

THE POWER OF EMPATHIZING OTHERS: PERCEPTION OF SOCIAL INFORMATION AFFECTS THE DECISION-MAKING IN A COLLABORATIVE TASK

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INTRODUCTION

In most cases, individuals are not presented with a specific goal in which they can undertake to optimize their decisions. Individuals can evaluate the available choices using cognitive heuristics with reference to information accumulated from the psychological states and environmental feedbacks (Smaldino & Richerson, 2012) instead of the calculation of maximum values.

One of the cognitive heuristics that has been highlighted in the recent studies of social decision-making is empathy, which is inferred as human's capacity to understand other's emotional and intentional states (Ramsey, Skov, Macoveanu, Siebner & Fosgaard, 2015). This ability allows decision-makers to understand and predict the action of others in order to behave and respond accordingly during social interaction (Decety & Lamm, 2006).

Although past studies in decades have examined the effect of empathy in an effort to explain the cognitive process of social decision making, to what extent does decision-makers apply the perceptual information, such as the appearance and the personality, to their empathic system while making decisions has rarely been looked into.

AIM

To explore the application of social information that related to the cognitive network of the empathic system on social decision making process.

OBJECTIVES

- The degree of decisions will be enhanced when confederates are physically presented compared to the condition in which the confederates' information is conveyed in written message.
- Participants who perceived the other person with positive personality will be more generous by giving more points to others whereas person who are perceived with negative personality will be punished by taking points.
- Participants are more likely to give points to confederates when they have more points and to take points from confederates when they have less points.

METHODOLOGY

This research employed both between subjects

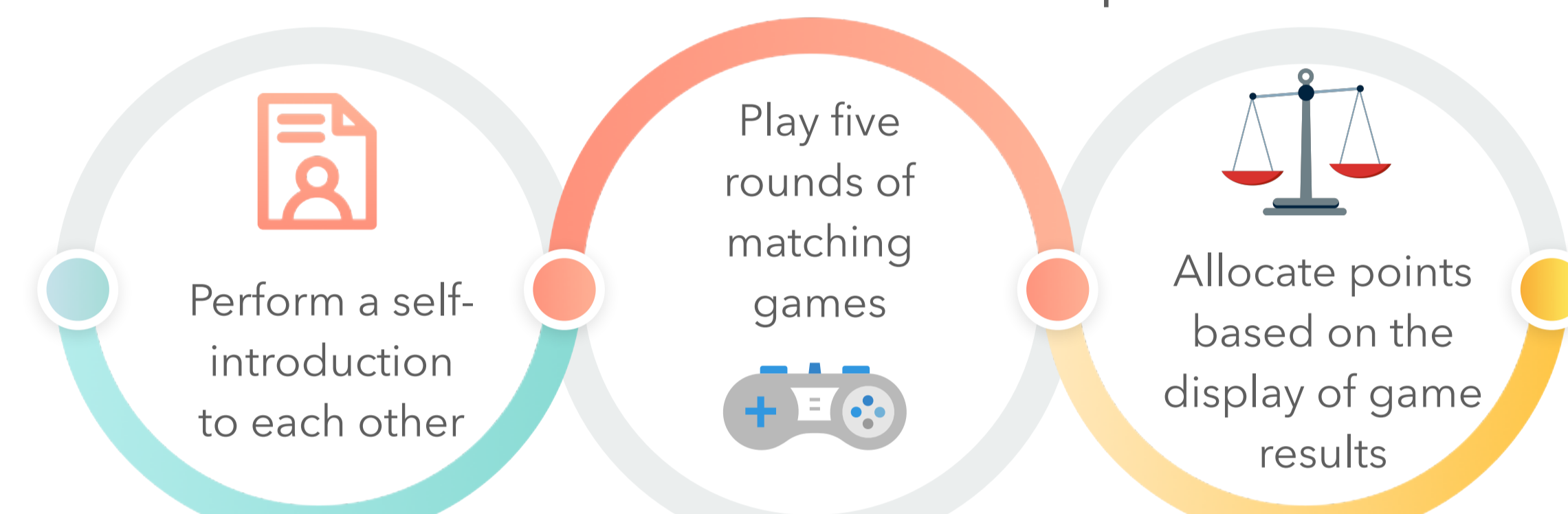
(conditions: written message vs. face-to-face) and within subjects design

