



Sentient activity and gender difference in high school students' cooking for peers in Japan

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Introduction

Gender equality is one of the most important issues for developing a sustainable society. Japan is no exception, such that the government is promoting resolutions to various issues, such as its low rank in the Global Gender Gap Index (Cabinet Office, 2020). Since the enactment of the Basic Act for Gender-Equal Society in 1999, efforts were exerted on the basis of the Basic Plan for Gender Equality. However, as repeatedly cited in national reports, the stereotype of gender role, such as women being in charge of housework, remains persistent (Cabinet Office, 2020).

In fact, the burden of housework is highly skewed as the responsibility of women, although their employment is promoted. A national survey entitled Survey on Time Use and Leisure Activities reported that a significant gap exists in the amount of time per day related to housework between males and females. In particular, the time spent on meal management was identified as the biggest gap between men (12 min per day) and women (1 hr and 28 min per day; Statistics Bureau, Ministry of Internal Affairs and Communications, 2017). This finding suggests that meal preparation could be the housework in which gender differences are most evident. Thus, examining housework related to meals or cooking deserves attention to examine gender stereotype in the care roles of women.

Conceptual framework

DeVault (1991) described the family meal preparation of women by identifying the activities for meal management and its invisibility, such as considering the preference and nutritional needs of children or the schedule of the family for dinnertime. According to DeVault (1991), paying attention to the family is not the innate ability of women. Instead, it is developed through a series of practices, such as observation of family practices, reflection, and trial-and-error.

Influenced by DeVault's (1991) work, Mason (1996) critically examines the concept of care as argued by previous research and conceptualizes an activity that tends to be performed by women (DeVault, 1991) and is rendered invisible by the dichotomy of care into labor and emotion. The activity considered to compose caring is *sentient activity*, which Mason (1996) defined as "thinking and feeling" (p. 27). The author cited examples of such activities as follows:

[A]ttending to, noticing, hearing, being attuned to, seeing, constructing, interpreting, studying, exercising an interest in the needs, health, wellbeing, behaviours, likes and dislikes, moods, individuality, character, relationships [...] of specific others [or] thinking through, working out, organising, planning,

orchestrating relationships between oneself and others [... and] relationships between others. (p. 27)

In addition, Mason (1996) states that sentient activity is a kind of skilled activity and can be successfully performed through training to “develop skills in attentiveness to people’s needs, likes, preferences” (p. 30). However, the statement does not indicate that the experiences of training the skills would foster caring skills applicable to any person. The reason behind this notion is that “care is a relational activity” (p. 25) and developed through “negotiations” (p. 31) between a caregiver and a care receiver. However, relationships between the two are constructed not only through individual but also by social or cultural contexts.

Sentient activities can be observed not only in care by adults (DeVault, 1991; Mason, 1996) but also by children (Brannen et al., 2000). By regarding children as not only care receivers but also caregivers (Brannen et al., 2000), new insights may be gained regarding the processes through which children engage in and develop the skills related to sentient activities. Previous studies, such as Kaplan (2000), demonstrated that adolescents can be actors of cooking as a form of care or leisure. However, can sentient activities similar to those demonstrated by DeVault (1991) for cooking among women, be observed in the cooking activities of adolescents?

Food Practices of Adolescents as Social Interaction

Preparing family meals is one of the cooking activities of adolescents, which Kaplan (2000) described as self-care and care provided for families. However, the food practices, including cooking, would produce social interactions not only with families but also with friends (Neuman et al., 2017). Neely et al. (2014) examined the food practices of young people through a meta-analysis of related qualitative research and classified social relationships under the following categories: caring, talking, sharing, integrating, reciprocating, negotiating, and belonging. Neely et al. (2014) defined caring as “showing concern and empathy” (p. 53), which includes social interactions between friends, such as confirming whether friends have enough amount of food and purchasing food for friends. Reciprocating includes making or buying food as a means of repaying friends. However, the following interpretation by Neely et al. (2014) does not refer to the cognition of youth about friends: “Among friends, food practices were easy ways to reciprocate because making or buying food for friends was an inexpensive way to give something back” (p. 54). As Neely et al. (2014) also noted, studies that examined the food practices of young people in peer groups are few, whereas research that examined the cognition or attention of young people to specific others when cooking for or with peers is scarce.

Cooking Among Adolescents and Gender

Sentient activities tend to be gendered (DeVault, 1991). If sentient activities can be observed in the cooking of adolescents, would any gender difference be found?

