Chapter # 11

EVALUATING THE EFFECTIVENESS OF EXPOSURE TO COUNTERSTEREOTYPIC FATHERS ON REDUCING IMPLICIT FATHER AND MOTHER STEREOTYPES IN JAPAN: II ORDINARY FATHERS AS COUNTERSTEREOTIPIC EXEMPLARS

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ABSTRACT

An earlier study that exposed famous fathers as counterstereotypic exemplars suggested that, for men, exposure to counterstereotypic fathers can reduce the implicit father and mother stereotypes. However, one possible reason for such results is that, for women, famous fathers might be considered a subtype of fathers distinct from ordinary fathers. Therefore, this study examined whether exposure to ordinary fathers who took childcare leave for at least 3 months could reduce the implicit association between 'father' and 'work' and between 'mother' and 'home'. The Implicit Association Test (IAT) was conducted among Japanese adults. The participants were randomly assigned to the counterstereotipic or control group by gender and age group. 210 respondents (105 men and 105 women in their 20s, 30s, 40s, 50s, and 60s) were included in the analysis. The results indicated that, for the 50s, with strong implicit father and mother stereotypes, exposure to counterstereotypic fathers could reduce the implicit father and mother stereotypes. In other age groups, however, the intervention did not reduce the implicit father and mother stereotypes. Therefore, future studies will need to examine interventions with stronger effects.

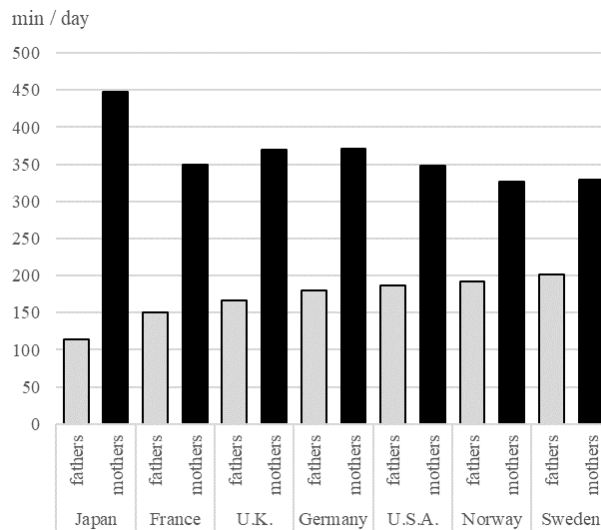*Keywords:* stereotype, father, mother.

1. INTRODUCTION

As illustrated in Figure 1, regarding housework and childcare, Japanese fathers spend less time on it, only 114 minutes and mothers spend more, 448 minutes per day. Although other developed countries show similar trends, the inequality in Japan is larger compared to those countries (Ministry of Health, Labour and Welfare, 2024). There are concerns that such disparities will distort the balance between work and family and lead to a declining birthrate in Japan. On that subject, Ohtaka (2019) has shown that the Japanese believe in the stereotype that 'fathers (rather than men) should work outside the home, and mothers (rather than women) should keep the house' and proposed that intervening in such parental stereotypes is important to correct gender inequality. In addition, according to Brewer's dual process model (1988) and Fiske and Neuberg's continuum model (1990) of impression formation, stereotypical judgements based on category information arise almost automatically, and to proceed to judgments based on individual information, it requires cognitive resources and motivation. Therefore, when cognitive resources and motivation are lacking, stereotypical judgments persist.

Moreover, since gender stereotypes particularly are implicit rather than explicitly expressed through social desirability (Blair & Banagi, 1996), the target to be intervened with

would be the implicit parental stereotypes rather than the explicit parental stereotypes. Specifically, this study targeted not the explicit parental stereotype 'fathers should work outside the home, and mothers should keep the house' but the implicit association between 'father' and 'work' and between 'mother' and 'home'. Regarding the interventions in the implicit stereotypes, Lai et al. (2014), a meta-analysis of 17 intervention methods for implicit racial prejudice, concluded that the exposure to counterstereotypic exemplars was the most effective. Dasgupta & Asgari (2004) also found that exposure to counterstereotypic women reduced the implicit stereotypes about women among women only.

