



# **EPOK Research Project**

## **Winter 2018**



岡山大学  
OKAYAMA UNIVERSITY



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## FROM THE COURSE COORDINATOR

EPOK リサーチプロジェクトは、岡山大学の交換留学プログラム EPOK で学ぶ留学生がそれぞれの留学期間を通じて取り組む個別研究です。日本の社会や文化を探求する視野から自由に個々の課題を設定し、実践的にその課題に係る活動を観察するフィールドワークを通じてリサーチを行い、その成果をエッセイにまとめました。研究テーマは、変遷する文化や習慣の様相や意味、社会や産業にみる特徴、第二言語の学習に係る諸課題など、自由に広がっており、日本を学ぶという地域研究の学際的取組を映し出しています。

2018 年度冬期修了の EPOK 生が作成したリサーチエッセイをここに文集としてまとめました。このエッセイ集は、各々の取り組んだテーマを通じて見た日本の姿を示すだけでなく、そこに至る過程での学びや異文化の経験に取り組んだ一人一人の EPOK の軌跡でもあります。

In the course of EPOK Research Project EPOK students worked on the individual research theme in relation to their interest in Japanese culture and society throughout their time at Okayama University. The compilation of the research essay in this book is the final product of their exploration and discovery. The 2018-winter EPOK research essay collection shows a good variety of their interest, including unique custom and culture, second-language education, workplace system and practice, and issue in agriculture.

I hope the process of searching and finding own theme of interest is acknowledged as a tangible, exciting and unique experience for each of the EPOK student in learning about the culture which could be different from their own. May this collection of the essays be a token of their discovery and endeavor in Okayama, Japan.

2019 年 2 月



Obayashi Junko 大林純子

EPOK advisor

Center for Global Partnerships and Education

Okayama University

## FROM THE CHIEF EDITOR

One says *there are many ways of life we can choose, but we will not know until we walk through*. As one of EPOK students, I would say that we have walked through one of the greatest way in our life since we decided to study at Okayama University. This program provide us many excellent courses such as learning Japanese cultures, exploring wonderful places and international exchange events with Japanese students. We also enjoy travelling since Okayama is located in the perfect hub connecting to various travel spots. In the same time, we have opened our world. In the Sharehouse dormitory, we have met and learned other people from different countries and cultures. We spend time together, we play together, we hang out together and we help to each other. That makes life in Japan more marvelous. We are now connected with new friends around the world. Our world was changed, our world is bigger. From bottom of my heart, I believe that one day the destiny will bring us to meet these great memorial friends again.

In this EPOK Research Project, I ensure that we pass on our interest while staying in Japan with our great passion and motivation of curiosity. Even though we will go back to our home land, our left treasures will stay still. When we open this booklet, we will be reminded that *Once we were here, Once we were curious, Once we searched and Once we learned*. Thank you EPOK program for this greatest experience, it will be engraved on our memory forever.

**Thanaphon Khiomonthon**

January 2019

## EPOK STUDENTS OF SPRING & FALL 2018



**Name:** Emily Lynette Jew

**Age:** 22

**Major:** Speech-Language Pathology

**Home University:** California State University, East Bay

**Favorite Experiences While Studying in Japan:** *Meeting the most 素晴らしいともだちs, finding the most かつこいいかれし, learning the ぶんか, improving my にほんご, and being able to explore the best of にほん.*



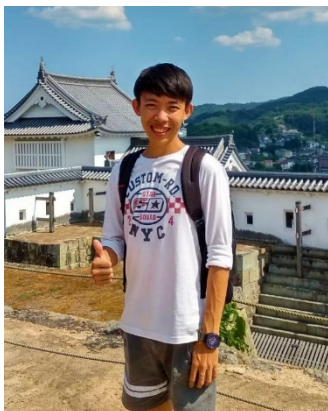
**Name:** Wang Rongde

**Age:** 21

**Major:** Mechanical Engineering

**Home University:** National Taiwan University

**Favorite Experiences While Studying in Japan:** *Well I think the best experience for me during my stay in Japan was that I can make a lot of foreign friends from many countries and even had many chances to travel with them. And also my language ability has improved a lot in both Japanese and English because of that.*



**Name:** Thanaphon Khiomonthon

**Age:** 23

**Major:** English

**Home University:** Kasetsart University

**Favorite Experiences While Studying in Japan:** *Learning and exchanging knowledge to each other with people who are from different countries, different culture and different lifestyle.*



**Name:** Nitiwat Watthanapongpin  
**Age:** 23  
**Major:** English  
**Home University:** Kasetsart University  
**Favorite Experiences While Studying in Japan:** *It is the best opportunity to meet new lifelong friends from different backgrounds around the world.*



**Name:** Torge Heitmueller  
**Age:** 23  
**Major:** Plant Biotechnology  
**Home University:** Leibniz University Hannover  
**Favorite Experiences While Studying in Japan:** *Participating in the Misasa Town Festival during Golden Week with Fujimoto-sensei's class and our short road trip to Mt. Daisen for the torch parade*



**Name:** Nele Ahrensmeier  
**Age:** 22  
**Major:** Economic Science  
**Home University:** Leibniz University Hannover  
**Favorite Experiences While Studying in Japan:** *Firstly, getting to know Japanese culture and the country as a whole and secondly, meeting other international students from all around the world. It was an amazing experience where unforgettable memories were made.*

## The Custom of Removing Shoes in Japan

日本における靴を脱ぐという慣習について

Emily Jew エミリージュウ

California State University, East Bay (USA)

私が初めて日本を訪れたとき、私が最初に体感した文化の違いの中の一つは、部屋に入る前に靴を脱ぐ必要があるということです。私はアメリカ出身で、そこでは屋内でも靴を脱ぐ必要がないので、最初はこの靴を脱ぐという行為に手間を感じました。しかし、私は日本の文化を尊敬し、そして学びたかったので、日本に住むことを決意しました。それ故に、私はこのプログラムで、この慣習の起源、時の流れと共にどのように発展したのかを調べ、自身の個人的な考察も交えながら、日本における靴を脱ぐという慣習に対して日本人と留学生の両方にインタビューを行いました。

Before arriving in Japan, I understood that there was a rule about removing our shoes before entering a home. However, I didn't completely comprehend this custom, and I still don't. During my stay in Japan, I realized that it was a really bad idea to have only brought shoes that required to be tied on, as it always took time when leaving the house. It was extremely inconvenient, for moments when I would prepare to leave my home by putting on my shoes, only to have to take them off right away because I had forgotten something inside. It felt unnecessary, especially if I was in a rush. Despite this, I never broke the rule, as I knew that there had to be some kind of reason behind this action, even if it didn't matter so much to me.

As a foreigner, I want to be respectful to Japanese culture, and, therefore, I feel that I should learn why this custom is important. That way, I could learn to appreciate it rather than feel inconvenienced. In addition, while I do wish to know the beginning of the removal of shoes, I'm also curious as to how this belief could have changed throughout the years, if it has. For that reason, I will research how this custom of removing shoes in Japan originated and how that mindset has changed over history.

Before getting started on the background of this custom, I believe it's important to understand the basics. When entering a Japanese house, there is an area called the *doma*, which displays a tiled floor at the entrance where people are expected to remove their shoes before completely going inside. Raised about 15 cm above the *doma* is the *agarikamachi*, which is the wooden floor that forms the edge of the interior (Murachi, 1989). The *agarikamachi* is viewed as a sort of border or threshold that separates the world of the outside, where shoes are worn, and the inside, where people are barefoot. This also includes the *doma*. Most foreigners believe that because they are inside, it's acceptable (Murachi, 1989). Even though it is technically inside of the house, the *doma* is viewed as being part of the dirty outside world and should never be stood on without shoes. After removing one shoe, the foot that is barefoot should immediately step on the *agarikamachi* without touching the *doma*. This action is then repeated with the other foot that is still within the boundary of the *doma*. Finally, the shoes should always be neatly facing the doorway, not the other way around as this is common etiquette. Normally, slippers are also used at the entrance to step into, rather than entering with bear feet.



*The Doma & Agarikamachi, photo by Emily Jew*

Now we understand the rules of this practice. However, where did the custom come from and why is it so important to modern life even now?



The history of this custom goes way back in the past to ancient Japan times. It was believed that gods and spirits resided all around them, including almost every aspect of mother nature in Japan. This belief began with Shintoism, which referred to the Way of the Gods. It was this belief system that made people believe that every mountain, stream, and tree was connected with a spirit. “These deities, known as *kami*, were considered cheerful and friendly to humans. If kept satisfied, they would watch over human affairs and refrain from causing natural disasters” (ushistory.org, 2017).

However, if the people disobeyed their physical and spiritual cleanliness rules, the *kami* wouldn't hesitate to unleash their wrath unto them. Because of this, worshippers were careful to avoid dirtying holy areas by participating in ritual purifications to clean themselves before entering the torii, which are the gates leading into sacred precinct of a Shinto shrine. By keeping yourself clean, it meant that the *kami* would be happy, and, in return, make daily life for humans peaceful.

“The place where *kami* reside must be clean and pure, for in a real sense order and cleanliness are next to godliness in Japan. This religious awareness manifests itself in a Shinto aesthetic that permeates the whole of Japanese sensibility and culture—an aesthetic that seeks harmonious blending with the beauty and simplicity of nature and emphasizes the pure, the clean, the tranquil, and the natural character of things” (Ellwood and Pilgrim, 2016). Because of this mindset coming from religion, actions such as removing your shoes before entering certain areas, wearing surgical masks, showering before entering a pool of water, having separate slippers for the bathroom, and requiring students to clean their own classrooms are routine for all Japanese citizens. These practices have become ingrained into Japanese culture, and if they are not followed, you will be frowned upon and judged, as you will be seen as not having a peaceful mind or good morals (Rhae, 2017).

