

Comparison between Japanese Tipping Customs, Kokorodzuke, and Western Tipping Customs: Japanese Cultural Uniqueness Making Foreign Tourists Confused

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Abstract

Our research topic is a discovery of Japanese cultures uniqueness making international travelers get confused and disappointed from tipping customs' differences between Japan and western countries. Most people think that there is no tipping custom in Japan, and this is not wrong in most situations. Therefore, many international tourists can enjoy Japan staying without worrying about the tipping problem. However, there has been some specific situations that require people to tip. Staying in Japanese traditional style luxury hotels is one of the most significant situations that people should customarily tip. This is the Japanese untold tipping custom called *kokorodzuke*. Surprisingly, there is no clear definition of *kokorodzuke*. Therefore, we conducted text mining on Yahoo *chiebukuro* (Yahoo Answers). As a result, we found that many Japanese people also got confused and disappointed by this custom when they were going to stay in Japanese traditional style hotels called *ryokans*. From this result, we thought that international tourists must get confused and disappointed about *kokorodzuke* as well as the Japanese people, and that some of them might have uncomfortable experiences because of the ignorance of this custom during their staying. We confirmed that from text mining results by word2vec. In the paper, we show the text mining results. If it derived from Japanese traditional untold cultures, Japanese people engaging in doing business with international tourists should improve the current status to remove the barrier.

Keywords: *kokorodzuke*, tipping customs, Kyoto *ryokan*, text mining, *tripadvisor*, Yahoo Answers, LDA, word2vec

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Introduction

Since IOC (International Olympic Committee) chose Tokyo as the Olympic Games venue, Japanese government has strived for attracting more international tourists to Japan for foreign currency. Many facilities, sites, services, and so on are have become international-friendly, and this improvement attracts more international tourists. Then, the Japanese government's endeavor seems to have been archiving a quite success. However, there would be many problems that should be improved in future.

We focus on Japanese hotel tipping customs called *kokorozuke*, as one of the problems. First, we shall locate the existence of the problem; whether some international tourists get confused and disappointed with the Japanese hotel tipping customs or not. The analysis method is a topic extraction by text mining. Secondly, we clarify Japanese persons' common sense of *kokorozuke* by text mining. As a result, we found that even Japanese people are likely to get confused and disappointed when they stay at Japanese style hotels called *ryokans*. From this result, we thought that international tourists must get confused and disappointed about *kokorozuke* as well as the Japanese people, and we can guess that some of them might have uncomfortable experiences because they have no idea on this custom during their staying. We confirmed the existence of the problem from text mining results by `wrod2vec`. In the paper, we show the text mining results.

Our Research Method and Data

In this section, we will describe our research method and data we used. The data we used in the analysis are data from *tripadvisor* and Yahoo Answers (Yahoo *chiebukuro*). *tripadvisor*® is the world's largest travel site, enabling travelers to unleash the full potential of every trip. The sites operate in 48 markets worldwide (cited from https://www.tripadvisor.com/PressCenter-c6-About_Us.html). The *tripadvisor* offers advices from millions of travelers and a wide variety of travel choices and planning features with seamless links to booking tools that check hundreds of websites to find the best hotel prices, so that the *tripadvisor* can hold the largest travel community in the world. We shall collect the international travelers' comments from *tripadvisor* which are written in English. On the other hand, when we would like to survey the Japanese common sense, Yahoo Answers is one of the best web sites. Yahoo Answers is a community-driven question-and-answer (Q&A) site that allows users to both submit questions to be answered and answer questions asked by other users (https://en.wikipedia.org/wiki/Yahoo!_Answers). The Q&A sentences are written in Japanese.

Let us explain our research approach. First, we would like to collect international tourists' comments about trips in Kyoto which is the most popular location in Japan. We selected *tripadvisor* as the web site. When we conducted topic extraction on the data, we found that many international tourists get confused with Japanese tipping system *kokorozuke*. Then we were interested in *the kokorozuke*. Because we have no idea on *kokorozuke*, first we started survey on the Japanese common sense on *kokorozuke*, using Yahoo Answers. From the results, we found that many Japanese have no clear idea on *kokorozuke*. Therefore, we inferred that it is quite natural for international persons not to understand the complicated customs. Then we again analyzed the *tripadvisor* data so that we can collect the international tourists'

complains on *kokorodzuke*.

