

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

Mizuka Ohtaka

Toyo University/Department of Social Psychology, Faculty of Sociology (Japan)

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, 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 can reduce the implicit stereotype that ‘fathers should work outside the home and mothers should keep the house’. The Implicit Association Test (IAT) was conducted among Japanese adults. The participants were randomly assigned to the counterstereotypic group 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, in their 50s, the intervention reduced the implicit association between father and work and between mother and home. In addition, the implicit association between work and father and between home and mother was stronger for those in their 50s than for those in their 20s. Thus, for 50s, with strong implicit father and mother stereotype, exposure to counterstereotypic fathers can 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

Ohtaka (2020) demonstrated that famous fathers who enjoy childrearing to Japanese undergraduates, and suggested that for men, exposure to counterstereotypic fathers can reduce the implicit father and mother stereotypes that ‘fathers should work outside the home and mothers should keep the house’. However, even when women were exposed to counterstereotypic fathers, their implicit stereotypes were not reduced because they might have considered counterstereotypic fathers, a subtype of fathers. 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 & Hamberger, 2000; Kunda & Oleson, 1995). Furthermore, because gender stereotypes vary according to socioeconomic factors (Suzuki, 2017), this study targeted not only undergraduates but also adults in a larger sample to generalise the findings. Thus, this study revealed ordinary fathers who enjoy childrearing as counterstereotypic fathers to Japanese adults and investigated whether this exposure of fathers can reduce the implicit stereotype that ‘fathers should work outside the home and mothers should keep the house’.

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, supposing nonparticipation. A total of 212 Japanese adults participated in this study. 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 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 group or the 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 fathers 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 flowers 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, 2020). 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 et al., 1998) was conducted as a study on judgement based on Dasgupta and Asgari (2004). The IAT procedure followed the recommendations by Nosek et al., (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, et al. (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 fathers condition or the flowers control condition by gender and age group as follows.

- The 20s age group: 19 (9 men, 10 women) in the counterstereotypic fathers condition, and 23 (13 men, 10 women) in the flowers control condition

- The 30s age group: 22 (11 men, 11 women) in the counterstereotypic fathers condition, and 19 (9 men, 10 women) in the flowers control condition
- The 40s age group: 22 (10 men, 12 women) in the counterstereotypic fathers condition, and 20 (11 men, 9 women) in the flowers control condition
- The 50s age group: 26 (16 men, 10 women) in the counterstereotypic fathers condition, and 18 (6 men, 12 women) in the flowers control condition
- The 60s age group: 20 (10 men, 10 women) in the counterstereotypic fathers condition, and 21 (10 men, 11 women) in the flowers control condition

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 fathers condition or the flowers 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 ($F(4, 190) = 2.27, p = .064, \text{partial } \eta^2 = .05, 95\% \text{ CI } [.00, .09]$). The simple main effect of [condition] was significant among the 50s group ($F(1, 190) = 8.20, p = .005, \text{partial } \eta^2 = .17, 95\% \text{ CI } [.00, .10]$). The D score in the counterstereotypic fathers condition ($M = 0.66$) was lower than the D score in the flowers control condition ($M = 0.91$). That is, in the 50s group, the intervention reduced the implicit association between 'father' and 'work' and between 'mother' and 'home'.

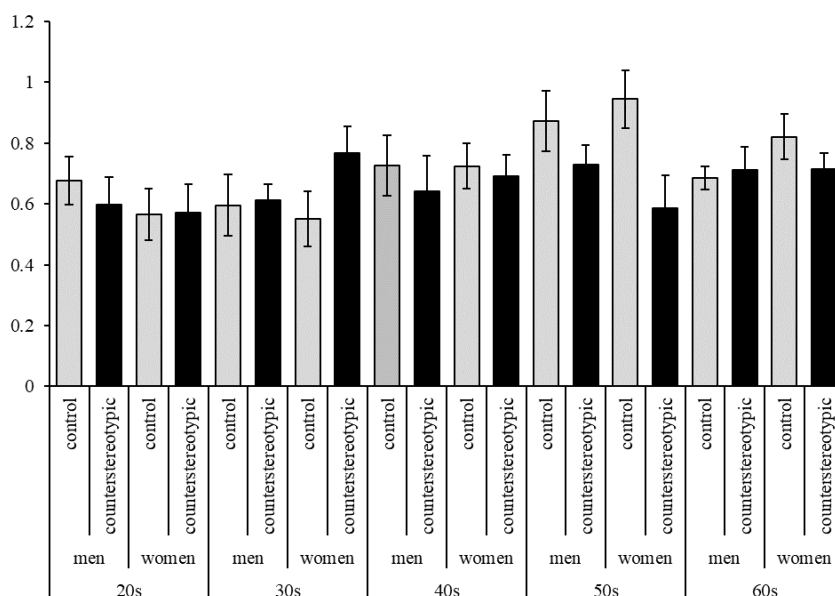
Second, the main effect of [respondents' age group] was significant ($F(4, 190) = 2.93, p = .022, \text{partial } \eta^2 = .06, 95\% \text{ CI } [.00, .11]$). The D score in the 50s group ($M = 0.78$) was higher than the D score in the 20s group ($M = 0.60$). That is, the implicit association between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

The average D scores are shown in Figure 1.

