

Examination of the effect of label stimulus used for self-IRAP in Japanese and Chinese

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BACK GROUND & RESEARCH PURPOSES

- The “verbal self” is an important topic for clinical and basic research of a CBS (Contextual Behavioral Science) /RFT (Relational Frame Theory) approach. A measurement method called IRAP (Implicit Relational Assessment Procedure) has been used previously in research conducted on the verbal self. IRAP measures the relational responses between label and target stimuli. Thus, different studies could be conducted by selecting different stimuli.
- In previous studies regarding the verbal self that used IRAP (Self-IRAP), the words “I,” “me,” or a participant’s name have been used as label stimuli (Jonathan, Jan De, Dermot Barnes, Marie-Anne, & Rudi De, 2012; Daiki & Koji, 2019).
- However, to date, no research has been conducted to examine how these different words could influence IRAP effects. It will be supposed that when using different labels with the meaning in IRAP may lead to different results, especially in trial types. Additionally, this study will compare two countries with different cultures and languages—China and Japan—to verify whether this effect is due to cultural or linguistic differences.

→ Therefore, the current study verifies how the two different labels having same meaning will affect the results of IRAP, and also compares the IRAP effects in a Japanese participant to Chinese.

METHODS

Location&Time frame: Ritsumeikan University, January 1,2020~Continuing

Participants : There were five Japanese and three Chinese participants. Of the Japanese participants, two passed a practice phase for the IRAPs, while three failed. Of the Chinese participants, two of passed the IRAPs, while one failed. All Chinese participants could speak, read, and write Japanese fluently. Participant age ranged from 20~30.

Apparatus:

Two kinds of IRAP settings,Name-IRAP and I-IRAP were used (Table 1.)

Questionnaires:

AAQ-II (Acceptance and Action Questionnaire-II Japanese version, (Shima, Yanagihara, Kawai & Kumano, 2013)

Self-esteem of Japanese version (Sakurai, 2010).

Procedure: Each participant was required to first complete the AAQ-II and the self-esteem questionnaire, and then complete the two different IRAPs.

RESULTS

The DIRAP score of Japan

Results for Japanese Participant 3: For I-IRAP, Trial Types 3 (Others-Positive) and 4 (Others-Negative), this participant showed a significant bias. For Name-IRAP, Trial type 1 (I-Positive), this participant showed a significant bias.

Results for Japanese Participant 4: For I-IRAP, Trial Types 3 and 5 (total DIRAP score), this participant showed a significant bias. For Name-IRAP, Trial Type 1 (I-Positive), this participant showed a significant bias.

The DIRAP score of China

Results for Chinese Participant 1: For I-IRAP, Trial Type 3, this participant showed a significant bias. For Name-IRAP, Trial type 2, (I-Negative), this participant showed a significant bias.

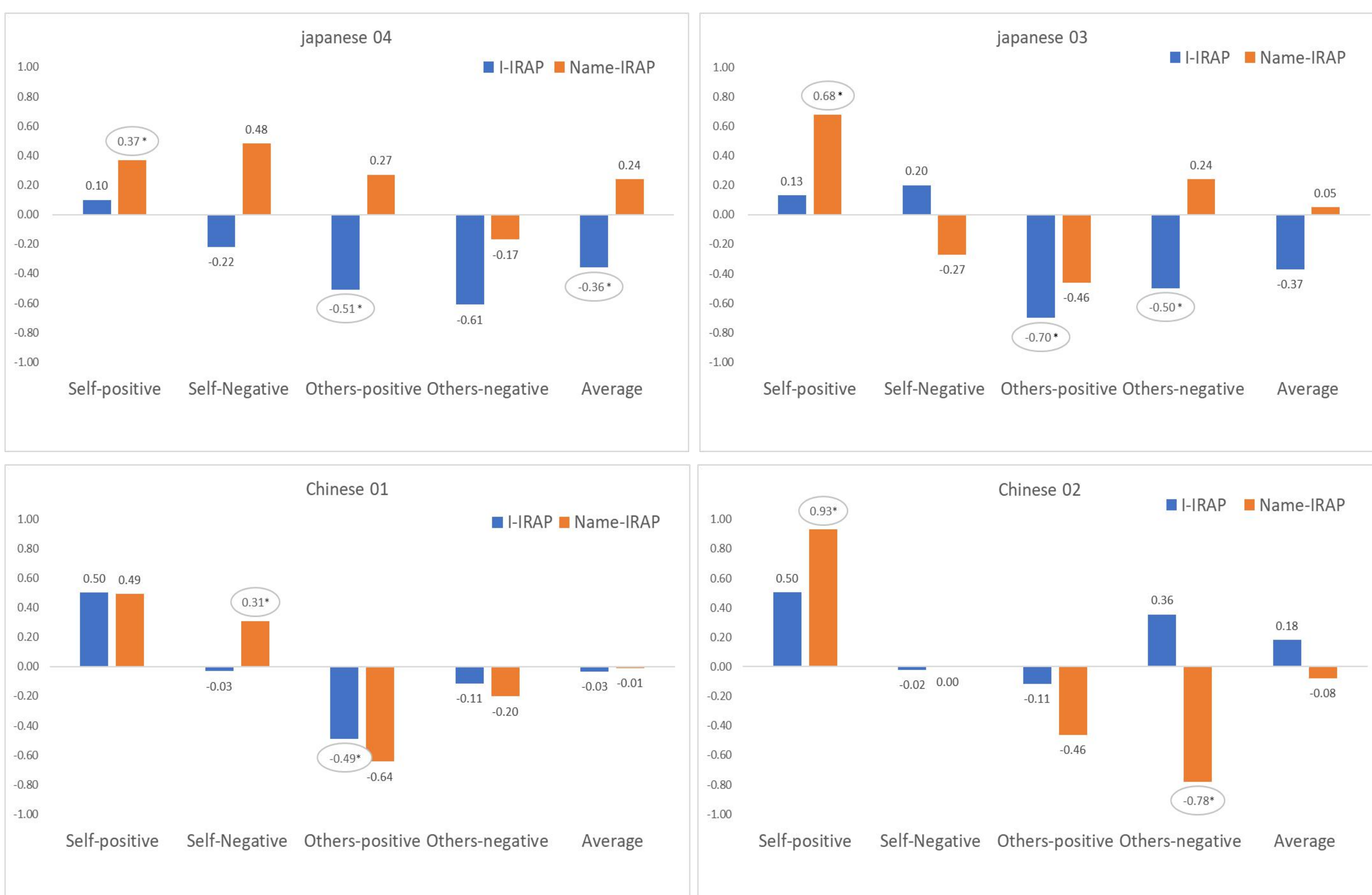
Results for Chinese Participant 2: For I-IRAP, this participant showed no significant bias for all trial types. For Name-IRAP, Trial Types 1 and 4, this participant showed a significant bias.