On *tripadvisor*, we collected text data with the retrieval keyword “Kyoto, Japan” (See Table 1). The total number of collected reviews is 29,030. The data period is from May 23rd, 2004 to October 25th, 2016. We conducted a topic extraction on the 2016 data. The number of the reviews in 2016 is 7,685, the number of words is 720,996, and the period is January 1st to October 25th. We used TreeTagger¹ as the morphological analysis tool for segmentation of the English messages. As a word unit, we use a noun-noun bigram such as “style+room”.

Table 1: Collected data’s details for topic extraction

	TripAdvisor	Yahoo Answers (<i>chiebukuro</i>)
Keywords	<i>Kyoto, Ryokan</i>	<i>kokorodzuke</i>
The Number of Reviews/Q&As	7,685	1,929
The Number of Words	720,996	174,271
Period	01/01(2016)-10/25 (2016)	05/28 (2004) - 09/07 (2016)
Language	English	Japanese
Tool	TreeTagger	MeCab
Word Unit	noun-noun bigram	noun-noun bigram

We constructed, from the text data, the topic extraction using the LDA (Latent Dirichlet Allocation) model. The LDA model is a widely-used multi-topic document model based on Bayesian inference method (D. M. Blei, A. Y. Ng, and M. I. Jordan., 2003). The Markov chain Monte Carlo methods (MCMC) algorithm we used on the LDA model was Gibbs sampling (D.M. et al., 2003). The Gibbs sampling is widely used. The algorithm is visually explained in (Y. Shirota, T. Hashimoto, and B. Chakraborty., 2016). As the programme of the LDA with the Gibbs sampling, we used the R packaged offered by “The Comprehensive R Archive Network abbreviated as CRAN titled “lda: Collapsed Gibbs sampling methods for topic models” developed by Jonathan Chang². In LDA model, we have to decide in advance the number of topics. In this work, we decided the number to be seven after some experimentation, because with the seven topics, the topics clearly appeared. The results are shown in Table 2. The most frequently appearing words per topic are described. The contents of the extracted topics are described in the next section.

In the same way, we collected text data with the retrieval keyword *kokorodzuke* on Yahoo Answers (See Table 1). The retrieval keyword is “*kokoroduke*” in Japanese. As the messages are written in Japanese, we used MeCab³ as the morphological analyzer. As a word unit, we use a noun-noun bigram such as “ホテル+チップ” which means “hotel tipping” in English. The number of Q&As about *kokoroduke* we extracted is 1929, the number of Japanese characters is 174,271, and the period is from May 28th, 2004 to September 7th, 2016. Then we conducted topic extraction. Then we found that five was appropriate as the number of topics. The results are shown in Table 3.

¹ <http://www.cis.uni-muenchen.de/~schmid/tools/TreeTagger/>

² CRAN web page: <http://cran.r-project.org/>

³ <http://taku910.github.io/mecab/>

international tourists. We set the number of topics seven and extracted the topics. Let us explain the topic extraction results (See Table 2). We interpret the topic titles as following: (1) sightseeing, (2) transportation, (3) popular things, (4) room preference, (5) train station, (6) bamboo, monkey park (*Arashiyama*), and (7) Kyoto station.

Table 2. Extracted topics and its most frequently appeared words

#	1 #	2 #	3
Golden+Pavilion	78	train+station	179
entrance+fee	75	Kyoto+station	138
souvenir+shop	50	Kyoto+Station	76
temple+ground	45	bus+stop	75
Yasaka+Shrine	41	subway+station	66
Golden+Temple	39	bus+station	49
Kiyomizu-dera+Temple	34	breakfast+buffet	43
Buddhist+temple	31	tourist+attraction	42
Maruyama+Park	31	convenience+store	42
blossom+season	30	minute+walk	41
#	4 #	5 #	6
style+room	69	train+station	264
*tatami+mat	44	Kyoto+station	189
Hotel+Mume	42	Kyoto+Station	116
ryokan+experience	42	subway+station	105
*kaiseki+dinner	36	minute+walk	88
capsule+hotel	36	hotel+room	72
taxi+driver	31	Kyoto+train	71
dining+room	29	bus+stop	64
garden+view	28	smoking+room	63
boutique+hotel	28	breakfast+buffet	53
#	7		
Kyoto+station	153		
Kyoto+Station	129		
train+station	61		
minute+walk	47		
Kyoto+Tower	39		
subway+station	29		
air+conditioner	25		
bus+stop	24		
taxi+ride	22		
convenience+store	21		

**Gion* area: a popular area in Kyoto, Japan

**tatami*: a type of rice straw made mat used as a flooring material in traditional Japanese-style rooms

**kaiseki*: a traditional multi-course Japanese dinner

*capsule hotel: a type of hotel developed in Japan that features a large number of extremely small "rooms" (capsules) intended to provide cheap, basic overnight accommodation for guests who do not require the services offered by more conventional hotels.