The construction of gender through cooking is a theme addressed by many previous studies (e.g., Cairns et al., 2010; DeVault, 1991; Holden, 2013; Swenson, 2013). Although certain studies demonstrated frameworks that link women’s cooking to family care or men’s cooking to professional or leisure behaviors, such dichotomies between masculinity and femininity are shifting along with changes in society, such as the increased employment of women and participation of fathers in childcare (Szabo & Koch, 2017); For example, some studies considered cases wherein fathers viewed cooking as an aspect of care (Neuman et al., 2017); yet others explored scenarios wherein women were conflicted between pursuing cooking for pleasure and fulfilling their responsibilities with regard to family care (Cairns et al. 2010).

Given the family meal preparation of adolescents at home in terms of gender, a trend emerged in which girls do more than boys (Matsushima, 2007). Matsushima (2007) also presented that

girls' attitudes toward cooking at home were more positive than those of boys. Moreover, parents of girls taught cooking more frequently than those of boys (Watanabe et al., 2020). However, Kaplan (2000), who conducted a study in the United States, argued that boys enjoyed cooking similar to girls and were proud of their development of related skills and independence.

Some scholars proposed that cooking as leisure was observed as a means for girls to hang out with friends (Adler & Adler, 1998). However, with the influence of foodie culture in recent years, studies suggested changes in the design of pretend kitchen toys, because they look professional and gender-neutral which targets not just girls but also boys (Fakazis, 2017). Therefore, cooking as leisure may become common for children regardless of gender.

Deslippe et al. (2021) identified social interaction within peer groups through food and its gender difference. The study found that girls prioritized the intentions of friends over their own and altered their eating behavior, whereas boys tended to prioritize their own intentions.

In summary, the frameworks for cooking and gender have been gradually changed, and the situation of adolescents may be also changed in a manner that cannot be captured by a simple dichotomy. Moreover, it is suggested that less research has explored sentient activities observed in the cooking of adolescents in terms of gender.

Context: Cooking for Friends and Valentine's Day in Japan

A culture that provides opportunities for some children to cook for peers is prevalent in Japan, such as the exchange of sweets on Valentine's Day. Although the event began as a social one among men and women through the sales promotion of confectionery manufacturers (Ogasawara, 1998; Yamada, 2007), it is currently practiced among children as peer culture in a different form. Therefore, prior to presenting the results, the characteristics of Valentine's Day in Japan are described briefly.

Ogasawara (1998) argued that the Japanese-style Valentine's Day featured three characteristics, namely, (1) obsession with chocolate as a gift; (2) one-way giving from women to men; and (3) courtesy chocolates actively given to work colleagues (p. 94). Yamada (2007) added a fourth point, that is, the perception that Valentine's Day is the (only) opportunity for women to express favor (p. 48).

However, the results of several surveys conducted by private sectors in recent years suggested that these characteristics may be changing. First, the notion that women are recipients of gifts is common, because friends have become the most common recipients as well as families. It was also reported that the number of men who become givers has increased. In relation to the third above-mentioned characteristic, many men feel that the number of gifts received at the workplace is decreasing. Finally, it is becoming less of an occasion for women to profess their love and more of a day to express gratitude to family or friends (Meiji Co., Ltd., 2021; Ezaki Glico Co., Ltd., 2016). Additionally, a recent survey reported that adolescents, especially girls, actively participate in this event by making homemade sweets (Meiji Co., Ltd., 2021). Activities that originally targeted adults now provide opportunities for children to make sweets for friends.

Aim

To summarize the discussion thus far, it is suggested that sentient activity, which constitutes care as proposed by Mason (1996), can be trained. However, the engagement of young people in sentient activities through cooking activities has not been explored well. Moreover, studies that explored the cooking activities of adolescents in peer groups in terms of caring and gender

are few. Therefore, this study focuses on adolescents' cooking for/with peers and explores sentient activity and the difference in terms of gender.

Methods

Sampling process

To conduct group interviews for this study, high school students who cook or help with cooking at home were recruited. With cooperation from a teacher at High School A in Fukuoka City, who was previously acquainted with the author, the author successfully contacted a school administrator and a teacher at High Schools A and B, respectively. At High School A, the teachers distributed flyers to students, whereas a few of them directly invited students who were likely to meet the above-mentioned criterion. At High School B, the teacher invited students who were members of a club supervised by the teacher and met the criterion.