In addition to religious explanations, the sense of cleanliness in general during Japan's historical ages was another reason for the custom of removing shoes. “The climate in Japan is very humid. Back when roads weren't paved or layered with stones, the Japanese naturally removed their shoes to stop bringing in mud and dirt from the outside. This was especially because houses were made with *tatami* flooring, which is extremely hard to clean dirt from” (GladTeam, 2017). Adding on to this, the floor was not just for walking on for the Japanese, it was also used for other daily activities such as eating and sleeping on. Such examples include the fact that many Japanese people will eat their meals on low tables while sitting on a cushion on the floor. Also, laying out a futon on the floor and sleeping on it is still a common act now. Because of this, just the thought of being so close to the dirt compels Japanese citizens to go through extra lengths to keep their home and floors void of grime.

When comparing Japan to the West, we can see that many characteristics of the latter had been adapted to over the years, thus, making Japan more “Westernized”. “Japanese people have maintained a great interest and curiosity in imported things, including religion and science. This is why Japanese people never felt any strong resistance against the introduction of Western culture, both spiritual and material” (Hirai, 1999). Such characteristics include the adoption of Western clothes, food, drinks, hairstyles, buildings, education, and even words. In addition, women in Japan dyed their teeth black during the Edo era, but that also began to disappear by the Meiji era after foreigners who were visiting Japan thought that their teeth had rotten. In regard to the Westernization of architecture in Japan, within the common Japanese home, most replaced sliding doors with push open doors, the *tatami* floor was replaced by normal wooden floors, chairs replaced cushions, and futons were replaced by beds. And an example of a Westernized drink that was brought over by foreigners was beer, which was first brewed in the 1870s during the Meiji era (Beech, 2018).

With these cultural changes, it brought on a new sort of convenience to Japanese society. Even so, there are other features of Western culture that Japan decided not to adapt to, specifically the action of keeping one's shoes on within the house. Most Westerners find it normal to leave their shoes on indoors, and, therefore, if they were required to always remove their shoes before entering their home, most would find it a nuisance and question the full process.

Why then did Japan decide to opt out of taking the Western, or more convenient, way of entering a home? From past research, it seems as though it's because of the feeling of cleanliness people get when

they remove their shoes, which are only worn outside in the dirt. However, from my personal experience of living in Japan, the floors in the house still get just as dirty, despite following the rule of taking off our shoes. As an American, I still think about this often and wonder if it really does any good of keeping dirt out. In addition, a lot of the Japanese people I've met aren't the cleanest in general. Before arriving in Japan, I had an image that they would keep their houses and rooms clean, more than most. However, most of the students here are like any other person. They have messy rooms, both private and common, and they don't seem to mind it much. In fact, I would say that the way they live during their daily lives contribute more to how dirty their rooms are compared to if they were to wear their shoes indoors. Therefore, I can only conclude that their way of thinking in regard to their shoes may be more of a psychological thing rather than having physical proof, as it seems to not make any difference either way.

To get an understanding of how other people besides me feel about this custom, I held a small interview with 20 students: 10 Japanese students and 10 foreign students, each from a different country and background. The purpose of this interview was not only to find how they felt about it, but to also discover if they know the origins of why Japanese people take part in it, and if they only follow this rule blindly just because they were taught to do so from the day they were born. The questions provided are the following below:

1. How do you feel about the custom of having to remove your shoes before entering the house?
2. Why do you think the Japanese have this custom?
3. Do you know the actual reason why they have this custom? If not, can you guess?
4. Why do you still keep up with this act?
5. To Japanese students: If somebody were to leave their shoes on, would you get angry/shocked? If so, would the anger/shock come from the fact that they disrespected the custom? Or because it's dirty?
  - To foreign students: Do you think Japanese people would be angry/shocked? If so, do you think the anger/shock would come from the fact that you disrespected their custom? Or because it's dirty?
6. To Japanese students: In general, do you think this custom makes a difference in how clean your room is?
  - To foreign students: Do you think this custom makes a difference in how clean your room is? Have you noticed any change in comparison to your room in your home country?
7. To Japanese students: Would you say that you're a tidy person in general? Do you clean on a regular basis?
  - To foreign students: During your experience of living with Japanese students, are they generally tidy?

### Japanese Responses:

Q1:	Natural (10)		
Q2:	Keep home clean (10)		
Q3:	Don't know/Guess incorrectly (2)	Don't know/Guess correctly (6)	Does know (2)
Q4:	Taught from birth/Keeps house clean (10)		
Q5:	Shocked/Dirty (10)		
Q6:	Yes (10)		
Q7:	Yes (5)	No (5)	

### Foreigner Response:

Q1:	Natural (2)	Neutral (3)	Annoying (5)	
Q2:	Keep home clean (10)			
Q3:	Don't know/Guess incorrectly (1)	Don't know/Guess correctly (8)	Does know (1)	

Q4:	Japanese taught/Respect (6)	Japanese taught/Clean (1)	Japanese taught/Sometimes ignore (1)	Already knew from home country/Clean (2)
Q5:	Shocked/Dirty (3)	Angry/Disrespect (6)	Angry/Dirty (1)	
Q6:	Yes (2)	No (6)	Maybe (2)	
Q7:	Yes (4)	No (2)	Depends (4)	

The end result came out to be similar to what I had guessed, as the Japanese students weren't relying on past history to continue with this custom, but rather the psychology of cleanliness. However, I was wrong in the fact that they actually wouldn't be angry at the disrespect if shoes were to be worn inside, only shocked because of the dirtiness. In addition, the students with an Asian background sympathized with the Japanese students, more than the students of other cultures.

By understanding this topic, I hope to teach foreigners who are either living in or visiting Japan and aren't aware of the custom, or, if they do know, to encourage them to appreciate this custom rather than be annoyed. While most Japanese people no longer link this custom back to its origins, it's still important to them, so I believe that it's only right to respect them and follow their rules.

Thank you for reading my research paper. I only wish that visitors to Japan would enjoy learning about the various customs of their culture, so I hope that this paper has given some new insight and interest to the topic.

## Reference

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## The changes of purpose why people drink tea in japan

日本におけるお茶を飲む理由の変化

**Wang Rongde** 王榮德

National Taiwan University (Taiwan)

**要旨**：私の育った台湾では、お茶はコーヒーなどと同様に単なる飲み物です。一部の人はこだわりを持って飲みますが、それでもただの飲み物です。しかし、日本では茶の湯という文化があります。茶の湯は、単なる飲み物ではなく、作法や部屋のアレンジ、その裏にある精神も含めた全てです。日本では、お茶は単なる飲み物ではなく、芸術になっています。このため、日本人がお茶を飲む目的は、台湾をはじめ他の国とは違うのではないかと考えました。しかし、お茶の文化はかなり変化しているように思います。よって、日本人がお茶を飲む目的について知りたいと思いました。この研究では、お茶の歴史と「なぜ日本人がお茶を飲むのか」について探求しました。

### 1. History

In this section, the history of tea will be explored by referring Urasenke Chanoyu Hand book (1993).

#### (1) Origin

*/Tea seeds were not native to japan, but introduced from china sometime in the early Heian period (794-1185). This age corresponds in history with T'ang dynasty (818-907) in china..... most probably tea seeds entered japan among the goods brought back by such scholar-priests as Saicho (767-822) and Kukai(774-835) who were dispatched as envoys to the T'ang court or by those Chinese envoys who remained as naturalized persons in japan./*

According to this passage, we can tell that tea is not originated in japan and Japanese had never drink tea before Heian period. As a result, tea was relatively a foreign stuff rather than a traditional drinking. And also we do not need to discuss the time before Heian period because tea was not introduced before then.

*/Tea was originally prepared in japan in the T'ang tradition known as dancha. The tea leaves were first steamed and beaten into firm balls.....tea was drunk in this manner in japan but it was probably a privilege of only a segment of the nobility and priesthood. Subsequent literary accounts fail to mention tea until the Kamakura period and it may be assumed that tea was forgotten until then. /*

This paragraph shows that the so-called chanoyu had not formed yet. In this period of time they just used the Chinese style to drink tea. And because of the rarity of tea, tea was only drunk by the nobility not by ordinaries. So the purpose of drinking tea that time was just purely drinking some foreign beverages. And after that, tea was not drunk by Japanese until Kamakura period (1185-1392).

#### (2) Kamakura period (1185-1392)

*/A renewed interest in tea appears with the reintroduction of seeds in the Kamakura period by the priest Eisai(1141-1215) who brought the teaching of Rinzaï Zen Buddhism to japan.....was the foremost selection in tea competitions and social tea gatherings which enjoyed popularity in the Nambokucho period(1336-1392)./*

Now we know that tea was introduced to Japan again in the Kamakura period and was later become more popular, which will be discussed in the later paragraph. Now let us take a look at how tea was popularized and why people drank tea that time.

*/When the third shogun, Minamoto Sanemoto(1192-1219), was suffering from the aftereffects of heavy drinking, Eisai's recommendation of tea as a practical treatment successfully cured the ailing ruler.....Eisai professes that tea is the wizard's herb for sustaining life and the secret or long life./*

Apparently, in the early Kamakura period tea was thought of as a thing that is good for health and even has the effect same as medicine. Maybe it was a little bit exaggerated but it was actually the purpose why people drink tea that time.