Similarly, Ohtaka (2020) exposed the famous fathers who enjoyed childrearing to Japanese undergraduates, and suggested, just for men, that exposure to counterstereotypic fathers could reduce the implicit association between 'father' and 'work' and between 'mother' and 'home.' However, even when the women were exposed to counterstereotypic fathers, their implicit parental stereotypes were not reduced as they might have considered counterstereotypic fathers a subtype of fathers. The famous fathers who enjoy childrearing as counterstereotypic fathers were selected, following previous studies (Dasgupta & Asgari, 2004, Study 1; Dasgupta & Greenwald, 2001, Study 1, Study 2; Dasgupta & Rivera, 2008; Hanita, 2015, Study 1-2). Famous fathers, however, might be considered a subtype of fathers distinct from ordinary fathers (Hewstone & Hamburger, 2000; Kunda & Oleson, 1995). In addition, based on Dasgupta & Asgari (2004)'s and Ohtaka (2020)'s results, it is possible that exposure to counterstereotypic women exemplars may be effective only for women, and exposure to men exemplars may be effective only for men concerning the implicit gender stereotype reduction. Furthermore, because gender stereotypes vary according to socioeconomic factors (Suzuki, 2017), this study targeted not only the undergraduates but also adult men and women in a larger sample to generalise the findings. Thus, this study revealed ordinary fathers who enjoyed childrearing as counterstereotypic fathers to the Japanese adults and investigated whether this exposure to the fathers could reduce the parental implicit association between 'father' and 'work' and between 'mother' and 'home.'"

Figure 1.
Fathers' and mothers' average time allotted to housework and childcare.
(Ministry of Health, Labour and Welfare, 2024)

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2. METHODS

This study conducted the power analysis (effect size f:.25, alpha error probability:.05, power:.80) using G*Power, aimed for a sample size of 179. However, this study tried to recruit up to 250 participants through a research company, supposing nonparticipation. A total of 212 Japanese adults participated in the first and second study online. Their ages ranged from 20 to 69 years old, were of both genders, were born and raised in Japan, spoke Japanese as their native language and lived in Japan, excluding same-sex married couples and students. They answered the satisfying item 'Please select the leftmost item for this item' correctly (Miura & Kobayashi, 2015).

The first study was conducted as a study on memory based on Dasgupta and Asgari (2004). The participants were randomly assigned to the counterstereotypic father or control group by gender and age group. The participants were shown descriptions of either counterstereotypic fathers or flowers (control group). After reading the descriptions, the participants saw an abbreviated correct and incorrect description of each individual (or flower). They were asked to identify the correct description. This memory test was administered to ensure that the participants had paid attention to the information and to strengthen the memory cover story. After identifying the correct description, the participants in the counterstereotypic father condition were asked to rate the extent to which they thought most other fathers could enjoy childrearing as these fathers did on a five-point scale ranging from 1 (impossible) to 5 (possible). The participants in the flower control condition were asked to indicate the flowers that they liked the most from the rest.

In addition, four fathers who took childcare leave for at least three months were selected from 'Star Ikumens (fathers who enjoy childrearing).' The descriptions of each individual were taken from the internet site of the 'Ikumen project' (Ministry of Health, Labour and Welfare, 2024). Meanwhile, four flowers were collected for the control condition. The description of each flower was derived from the internet site 'Gardening for Pleasure' (NHK Publishing, 2020).

In the second study, the Implicit Association Test (IAT, Greenwald, McGhee, & Schwartz, 1998) was conducted as a study on judgement based on Dasgupta and Asgari (2004). The IAT procedure followed the recommendations by Nosek, Greenwald, A. G., and Banaji (2005). On the computer, the participants were instructed to categorise words and images as quickly and accurately as possible. In the case of a reaction error, error feedback (X) was provided and they were instructed to push the right key again. The IAT is composed of seven blocks, with three practice blocks and four critical blocks. In the 1st practice block (20 trials), participants categorised words related to father and mother into categories labelled on the left or right. In the 2nd practice block (20 trials), participants categorised words related to work and home. In the 3rd (20 trials) and 4th (40 trials) critical blocks, participants categorised words related to father/mother work/home in alternating trials. Consequently, participants categorised words corresponding to father and work with one key and those corresponding to mother and home with another key. In the 5th practice block (20 trials), participants categorised the words corresponding to mother and father again, except the categories had switched sides. The father/mother category originally on the left was now categorised with the right key and the father/mother category originally on the right was now categorised with the left key. In the 6th (20 trials) and 7th (40 trials) critical blocks, participants categorised pairings opposite to the ones found in the third and fourth blocks. Consequently, participants categorised words related to mother and work with one key and those related to father and home with the other key. The sixth and seventh blocks were counterbalanced with the third and fourth blocks between participants to control potential