(confederates: Person A vs. Person B vs. Person C and situations: Less vs. Equal vs. More)



PROCEDURE

Participants were invited to take part in an online collaborative task with other three confederates. However, because players didn't see each other in the lab room, they needed to do a self-introduction (either written or face-to-face). The self-introduction of confederates were manipulated to indicate persons with different personality traits (i.e., Person A with positive impression, Person B with negative impression and Person C with neutral impression). Sequentially, participants completed five rounds of online matching game with each person respectively. After each round of game, a pair of score was shown in the result page. The score was manipulated (i.e., Having less, equal or more score than confederates) and therefore has no relation to their game performance. Participants were given choice to either take points, give points or do nothing to the confederate. Following the completion of games, participants were asked to rate the personality traits based on their perception of the confederates and the likelihood of friendship.

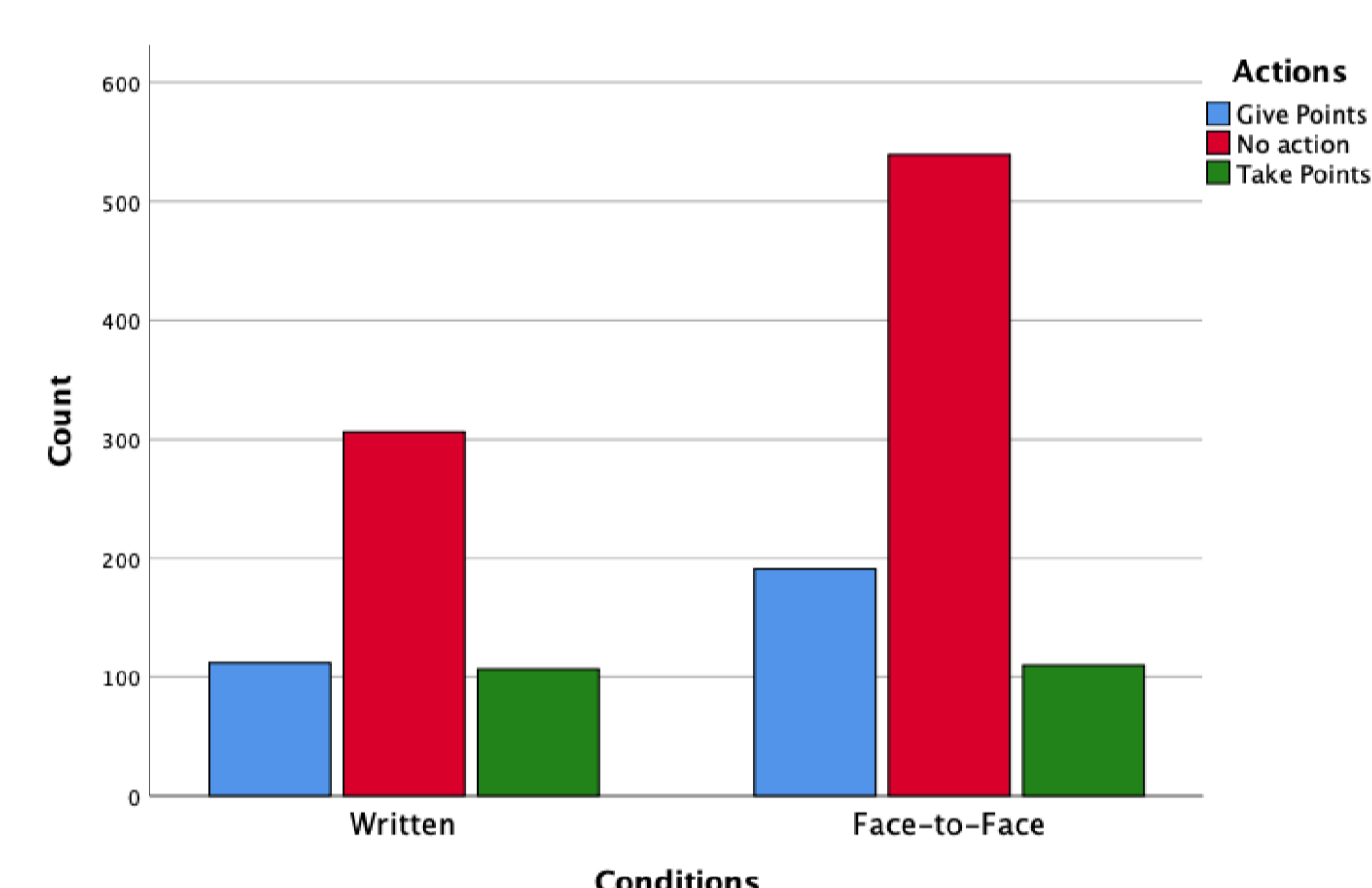


Matching game. See the sample of the game: <https://abclabum.github.io/abcdLab/>

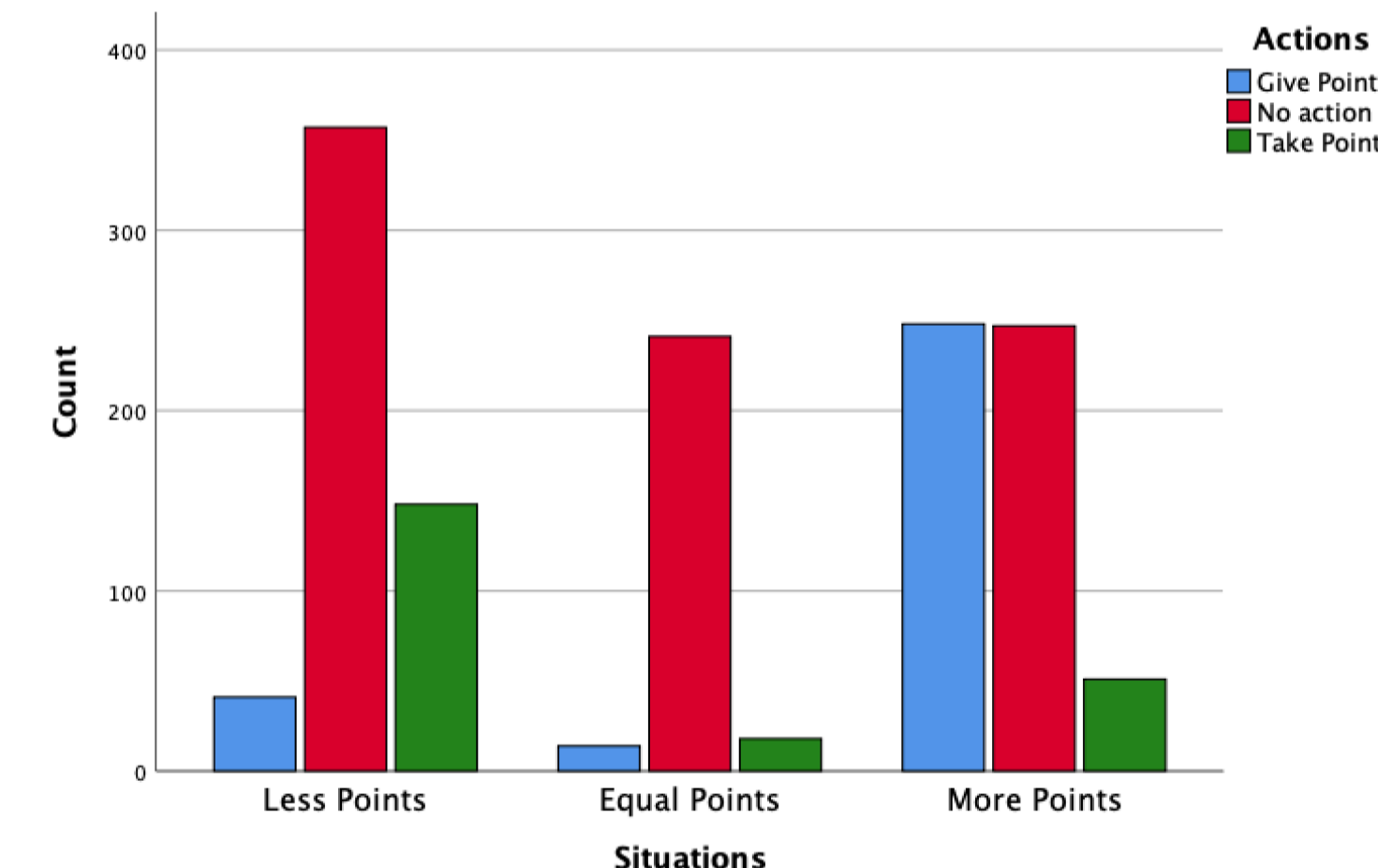
Self-Introduction. A pilot test of the self-introduction of confederates were generated ($N = 20$). The result has shown that people perceived Person A as being more positive ($M_{positive} = 24.75$, $M_{negative} = 11.05$, $p = .000$), Person B as being more negative ($M_{positive} = 17.75$, $M_{negative} = 22.35$, $p = .000$) but Person C as having indifferent perceived personality ($M_{positive} = 21.20$, $M_{negative} = 19.65$, $p = .063$).

