#2-56 Investigation of validity on the Kanji Maze Task as a defusion measure from verbal relation and relational responding

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Introduction

◆Characteristic thoughts on depression and ACT use for depression

Several language processes such as thought suppression, rumination, and reason-giving have been implicated in escalating dysphoria into clinical depression (Zettle & Hayes, 2002). These days, Acceptance and Commitment Therapy (ACT) is used to decrease these language processes. Defusion, especially, one of the 6 core processes, functions to decrease the influence of language processes in humans.

◆Assessment of Defusion

Two major assessment tools were used to assess defusion. One was the Cognitive Fusion Questionnaire (CFQ) and the other was the Implicit Relational Assessment Procedure (IRAP). While both assessment tools are very useful, every assessment tool has some limitations.

1. The CFQ is a self-reported measure. Self-reported measures are limited in that individuals do not have complete introspective access to the causal processes that drive behavior (Nisbett & Wilson, 1977).
2. The IRAP is a difficult assessment tool, and some individuals cannot pass the practice phase, because responses require complex thinking by the individual. Dysphoric or depressed individuals have decreased cognitive activity. Therefore, it is hard for these individuals to respond to the IRAP.

◆Purpose of the study

The purpose of this study is to develop a new behavioral task, the Kanji Maze Task, to measure defusion and investigate its validity. In this study, validity is investigated through two viewpoints.

1. Does this task measure relational flexibility?
2. Does this task measure verbal relation?

Method

◆ Participants

A total of 60 individuals participated (39 women and 21 men; mean age = 19.48 [*SD* = 1.32]).

◆Measures

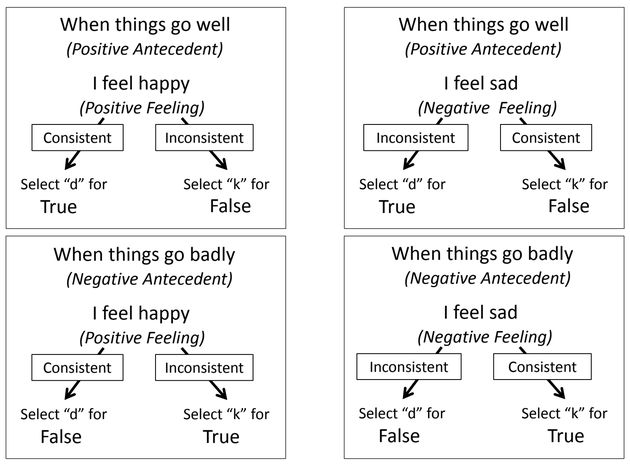
Questionnaires

1. Beck Depression Inventory – II (BDI)
2. Ruminative Responses Scale (RRS)
3. Cognitive Fusion Questionnaire (CFQ)
4. Acceptance and Action Questionnaire (AAQ)

Behavioral assessment tools measuring defusion

1. *Implicit Relational Assessment Procedure*

The IRAP for depression, developed by Hussey and Barns-Holmes (2012), was used. Figure 1 provides examples and scoring instructions.



Score of IRAP
- Relational flexibility
  1. Label Dscore is calculated every label type (Positive label/ Negative label).
  2. Overall Dscore is calculated by averaging four trial-type Dscore.
- Verbal relation
  1. Trial-type D_{score} is calculated every trial type.

Figure1. Examples of four IRAP trial types.

2. *Kanji Maze Task (KM)*

The purpose of this task is to move from start to goal, spelling out Japanese words on the way. Participants were asked to reach the end via the shortest solution. Figure 2 presents an example.

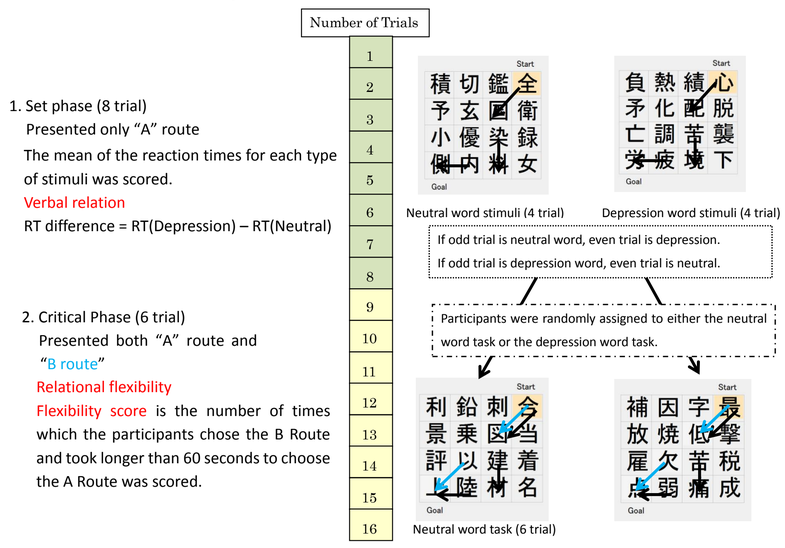


Figure2. An example of the Kanji-maze task.