order effects. The position of the work/home categories was also randomised between participants: Half the participants categorised work to the left key and home to the right key, and the other half did the reverse.

The 'father' (N = 5) and 'mother' (N = 5) words were selected from fathers' and mothers' names called by their children (e.g. 'father', 'dad' and 'papa'/'mother', 'mom' and 'mama') (Benesse, 2009). The 'home' (N = 5) words were 'cleaning', 'washing', 'housework', 'childrearing' and 'cooking'; the 'work' (N = 5) words were 'meeting', 'workplace', 'commuting', 'working' and 'company' (Hanita & Murata, 2013).

The IAT score was scored with the D algorithm as recommended by Greenwald, Nosek, and Banaji (2003). A positive D score indicated faster average response when 'father' words were paired with 'work' words and 'mother' words were paired with 'home' words, compared to the reverse situation.

Finally, the participants completed self-reported questionnaires on demographic measures on the computer.

3. RESULTS

3.1. Analysis Targets
Of the 212 valid responses, 1 respondent answered the open-ended question about the impact of the memory survey on their ability to process information: 'I remembered examples of men who were positive about parental leave, so they remained in my mind as afterimages and I was a little more positive about them'. Another respondent whose latency was less than 300 ms in more than 10% of the trials (Greenwald et al., 2003) was thereby excluded, and 210 respondents (105 males and 105 females) were included in the analysis.

They were randomly assigned to the counterstereotypic father condition or the flower control condition by gender and age group in Table 1.

3.2. Analysis of Variance
The data were analysed using a three-way analysis of variance. The analysis design used three independent variables: the counterstereotypic father condition or the flower control condition (between factor) [condition], being man or woman (between factor) [respondents' gender], age group i.e. 20s, 30s, 40s, 50s or 60s (between factor) [respondents' age group]. The dependent variable was the D score (Greenwald et al., 2003).

First, the two-way interaction effect of [group] × [respondents' age group] was marginally significant (F (4, 190) = 2.27, p =.064, partial η^2 =.05, 95% CI [.00, .09]). The simple main effect of [condition] was significant among the 50s group (F (1, 190) = 8.20, p =.005, partial η^2 =.17, 95% CI [.00, .10]). The D score in the counterstereotypic father condition (M = 0.66) was lower than the D score in the flower control condition (M = 0.91). That is, in the 50s group, regardless of their gender, the intervention reduced the implicit association between 'father' and 'work' and between 'mother' and 'home'.

Second, the main effect of [respondents' age group] was significant (F (4, 190) = 2.93, p =.022, partial η^2 =.06, 95% CI [.00, .11]). The D score in the 50s group (M = 0.78) was higher than the D score in the 20s group (M = 0.60). That is, the implicit association between 'father' and 'work' and between 'mother' and 'home' was stronger for those in their 50s than those in their 20s.

The mean D scores, standard deviations and number of respondents are shown in Table 1. The mean D scores are also shown in Figure 2.

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Table 1.
Mean D scores, standard deviations, and number of respondents.

Age group	Gender	Condition	*Mean*	*SD*	Number
20s	men	control	0.68	0.29	13
		counterstereotypic	0.60	0.27	9
	women	control	0.57	0.27	10
		counterstereotypic	0.57	0.30	10
30s	men	control	0.60	0.30	9
		counterstereotypic	0.61	0.18	11
	women	control	0.55	0.29	10
		counterstereotypic	0.77	0.29	11
40s	men	control	0.73	0.33	11
		counterstereotypic	0.64	0.36	10
	women	control	0.72	0.22	9
		counterstereotypic	0.69	0.24	12
50s	men	control	0.87	0.25	6
		counterstereotypic	0.73	0.26	16
	women	control	0.94	0.33	12
		counterstereotypic	0.59	0.34	10
60s	men	control	0.69	0.12	10
		counterstereotypic	0.71	0.24	10
	women	control	0.82	0.25	11
		counterstereotypic	0.71	0.17	10