RESULTS & DISCUSSION

Condition. A chi-square test of independence showed that there was a significant association between the actions and the way of giving self-introduction, $X^2(2, N = 1365) = 12.88$, $p = .002$.

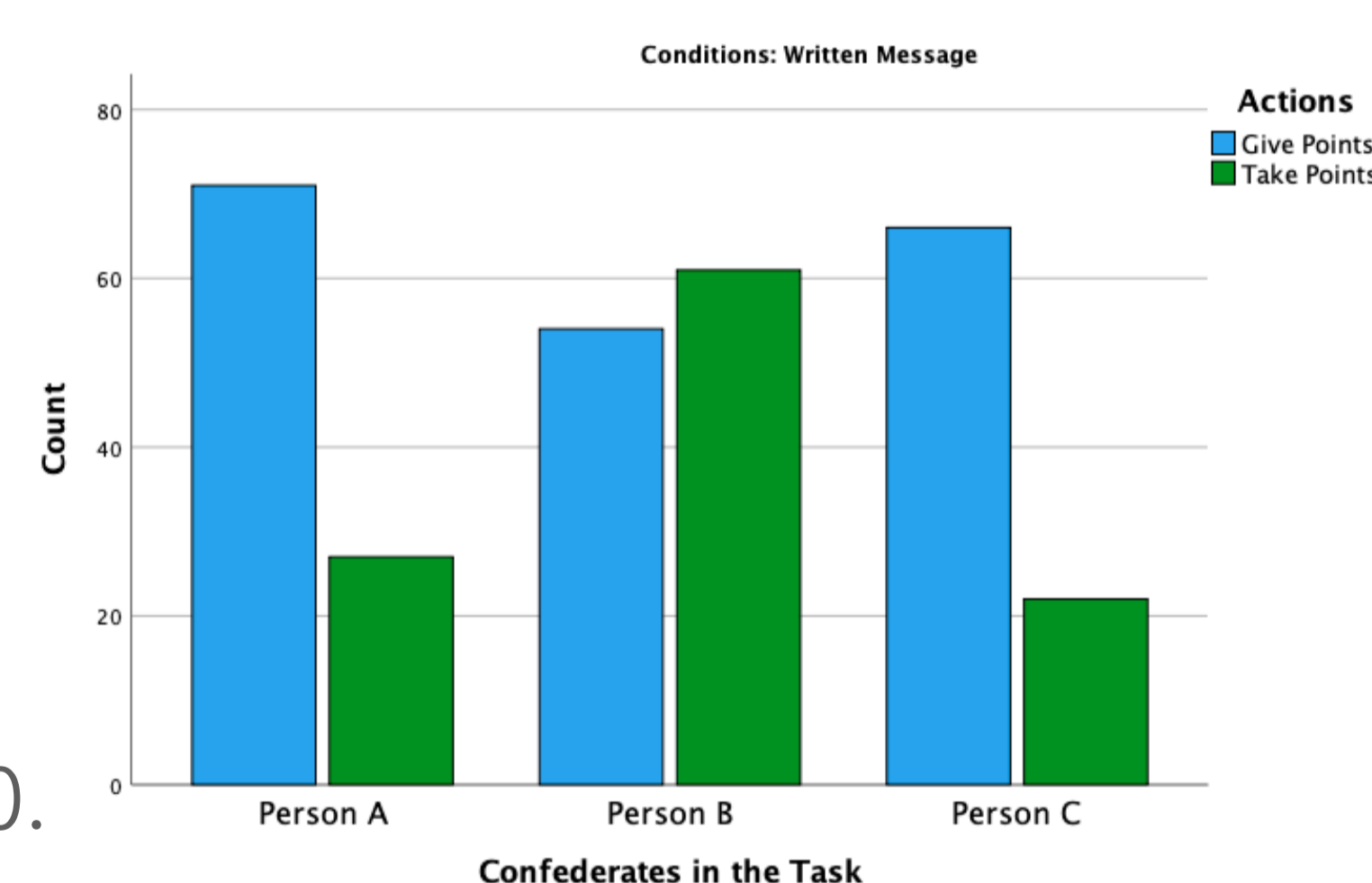


Situation. A chi-square test of independence showed that there was a significant association between the actions and the score differences of the game result, $X^2(2, N = 1365) = 350.59$, $p = .000$.