Response latencies

Table 2 indicates the results of response latencies in consistent and inconsistent IRAP blocks. Previous studies have suggested that response latencies may be used as indicators of psychological flexibility (Kishita, Oghtsuki, Sakai, & Muto, 2012). The results showed that when using two different IRAPs, mean response latencies changed, especially in the inconsistent block. This change was larger than in the consistent block for Japanese and Chinese participants.

AAQ-II and self-esteem Questionnaire

Table 3 shows scores for the AAQ-II and self-esteem questionnaire. The standard data for the self-esteem, the average is 27.93, the SD is 5.51, and the average of AAQ-II Japanese version is 24.90, the SD is 8.10.



*p < .05

Fig. 1 The D_{IRAP} of Japanese and Chinese participants

Label 1: I (I-IRAP)		Label 2: others	
Japanese	私 (I)	他者 (Others)	别人 (Others)
Chinese	我 (I)	他者 (Others)	别人 (Others)
Label 1: name (Name-IRAP)		Label 2: others	
Same			
Target 1*Positive Words*		Target 2*Negative Words*	
Japanese	好的 (Good)	坏的 (Bad)	
Chinese	成功 (Success)	失败 (Failure)	
正直 (Upright)	不正 (Fraud)	错误 (Error)	
利益 (Profit)	无益 (Futile)	没优点 (Futile)	
快活 (Cheerful)	不快 (Discomfort)	不快乐 (Discomfort)	
自信 (Confidence)	耻ずかしい (Embarrassed)	羞耻 (Embarrassed)	
Response Option 1		Response Option 2	
はい Yes (Yes)		いええ No (No)	

	J3	J4	C1	C2
AAQ-II	24	25	12	17
Self-esteem	29	19	31	40

Note: The lower the AAQ-II score, the higher the psychological flexibility. The higher the self-esteem score, the higher the self-esteem.

	IRAP-name			IRAP-I		
	Consistent block	Inconsistent block	Difference(Consistent-Inconsistent)	Consistent block	Inconsistent block	Difference(Consistent-Inconsistent)
japan	1240	1203	96	1189	1062	128
n=2	SD=170	SD=69	SD=93	SD=192	SD=119	SD=73
china	1325	1194	165	1395	1393	105
n=2	SD=224	SD=105	SD=128	SD=400	SD=395	SD=92

DISCUSSION

According to the results of the DIRAP and response latencies, when different words (“me” or the participant’s name) are used as label stimuli, the IRAP effect will be different in Japanese and Chinese samples. The current study found that the results showing the word “I” and the participant’s name may have different functions, and may also change the function of “Label 2: others.”

Limitation: In this study, we also investigated psychological flexibility and self-esteem. However, due to the limitation of the lack of the data samples, statistical analysis is currently not possible. Therefore, it is difficult to provide an explanation for our findings. Thus, more data should be collected in subsequent research.

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