these products are referred to as Japanese soy sauce or Korean soy sauce, for example, but I believe it would be much clearer if the original names *shoyu* and *ganjang* were maintained as common nouns with alphabetical notation. In the same way that both English cheddar and Swiss Emmental are both cheeses and referred to as such generally, people around the world are accustomed to seeing the distinct cheese variety names: recipes from each country specifically call for

cheddar cheese in a sandwich but Emmental in a cheese fondue. Researching different usages for the three main types of soy sauce in Japan – common soy sauce, light-colored soy sauce and tamari soy sauce – sparked my interest in Korean *ganjang* varieties and uses, which then led to a survey examining soy sauces around Asia. The expertise and findings were subsequently recorded in research reports^{1,2)}.

However, writing those reports presented a number of difficulties. In the course of the research, information was shared across Japanese and English, as well as English and each local language. The resulting reports were only to be published in Japanese and English, but even that presented challenges. The goal of the research presented in this paper, therefore, was to compile details on the issues faced when translating across multiple languages in the field of food, with regards to cuisine, ingredients, and recipes.

Studies on contrastive linguistics between Japanese and other languages have been compiled by Ishiwata and Takada³⁾, Hisano⁴⁾, and Kuroda⁵⁾; multilingual contrastive linguistic research centered on Asian languages includes those by Ogoshi⁶⁾, Chung⁷⁾, and Horie and Pardeshi⁸⁾. Many suggestions were also gleaned from two collections of presented papers^{9,10)} from a 2010 symposium on contrastive linguistics between Japanese and other languages. This shows that such topics are often the subject of discussion and research in the field of linguistics. However, the research presented in this paper differs in that it was compiled primarily from the perspective of the author whose background is in natural science research in collaboration with a linguist who specializes in lexicology and a bilingual Japanese-English translator.

Cultural research frequently involves international comparisons, so it must be assumed that others face the same kinds of difficulties translating across multiple languages that we have in our food culture studies. Exactly what issues are encountered in linguistic translations for information sharing in cross-cultural comparisons? Some of the answers to those questions can be found in the results of this research.

METHODS

We identified examples of translation-related issues encountered when writing reports on Asian soy sauces^{1,2)}. Terminology was typically translated from source language into English, then English into Japanese, occasionally requiring comparative analysis of both the source and Japanese with respect to words of foreign origin. Particularly in the case of proper nouns like company names or the names of specific dishes, consulting an individual who could provide the phonetic notation directly from the original language into Japanese proved most beneficial. A food science expert and fellow researcher proofread the English food science data. Cross-language checking of translations was performed as follows: Korean by a professional

translator, Thai by a linguistics expert; and Vietnamese through advice from a Japanese food researcher with extensive field work experience in Vietnam. Japanese-English translation was covered by Lucy Takato, a professional translator and co-researcher on this topic.

RESULTS AND DISCUSSION

1. Issues Encountered in Multilingual Translation

Table 1 provides a summary of the types of multilingual translation issues we encountered in reporting the research findings. They are explained in detail here.

(1) Inconsistent romanization

Romanization of the Japanese language is primarily performed according to either the Hepburn or Kunrei-shiki styles. The same sounds may be romanized differently in each, however consistency can be achieved when one system of romanization is selected and adhered to. Thailand and Korea, on the contrary, do not have standardized romanization for their languages which led to difficulties when reporting on the names of ingredients and products from those countries.

i) ซอ[sii'iu] Thai soy sauce – romanizing its name

Internet research revealed six alternative romanized forms for the Thai word ซอ. [sii'iu]. The Thai language contains nine vowel sounds (or 18 when divided into short and long vowel sounds) as well as 21 initial consonant sounds, 12 possible consonant clusters, seven final consonants and as many as 42 consonant letters¹¹⁾. This results in a much larger number of vowel and consonant sounds than both English and Japanese, and with the addition of tones in spoken Thai, it is clear why romanization of the language is so difficult. The Thai Office of the Royal Society (ราชบัณฑิตยสถาน) first issued standards for romanization in 1939, and an updated version¹²⁾ was issued in 1999 to more accurately reflect pronunciation differences. We selected *si-iw* on the advice of a linguistic expert who deals in direct translations from Thai to Japanese^A.

ii) Different expressions across cookbooks

In Korea, there is no strict standard for romanizing the language. The Korean government translates and publishes cookbooks^{13,14)} into many languages, including English, French, Spanish, Chinese and Japanese, in an effort to popularize Korean cuisine around the world. Much of the terminology used is consistent, however, there are several dish names and ingredients for which we found multiple possible

notations causing us to struggle in our selection.