*/After Eisai's demise and until the end of the Kamakura period, tea was drunk chiefly by zen monks, who found it useful in staying off sleep during their meditations as well as by the nobility and high ranking warriors./*

For monks, in addition to some of the nobility, tea has the effect of keeping them awake, which is another purpose of drinking tea during that period of time. However, tea still seems not that popular among ordinary people.

*/In Koan 5(1282), a tea gathering known as ochamori was held in the sacred precincts of Saidaiji temple in Nara. Ochamori means literally a large serving of tea.....marked the mutation of tea as a way and further fulfillment of its spiritual aspects.....to have treated the gathered crowd to tea .....this was probably the first occasion of tea drinking among masses./*

By this time, tea was finally spread to the public. And the purpose of people drinking tea is for some kinds of religion procedures or have religion effects.

*/Tocha or tea tournaments were added, becoming a form of polite accomplishment in the Nambokucho period (1336-1392). Tocha itself consisted of classifying varieties of tea by regions. Contestants were judge on their ability to identify different kinds of tea.....the most elaborate account of tocha gathering appears in Taiheiki hosted by the powergulf Sasaki Doyo(1295-1373)./*

In this period of time, drinking tea had become a way of competition, where prizes wagered by the participants were distributed. Prior to this time, people drank tea for its medicinal value. However, in this period of time people drank tea for amusement.

### **(3) Chanoyu**

*/Tocha as central form of recreation gradually lost its appeal and tea grew to be widely associated with wine drinking parties. /*

At the end of Kamakura period, tea had lost its popularity and people turned to focus on wine for amusement. However, after entering the Sengoku jidai, the concept of Zen was added into tea. And Shuko was considered an important pioneer.

*/Shuko learned that "the buddha's law exists also in tea" and that the same spirit prevails in both Zen training and in the mastery of tea.....this spiritual code is the precedent of Sen Rikyu's guide to the spirit of the heart in tea: harmony, respect, purity and tranquility./*

According to the passage, tea was not purely for health or amusement nor competition, now tea had leveled up to spiritual level with the concepts of Zen behind it. Followed by Sen Rikyu, who completed the

spirit of Zen brings about the beauty elements of chanoyu: wabi, sabi, and suki, the so-called chanoyu, or tea ceremony was formed.

From then on, tea ceremony had become an important part of Japanese culture. This kind of tea ceremony had become a kind of art. From the chashitsu, all the settings in it like kakemono and the cha itself are all the presentation of simplicity because all these elements are pure and simple without so many complicating things. People started to drink tea because of some spiritual reason, which was really different from that before.

#### (4) Meiji Ishin (1968)

The tradition of chanoyu had lasted for a very long time as an important Japanese culture until Meiji Ishin. In this period of time, Japanese tended to dismiss tradition culture and try to follow western culture. As a result, chanoyu had lost its importance gradually.

However, with the advances of technology, it is much easier for people to access various kinds of tea. Nowadays, we can drink tea every time and anywhere whenever we want because there are so many kinds of tea in convenient store. We do not need to prepare tea by themselves by difficult procedures. So I think tea has definitely gained much more popular than before. People drink tea for many purpose as well.

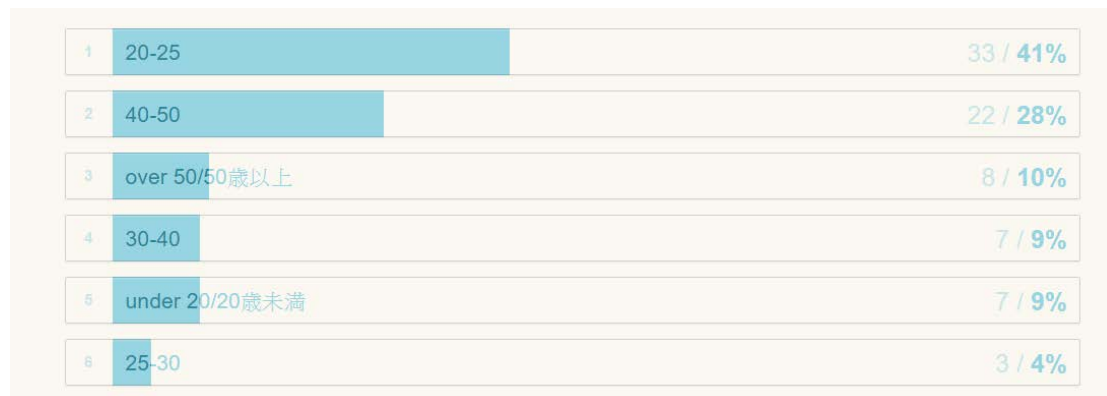
Now, I am going to evaluate the purpose why people drink tea in modern japan according to the questionnaire I made.

## 2. Modern Japan

### (1) About the questionnaire

Among all the effective 80 responses, there are 22 responses that are not Japanese. That is to say there are 58 responses that are done by Japanese. However, those people who are not Japanese are now living in japan as international student so I will add those responses to my evaluation as well.

The consistence of ages is shown below:



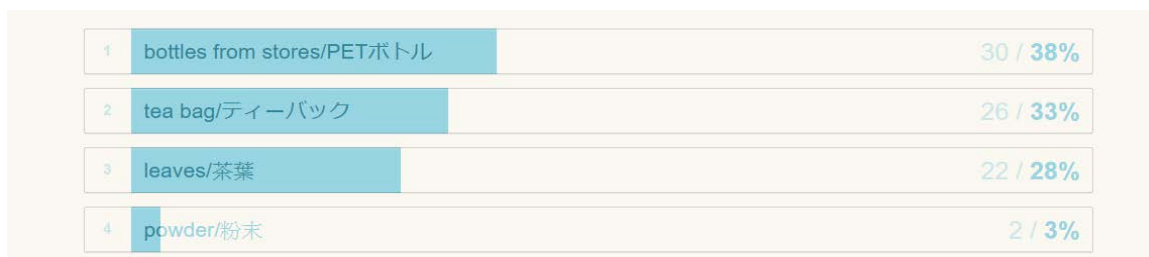
It is a little bit focus on people between 20-25 years old (41%), but we also got quite a few people over 40 years old (38%), so I think is acceptable.

## (2) Results and analyze

The frequency of people drinking tea is shown below

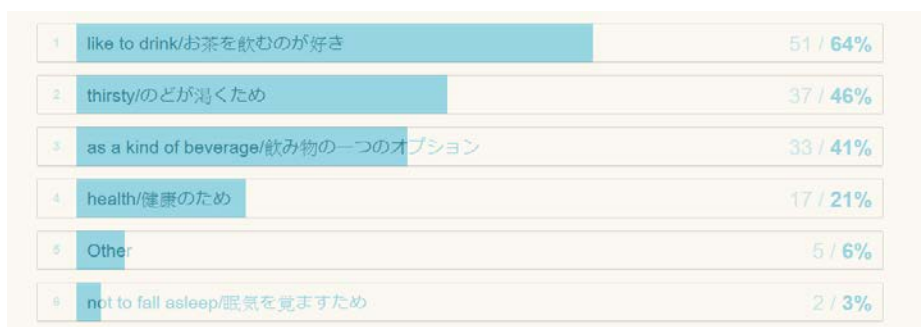


Surprisingly, people drink tea more often than I thought. 50% of people response that they drink tea 2 times or above every day. This corresponds to what I said before that tea has definitely gained much more popular than before. And the reason why can drink tea so often is also highly related to convenience store, as shown below:



Most people access tea by bottles which is mostly sold in convenience store or vending machine, and quite a lot people also by tea bag. What surprise me is that there are still 28% of people who drink tea directly from leaves, which is the traditional way to prepare tea. That is to say japan still under the impact of chanoyu.

And for the most important part: the purpose why people drink tea is shown below. It shows that most people (64%) drink tea just because of their hobby. Also, quite a lot people drink tea because of thirsty, which is reasonable. However, seldom people drink tea because of health or not to fall asleep. These two purposes used to be the main purposes of people in the past to drink tea, as we mentioned before. As a result, we can say that the purpose why people drink tea changes again in nowadays. And the reason why people will consider tea as a kind of beverage is probably because it is so easy to access tea nowadays.



**Reference**

Soshitsu Sen XV (1993) *CHANOYU handbook One (4<sup>th</sup> edition)*, Urasenke Foundation.

Soshitsu Sen XV (1997) *The Japanese Way of Tea: From Its Origins in China to Sen Rikyu*, University of Hawaii Press.



## Double letter words in Japanese complicate students who study Japanese as a foreign language in Okayama University Tsushima campus

Thanaphon Khiomonthon タナポンキオモン トン

Kasetsart University (Thailand)

日本語では「ダブルレターワード」という小さい「つ」で表される音である言葉と「おばあさん」や「りょうり」などの長音がよく使われます。しかし、例えば「おばさん-おばあさん」の発音は似ており、同じ音に聞こえることがあります。そのため、聞き間違いによる誤解を生む場合があります。こういった経緯からダブルレターワードや長音に関心を持つようになりました。この研究では、留学生がどのようにダブルレターワードや長音を理解をするのか調べ、正しい発音を目指した勉強方法について提案します。

### I. Literature review

The authors want to know the way to develop pronunciation in Japanese double letter words of JSL, or foreign people who learned Japanese as their second language. They invented CALL system and applied it with participants mostly JSL students. They found that CALL system is useful for teaching Japanese double letter word phones. The system is significant because it is the first CALL system to provide corrective feedback similar to what human teachers would provide when teaching Japanese pronunciation. In addition, this feedback is easy to understand and apply to students who might have a pronunciation problem. The system can help learners to acquire skills in a short period.