According to a report by Fukuoka City where the participants live, the attitudes of citizens toward stereotypes about gender roles are gradually disappearing. However, the report also stated that household chores continue to be borne by women. Moreover, approximately 65% and 50% of men and women, respectively, agreed with the notion that girls should be raised like girls and boys like boys, which creates concern about the gender reproduction (Fukuoka City, 2021). In this region, in which the caring role at home is yet required of women, exploring the observation, action, and cognition of adolescents through cooking activities is important for analyzing gender issues in Japan and presenting suggestions for the local area. Also, High School A is a public school in Fukuoka City, where the majority of students proceed to four-year universities, whereas others proceed to junior colleges or vocational schools. High School B is a private school in the same city and is known as one of the most academically advanced schools in Fukuoka Prefecture, where the majority of students proceed to four-year universities.

Group interview

The participants were 28 Japanese high school students (18 girls and 10 boys) with ages ranging from 16 to 18 years. Table 1 presents the details and uses pseudonyms for all participants. Twenty-five were from two-parent households, whereas three were from single-parent households. The participants were given 1,000-yen gift cards.

Six group interviews were conducted in 2021, where five were conducted in classrooms at High School A or B, whereas one interview was conducted via an online conferencing system (Zoom) due to COVID-19. Each interview comprised 3-7 students and lasted for two hours. All interviews were conducted in Japanese and recorded using IC recorders and video cameras.

However, the faces of the participants who declined recording with video cameras were excluded. The group interviews were semi-structured, and nearly the same questions were asked of each participant. Additional questions were asked based on responses. In addition to questions from the author, the participants were encouraged to discuss and interact among themselves.

The interview questions pertained to cooking at home, their views about preparing meals for the family, and their image of "men/women and cooking." Cooking activities for/with peers are focused; thus, the study mainly analyzes the conversations initiated by the following questions: "Do you cook outside of preparing meals for your family?" and "Have you had the opportunity to make sweets for your friends?"

Before the group interviews, the participants were asked to complete questionnaires on family structure, parents' occupation, frequency of household chores by the participants and their

families, typical daily schedule, and future aspirations. In addition, they were asked to write a comment sheet after the interviews, which encouraged them to express their thoughts that they felt uncomfortable expressing in front of other students at the interviews or any statements they wanted to add or correct.

Table 1. Characteristics of the Sample

Name	Age	Gender	School	Name	Age	Gender	School
Miho	17	female	A	Shiori	17	female	A
Saori	17	female	A	Yui	17	female	A
Hitomi	17	female	A	Mao	17	female	A
Chihiro	17	female	A	Takuya	17	male	A
Saki	17	female	A	Natsuki	17	female	A
Akane	17	female	A	Daiki	18	male	A
Momoko	17	female	A	Kenta	17	male	A
Misaki	16	female	A	Syo	16	male	B
Kana	16	female	A	Yuta	17	male	B
Nana	16	female	A	Ryo	16	male	B
Haruka	16	female	A	Kazuya	16	male	B
Anna	16	female	A	Ayumu	16	male	B
Ami	16	female	A	Kaito	17	male	B
Mayu	16	female	A	Asahi	16	male	B

Source: Questionnaire before group interviews

Analysis

All recordings were transcribed. This study employs the inductive method approach. Segments of interview text were coded and aggregated into concepts, whereas emerging themes and relationships among concepts were analyzed. The comments of the participants cited in this study were translated from Japanese into English by the author.

Ethical consideration

Ethical approval was provided by the University. This study obtained consent from all participants and their parents.

Findings

When and to whom?

First, this study elucidates the forms of cooking activities in peer groups mentioned by the interviewees. The most frequent cases were making and giving sweets to friends during Valentine's Day. They also cited other occasions for making and giving sweets to friends, such as Christmas, a friend's birthday, and as a gift to a friend or club members. In addition, some participants referred to making sweets with friends when they hung out. Girls explained the majority of these activities.

The typical recipients of sweets were close friends, club members, and classmates, who were girls in many cases. Occasionally, girls gave sweets to boyfriends as well as male friends such as club members. Another case indicated that a male participant who belonged to a school sports club was given sweets by female team assistants. Although the cases of boys cooking and

giving food to girls are few, Takuya is a case of making sweets in return for sweets given by a girl on Valentine's Day. Only one example of boys giving other boys homemade food or sweets was mentioned by a male participant, but it is an example of his friend.