Figure 2.
Mean D scores.
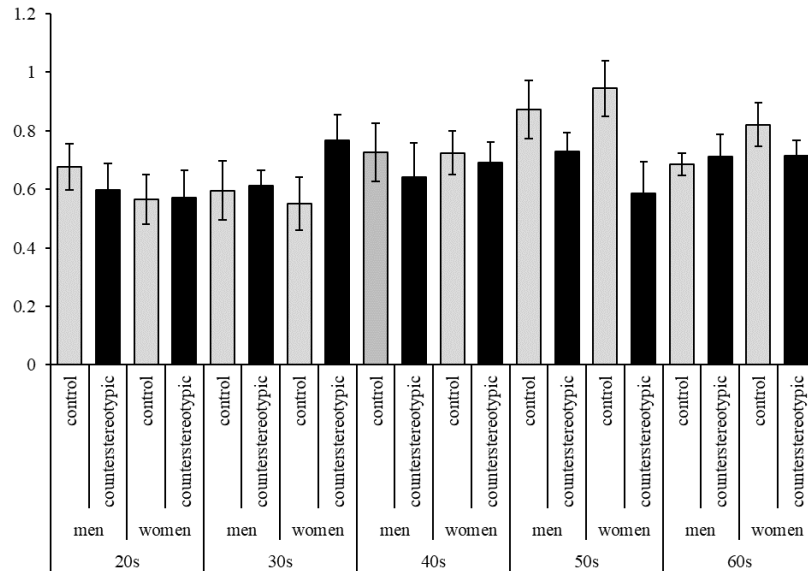
4. DISCUSSION/FUTURE RESEARCH DIRECTIONS

The results implied that the participants from the 50-year-old group exhibited a strong implicit father and mother stereotype. This might be because the younger people had more equal gender role attitudes (Ohtaka, 2022). As for the people in their 60s, however, this may be because their children as parents, regardless of their gender, work outside the home and keep the house. Furthermore, it has been determined that such a strong implicit stereotype in the 50s group, regardless of their gender, could be reduced by exposure to counterstereotypic fathers. Unlike the results of Dasgupta & Asgari (2004) and Ohtaka (2020), the exposure to counterstereotypic men exemplars was effective not only for men but also for women. However, the intervention did not reduce the implicit father and mother stereotypes among the other generations. This might be because the intervention effect was weak. Kurdi, Sanchez, Dasgupta, and Banaji (2023) argued that exposure to counter-attitudinal exemplars could reduce implicit racial stereotypes, but such malleability depends strongly on the contingency awareness between the racial categories and valence. Specifically, only with the Black-positive and White-negative contingency awareness, the exposure to the counterstereotypic exemplars could reduce implicit racial stereotypes. Thus, future studies should focus on contingency awareness to explore stronger interventions.

Moreover, Lai et al. (2014) compared the effects of 17 interventions on the implicit racial stereotypes and showed that asking participants to read a vivid and evocative counterstereotypic scenario of the Black-positive and White-negative, with the contingency awareness, reduced the implicit racial stereotypes most effectively. Specifically, it is believed that they increased the participants' contingency awareness by informing them that the race IAT task affirms the associations: Black-good and White-bad. Therefore, in the future, the exposure to counterestereotypic fathers by a vivid and evocative scenario, with contingency awareness, might reduce implicit parental stereotypes strongly.

In addition, since we conducted an online experiment in this study, future laboratory experiments, such as the one conducted by Dasgupta and Asgari (2004), may more effectively reduce implicit parental stereotypes. However, it is also unclear whether the temporary changes in the implicit evaluations resulting from a single intervention may be sustained over time, and further investigation is needed.

In conclusion, the 50-year-olds had strong implicit parental stereotypes, and by exposing them to counterstereotypic fathers, they were able to reduce their implicit parental stereotypes. However, in other age groups, this intervention was not effective. Thus, in future research, it is necessary to verify more effective interventions.

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