#### 1. Introduction

When people speak second or foreign language, they do not notice any mispronunciation words as their mother tongue. They tend to look over and focus on language structure and grammar more than their pronunciation. However, pronunciation is also important in successful communication. The communication would be error if the information people want to convey used in incorrect pronunciation words because the meaning may be completely changed even their grammar and structure are so perfect. In Japanese, there are many double letter words including long vowels and double non-vowel consonants that obstacle foreigners who learn Japanese as a foreign language in Japan. Sometimes, it causes them to make a communication error without intention. There are plenty of words that sound familiar with double letter words; for example, おばあさん(Obaasan/Grandmother) and おばさん(Obasan/Aunt) which differ in pronunciation duration at the second syllable, or おと(Oto/Sound) and おっと(Otto/Husband) which sound the same if you speak at the same duration.

This background information leads this research to study on how much students who are learning Japanese can pronounce and understand these double consonant words. This study separated data collective way into two sections including double consonant word pronunciation and listening. Based on the research of Goh kawai and Keikichi Hirose, this study aims to find the pronunciation error point and try to improve it with a reliable methodology. In addition, this research will find how related of double consonant pronunciation and listening in foreigner students in Okayama University.

Acquiring nativelike pronunciation is the most desirability among foreign language learners. However, most adult learners develop fossilized pronunciations that are too late to be native speaker. Research suggests that some adults can attain close to-native pronunciation through intense training. One

of reliable training is CALL (computer-aided language learning) system developed by Goh and Keikichi in their research. They believe that applying CALL systems to practice students who pronounce some double consonant words incorrectly individually in parallel may help them improve their pronunciation errors.

This paper aims to find how understand in double consonant words of foreign students and try a practice to improve their pronunciation for being an alternative way in practicing correct pronunciation.

## 2. Methodology

The methodology used in this research mostly based on the research of Goh Kawai and Keikichi Hirose which adapting and adding more to be matched for this area. Initially, I made a questionnaire which included three section. The first section is participant information. For this part, this study want to know that the level of Japanese language of participant whether has an impact on how correct in pronunciation and listening. I also asked about the extra learning in Japanese language that may be useful for other people who try to learn the language. The second section is pronunciation part. This part is mostly like Goh Kawai and Keikichi Hirose research methodology which is CALL system. In this part, participant will read a short passage that included the double consonant words but they will not know about it. However, there are some differences. For example, the former research use this CALL with Japanese as a second language student while this study apply for Japanese as a foreign language learner. However, the language level is different and many foreign students studying Japanese in Okayama are not good as the students who learn Japanese as a second language yet. So, the experiment in this paper will be adapted for the students in appropriate way. In this study, the passage is applied from news on NHK Web easy for Japanese learners which has a lot of easy to understand words. Even though there are some kanji appearing in the context, participants can read because I put hirakana, Japanese letter expressing sound in each kanji, on top of every kanji. The third section is listening part. The purpose of this section is to find the relation between pronunciation and listening of the participants. The study has ten words for participants to listen to and fill in the box which sound they heard. They can only listen for one time. In each word, there are two or more similar sound choices. The target of this study is to collect data from fifteen participants which including various level of Japanese language. Every sounds in this section came from the kind help of a Japanese native speaker which he tried so hard to make neutral sounds as good as possible. Also, I asked another Japanese native speaker to listen to the sounds I got. This another Japanese said the sounds is clear and understandable.

After collecting data, I will analyze first and third sections while the second section will be analyzed by Japanese native speaker whose sounds are used in the third section. Moreover, this native speaker will provide feedback to those who made mistakes in the listening part. If a participant did well in the experiment or more than 90 percent, he or she will not be applied for the next step. Then, I will separate those participants who do make some mistake into two group, control group and experiment group. I will give feedback in the first part about where the mistake is and how to make it better by the suggestion of the native speaker. Also, they will listen to every sounds in the third part and learn by themselves about the differences. On the other hand, I will only let the control group know about their score.

After feedback giving for one month, I will do a test again. This time I will change some mark point in the second and third sections. And after that, I will compare to the former test and find the progress. The study will know that CALL system is work or not in this period. By the way, if participants can reach more than 90 percent in some part, there will be no the second test since the purpose of this paper is to find out that can CALL system be used with students who learn Japanese as foreign language(JFL student).

## 3. Data analysis

I spent whole October to collecting first test data and analyze them. The fifteen participants are from many countries including India, Taiwan, America, Germany, Paraguay, Thailand, Indonesia and China. Also, their Japanese level is from level one until level seven but all of them can read hirakana and

some kanji. In this analysis part, I will use numbers demonstrating the participants from “no.1 to no.15” to make it easier and more understandable.

In the reading part, participants are asked to read a passage from news which include Japanese double letter words. There are 3 pairs of double letter words that might be confused by its similar pronunciation including:

1. りょこうーりよかんーりょうり
2. きよねんーきょうねん
3. じけんーじっけん.

For analyzing, a Japanese native speaker helped me after collecting first data. Here is the analyzed data which focus only on the double letter words.

Word	Mistake(no.)
りょこう	7
りよかん	None
りょうり	None
きよねん	None
きょうねん	2,9
じけん	7
じっけん	1,2,5,8,9,12

Table 1: First reading test

After analyzing this data with the native speaker, I was a bit surprised that only seven participants including no.1, no.2, no.5, no.7, no.8, no.9, and no.12 making mistakes in double letter word pronunciation and they did less than two mistakes. Three of seven participants made two mistakes while other four participants made only one mistake. The most mistake word is じっけん because six people fell for this word, they pronounce it as じけん instead. So, it means there are some of JFL students who are confused about the word mixing with small 「つ」 and most of them omit this sound and speak it as the similar word without small 「つ」 that make a shorten sound. In the next test, I asked only the participants who made at least one mistake so there will be seven participants in the second test. In addition, I random them into two groups including four participants in experiment group and three participants in control group. After analyzing this data, I told the experiment group about their performance and gave them feedback that would help their pronunciation by practicing their mistake pronunciation in a month while I did not tell the control group for this part.

One month after I gave feedback to the experiment group, I asked all of seven participants to do the second test. In this time, I used the same passage. Four participants in the experiment group including no.1, no.7, no.8 and no.9 read the last time passage which providing a note telling them which word they made mistake and how to improve it. However, three participants in the control group including no.2, no.5 and no.12 get a clean passage. Here is the result of the second test comparing to the first test.

Mistake Words	First test(no.)	Second test(no.)
りょこう	7	None
きょうねん	2,9	2
じけん	7	None
じっけん	1,2,5,8,9,12	1,2,5,8

Table 2: First and second reading tests

After analyzed the second test data, the result is demonstrate that only three participants can improve their pronunciation which two students are from experiment group and one student is from control group. That means this applied CALL system may not good enough to enhance student language skill for studying Japanese. Nevertheless, the native speaker who analyzed these tests says the pronunciation of the experiment group are better than before. He also mentioned that even though they still made same mistake, it came nearer or almost correct which he did not found in the control group. I found that the participants in experiment group are more beware of pronunciation.

The third part or listening part came into the same time. In this part, participants are asked to listen to the given sounds only one time and to choose the right answer they heard. There are ten questions providing similar words which are:

Six pairs of similar words including

1. おばさんーおばあさん、
2. おじさんーじいさん、
3. にんぎょーにんぎょう、
4. さいきょーさいきょう、
5. おとーおっと、
6. きとーきつと。

Three pairs of three similar words including

1. じけんーじいけんーじっけん、
2. じこーじっこうーじっこ、
3. しょきーしょうきーしょつき。

A pair of four similar word which is

1. いっしょーいっしょうーいしょーいしょう。

Participants	First test score	Second test score
No.1	9/10	-
No.2	6/10	8/10
No.3	4/10	5/10
No.4	5/10	6/10
No.5	6/10	9/10
No.6	6/10	8/10
No.7	8/10	7/10
No.8	5/10	9/10
No.9	6/10	7/10
No.10	6/10	6/10
No.11	7/10	9/10
No.12	7/10	8/10
No.13	9/10	-
No.14	8/10	10/10
No.15	9/10	-

Table 3: First and second listening test

When I got all the first test data of the third part, I found that no one can get full score. There are three participants who get score more than 90 percent so they are not included in the second test. Most of participants get a score more than half and there are people who get half score. By the way, only one participant get score less than half.

In this part, the top three mistakes are いしょ(13 people), きと(10 people) and じこ(8 people). I noticed that when I collecting this test, most of participants said they were not sure about いしょ. Not because there are four choices, but they all seem very similar, especially, いしょ and いっしょ. It is quite difficult to distinguish the differences.

After I analyzed the first data, I prepared for the second test immediately. I random twelve participants into two group, six in each experiment group and control group. For the experiment group including no.2, no.5, no.6, no.8, no.11 and no.14, I told them their score and sent them the sound file for

practicing their listening skill and finding where differences are a month before the second test. However, I did tell the control group only their score.

When I finished checking the second test result, I found clearly different between experiment and control group. Even though most of experiment group still made mistake in いしよ, they get better in other sounds. On the other hand, some participants in control group get a little better while some other get lower score. So I get feedback from participants about the second test. Experiment group agree that it is easier to listen and distinguish the sound they heard while control group says there is no a big change comparing to the first test.