The subsequent text describes sentient activities observed in the cooking activities of the participants. It is found that when the participants cooked for their friends, some of them did so as they considered and paid attention to specific others as sentient activities.

Process of deciding what to cook

The group interviews asked the participants about their processes of deciding which recipe to cook, which involves two elements, namely, sources of reference and criteria for selecting a recipe.

Sources of reference

When cooking for/with friends, the participants draw on diverse sources of information. The most frequently mentioned sources were social networking services (SNSs) such as Instagram, TikTok, and YouTube. Instagram (photo and video sharing SNS) and YouTube (online video sharing platform) present an advantage in that recipe videos can be saved (Chihiro). Moreover, these media present a rapid means to know which foods are popular. In fact, during the group interview, several participants were excited about food that was popular on Instagram. Moreover, many participants use the Internet to search for recipes.

Family members were also cited as sources of reference. For example, Saki was given a recipe for pastries that could be made using affordable ingredients and tools by a friend's father who was a pâtissier, and Saki made them with her friend.

In other cases, they referred to learning from their own experiences. Yui referred to food at cafes, whereas Natsuki combined ingredients based on her baking experience.

Criteria for selecting a recipe

However, when deciding which recipe to cook based on a large amount of information, a criterion for selecting a recipe is another significant factor. Their thought patterns could be classified into three main categories which sometimes overlap.

First, deciding based on external factors. For example, Hitomi made chocolaty sweets and gave them to friends, which followed the custom of giving chocolates on Valentine's Day. In this case, Hitomi selected sweets appropriate to the occasion. Another example is Ami, who emphasized the presentation of sweets.

Second, deciding based on the participants themselves. For example, several participants prepared food that they wanted to eat or selected recipes according to their cooking skills and then gave them to friends. Yui said, "I choose something that the person likes... hmmm... I also choose something that I can make without making mistakes."

Third, deciding based on the gift recipient. For example, Akane explained, "my friend can't eat [most of] the sweets because the friend is not allowed to consume sugar, so I made sweets without sugar [for the friend]." Akane prepared sweets with a consideration of the health of her friend. Saki directly asked what the recipient wanted, whereas Shiori presents a case in which the preference of a friend was not directly asked:

- | | |
|--------------|--|
| Interviewer: | How do you decide upon what sweets to make? |
| Shiori: | Presentation. Presentation [of sweet] and the taste preferences of the person to whom I'm going to give [the sweet]. |

- Interviewer: Do you remember how you thought about it? Any episodes? Shiori: When I was baking cakes, I thought whether [the friend to whom I would be giving it] liked cream or chocolate.
- Interviewer: Did you ask [your friend this question] directly? Or did you know your friend's preferences from your previous conversations?
- Shiori: Yes. We had had a conversation before....

Similar to Shiori, Yui said, "Because we are usually together, I know their preferences..." As their cases demonstrate, some of the participants knew about the preferences of friends from past conversations and used this information in deciding which recipe to cook.

As mentioned above, this study identifies cases where the participants identified their friends' preferences or allergies based on previous conversations and prepared sweets based on these characteristics. This third point can be associated with examples of sentient activities, such as "hearing the likes and dislikes of specific others" or "attending to the health of specific others" (Mason, 1996, p. 27).

Organizing relationships

Sentient activity pertains to another aspect, that is, "organising relationships between oneself and others or between others" (Mason, 1996, p. 27). The group interviews revealed that this form of sentient activity can be observed in cooking activities for/with friends. For example, Mayu said, "with a special friend ... when I go out with my friend, [I give sweets] or I give sweets to say thanks." Mayu often prepares and gives sweets to a particular friend and described their conversation as follows:

- Mayu: I often give sweets to a particular friend, and I have a conversation like a skit with her every time... "Are you sure you didn't add poison to it [sweets]?" At first, I would say something like, "if you die, it means you were poisoned," but recently I haven't been able to meet her and express my affection toward her. So, I sometimes say something a little more affectionate, like, "I won't poison you because I will miss you if you die."

Mayu's comments reflected her intention to communicate her feelings to the other person and to enhance the relationship, such as "express my affection for her" and "to say thanks."

In the case of Kenta, he invited some friends since middle school during temporary school closure due to COVID-19 to make sweets that were popular on SNSs. In response to the question whether he hung out with friends in a similar manner before, Kenta answered as follows:

- Kenta: We have been friends for quite a long time, so [we have been hanging out] ever since... I guess since the first grade of junior high school.
- Interviewer: Did you invite friends, or did someone else plan it? Kenta: Probably me.
- Interviewer: Do you remember why you invited them?
- Kenta: Simply because I wanted to try to eat it [the candied fruits that were popular on SNS] (laughs).
- Interviewer: Like "I want to try it, so let's make it together"?
- Kenta: That's right (laughs).