◆Procedure

Participants answered all questionnaires. Half completed the IRAP before the KM. The other half completed the KM first.

Results & Discussion

◆Relational flexibility

Correlations among Overall D_{score}, label D_{score} and KM flexibility score

Significant negative correlation was displayed between KM flexibility score (Neutral) and positive label D_{score} (Figure 3).

Significant negative correlation was displayed between KM flexibility score (Neutral) and overall D_{score} (Figure 4).

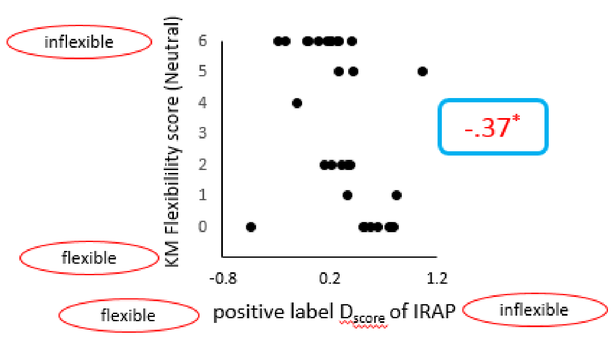


Figure3 Scatter plot between KM flexibility score and positive label D_{score} of IRAP

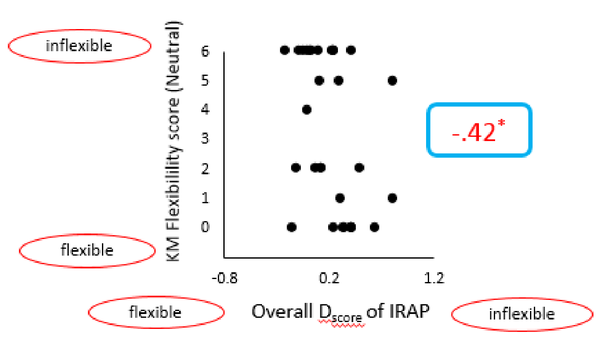


Figure4 Scatter plot between KM flexibility score and overall D_{score} of IRAP

These results showed that flexibility as measured by the KM was different from flexibility as measured by the IRAP.

◆Verbal relation

Correlation between RT difference of the KM and trial type D_{score} of IRAP

No significant correlations were found between the RT difference of the KM and D_{score} of all trial type.

Correlation among RT difference of the KM, trial type D_{score} of IRAP and the questionnaires

Significant positive correlation was displayed between BDI-II and positive/positive trial type D_{score} (Figure 5).

Significant negative correlation was displayed between BDI-II and RT c

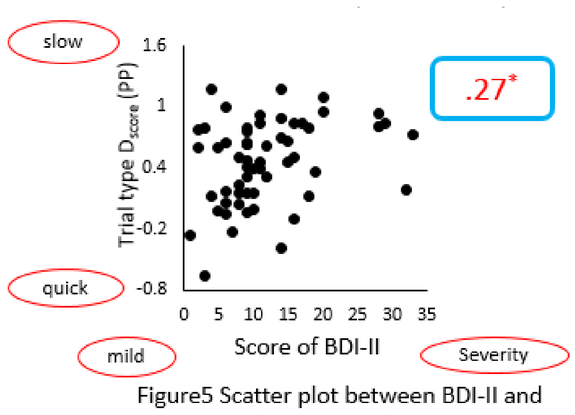


Figure5 Scatter plot between BDI-II and positive/positive trial type D_{score}.

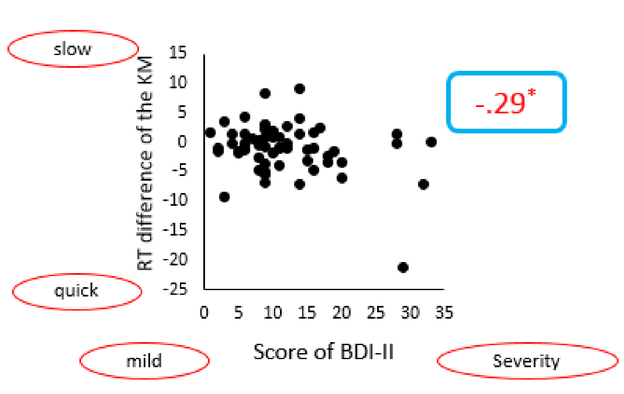


Figure6 Scatter plot between BDI-II and RT different of KM.

Figure 5 shows that depressed individuals tend to confirm positive emotion. On the other hand, Figure 6 shows that depressed individuals tend to respond to depressed words more quickly than those with mild depression. These results indicate that the KM is more useful for measuring severity of depression than the IRAP.

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