#### 4. Conclusion

In my experience, I occasionally suffer this error when I speak with Japanese people and, sometimes, they misunderstand what I want to say. Since there are a lot of similar words like this, we can find those kind of words in daily life. Now, I found that some foreign student in Okayama University are confused about pronouncing the double letter words in Japanese language, but many of them can pronounce correctly. Although the CALL system can be used with student who learn Japanese as a second language, it might not enough for student who learn Japanese as a foreign language. On the other hand, this technique can be used in listening practice because most of students who get feedback after the first test, they get a better score while the students who did not get feedback get a little higher score or even lower score. In the future, I hope this technique could be used for practicing language skill which will be very useful for language learners in advance.

For the further study, there are a lot of other specific topic that can be expanded more. For instance, there are pairs of similar sounds in Japanese language such as 「すーつ」 or 「しーち」 which including the impact of mother tongue toward foreign language acquiring.

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## Do Katakana affect the correct English spelling? Case of Okayama University students

**Nitiwat Watthanapongpin** ニティワットワッタナーポンピン

Kasetsart University (Thailand)

日本人の英語（カタカナ）は面白い自分のアイデンティティだと思います。カタカナ語というのは英語から借りる言葉ですが、日本語の文字で書かれ、日本語の音で話されます。日本人はいつもカタカナを書きそして話していますから、それで、私は疑問に思いました。日本人（岡山大学生）にカタカナの言葉を英語でスペルさせたら、日本人（岡山大学生）は正しい英語をスペルすることができるのか、そしてもし間違っていたらどのようなスペルをするのか。岡山大学生をL-café大学生とL-café大学生じゃない二つのグループに分けて調査をしました。

“Do loanwords in Japanese (Katakana) affect the correct English spelling of Okayama University?” From research “English Loanwords in Japanese: Effects, Attitudes and Usage as a Means of Improving Spoken English Ability” by Ben Olah (2007). This paper looks at the extensive use of English loanwords in Japanese and how loanwords usually have a negative effect on the ability of Japanese people who use spoken English. In addition, the attitudes of Japanese university students towards loanwords in Japanese.

The result showed that the large number of English loanwords used in Japanese creates problems for Japanese people when they speak English because the poor pronunciation of these loanwords acts as a barrier to understanding. In addition, the meanings of some loanwords are considerably different to the English words from which they came, a semantic gap that creates further problems when Japanese speak English.

In addition, the results of a questionnaire given to a group of university students showed that most of them thought that there were too many loanwords used in Japanese and there was a large number of loanwords they did not understand. However, the results revealed that students want loanwords to be taught as part of English classes at junior high and high school.

From Ben Olah’s research, I notice that he just focused on the effect of loanwords in Japanese to English speaking skill however he did not focus on any writing skill, so I would like to do the research on of writing and spelling, so my research topic is “Do loanwords in Japanese (katakana) affect the correct English spelling of Okayama University students?”

From Ben Olah’s methodology, He split the issues of loanwords in Japanese into two types, such as, issues caused by pronunciation and issues caused by semantic change. In my research, I will focus on just only the issues caused by pronunciation (phonological change) because I think that loanwords in Japanese pronunciation that are based on katakana sound might relate with English spelling’s way of Japanese.

The methodology is making a loanwords vocabulary spelling test. Every loanword in this test will be written using katakana characters. The loanword vocabularies will be divided into four types according to phonological change by Ben Olah’s division such as syllable expansion, shortening, shortening/combination and phonological change. Moreover, I started by choosing most of the Katakana vocabularies from “Genki 2” the elementary Japanese textbook, because I think that most of vocabularies in this textbook are used in daily life, so Japanese student might be used to it. In addition, I found some of them from the website conversation context, and I chose words that are not too difficult. In the end, my Katakana test had 20 words. All of them are words that might be a problem because of pronunciation, and then I divided them into 4 types such as, syllable expansion, shortening, shortening/combination and phonological change, and each type has 5 words. As following:

## Phonological Change by Ben Olah

### Syllable expansion

Due to the syllabic restrictions of monosyllabic Japanese katakana, consonant clusters cannot be produced without putting vowel sounds in between them. As a result of this, words in English that have few syllables can end up being expanded, requiring far more sounds to produce their katakana equivalent in Japanese.

スーツケース	suitcase
ストレス	Stress
クリスマス	Christmas
レストラン	restaurant
アドバイス	advice

### Shortening

In order to save time when speaking, many loanwords have been shortened. These shortened versions become the standard way of saying or writing the loanwords, with people often unaware of its original form.

テレビ	television
デパート	department store
アニメ	animation
コンビニ	convenience store
スーパー	supermarket

### Shortening/combination

In other cases, two loanwords have been combined, with one or both of the original English words being shortened.

パソコン	personal computer
エアコン	air conditioner
アメフト	American football
デジカメ	video camera
リモコン	remote controller

### Phonological change

Loanwords want to retain their original English form, but are unable to be pronounced correctly using the available Japanese phonemes. Japanese and English have different vowel sounds, and consonant sound, which means that many English words must undergo a phonological change in order to be written in katakana. One consequence of this is that some loanwords are pronounced differently to the English word they came from.

バニラ	vanilla
ハンバーガー	hamburger
ラジオ	radio
レザー	leather
ツナ	tuna

Next, I planned to do this research with 50 Japanese students, 25 people from L-café (L-café students) and 25 people from other places in the university (non L-café students). In addition for the

katakana test I did not put the types together in groups, instead I mixed all the types together so that the Japanese students wouldn't notice the groups. Moreover, while the student were taking this test, they were not allowed to use their smartphone or ask their friend. Finally, the test was analyzed to discover which type of phonological change that students often make mistake on.

After I got the data from katakana test, I compared and analyzed the data by the following Ben Olah's methodology. First, I divided the data into two group between 'L-café students' and 'Non L-café students'. Next, I divided every katakana word into their category. There are four categories, such as, Syllable expansion, Shortening, Shortening/Combination, Phonological change. Each category has 5 katakana words each. After that, I counted the misspelled words in the two groups, one by one, from the first to the last word. Finally, I compared the misspelled words between 'L-café students' group and 'Non L-café students' group, to find out which group made specific mistakes on which word and which category.




### Percentages of misspelling between Non-L café and L café students

#### 25 Non-L café students

Syllable Expansion		Shortening		Shortening / Combination		Phonological Change	
スーツケース	12%	テレビ	32%	パソコン	48%	バニラ	80%
ストレス	8%	デパート	56%	エアコン	48%	ハンバーガー	80%
クリスマス	48%	アニメ	40%	アメフト	20%	ラジオ	8%
レストラン	16%	コンビニ	80%	デジカメ	84%	レザー	88%
アドバイス	4%	スーパー	20%	リモコン	80%	ツナ	36%

#### 25 L café students

Syllable Expansion		Shortening		Shortening / Combination		Phonological Change	
スーツケース	16%	テレビ	28%	パソコン	60%	バニラ	44%
ストレス	0%	デパート	68%	エアコン	44%	ハンバーガー	76%
クリスマス	28%	アニメ	40%	アメフト	8%	ラジオ	4%
レストラン	12%	コンビニ	44%	デジカメ	88%	レザー	52%
アドバイス	0%	スーパー	20%	リモコン	60%	ツナ	40%

-  More often misspelled word
-  Less often misspelled word
-  Equally misspelled word

From the result, on average, Non-L café students made more mistakes than L café students, however most of the mistakes are not too different from each other. There are 20 words in total used in this test. There are 9 words where the difference of misspelling between the two groups is only 4%. Then there



are 2 words where the difference is 0%. Then there is 1 word where the difference is 8% and finally 8 words where the difference is more than 10%

From the test result, Syllable Expansion is the category that both groups of students made least misspelling. Most of them really know how to spell in English correctly.

Next, the shortening category shows an interesting result, because it is the only category where both groups, Non-L café students and L café students, equally made mistakes on two words in same category, such as アニメ and スーパー. From the test paper, it revealed that most of students in both groups did not know the full spelling word in English, most of students just wrote *super* on スーパー and *anime* on アニメ. It could be assumed that they did not know the full spelling word of *supermarket* and *animation*.

In addition, the shortening/combination category is the category that many students willingly ignored to write the answers down on the test, especially デジカメ (digital camera) and リモコン (remote controller). I assume that they probably did not know the full spelling of the word. However, there are also many students who gave answers, but still made mistakes on the two words as well.

Moreover, the category that most of the students made many mistakes on (especially Non L-café students) is the phonological change category. From the test result, it showed that most of them were confused about the differences between English and Japanese sounds. They spelled English words through transcription from the Japanese sound, not English sound. For example, they usually spelled バニラ (vanilla) to be (banila), ハンバーガー (hamburger) to be (hambargar), and spelled ツナ (tuna) to be (tsuna).

In conclusion, the results revealed evidently that loanwords in Japanese (katakana) affect the correct English spelling of most Okayama University students. It is not only Non-L café students but also L café students. The often misspelled words are not too different from each other. Most of the students in both groups tended to get confused with the difference of English and Japanese pronunciation that was split into the 4 types by Ben Olah, such as, syllable expansion, shortening, shortening/combination and phonological change. Syllable Expansion is the category that both groups of students made the least misspelling. Moreover, the category where most students made many mistakes on (especially Non L-café students) is the phonological change category. The category that both groups made mistakes on (because they did not know the full spelling of the words) are the shortening and the shortening/combination category. In my opinion, I think that Japanese education should emphasize to educate their student about how to spell English correctly so then when they grow up, they will not get confused about the correct English spelling that is caused by the difference between English and Japanese pronunciation.