Although the direct reason for Kenta was being interested in the sweets popular on SNS, another comment indicates that he regularly allocated time to gather with old friends and cooked together. This can also be considered an aspect of organizing relationships between self and friends and between friends.

Thus, from the comments of the participants, it is suggested that aspects of sentient activities can be seen in cooking activities of adolescents for/with friends.

“Homemade” and thinking about others

This section presents the case of Momoko. When talking about exchanging sweets for Valentine’s Day, Momoko jokingly said, “I wanted to give ready-made sweets [to my friends], but they threatened me into making sweets.” Chihiro recalled the conversation with Momoko and said, “Momoko told us that she would distribute chocolate bars and I really didn’t want her to do that.” As a result, Momoko ended up preparing homemade cheesecakes.

After another conversation, we returned to the topic. The girls, Akane and Saori, said that a purchased bar of chocolate may be the same as homemade chocolate as a finished product. However, Chihiro expressed the intention that homemade sweets would express the different extents of feelings invested in cooking.

- Akane: After all, because the chocolate is melted once and then molded again, wouldn’t it be the same in the case of a chocolate bar?
- Saori: I think so; that’s why I buy it.
- Akane: Isn’t it the same? Piece and melt [the chocolate], and fit it into the mold.
- Saori: You mean it’s different, right? Chihiro: (nodding)
- Miho: The feelings are different ...
- Akane: Feelings are different? Should it take a lot of work?
- Chihiro: (nodding)

The case of Momoko can be interpreted as “being attuned to the needs of specific others” (Mason, 1996, p. 27), such as the request of bringing homemade sweets from Chihiro and other friends. In other words, the case of Momoko presents sentient activity as the other examples do in the previous section.

Notably, the narrative emphasized the food as being homemade. At the group interview, Miho explained the reason why she brought homemade sweets for Valentine’s Day, that is, her friends brought homemade sweets. Exchanging sweets with friends for Valentine’s Day seemingly denotes the aspect of working out the relationship between the self and friends. However, why it is desirable or common for the participants to make sweets for friends on Valentine’s Day?

Indeed, the makers enjoy certain advantages in preparing homemade sweets, such as making them in big batches a lot at a low cost (Chihiro and Akane) or decorating them as one wishes (Mayu). However, several participants noted the aspect of expressing (positive) feelings for the recipients. For example, in response to the question why they prefer homemade sweets, Misaki answered: “I think it would be more pleasing to receive a homemade one” whereas Asahi replied: “after all ... it [a sweet made by a girl] is made with love (laughs).” These comments suggest that giving homemade sweets is considered as a means of showing positive emotions such as love and preferred by others. This is precisely different from sentient activity; whereas sentient activity assumes “specific others” (Mason, 1996, p. 27) as care receivers, these comments assume “general” others. It is suggested that a value that handmade food is preferable for many people may be shared among some participants.

Although the participants reflected the view that one can express one’s feelings for recipients by giving homemade sweets, others reflected the viewpoint in which one can express one’s feelings for recipients by giving sweets or other goods on the market. This view was often mentioned, however, mostly when talking about returns from boys to girls regarding gifts on Valentine’s Day and less in the context of sweets given by girls.

Buying commodities including ready-made sweets may be via thinking about specific or general others, similar to making sweets. For instance, Asahi stated that he would ask about the

preferences of the (female) recipient and subsequently buy and give it to the recipient given that he can afford the item. Another male participant, Kenta said, “[it’s] kind of like [sweets] would be memorable, but they would be consumed at once. cosmetics or other such materials last for longer periods... I think it makes them [girls] somewhat happy.” The comment of Asahi exemplifies thinking about specific others as sentient activity, whereas the comments of Kenta exemplify thinking about general others.

However, buying commodities are not necessarily motivated by altruistic reasons. The circumstances of the giver, especially boys, also influence their actions. For example, several participants regardless of gender recognized that “boys lack experience in making sweets,” “making homemade sweets seems difficult and troublesome,” and “there is an image that making sweets is something girls do” as reasons for selecting commercial products. However, being a girl does not necessarily mean an extensive experience in making sweets as suggested by the following comments: “some of my female friends said that they didn’t usually cook but that they were utilizing the opportunity [Valentine’s Day] to try making sweets” (Natsuki); “I’m not a good cook, so I can only pour [the melted chocolate] into the mold. [...] I search how to make it [the sweet] look tasty, then I just pour [the melted chocolate] into the mold” (Ami).

