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Longevity Bias, Ingroup Bias, and Culture: A Study in Modern Japan

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Abstract

Japan has long been cited as the prime example of a collectivistic nation with many instances of ingroup bias, and is also known for its respect for things that are old. This research examined a proposed link between longevity bias, or the belief that things that are older are inherently better, and ingroup bias in a Japanese population by replicating the "art" domain in Eidelman et. al's (2010) longevity bias study. Participants, undergraduates at a Japanese university, completed questionnaires that evaluated their aesthetic enjoyment of a painting, while also manipulating the participants' knowledge of the artists' nationality and the artwork's time in existence. The artist's nationality was either Japanese or American (the participants' ingroup or outgroup) and the painting was said to be either relatively young or old (9 vs. 90 years old). We hypothesized that participants would rate the painting higher when it was both from their ingroup and perceived to be older. Our results showed marginal significance for main effect interactions so that 1. participants found the difference in perceived time in existence to be more drastic in the Japanese condition than the American condition and 2. participants preferred the newer painting to the older painting, which was directly contrary to our hypothesis. Additional research and replication of this study in more representative populations is needed, especially in regards to equal gender representation, but results may also suggest a review of the literature into Japan's insofar undisputed status as collectivistic.

Longevity Bias, Ingroup Bias, and Culture: A Study in Modern Japan

In his short essay "In Praise of Shadows," prolific Japanese author Junichiro Tanizaki stressed the importance of patina, a term commonly used to refer to the green film formed on the surface of copper over time. To the Japanese, however, this patina is not just oxidization; it effuses onto every object, tree, person, and ghost in their environment. Tanizaki asserts that objects that have no patina hold no aesthetic value to anyone Japanese (Tanizaki, 1977). He specifically contrasts the tastes of the Japanese for this patina to Westerners as a whole, stating that Westerners prefer things shiny and new and have no appreciation for that which is old and weathered.

Though this is only an observation by one person, Tanizaki's statements bring up an interesting question: when manipulated to believe an object is a certain age, will Japanese people really like the older version more? In addition, what if said object was thought to be either part of their ingroup or not? This research set out to recreate the "art" domain from Eidelman et. al's (2009) "Longer is better" study to test the effects and interactions of longevity bias and ingroup bias in a Japanese population.

Collectivism and Ingroup Bias

Tanizaki's division of Western and Eastern brings to light a particularly popular categorization across many academic disciplines- the concept of collectivism and individualism. Collectivism denotes those cultures, typically those of Eastern nations, that put the goals of their ingroup before their own, while individualistic nations tend to favor their personal goals (Hofstede, 1980; Triandis, 1993). Japan is most often hailed as the epitome of collectivism, whereas the United States is the epitome of individualism. Japanese individuals in particular identify themselves with traits related to collectivist cultures and score significantly higher on

collectivistic measures when compared to Americans (Matsunaga & Imahori, 2009; Sedekides et. al, 2003).

Japanese also score highly on indicators of ingroup bias, or the tendency to side with one's ingroup, which is inherent to collectivist cultures (Kuo, 1992; Triandis et. al, 1988). Though one's ingroup can be based on many factors, such as gender and religion, for the purposes of this study, we chose to use nationality as an indicator of ingroup bias, as collectivist nations denote ingroup on the basis of cultural and national heritage- especially for nations like Japan, who have moderately high levels of youth nationalism and national pride (Sasada, 2006).

Additionally, Japanese do not appear to feel a need for uniqueness when it comes to preferences, have a tendency towards negative self-evaluation, and to be very modest, as it is ordinary to do so for their ingroup (Ohashi & Yamaguchi, 2019). When compared to Americans and other Western Europeans, Japanese in particular have been shown to exhibit this tendency to an extreme amount, having almost nonexistent scores in measures of self-concept and indicators of independence (Kitayama, 2009). This reliance on ingroup preferences to dictate much of their consciousness leads to the belief that Japanese people will likely, when faced with a decision, choose what they believe their ingroup will choose, regardless of their personal beliefs.