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## The public image of genetically modified food in Japan

日本における遺伝子組み換え食品の公共イメージ

**Torge Heitmueller** トルゲ ハイ トミュラー

Leibniz University Hannover (Germany)

**Summary:** この小論で、なぜ私はこのテーマを選んだのか、なぜその調査方法と質問を選んだのかを、私の予想と実際の結果を交えながら説明します。また、私の結果をヨーロッパの調査結果と比較し、さらなるアンケートと私自身の結論の見解を示します。私の仮説は、世界中の人々は遺伝子技術の現在、そしておそらく古い基準についてさえよく理解しておらず、また、遺伝子技術やその現実世界への適用に関するほとんどの意見は不十分な知識によってなされたものである、ということです。私の調査では、GM食品およびバイオテクノロジー全般のさまざまな性質についての疑問の意見を求めました。全体的に、欧州連合の調査の結果と同様な傾向がみられましたが、日本人は欧州の回答者よりも、リスクにより慎重であるように思われるだけでなく、潜在的な有効性を認める傾向が強いことに気が付きました。結論として、日本における遺伝子技術に対する理解は、欧州のものと同様に多くの誤解が見受けられますが、日本人の遺伝子技術の有用性に対するより好意的な認識は、これらの誤解を解くことを欧州人に比べ容易にすると思われます。

### Introduction

My major is plant biotechnology and when I had to choose my topic for the research project, I wanted it to be connected to my major. Trying to combine Japanese culture or society with biotechnology I decided to research the public image of genetically modified food (GM-food) in Japan. GM-food is by far the biggest focus of my major and something important to me, as I find it really interesting and am of the opinion that it will be very important in the future of agriculture. We often discuss its public image in Europe and America, but rarely other regions, which is why I was interested to learn more about its status in Japan.

During the semester before I came to Okayama my professor invited Dr. Susanne Stirn from the University of Hamburg for a discussion on GM-food. A big part in this lecture was a survey conducted by the European Union called Eurobarometer. The survey from 2006 and 2010 contained questions about GM-food and other biotechnological practices. Which gave me the idea to create my own questionnaire based on these Eurobarometer-Studies to conduct my own research regarding the public image of GM-food in Japan.

### Construction of the Survey

When constructing my survey, I wanted it to be as close to the Eurobarometer-studies as possible to make a comparison easier, however I changed a few things. I removed the option of answering 'I don't know' and 'maybe' from almost all questions, because I had a feeling that those options would be by far the most chosen ones and I wanted clearer results. I also changed the wording of question 6 of my survey to be, in my eyes, easier understandable. And last I added two questions, one if people heard of or knew about the CRISPR technology and as my first question a generally self-assessment about their knowledge regarding gene technology.

The first was added because the technology was discovered quite recently and was not covered in the EU-survey, the second because my general hypothesis is, that people worldwide do not have a good understanding of the current and maybe even old standards of gene technology and that most opinions are based on an insufficient knowledge about the topic and its real-world application.

Questions number two to number seven were taken from the Eurobarometer-studies, but I want to explain their purpose here anyway.

The first two questions taken from the surveys compare GM-food production to other biotechnological fields, pharmacy, gene-therapy and nanotechnology. I omitted the last field as it is very diverse and the short explanation in the EU-studies does not mention any gene technology, so after consulting with my EPOK-adviser I realized that this it might be better to leave it out. The EU-studies focus on biotechnology as whole, so they ask questions regarding all fields of it, I on the other hand am mostly concerned with GM-food, but I left these questions in, because I started this research with the assumption that GM-food will be perceived negatively and those questions can provide information, if it is the gene- or the food-part that is responsible for this public image.

Question number four has the purpose of providing some insight into why people think about GM-food the way they do. It makes several statements about GM-food and ask to either agree or disagree. This can give valuable information on what points need to be addressed to improve the perception of GM-food. Questions number five to number six go deeper into this topic as all questions make a hypothetical change in GM-food and ask if that would change the persons opinion or behavior regarding GM-food. Again, to give a better understanding as to what would need to be addressed to change the public image of GM-food.

## Results and Analysis

The results of the first question in part confirm my previously stated general hypothesis with only 25% of the questioned answering they have a rough or better understanding of gene technology.

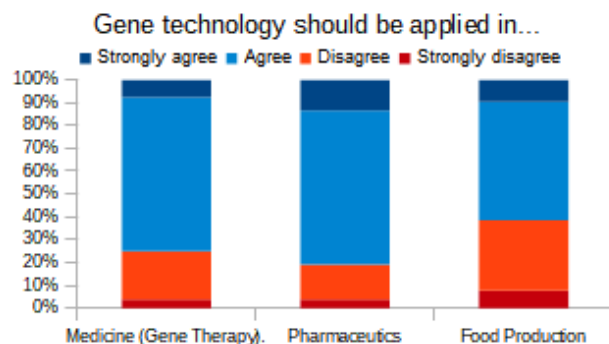


Figure 2: Application approval

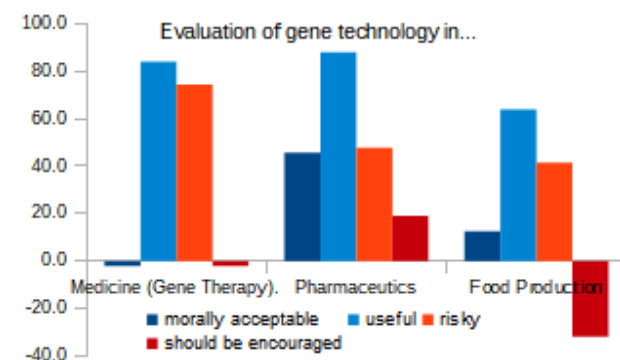


Figure 1: Evaluation of gene technology

Question number two (Figure 1) already comes with a few surprises. The percentage of people who voted agree or strongly agree is already a lot higher than the European surveys, 25%, 28.8% and 34.5% respectively. While food production had the highest increase compared to Europe it is still the least supported field with 61.5%, 13.5% lower than Medicine.

These results will be a bit more surprising once we have a look at the other results.

Going over to question number three (Figure 2) we can see some more surprises and differences between Europe and Japan. The Japanese view gene technology in food production to be the least risky application, whereas in Europe it is by far viewed as the riskiest, furthermore you can see an increase in perceived risk in all fields. However, the perceived usefulness has also gone up across all fields. But the most interesting part for me is that even though all fields got high approval in their application, all of them got low encouragement numbers. Again, food production being the black sheep.

Now what do I make of these first results? Well it seems to me that Japanese people are more aware of the applications usefulness and risk. Furthermore, my first explanation for the discrepancy between the answers to question number two and the values for encouragement is that Japanese people want the technologies to be applied and tested, but do not want them to be advertised or recommended yet. However, to prove this hypothesis further qualitative research must be done.

Moving on to question number four (Figure 3), this question consist of a number of statements and each person had to answer yes or no, this question is the closest to a knowledge quiz in the survey, but most questions cannot be answered with a single yes or no question and this is more about understanding why people voted in the previous questions the way they did.

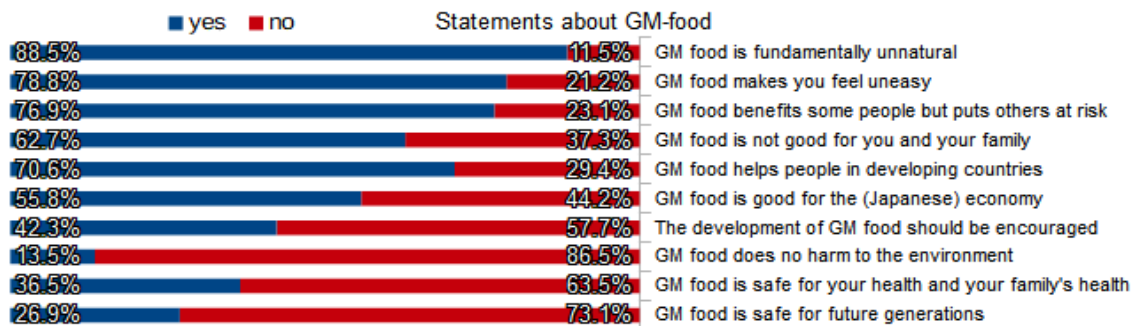


Figure 3: Statements about GM- food

The statements with the biggest differences are 'GM-food helps people in developing countries' and 'GM-food is good for the Japanese economy with 25-28% more people saying yes. But overall the same trend is visible. However, there are again some surprises here, as you may have noticed one of the statements reads 'The development of GM-food should be encouraged', I already asked basically the same question in question number three, but this time the difference between 'yes' and 'no' answers reduced from 32% to 15.4%. I have no Idea what the reason for this is. If we look at the last statement, we see that only 26.9% believe GM-food to be safe for future generations, which stands in contrast to my previous hypothesis to explain questions number two and three.