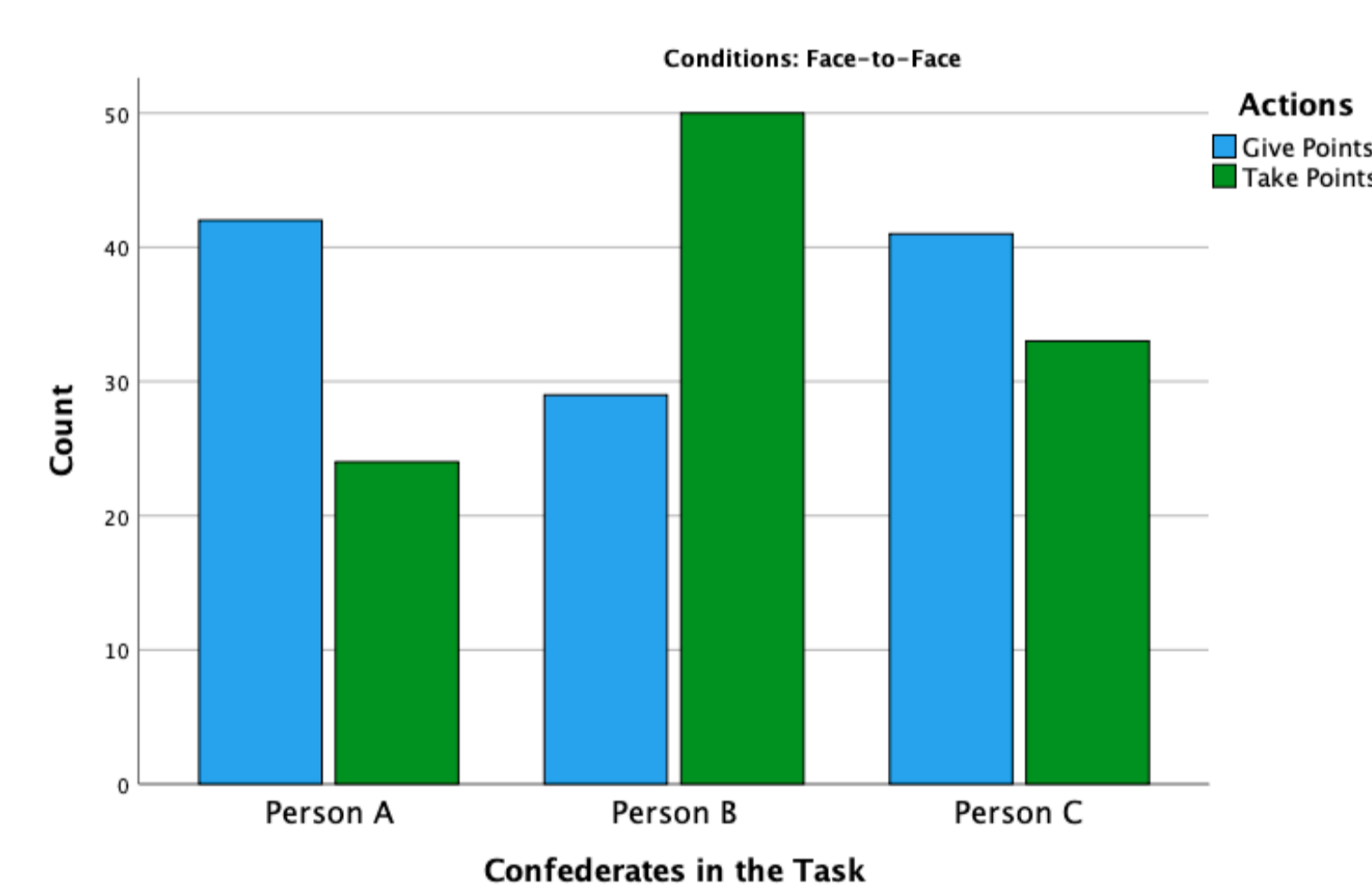


Persons. The results from comparison between Person A's positive traits ($M=26.57$, $SD=3.43$) and negative traits ($M=13.14$, $SD=4.95$) indicate that participants perceived person A with more positive traits, $t(91) = 17.27$, $p=.00$. Person B was perceived with more negative traits ($M=21.40$, $SD=5.53$) compared to positive traits ($M=19.42$, $SD=3.94$), $t(91)=-2.24$, $p=.028$.

Persons x Actions in Written Condition. A chi-square test of independence showed that there was a significant association between the confederates and actions, $X^2(2, N = 301) = 21.98$, $p = .000$.



Persons x Actions in Face-to-Face Condition. A chi-square test of independence showed that there was a significant association between the confederates and actions, $X^2(2, N = 219) = 11.25$, $p = .004$.

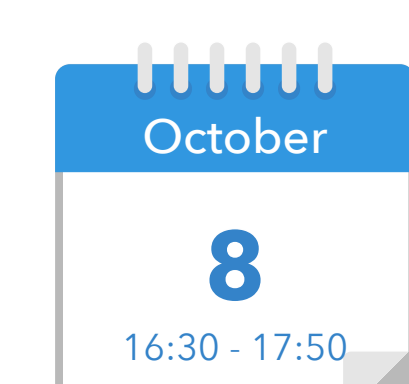


The present study used a collaborative task to measure the effects of social information on participants' decision making. The result has shown that participants were less likely to take actions to confederates when they had face-to-face contact. But participants were more likely to give points in face-to-face condition compared to the written condition. Moreover, the score difference also influenced participants' decisions. They tended to take points when they have less points, take no action when they have equal points and very likely to give points when they have more points. Likewise, the analyses have demonstrated that participants have perceived the three confederates, Person A, Person B and Person C differently in terms of their positive and negative personality traits. Most importantly, participants also tend to make different decision towards the three confederates. In both conditions, participants were more generous to give points to Person A and Person C but to take points from Person B. In the written condition, participants gave more points to Person A and Person C rather than take points. They also have similar chance of giving points and taking points from Person B. But participants had higher possibilities to take points from Person B compared to give points when they have face-to-face contact with the Person B. These results have indicated that participants have employed social information to their social decision-making process. Having face-to-face contact would intensify the social decisions. It implied the implication of inferring other's mental states when doing social decision-makings.

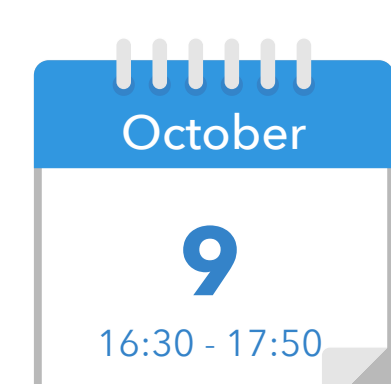
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