Longevity Bias and Culture

Some recent research in the realm of social psychology has been done relating to "longevity bias." Longevity bias is a heuristic that states that people unconsciously choose certain things because of how long they have existed- and in most cases, longer is indeed better (Eidelman & Crandall, 2014). There is a significant, causal effect of time in existence on perceived "goodness" of an object being assessed (Eidelman et. al, 2010). . Logically, aesthetic judgments should not conflate time in existence with goodness; however, Eidelman et. al (2010)

found that participants found art more beautiful when believing it was older. Furthermore, this longevity bias is a frequent but subtle occurrence in our daily lives: for example, selecting a product from a brand that is known to be older, and therefore more well-established (Pecot & Merchant, 2022). It dictates that people unconsciously create preferences based on previous knowledge and experiences of the subjects being analyzed. This phenomenon can be attributed to a few different aspects: logical reasoning, habit, and inertia are just a few, but for the purposes of this research, citing ingroup bias as a possible marker of longevity bias is key.

However, longevity bias has thus far only been observed in American populations, and there is reason to believe that other nations and cultures that hold elders in special esteem, such as Japan, may have increased longevity bias scores. Japan as a national power clearly takes very good care of the older items found in their country: it has 25 UNESCO World Heritage Sites, many of which date back thousands of years, and they have strict cultural protection laws that were made to protect these ancient objects, things ranging from as large shrines, to forests, to as small as poetry and paintings. This care does not only extend to the inanimate, however. The Japanese currently have the longest life expectancy in the world, and older adults in Japan have significantly higher interpersonal and overall well-being when compared to other national counterparts (Karasawa et. al, 2011).

The Current Research

Because of the observed levels of ingroup bias in Japan combined with their respect and care towards things that are older, it is reasonable to infer that there would be an interaction between longevity bias and ingroup bias in a Japanese population if it were to be tested. We decided to test the strength of this interaction by replicating the art domain found in the initial longevity bias study by Eidelman et. al (2010): showing participants the same painting, but

manipulating their knowledge of the painting's time in existence to test their adherence to longevity bias. The same questionnaire was used, just translated into Japanese with the help of bilingual volunteers from Kwansei Gakuin University. However, the manipulation statement at the top of the questionnaire also included the artist's nationality as a way of testing ingroup bias, in addition to the original manipulation of the participants' knowledge of the painting's time in existence. We hypothesized that there would be a significant main effect for time in existence, a significant main effect for artist nationality, and a significant interaction between time in existence and artist nationality, such that participantswould prefer the painting they viewed the most when in the condition where they believed it was old and done by a Japanese artist.

Method

Participants and Design

Participants were undergraduate college students from Kwansei Gakuin University in Nishinomiya, Japan (*N*= 319). 12 participants were approached randomly on the Kwansei Gakuin University campus by a researcher and asked to participate. The other 315 participants were students from 2 different psychology lectures: one with 152 students and one with 175 students. The sample was 73% female and the average age was 20. Each was randomly assigned to one of four conditions in a 2 (age of painting) by 2 (nationality of artist) design.

Procedure

In both settings, questionnaires (described below) were distributed randomly. The first 12 participants were approached in public and asked if they would be willing to participate, and then given the questionnaire, a laminated print of the painting, and asked for their verbal consent. The questionnaire was then collected and the participant was thanked for their time.

For the rest of the participants, questionnaires were passed out at the start of a class with the permission and help of that class's professor. Since distributing an individual laminated copy of the painting would be too time-consuming for the larger group, participants were instructed to look to the front of the lecture hall where the painting was projected on a large screen at the same dimensions and resolution that it had been on the laminated paper copies. Participants were given the same instructions as the first 12 participants and told that if they did not consent, they could choose to not participate and thus could leave their questionnaire blank. Because of the size of the lecture hall and the proximity to which some students were sitting together, the instructions also asked to please fill out the questionnaire quietly to avoid students discussing amongst themselves and revealing that there were different conditions for the questionnaire. Since these instructions were given in Japanese, I asked the professor to read them aloud rather than myself to avoid any confusion that might've arisen from my accent or pronunciation.