Now let's have a look how some hypothetical changes affect those opinions (Figure 4). Both in the EU and Japan price is the least important factor, if we want more people to buy GM-food. The big difference is 'tested by authorities', in Japan, depending if we count the 'definitely' answers alone or together with the 'probably' answers, is either in second or first place to persuade people to buy GM-food, whereas in Europe it is in fourth place both times. Another difference is that 'less pesticide use' is in second place in the EU and in fourth in Japan. Both regions however show that being healthier would bring more than 50% of people to buy GM-food. This gets backed up further by question number seven, asking people if they would

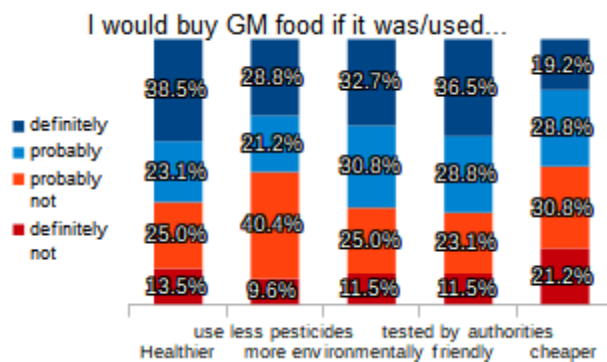


Figure 4 Hypothetical changes to GM-food

buy GM-food it was proven to reduce the chance for cancer. 19.6% answered 'Yes', 49% answered 'yes, maybe' and 31.4% answered 'No'.

The last two questions could again be described as knowledge questions, first I asked if it would make a difference to the people if edited genes were taken out of a species that is very similar or one that is very different, for example modifying an apple with genes from a different apple species or with genes from animals, also called cisgenic and transgenic. The majority

answered it would make a small or big difference, my guess is because it feels more natural if the gene come from similar species.

As mentioned before my last question was not part of the original survey, because its breakthrough happened after the last published survey on biotechnology. I simply wanted to know if people had heard about the CRISPR-System, because it may be one of, if not the most important discovery in recent years in gene technology, it makes it easier, faster safer and more precise. But to no surprise 84.6% said they had never even heard of it.

## **Conclusion**

Now what do these results mean? We can see a similar trend in Japan as we do in Europe and the answers for question four show me that most people do not have enough information about gene technology. Because of this I think it is very important for scientists, especially biotechnologists to raise awareness about the field. Especially information about health and safety seem to be important factors. But from the data I have gathered I am a bit more optimistic about the public image in Japan than in Europe, Japanese paid more attention to the possible usefulness and had higher numbers regarding buying GM-food if certain conditions are met, which I believe they will eventually. In addition, Japanese people said with a higher percentage that they would buy authority approved food, which may make it easier, if Japanese authorities support GM-food.

I would also like to take a moment and give some feedback to this research now that I viewed all the data. I should have finished the survey earlier and extend the run time of it to increase the number of voters, the data collected now was taken when 52 people voted. Furthermore, I would not limit myself so strictly to questions only asked in the Eurobarometer-studies, I initially did so for easier comparison, but after looking at the results there are a few more question I think are worth asking in a survey, especially qualitative follow up questions. For example: 'In which way do you think GM-food harms the environment?' 'Creation of dominant species', encouraging more pesticide use', etc. or maybe some more knowledge questions, I now know that most of the people who answered my survey do not know what the CRISPR/Cas-System is but how do they think we edit genes, if not with that technology? Also, who do they regard as an authority on the matter? Scientists, Politicians, Companies? Those are some questions I would add to my next survey.

## **Final word**

If you made it this far, I would like to address some statements made in question four. Regarding 'being unnatural', this is a bit tough because there are many different definitions of what is natural, but here is my take on it. With gene technology we add traits to the plants that we want and deem beneficial, but humanity has done that basically since we started agriculture, after a harvest we plant those seeds that came from plants with traits we wanted, bigger fruits, better resistances, etc. all we do with gene technology is take short cut, so we are no longer dependent on years of cultivation, breeding and a sprinkle of luck.

In terms of health and safety I can say that multiple studies have shown no increased health risk when consuming GM-food regularly and that GM-food productions are not worse than organic or conventional farming methods when it comes to the environment. I will however admit that these studies of omit the increased pesticide use and what effects they may have on the environment. But in the case of pesticide use and other company practices that often get called out in the debate around GM-food are not caused by the technology itself but rather how we use them and I hope that people learn to differentiate the two things.

If this got you interest please check out some links I will put in the references, the Youtube-Channel Kurzgesagt has a few videos on GMO's, Gene Editing and organic vs. conventional farming, all backed up by scientific papers, but easy to understand and with subtitles available in many languages.

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## Comparing working women who go on maternity leave in Japan and Germany

Nele Ahrensmeier ネレ アーレンスマイアー

Leibniz University Hannover (Germany)

**Summary:** わたしのけんきゅうテーマは、日本とドイツのはたらくじよせいのいくじきゅうかのひかくです。わたしは日本にいくまえに、日本のぶんかについてしるためにしゅうきょうなどの本をたくさんよみ、日本人をしろうとしました。すると、日本ではたらくじよせいは子どもをそだてるためにしごとをやめなければならないというきょうみぶかいことをしました。そこでわたしは、日本とドイツではたらくははおやにちょうさとインタビューをおこない、ろうどうかんきょうのひかくをおこないました。オランダのしゃかいしんりがくしやのGeert Hofstede(ヘルト・ヤンホフステード)は国のんかのかちかんのちがいは6つのよういんによるとしました。それはじょうげかんけいのつよさ、こじんしゅぎけいこうのつよさ、ふかくじつせいのかいひけいこうのつよさ、男らしさをもとめるつよさ、ちょうきしゅぎてきけいこうのつよさ、かいらくしゅぎのつよさです。わたしはこの中の3つにしょうてんをあてて、ちょうさをおこないました。日本とドイツのはたらくははおやのしょくばかんきょうはどちらもしごととしせいかつよりつがはかりにくい。しかし、ドイツのほうがよりおっとからのサポートがおおいことがわかりました。ドイツのじよせいのほとんどはいくじきゅうかをしゅとくするが、日本ではそれがとりにくいぶんかがまだのこっている。また、おっとがははおやにかわっていくじをし、ははおやがはたらきつづけることはめったにない。

Are women working in Japan treated differently to men because of their role as a mother? Do they share the same career perspectives? If not, what are the differences in perspective?

For this project, I have chosen to research the topic of women in Japan who have had to leave their jobs due to having children, and want to go back to work after their children have come of age. In my research, I would like to find out if these women had any difficulties finding new jobs, if they have good working conditions that suit their role as working mothers, and if they are treated differently to men working in a company.

Many authors who visited Japan several times wrote in their books about the inequality between men and women working in a company. They described a traditional woman's role as being responsible for household chores, raising children, and not progressing in their careers. I wanted to explore this topic because it seemed very different to in German culture, and it makes me wonder if this view of the gender roles is still present in Japan today.

Before I came to Japan, I read many books about the country and the people of Japan (their religion and culture) to get to know the country better, and to compare some interesting aspects with those of my home country (Germany). For me, the treatment of working women is one of the most interesting differences.

As part of my research, I read readings from a professor of education at Okayama University. These readings are amongst others from the United Nations Development Program, which focus on to how to "reduce and redistribute the unpaid domestic and care work burden of women for sustainable development". Additionally, I researched about Dutch social psychologist, Geert Hofstede who, in his theory refers to six factors, which he uses to compare different cultures. These are power distance, individualism, masculinity, uncertainty avoidance, long term orientation and indulgence. I used statistics to visualise how Japan and

Germany are different or similar in their development, by focussing on the working conditions of working mothers.

In order to observe how women in this situation feel from first hand perspectives, I conducted interviews or questionnaires with women from different industries. I asked 10-12 questions which helped me discover how helpful the working conditions for women are in general. I interviewed approximately 10-25 women in Japan and Germany to compare their situation, feelings and potential support.

I expect the conclusion to be that it is difficult to generalise and say that the people of Japan only live in a traditional way. I think that it depends on the age of the employees, and if the company thinks in a more traditional or modern way. Moreover, I believe that Japan will adapt to a more modern way of thinking for upcoming generations, and all new and prospective businesses will follow the modern way of leading a company.

In my following research, I prepared a questionnaire for women in Japan and in Germany. I was interested in at what age and for how long they quit their job for, and if they got any support from their family or the government. The questions I asked were as follows: What did their daily routine with their children look like? Was it difficult to find a new job, or could they go back to their original workplace? Do their jobs have good working conditions, or would they like to change something? Do they have the same changes as men when they want to go back to work?

Regarding my first question, most Japanese women quit their job in their mid 20s because they got married or pregnant. This compares to women in Germany who in general, left their job between their mid 20s and mid 30s due to the arrival of their first child. Women in Germany got support during their maternity leave, such as sustentation from their husbands if they no longer live together. This sustentation is a monthly payment to the mother where the child lives. In addition, the government pays a parental allowance and child allowance to support the family's life on a financial basis. If the parents still live together, the husband often helps out in the household and takes care of the children. If some mothers are not working and do not have any financial aid, they can apply for unemployment pay to get support if they cannot find a job that suits their family situation, and offers good working conditions. Rarely, women did not receive any financial support, and sometimes it was only the husband who went to work to contribute to the family income.

As for support, the situations in Japan and Germany seem very similar. In my questionnaire, the Japanese women also answered about whether they receive support from the government for their children or any unemployment allowance during their maternity leave. Compared to German families, most women did not receive much (or any) support from their husband.

In Germany, most women could return to their workplace after being on maternity leave. Only some them could not return to their previous workplace because their job couldn't coincide with their role as a mother. If they did not find a job in a company which suits their family life, they had to look for a part-time job (but this is an exception).