Whether homemade or ready-made, giving sweets to friends may include the process of thinking about a specific other. However, the choice of the action as a result may be gendered. Moreover, they often distinguished the experiences of girls from the ones of boys, as the above-mentioned comments show. This point may be interpreted that the participants themselves produce discourses on cooking of adolescents and gender.

However, it can be pointed out that simply viewing this tendency as a gendered difference is insufficient. For example, two boys, namely, Takuya and Kaito, stated that they would like to return the favor by making sweets if girls exerted effort to prepare sweets.

- Kaito: But I think giving goods is a little different for me.
- Interviewer: Then, if you receive homemade sweets, do you think it is better to offer homemade sweets in return?
- Kaito: After all, many boys are not highly experienced in making sweets, so I think it is fine if they buy sweets from the market... But ... if a girl exerted efforts in making sweets, I think I would have to make the same effort to make [sweets for them], too.

Takuya and Kaito had experience in making sweets, but they stated that they were not good at making sweets. Whether their willingness to respond to the effort by making sweets, despite lacking the ability, was due to their understanding of the actual difficulty involved in making sweets is a matter of speculation. Notably, however, diversity may exist among boys in terms of expressing thoughts about and attention to specific others.

Discussion

The results indicate that sentient activities can be observed in cooking for/with peers and that the experiences of adolescents regarding caring for others and engaging in sentient activities are possible even with friends. This notion suggests that the distinction between caring and leisure in cooking activities can be blurred. In other words, an aspect of care can be noted in cooking for friends, such as exchanging sweets with friends, which has been regarded merely as a social event for children. The contrast between enjoyment and caring for others may be associated with the findings of Cairns et al. (2010). However, the difference from women described by Cairns et al. (2010) is that cooking was considered a *responsibility* for women, whereas it may be recognized as a leisure activity for adolescents, which is likely related to the context of *choice*.

From the gender perspective, the results of cooking for/with peers were frequently mentioned by girls. Boys sometimes engaged in food practices with their friends, but only a minority of boys engaged in cooking for peers, which suggests that such discourses themselves may reproduce gender differences in cooking activities.

Moreover, although the boys' cooking for peers was not mentioned as part of the experience of the participant¹, sentient activities were expressed in the girls' cooking for friends. However, organizing relationships between a male participant and friends is observed in cooking with friends. If cooking with peers as a means of organizing relationships with friends is shared among more boys, then this may be due to the foodie culture that appeals to adolescents regardless of gender (Fakazis, 2017) and the development of SNSs, as hinted by the examples cited. However, this point needs to be examined by future studies.

Finally, the emerging theme from the narratives of the boys on repaying Valentine's Day gifts is that although sentient activities (e.g., thinking about the preferences of the recipient) can be seen, the manner of expressing these activities was frequently referred as buying a commodity. Buying commodities should also be an available choice for girls, one of the norms of meal preparation at home, that is, food should be homemade (Murase, 2013), may have been subconsciously influence the view toward the cooking of girls. Moreover, the result can be considered that the trend and discourses created by peers, where girls tend to bring homemade sweets, would contribute to gender reproduction. Valentine's Day in Japan has spread from adults to children and adolescents; however, adolescents may maintain this social event as part of their culture, which indicates an "interpretive reproduction" (Corsaro, 2005, p. 18).

This study has its limitations. First, the results cannot be generalized across other populations due to the limited sample, schools, and area. Second, as previously mentioned, diversity among boys/girls is expected. For example, boys who cook for peers will be potential subjects for future research. Third, by conducting group interviews, a possibility exists that a few of the comments may have been influenced by other participants. This point was considered as much as possible when explaining the study to the participants and during the interviews; however, identifying all influences by peers is difficult.

This study has provided new insights into the dichotomy between children and adults in caring, between care and leisure in cooking, and between boys and girls in cooking. Moreover, this study has attempted to make a contribution to the dissolution of gender stereotype of the responsibility of caring for women and to the achievement of gender equality.

Note¹: A participant said that his male friend made cookies and decorated them as they looked like his friend's favorite anime character. This example indicates boys' cooking for friends may include sentient activity, that is, attending to the likes of a specific other.

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