(2) Lack of correspondence between romanized and katakana notations and katakana notation of foreign words that include sounds not found in Japanese

i) Distinction between *ジ* and *ヂ*

The Korean word for sauce *장* [dʒaŋ] is typically romanized as *jang*, with katakana notation read as *jan*. However, what the Japanese cannot distinguish or convey is that the local Korean pronunciation is actually *djang*, the sonant of *chang*. The katakana could be displayed with the *dakuten* voicing mark on either *cha* *チャ* or *sha* *シャ* to result in the same *ja* sound. Very few Japanese can distinguish the pronunciation of these two versions of *jan* *ヂヤン* / *ジャン*, but anyone can read and write them, thus both are used interchangeably in publications.

ii) Korean patchim sound shifts (받침) and alternate notations for one dish

One characteristic of the Korean language is the use of patchim or sound shifts on a consonant, and when a Korean word contains one, the katakana notation will have two variations. The possible variations in voiced sounds mid-word as well as silencing of voiced sounds at the beginning of words in Korean means there are multiple possible katakana notations for one dish. According to a professional translator^B, for now it seems the best strategy for dealing with katakana notation for Korean is for each media outlet to adhere to its own independently determined standards.

(3) Perpetuation of incorrect notation for foreign origin words

From the 1980s onwards in Japan, much attention has been on ethnic foods, including Vietnamese and its many ingredients. One essential ingredient is *nước mắm*, which at the time was translated into katakana *ニョクマム* read as *nyokumamu*. This became the standard notation in textbooks and media, but in fact the more accurate notation would be *nukkumamu* *ヌックマム*, according to a food researcher well-acquainted with local Vietnamese foods^C. It takes time to shift away from established names to new standards, but we should be using notations that represent the original language's sounds as closely as possible, whilst also offering ease of pronunciation for Japanese people.

Table 1. Summary of Issues Encountered in Multilingual Notation

(1) Different alphabetical notation					
i)	꠆ꠣꠤ[siiʔfu] in alphabetical notation				
	Si-iw ※1)	Si-io	Se lw	See ew	Si eui Se ew
ii)	Different expressions across cookbooks				
	양념 / 藥念		ヤンニョム	Yangnyeom ※2)	Yak-nyeom ※3)
	깍두기	カクテギ ※2)	2) カクトウギ ※3)	Ggakdugi ※2)	Kkakdugi ※3)
(2) Lack of correspondence between romanized and katakana notations					
i)	Distinction between ジ and チ				
	醬 / 장		jang / jan		チャン / ジャン
ii)	Patchim sound shifts (받침) and alternate notations for one dish				
	미역국/Miyeokguk	ミヨックク	ミヨックク	ミヨックク	
	김밥/Gimbap	キンパ	キンパッ	キムパッ	キムパッ
	배추김치/Baechu-kimchi	ベチュキムチ	ベチュキムチ		
	비빔밥/Bibimbap	ビビンバ	ビビンバ	ビビンバ	ビビムパッ
(3) Perpetuation of incorrect notation for foreign origin words: Nước mắm [nwək məm]					
	ニョクマム	ヌクマム		ヌックマム ※4)	

※1, 4) Term selected for this report ※2) Reference14) ※3) Reference15)

2. Key product differences not reflected in English translation

(1) Actual flavor differences not reflected in soy sauce category names

The best example of this issue is found in soy sauce categories. Japanese *usukuchi-shoyu* and *koikuchi-shoyu*, Thai *si-iw-khao* and *si-iw-dam*, and Vietnamese *thanh-vi* and *hao-vi* are all translated as the imprecise ‘thin/light soy sauce’ and ‘thick/dark soy sauce’, respectively, even though the end products are vastly different. Table 2 shows each country’s products, the English translation of the product name’s meaning, production methods and how they are used in cooking.

(2) Differences in national standards for soy sauce classification

Table 3 shows a summary of the national standards for soy sauce classification in Japan, Thailand and Vietnam. The first major distinction is between the key process of fermentation or hydrolysis. In the former, soy sauce is made by fermenting soybeans, wheat, defatted peanuts or other cereals; the latter utilizes the hydrolyzed liquid from defatted soybeans, peanuts or cereals. Some soy sauces are blends of both methods.

In Thailand, products made with hydrolyzed liquid are referred to as seasoning sauces to clearly distinguish them from traditional soy sauces. In contrast, Vietnam places such varieties under the umbrella classification of soy sauces (*nước tương* [nwək twəŋ])

in a sub-category called hydrolyzed soy sauce. Japan includes mixed method varieties as soy sauce (*shoyu* [ʃo:jɯ]) even though the hydrolyzed liquid referred to as amino acid liquid is not a true soy sauce.