In contrast to German women, not all Japanese women went back to their original workplace. Nearly every woman I interviewed told me that she was looking to get a new job after her maternity leave. Some of them changed jobs a lot because they could not get the correct balance between family life with children and working life. Even if they had to search for a new job, it seemed like this was not a difficult process, as nobody mentioned having to go on a long quest for a new job. I learnt about a job placement office in Japan called "Hello Work", who help to make it easier for people in Japan to find a new job.

This easy way of going back to work correlates with the opinion of the German women too, with the difference that most of them could actually go back to their original workplace, where they knew their work and what they can expect there, without having to look for a completely new job.

Furthermore, women in Germany have very different opinions regarding good working conditions for their family situation. Some of them were lucky that their working hours were whilst the children were at kindergarten or school. If they had to work some days longer, they were able to count on their family members to take care of the children after school. However, it often depends on the employer as to how



much flexibility working mothers can be offered. Moreover, a Japanese mother explained to me in the interview that she had quite good working conditions whilst her children went to school, and she could work in the afternoon from home or in special cases, could talk to her supervisor at work who usually understood the family situation.

I was interested in the opinion of the Japanese women, as to whether they would appreciate a change in the Japanese law system for example, to make their situation better. One of the problems mentioned was focussing on salary too seriously. One woman told me that salary is too important for Japanese people, and in her opinion, it is not worth working so much to earn a lot of money when you will not have many days off work to recover and spend time with family. She would like the law to protect women more because being a mother is a role which combines a lot of responsibility and hard work with the task of having to keep working and support the income of the family. The woman explained to me that having separate gender roles in the family is part of Japanese culture, consequently making it very difficult to change the situation if working mothers. Another mother said that she would like to have someone who would take care of her child after school so she would be able to continue working to the end of the day.

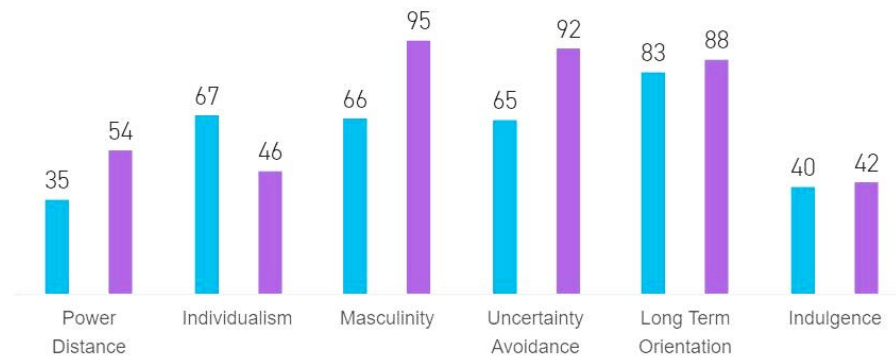
German mothers reduce their working hours for example, to spend more time with their children. One mother explained that spending time with her children was her priority. After she reduced her working hours she got a lower salary, but that was okay for her. Another mother said that there are laws and guidelines which already exist, but she complained that most or none of them were followed or are not known by other employees. Moreover, another women mentioned that she wants more gender equality. She described her role of managing the family next to her job in a company as “invisible work”. She voiced that this kind of extra work she is doing every day is not seen by anyone, not appreciated and she does not get any pay for this. German mothers wish for a better arrangement of the workplace, which fits better into the lives of working mothers. They should not have to do the low paid jobs which only hire people by the hour because they have a family and need to raise their children alongside their job.

The majority of German mothers said that they are not happy with their situation as a working mother due to many reasons. One of the reasons is that some mothers could not return to their old job because it did not work with their family situation so they had to find a new job. However, these new jobs are usually jobs that they don't want, which makes them unhappy going to work. It takes a lot of organisational skill to go to work, even if the salary is not that good. Another problem is the inequality between men and women, especially regarding salary. It makes it impossible for most mothers to go to work and to take care of their children after kindergarten and school. Although, one mother explained that this is not the duty of the employer. In general, there is a huge desire for more consideration and appreciation at work from colleagues and the society.

Applying for a job while having children is quite difficult because of the inflexibility of working mothers. In addition, as I mentioned, and women from Germany confirmed, they do not get the same salary as men. The majority of women stay at home and take care of the children, but in the end it is unclear who; the man or the woman; is working more, and how much they should earn for their work. Normally, it is the woman who is working part-time and the man full time. Mostly, women do not have the opportunity to combine another job other than part time, with their family life when men continue working after a short parental leave (if they choose to take it). Moreover, Japanese mothers can get the same salary as men when they return to work, but only by doing overtime like them. Another mother explained that she did not have the same chances as men, but she was satisfied with her situation because she could spend enough time with her family. From what I understand, Japanese mothers would like to receive an equal salary to men but at the same time, working and doing housework (which they do not get paid for) would prove too demanding. If the husband helps more to raise a child, it would make the mother's life much easier when they return to the workplace. Unfortunately, I learned in the interviews that men do not support their wives enough, so the women have no other option than to get less salary and less private time to raise the child too.

As a conclusion from a German mother, it is not realistic to expect mothers to be flexible in their job. In addition, the situation often depends on the industry the women is working in, though, there are many differences in general. The situation developed over the past few years is even worse. When a women

applies for a job, she gets often asked if she would like to have children in the future. If she answers ‘yes’ to this question, it is a criterion for exclusion for a company not to hire her. At one mother’s work placement, she got asked who would take care of her children in the case of sickness. This is regulated by the compulsory health insurance, and is a huge breach of conduct by the employer. She said that we live in an achievement-oriented society, where all that matters is the profit in the end. In general, the women in Germany wish for more respect and appreciation of their daily work, and better working conditions in a company which suits their family life. The situation for working mothers in Japan seems very similar. They are doing part-time jobs because they also have to take care of their children, so cannot work the whole day. It seemingly depends on the employer as to whether women can work from home on occasion. In addition, they wish for more support from their husbands in daily life and with raising the children.



Using the cultural dimension’s theory of Dutch social psychologist Geert Hofstede, I can compare his findings with the results of my questionnaire. Hofstede analyzed six dimensions to compare countries all over the world. These six dimensions include Power Distance, Individualism, Masculinity, Uncertainty Avoidance, Long Term Orientation and Indulgence (as I mentioned at the beginning of this paper). In my discussion, I would like to focus on three dimensions; Power Distance, Masculinity and Long Term Orientation.

The dimension Power Distance stands for “the extent to which the less powerful members of institutions and organisations within a country expect and accept that power is distributed unequally”. According to Hofstede’s research, Germany is a country with a low power distance. He explains that co-determination rights are, compared to other countries, relatively popular and “a direct and participative communication and meeting style is common”. In the interview, I did not get the impression that women feel as though they are treated equally. They know it is difficult for an employer to hire them because of their inflexibility, but many mothers said that they would wish for more consideration and appreciation of their work from colleagues and society.

In Japan it seems like most people I interviewed have to deal with their working conditions; they would like it to change; but only one mother I spoke to asked to work from home in the afternoon when her child is coming home from school. This correlates with the chart (score of 54), because Japan has a hierarchical society. This means that all decisions have to be confirmed by an upper hierarchy. One mother mentioned in the interview that the Japanese care so much about their salary, and do not get many days off for holidays. This goes with Hofstede’s theory, where he explains that everybody is born equal, but people should do the best they can with their lives because in Japan they live in a meritocratic society.

The dimension Masculinity is defined as “the fundamental issue (...) is what motivates people, wanting to be the best (Masculine) or liking what you do (Feminine)”. Germany has a score of 66, which shows that Germany has quite a “Masculine society”. However, regarding my research, this score is just over half, so there is also a large sense of “Feminine society”, which stands for caring for each other and quality of life. In Germany, the mothers would like to spend as much time with their children as possible, and one woman said that she reduced her working hours and earned less money, but she was able to look after her children and take care of them after they came home from school, so it was worth it. They criticize the “Masculine society” because for some working mothers, there are no flexible working hours offered, or only low-paid jobs by the hour. Compared to Japan, Germany does not have a very “Masculine society”. With a score of 95, Japan is very high in the world’s ranking. It describes the competition between children starting from a young age up to their work in a company to compete with others. In addition, Japanese workers are doing a lot of overtime, which makes it very hard for women to climb up the career ladder, but this especially shows how difficult working life for mothers is. The Japanese mothers would like, as the Germans mentioned in the interview, to spend as much time as possible with their children, but no flexible jobs makes it impossible for them to combine their working life and family life.

The last dimension I would like to focus on is Long Term Orientation which “describes how every society has to maintain some links with its own past while dealing with the challenges of the present and future”. Germany reached a high score of 83 in this dimension (similar to Japan with a score of 88), which shows that Germany is able to change traditions into modern conditions. The high score of Japan can be explained due to their hard working lifestyle. Their life seems very short to them so they try to make the best of it. However, regarding my research project, I would like to focus on the traditions in both countries. In Germany, it is not necessary for mothers to stay at home or go on maternity leave. Rarely, the husbands take care of the children when the mothers keeps working. Even if the father keeps working and comes home, he helps at home with household chores for example, and takes care of the children in most cases. In the interview with the Japanese women, I was shocked to discover that firstly, it is very common for women to go on maternity leave and not continue working and secondly, that their husbands do not support them after work by doing household chores and raising the children. The Japanese women seemed as though they wish for more help, but in their work places, the men working in the company and the women working at home are separated, but the problem is that in this perspective the working time which the women is responsible for is never ending.

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The Japanese view on GM-food

Women on maternity leave in Japan and Germany

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岡山大学グローバル・パートナーズ  
〒700-8530 岡山市北区津島中 2-1-1

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