The topic (1) includes many popular spot names in Kyoto. Although we have no idea of the topic (6), we found that the topic corresponds to the *Arashiyama* area and that the bamboo forests and the monkey park got popular. In these results, we were interested in the fourth topic “room preference” in which they talked about *ryokans* and the Japanese style rooms. The topic mainly talks on the advantages of *ryokans* which are made of Japanese style housing (wooden dwells), *tatami* mats, *kaiseki* dinner, garden views and so forth. There is no explicit complain about *kokorozuke*. We, however, found two complaints in the original review sentences as follows:

- Furthermore, their billing practices, itemizing every single tea, bottle of water, snack or cup of tea and, to top it off, charging an outrageous 15% service charge on everything including the already expensive room rates is just infuriating. I wish I would have read another *tripadvisor* review mentioning the same thing before I booked that hotel.
- My problem with the inn was the lack of English speaking staff and understanding and added extras on the bill. We knew that there was an added 15% service charge to the bill along with a 5% tax. We were surprised that the inn had adopted a western tradition of service charge as that is unheard of everywhere else in Japan. We expected better service and English.

There we found that a few persons complain on *kokorozuke*. We think that the complaints stem from their ignorance of the *kokorozuke* system owing to lack of the explanation of *kokorozuke* system by *ryokan* staffs. As described in the above two cases, when the guests do not pay *kokorozuke*, then the *ryokan* would take that as additional service charge without explaining that. The Japanese tour business persons should tell the *kokorozuke*. However, it may be quite difficult for us to explain that because it is related to the Japanese mindfulness. To translate *kokorozuke* definitely or clearly, we will first have to know the Japanese people’s common sense on *kokorozuke*. Therefore, we analyzed *kokorozuke* from the Yahoo Answers Q&As. In this topic extraction, we set the number of topics to be five after some experimentation. We interpret the topics in the following ways (See Table 3):

- (1) accommodation charge including service charge,
- (2) *onsen ryokan*,
- (3) tip occasion,
- (4) *kokorozuke* amount, and
- (5) manners on service charge.

From the topic (1), it is clear that most Japanese people think that they do not have to tip because accommodation charges already include service charges. There we found the Japanese words that mean “no need” or “included charge”. The topic (2) talks about *kokorozuke* at *onsen ryokans* which are Japanese style hotels with nice hot spring bathing facilities.

as gifts to the bride groom. The envelope is in form of ceremonial folded paper and colored paper strings. For a funeral, there are another special sympathy envelopes with black strings. The Japanese take care when handing money. The manners must have concerned others in society.

In conclusion, from these many comments on Yahoo Answers, we found that many Japanese must have got confused and disappointed with the tip problem at *ryokans*. The most frequently asked questions were an appropriate tip amount. In addition, we found that there is no widely shared common rule about the amount.

The Result of word2vec

In the section, we shall describe the results by word2vec and t-SNE. Let us explain the input data of the word2vec. They are the text data from *tripadvisor* with the retrieval keyword “Kyoto, *ryokan*”. The total number of collected reviews is 29,030. The data period is from May 23rd, 2004 to October 25th, 2016. The word2vec makes the vector model from the text data. Then on the vector model, we shall get similar words to the word “service charge.” This is because we think that “service charge” is a similar word of *kokorodzuke*. Some concepts concerning *kokorodzuke* would appear around “service charge.”

Figure 3 shows words similar to the word “service charge.” There is no *kokoroduke* around the word “service charge”, which means the reviewers must have no idea of the tipping system name. However, we found the two interesting results.

(1) Wi-Fi Free

As shown in Figure 3, we can see “Wi-Fi” in the neighborhood of “free” of “FREE”. These words are frequently used with Wi-Fi, internet, PCs, and so on. Reading the original reviews, we found that Wi-Fi, internet, or PCs were offered with free charge in almost all *ryokans*. They are co-occurrence words.