Measures

The questionnaire consisted of 10 questions each answered on a 9-point Likert-type scale, seven of which were intended for later analysis. Six questions were intended to measure participants' aesthetic enjoyment of a painting (See Appendix for full list): for example, "*This painting is pleasant to look at*" and "*I like this painting*." The six items were internally consistent $\alpha=0.86$ and were averaged to form an evaluation index. One question asked participants to ascertain the age of the painting on the same 9-point Likert-type scale: "*This painting has been around for a long time*." Participants were also asked demographic information: age, gender, nationality, and if Japanese was their first language. They were also asked if they had taken an art history class before.

All participants were shown the same Untitled painting by Cy Twombly (see Appendix), but were not told who the artist was. Instead, a statement at the top of the questionnaire indicated the nationality of the artist (either Japanese or American) and the age of the painting (9 or 90 years old). The painting was determined beforehand to likely be unknown to college students and could be reasonably inferred to be done by an artist of any nationality.

Results

To test the effectiveness of our manipulation of time in existence, we submitted participants' judgments of how long the painting had been around to a 2(9 vs. 90-year-old painting)×2 (Japanese vs. American artist) analysis of variance (ANOVA). Consistent with the hypothesis, this analysis indicated a main effect for time in existence such that participants in the 90 year condition thought the painting was older *(M*=5.4, *SD*=0.168) compared to participants in the 9 year condition *(M*=4.6, SD=0.167, *F(*1, 314)=12.03, $p<0.001$.) There was no main effect for artist nationality (*F*(1, 314)=1.10, $p=0.30$). However, there was a marginally significant interaction between year and country *F*(1,314)=3.84, $p=0.051$. This interaction indicated that participants found the difference between the older (90 year old) and newer (9 year old) painting to be greater in the Japanese artist condition (*M*s=5.81 and 4.52, *SE*s=0.233 and 0.235 in the older and newer conditions, respectively) compared to older and newer conditions in the American artist condition (*M*s= 5.09 and 4.73, *SD*s= 0.242, 0.238, respectively).

To test our primary hypothesis that participants would indicate longevity bias, we submitted participants' aesthetic judgments of the painting to the same 2 × 2 ANOVA reported above. There was a marginally significant main effect for time in existence, *F*(1, 314)= 3.65, $p=0.057$; indicating that participants, contrary to our hypothesis, marginally preferred the painting when they believed it was newer rather than older (*M*s= 3.34 vs. 3.04; *SD*= 0.110, 0.111, for the newer painting and older painting, respectively). There was no main effect for

artist nationality, $F(314) = 1.145$, $p = 0.285$, (Ms=3.10, 3.27; SD= 0.109 vs. 0.112, in the Japanese and American artist conditions, respectively) or for the interaction between year and artist nationality $F(314)=0.030$, $p = 0.863$(Ms= 3.24, 2.98, 3.43, and 3.11; SDs= 0.154, 0.154, 0.156, and 0.159 for newer × Japanese artist, older × Japanese artist, newer × American artist, older × American artist, respectively).