(3) Fermentation versus brewing

In terms of regulations surrounding production, confusion is often caused by the use of the words fermenting and brewing as synonyms. As an example, one of the world's largest soy sauce producers, Kikkoman, uses the label "naturally brewed" on its soy sauces produced through the *honjozo* regular fermenting method. Two key processes take place in the production of soy sauce: fermenting with *koji* mold and brewing with yeast. Because these take place at essentially the same time, these terms are often used interchangeably in Japanese. Thus, while the process itself is described as fermenting and/or brewing, the activities of the soy sauce industry as a whole are typically translated as 'soy sauce brewing' and the makers are 'soy sauce brewers'. While at first it may seem more fitting to use the terminology 'soy sauce fermenting' in English to differentiate from brewing,

Table 2. Comparison of Key Soy Sauce Category Names in Japan, Thailand and Vietnam

	Thin/light soy sauce	Meaning of source language name in English	Thick/dark soy sauce	Meaning of source language name in English
Japan	Usukuchi	thin and light color	Koikuchi	thick and dark color
	With slightly higher salt content than koikuchi varieties, the color is lighter and the aroma is more delicate, making it the chosen variety for subtle soy sauce flavors in cooking. Especially used in the Kansai region which includes Kyoto, Osaka and Kobe.		Most common variety of soy sauce. With stronger flavor and darker color than usukuchi varieties, koikuchi is all-purpose because it can be used liberally to achieve strong soy sauce flavor, or in smaller amounts for more subtle flavor.	
Thailand	Si-iw-khao	white soy sauce	Si-iw-dam	black soy sauce
	Fermented soy sauce with or without addition of flavoring or color. A base for other types of soy sauce. Used to give dishes salty flavor.		Made by blending si-iw-khao with sweeteners, colors, flavors and thickeners. Used to add slightly salty and sweet flavors as well as darker color to dishes.	
Vietnam	Thanh-Vi	light	Hao-Vi / Dam dac	dark, thick
	The most common type of nuoc tuong. Made from the second or subsequent presses, the flavor is lighter making it suitable for adding directly to dishes as a seasoning at the table. Cheaper than hao-vi/dam-dac, it is often found on restaurant tables.		Typically combined with water or vinegars to make dipping sauces because of its strong flavor.	

Table 3. Standard Soy Sauce Classification in Three Countries

Country	Source Language	Romanization	Type (in English)	Description
Japan	本醸造	honjozo	regular fermenting method	The base, made from soybeans and grains, is combined with either salt water or kiage (raw soy sauce) and then fermented and matured. No amino acid liquid is used. Includes types made in the traditional natural fermenting method (tennen jozo) as well as some varieties that have added seasonings to balance the flavor.
	混合醸造	kongo jozo	mixed fermenting method	Amino acid liquid is added to the mash prior to fermentation and aging, resulting in very strong umami. Sugar and other sweeteners are added to balance the flavors and satisfy consumer taste preferences.
	混合	kongo	mixture method	Amino acid liquid is added to raw soy sauce (kiage). Sweeteners are then added to balance the flavor in the umami-rich sauce.
Thailand	si-iw		fermented soy sauce	Refers to soy sauce made through a natural fermentation process. Many containing sweeteners, flavors or colors are also included in this classification, however a small proportion are simply fermented soy sauces.
	sauce-prung-rot		chemical soy sauce (seasoning sauce)	Acid-hydrolyzed soybean sauce
Vietnam	nuoc tuong len men		naturally brewed soy sauce	Fermented soybeans and/or defatted peanuts with salt added; with/without sweeteners.
	nuoc tuong thuy phan		non-brewed soy sauce; hydrolyzed soy sauce	Acid-hydrolyzed or enzyme-hydrolyzed soybeans and/or defatted peanuts with salt added; with/without sweeteners.
	nuoc tuong len men ket hop thuy phan		mixed soy sauce	Combines fermented and acid/enzyme-hydrolyzed soybeans or mixture of soybean and cereals.

usually associated with alcohol fermentation in the production of alcoholic drinks, 'brewing' proves to be more appropriate in its coverage of the many varied methods behind soy sauce production, not limited to fermentation.

As shown above, many factors complicate the quest for consistency and must be taken into consideration when translating terminology related to soy sauce. These include the many different types of soy sauce, disparate national standards for classification meaning that a product categorized as soy sauce in one country might fall outside that grouping in another, and confusion over the difference between fermenting and brewing.

CONCLUSION

For translations to accurately convey information related to food culture, we must find notation for ingredients and other proper and common nouns that offers the highest possible reproduction of the original language's pronunciation. To address the specific issues raised above, and more generally the fact that current romanization styles do not focus on pronunciation, we see the need to standardize food-related products and method names using IPA – the International Phonetic Alphabet.

Within the text of our report, you can find examples of each country's primary name for soy sauce recorded in IPA notation. Going forward, we plan to look more deeply into the names of soy sauce categories as well as the product names for other salty fermented seasonings in each country to employ the correct IPA notation for those items as well. In the longer term, we hope to see the development of an overall system for standardization, including a multilingual food-related dictionary and translation database.

Given these conclusions, it is clear that linguists will always be instrumental in effective comparative food culture research.

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Notes

- A Consultations conducted with Phattraphan Bunnag, a linguistics expert who completed her study on Thai-Japanese food terms and went on to obtain her doctorate in linguistics from Ochanomizu University.
- B Information gained from an interview with Yun Chunggung, a professional Korean-Japanese translator engaged in translations on Korean television dramas for Japanese audiences and various other translation projects.
- C From interviews with Shinobu Itoh, researcher of Vietnamese cuisine and owner/coordinator of an com Vietnamese cooking school in Tokyo, Japan.