(2) Tacit service charge

There are some emotional words such as abysmal, downer, poor, ridiculous and lousy. These words express negative emotions. Reading the original reviews, we found that the writers used these words when they were talking about *ryokans*' service, food, accommodation, and the service charge. One unexpected interesting finding is that some (or even many) *ryokans* take a 15%~18% service charge in addition to the accommodation fees. The problem is that the charge is conducted without guests' permissions. From their reviews, they complain that *ryokans* did not tell their guests about the service charge, in advance. And when guests left *ryokans* and looked at their receipts, they found that 15%~18% service charge was automatically charged together with the accommodation fees. If the international tourists were explained the additional service charge, they must have rejected the charge. Then, the *ryokan* staffs could not persuade them. There are two reasons why they could not persuade that. The first one is that the staffs in many cases would not have good command of English, so that they can explain the meaning of additional charge. In addition, we do not think that the *ryokan* staffs get used to debating; they would not be able to explain the charge logically. The second reason is that the international tourists would not

kokorozuke may be illegal, the *nakai* refuses being given the *kokorozuke*. However, the refusal does not mean “no thank you” and it implies a tacit approval “yes.” For international tourists, it is difficult to understand the connotation.

The implication of the gratuities called *kokorozuke* means greetings and expectations so that they can be given still higher level services from the *nakai* during their stays. *Kokorozuke* illustrates Japanese traditional untold cultural features. In western countries, people give service providers some coins or bills directly, and service providers usually receive tips. Moreover, service providers may demand some money as a tip when they offer extra services. In addition, as above mentioned, there is a Japanese tradition of *pochibukuro*. The *pochibukuro* would express Japanese mindfulness

Another difficult point for foreigners may be when they should give *kokorozuke*. The *ryokan* guests should give a tip to a *nakai* at the very beginning of their stay, because *kokorozuke* means the expectations. However, in western countries, people tip only when they are given services. If the services are not enough well, they will not tip. The custom is widely known around the world. Therefore, the service providers work as much as they can to obtain more tips. On the other hand, *kokorozuke* seems like a prepaid tip. *Kokorozuke* usually implies a demand of good service to a *nakai*. The *kokorozuke* custom is quite different from a tip in western countries and complicated psychological interactions with a *nakai* would be needed. *Kokorozuke* is originally written “心付け” in Japanese, and “心” means “heart.” People, especially guests staying *ryokans* would like to stay more comfortably during their staying. During their staying, *ryokan* staffs are working for them as their own butlers and maids to make their *ryokan* experiences wonderful. Therefore, the guests tip a *nakai* with their hearts to express a greeting, expectations, and gratitude, in advance.

Kokorozuke is not stated but when you stay at an upper level *ryokan*, *kokorozuke* may be required. If the tourists will not hand in that, it might result in customers’ dissatisfaction. The *ryokan* staffs have to understand the current situation and consider an improvement approach. We think that the *ryokan* should not take the additional charges once they contract no service charge.

Conclusion

In the paper, we describe differences between Japanese tipping customs and Western tipping customs. Using text mining techniques, we analyzed reviews of international tourists on Kyoto *ryokans*. We used the website *tripadvisor* reviews which are written in English. As a result, we found that the international tourists in Kyoto *ryokans* were confused and disappointed on the tipping system in *ryokans*. To solve the troubles of the international tourists, we surveyed the current common sense of Japanese concerning the *ryokan* tipping system. For the analysis, we collected the data from the Q&A comments by Japanese persons on Yahoo *Chiebukuro (Answers)*. However, we could not find the clear definition of *kokorozuke*, which means many Japanese also get confused and disappointed on the *kokorozuke*. Then we conducted again topic extraction on the international visitors' comments on *tripadvisors* and visualized the similar words to the word "service charge" by using *word2vec*. The *word2vec* results exposed the fact that there were *ryokans* that charged the additional 15%~18% amount as a service charge. In other words, in Japanese *ryokans* there is surely a tipping custom, although they say their *ryokan* has no tipping custom.

Then, we analysed the comments, so that we could categorize the tipping situations. The important thing is that the custom *kokorozuke* is supposed to be conducted only in a high class *ryokan*. Therefore, the tourists will have to ask in advance whether *kokorozuke* is needed or not at the *ryokan* when the *ryokan* may be a high class one. However, we think that the procedure is irksome for the guests. Instead of that, the *ryokan* should offer a clear charge system and definition for international tourists.

The website of foreigners' reviews such as *tripadvisor* offers much information concerning international visitors complains. We will continue to find such kinds of complaints on the web via text mining for the improvement.

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