4. Discussion

The result implied that the participants from the 50s age group have a strong implicit 'father' and 'mother' stereotype. This might be because younger people have more equal gender role attitudes (Ohtaka, 2022). However, it was discovered that the 60s age group might have their children, regardless of their gender, work outside the home and keep the house. Furthermore, such a strong implicit stereotype in the 50s group can be reduced by exposure to counterstereotypic fathers. 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 et al. (2023) argued that exposure to counterattitudinal exemplars can reduce implicit racial stereotypes, but such malleability depends strongly on contingency awareness. Thus, future studies should focus on contingency awareness to explore stronger interventions.

Figure 1. Average D scores.



Acknowledgments

This work was supported by JSPS KAKENHI Grant Number JP18K18298.

References

- Benesse. (2009, October 28). *Names of parent and child*. Retrieved from <https://benesse.jp/kyouiku/201002/20100225-1.html>
- Dasgupta, N., & Asgari, S. (2004). Seeing is believing: Exposure to counterstereotypic women leaders and its effect on the malleability of automatic gender stereotyping. *Journal of Experimental Social Psychology, 40*(5), 642-658.
- Dasgupta, N., & Greenwald, A. G. (2001). On the malleability of automatic attitudes: Combating automatic prejudice with images of admired and disliked individuals. *Journal of Personality and Social Psychology, 81*(5), 800-814.
- Dasgupta, N., & Rivera, L. M. (2008). When social context matters: The influence of long-term contact and short-term exposure to admired outgroup members of implicit attitudes and behavioral intentions. *Social Cognition, 26*(1), 112-123.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The Implicit Association Test. *Journal of Personality and Social Psychology, 74*(6), 1464-1480.
- Greenwald, A. G., Nosek, B. A., & Banaji, M. R. (2003). Understanding and using the Implicit Association Test: I. An improved scoring algorithm. *Journal of Personality and Social Psychology, 85*(2), 197-216.
- Hanita, K. (2015). The influence of counter-exemplars on implicit stereotypes and prejudices (Doctoral dissertation, Hitotsubashi University). Retrieved from <http://hermes-ir.lib.hit-u.ac.jp/rs/bitstream/10086/27144/8/soc020201401603.pdf>
- Hanita, K., & Murata, K. (2013). The effect of remembering exemplars of traditional of non-traditional women on the implicit belief about sex-roles. *Cognition Studies, 20*(3), 307-317.
- Hewstone, M., & Hamberger, J. (2000). Perceived variability and stereotype change. *Journal of Experimental Social Psychology, 36*(2), 103-124.
- Kunda, Z., & Oleson, K. C. (1995). Maintaining stereotypes in the face of disconfirmation: Constructing grounds for subtyping deviants. *Journal of Personality and Social Psychology, 68*(4), 565-579.
- Kurdi, B., Sanchez, A., Dasgupta, N., & Banaji, M. R. (2023). (When) Do counterattitudinal exemplars shift implicit racial evaluations? Replications and extensions of Dasgupta and Greenwald (2001). *Journal of Personality and Social Psychology*. Advance online publication. Retrieved from <https://doi.org/10.1037/pspa0000370>
- Ministry of Health, Labour and Welfare (2020). *Ikumen project*. Retrieved from <https://ikumen-project.mhlw.go.jp/employee/star/list/detail/#star21>
- Miura, A. & Kobayashi, T. (2015). Mechanical Japanese: Survey satisficing of online panels in Japan. *Japanese Journal of Social Psychology, 31*(1), 1-12.
- NHK Publishing. (2020). *Gardening for pleasure*. Retrieved from https://www.shuminoengei.jp/?m=pc&a=page_p_top
- Nosek, B. A., Greenwald, A. G., & Banaji, M. R. (2005). Understanding and using the Implicit Association Test: II. Method variables and construct validity. *Personality and Social Psychology Bulletin, 31*(2), 166-180.
- Ohtaka, M. (2020). Evaluating the effectiveness of exposure to counterstereotypic fathers on reducing implicit father and mother stereotypes in Japan. In C. Pracana & M. Wang (Eds.), *Psychology Applications & Developments VI* (pp. 67-72). Lisbon: inScience Press.
- Ohtaka, M. (2022). Secondary data analysis. In K. Furutani & A. Murayama (Eds.), *Let's Try Empirical Research Introduction* (pp. 179-190). Kyoto: Nakanishiya Shuppan.
- Suzuki, A. (2017). Mechanisms of persistence in gender inequality: Perspective of work and family. *Japanese Psychological Review, 60*(1), 62-80.