An exploratory ANOVA that added the gender of participants as a factor in addition to time in existence and artist nationality was also done. In this ANOVA, there were two marginally significant main effects, one for the interaction between time in existence and gender, and the other for the interaction between artist nationality and gender. For the time in existence and gender interaction, a main effect indicated that female participants preferred the painting when believing it to be newer (M=3.46, SD=0.122) rather than older (M=2.87, SD=0.127), while male participants preferred the painting when believing it was older (M=3.41, SD=0.201) rather than newer (M=2.92, SD=0.223, $F(1, 307)=9.61$, p=0.002). Additionally, for the artist nationality and gender interaction, a main effect indicated that female participants preferred the painting when believing it was done by an American artist (M=3.33, SD=0.197) than by a Japanese artist (M=2.99, SD=0.123), whereas male participants marginally preferred the painting when believing it was done by a Japanese artist (M=3.42, SD=0.197) than by an American artist (M=2.91, SD=0.226, $F(1, 307)=5.827$, p=0.016).

Discussion

This research set out to observe the effects of longevity bias and ingroup bias in a Japanese population, with the expectation of results being that participants would adhere to longevity bias and there would be a significant interaction between time in existence and artist nationality. However, this hypothesis that participants would exhibit longevity bias must be

rejected. Additionally, results relating to ingroup bias or the interaction between ingroup bias and longevity bias were inconclusive and/or non-significant, and therefore cannot reasonably be generalized. The interactions that were analyzed and had some significance were only marginally significant. The only clear significant main effect for time in existence indicated that the manipulation check for time in existence was successful, so it was wholly unexpected that the marginally significant effect for time in existence was in the direction opposite of our hypothesis. Because previous research on this topic and anything related to longevity bias in general is fairly new, it is hard to predict why these interactions did or did not happen as we hypothesized; especially when considering that, thus far, research pertaining to longevity bias has pointed in the direction of longevity bias's legitimacy as a common heuristic, even outside of the realm of aesthetic evaulation. Besides the initial study by Eidelman et. Al (2009) that this research replicated, other studies in different domains have further attributed their findings to longevity bias, such as participants attributing legitimacy of religion to perceived longevity (Warner & Kiddoo, 2014) and having food crops judged as better and more trustworthy when believing they were described as older (Inbar et. al, 2020). In order to gain more insight on why this effect was not present in a Japanese population, this research would need to be replicated in a more diverse and equally representative sample.

Limitations and Future Research

Overall, it is clear that participants disliked the painting, with all mean scores related to aesthetic evaluation being <3.5 on a 9-point scale. The general dislike of the painting could have influenced the results in an unexpected way, especially when considering the addition of longevity and ingroup bias manipulation. Since participants appeared to view the painting as a negative stimulus, this finding also conflicts with previous longevity bias research, where

participants viewed negative stimuli- things like interrogation techniques and bitter drinks- as being more favorable when believing they were older (Crandall et. al, 2009; Eidelman et. al, 2009).

It appears that the main limitation in the sample was that it was 73% female, which seemed to have skewed the results, as seen from the exploratory ANOVA. Because the sample was female-dominated and results were marginally significant in terms of some interactions for gender , a more equally representative sample is needed before coming to any major conclusions about the specifics of longevity bias in Japan. To speculate, however, the fact that females preferred the American and newer condition while males preferred the Japanese and older condition suggests that Japanese males may be more influenced by their ingroup to stick to traditional values, whereas females, who are often relegated to a secondary role in Japanese society, may prefer the opposite of their ingroup.

The sample was also entirely from a private Christian school. Christians are a minority in Japan, so students could have considered themselves, even though they are Japanese nationals, as part of the "outgroup" because of their religious beliefs, which could have influenced their answers. Because of the small size of the school, data collection also had to vary for convenience purposes, which may have also influenced results.

Although participants were overall unfamiliar with the painting, if this study were to be replicated, it would be worth the time to find a painting that is not only visibly neutral in terms of the artist's nationality, but also considered neutral in terms of general aesthetics: for example, having the painting reviewed by a panel of judges and deemed neutral before beginning the study.

For future research, I think it may also be important to take a closer look at the current status of attitudes and ingroup interactions in Japanese populations, as there seems to be a lot of conflicting literature on the subject. In particular, Japan's status as a collectivist nation, perhaps one of the most cited examples of such, may need to be reviewed. In a review of 35 empirical studies on Japan, 30 of them were shown to have findings that were inconsistent with the common view of Japan as collectivistic (Takano & Osaka, 2018).

Conclusion

Longevity bias is still a relatively new concept and has been yet unobserved in many different populations. Because of this, there is much room for growth and replication for studies on longevity bias and how ingroup bias may or may not affect it. There is still much to be learned about its interactions with countless other psychological phenomena. Although not much can be concluded about this study without proper replication in a more representative population, it still serves as a basis for other research on longevity bias and gives insight into the state of traditional values in youth in modern Japan.

References

Crandall, C. S., Eidelman, S., Skitka, L., & Morgan, G. S. (2009). Status quo framing increases support for torture. *Social Influence*, *4*(1), 1–10.

Eidelman, S., Pattershall, J., and Crandall, C. (2010). Longer is better. *Journal of Experimental Social Psychology*, *46*(6), 993-998.

Eidelman, S., & Crandall, C. S. (2014). The intuitive traditionalist: How biases for existence and longevity promote the status quo. In M. P. Zanna & J. M. Olson (Eds.), Advances in experimental social psychology (Vol. 50, pp. 53–104). Academic Press.

Eidelman, S., Crandall, C. S., & Pattershall, J. (2009). The existence bias. *Journal of Personality and Social Psychology, 97*(5), 765–775.

Inbar, Y., Phelps, J., & Rozin, P. (2020). Recency negativity. Newer food crops are evaluated less favorably. *Appetite*, 154, 104754.

Karasawa, M., Curhan, K. B., Markus, H. R., Kitayama, S. S., Love, G. D., Radler, B. T., & Ryff, C. D. (2011). Cultural perspectives on aging and well-being: a comparison of Japan and the United States. *International journal of aging & human development*, *73*(1), 73–98.

Kitayama, S., Park, H., Sevincer, A.T., Karasawa, M., Uskul, A.K. (2009). A Cultural Task Analysis of Implicit Independence: Comparing North America, Western Europe, and East Asia. *Journal of Personality and Social Psychology 97*(2), 236-55.

Kuo, J. C. (1992). *Ingroup bias, self-esteem, and work-related values among japanese and american workers* (Publication No. 9223117). [Doctoral dissertation, Arizona State University]. ProQuest Dissertations & Theses Global.

Matsunaga, M., & Imahori, T. T. (2009). Profiling Family Communication Standards: A U.S.-Japan Comparison. Communication Research, *36*(1), 3–31.

Ohashi, M.M. & Yamaguchi, S. (2019). Super-Ordinary Bias Among Japanese: Is It Unique to Japanese Culture? K.-H.Yeh (Ed.). *Asian Indigenous Psychologies in the Global Context* (169-93). Palgrave Studies in Indigenous Psychology.

Pecot, F., & Merchant, A. (2022). Why and when is older better? The role of brand heritage and of the product category in the evaluation of brand longevity. *Journal of Business Research*, 140, 533–545.

Sasada, H. (2006). Youth and Nationalism in Japan. *The SAIS Review of International Affairs*, *26*(2), 109–122.

Sedikides, C., Gaertner, L., & Toguchi, Y. (2003). Pancultural self-enhancement. *Journal of Personality and Social Psychology, 84*(1), 60–79.

Takano, Y. and Osaka, E. (2018), Comparing Japan and the United States on individualism/collectivism: A follow-up review. *Asian Journal of Social Psychology*, *21*(4), 301-316.

Triandis H. C. (1972). *The analysis of subjective culture*. New York: Wiley.

Triandis, H.C., Bontempo, R., Villareal, M.J., Asai, M., Lucca, N. (1988). Individualism and Collectivism: Cross-Cultural Perspectives on Self-Ingroup Relationships. *Journal of Personality and Social Psychology 54(2),* 323-338.

Triandis, H. C. (1993). Collectivism and Individualism as Cultural Syndromes. *Cross-Cultural Research*, *27*(3-4), 155–180.

Warner, R. J., & Kiddoo, K. L. (2014). Are the latter-day saints too latter day? Perceived age of the Mormon church and attitudes toward Mormons. *Group Processes & Intergroup Relations*, *17*(1), 67–78.

Appendix

この絵はアメリカ人/日本人の芸術家によって描かれました. 9/90 歳くらいです。

絵の写真を見て、以下の質問に答えてください。

この絵は見るのが楽しいです。

全くそうは思わない 1 2 3 4 5 6 7 8 9 強くそう思う

私はこの絵を見るのを楽しんでいます。

全くそうは思わない 1 2 3 4 5 6 7 8 9 強くそう思う

この絵の見た目には魅力的ではないことがあります。

全くそうは思わない 1 2 3 4 5 6 7 8 9 強くそう思う

この絵は審美的に美しいです。

全くそうは思わない 1 2 3 4 5 6 7 8 9 強くそう思う

私はこの絵が好きです。

全くそうは思わない 1 2 3 4 5 6 7 8 9 強くそう思う

この絵は良いです。

全くそうは思わない 1 2 3 4 5 6 7 8 9 強くそう思う

この絵を作るのに多くの技術が必要でした。

全くそうは思わない 1 2 3 4 5 6 7 8 9 強くそう思う

他の人はおそらくこの絵が好きです。

全くそうは思わない 1 2 3 4 5 6 7 8 9 強くそう思う

この絵は長い間あると思います。

全くそうは思わない 1 2 3 4 5 6 7 8 9 強くそう思う

私は普段芸術が好きです。

全くそうは思わない 1 2 3 4 5 6 7 8 9 強くそう思う

この絵を見たことがありますか？

絶対にありません 1 2 3 4 5 6 7 8 9 絶対に

芸術史の授業を受けることがありましたか? (一つを丸をつけて下さい): はい / いいえ

性別：____ 年齢: ____ 国籍: _____ 日本語は母国語ですか? はい / いいえ

このアンケートにご協力いただきありがとうございます！

This painting was done by an American/Japanese artist. It is around 9/90 years old.

Please look at the photograph of the painting and answer the following questions.

This painting is pleasant to look at.

STRONGLY DISAGREE 1 2 3 4 5 6 7 8 9 STRONGLY AGREE

I enjoy looking at this painting.

STRONGLY DISAGREE 1 2 3 4 5 6 7 8 9 STRONGLY AGREE

There's something unappealing about the look of this painting.

STRONGLY DISAGREE 1 2 3 4 5 6 7 8 9 STRONGLY AGREE

This painting is aesthetically pleasing.

STRONGLY DISAGREE 1 2 3 4 5 6 7 8 9 STRONGLY AGREE

I like this painting.

STRONGLY DISAGREE 1 2 3 4 5 6 7 8 9 STRONGLY AGREE

This painting is good.

STRONGLY DISAGREE 1 2 3 4 5 6 7 8 9 STRONGLY AGREE

It took a lot of skill to make this painting.

STRONGLY DISAGREE 1 2 3 4 5 6 7 8 9 STRONGLY AGREE

Other people probably like this painting.

STRONGLY DISAGREE 1 2 3 4 5 6 7 8 9 STRONGLY AGREE

This painting has been around for a long time.

STRONGLY DISAGREE 1 2 3 4 5 6 7 8 9 STRONGLY AGREE

I normally like art.

STRONGLY DISAGREE 1 2 3 4 5 6 7 8 9 STRONGLY AGREE

Have you seen this painting before?

DEFINITELY NOT 1 2 3 4 5 6 7 8 9 DEFINITELY

Have you taken a class in art history? (circle one): Yes / No

Your Gender ____ Your Age: ____ Nationality: _____ Is English your 1st language? Yes/No

Thank you for completing this survey!