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# The Equivalence of the Tasks for Reading of Facial Expressions

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## Introduction

We have developed several tasks for studying developmental change of face reading ability. These tasks are different from classical tasks for studying about facial expressions and emotions because our tasks have developed for the people with the wide range of the ages, including autistic patients. The children sometimes can't understand several words which the adults are used to express others' facial states or their own emotional states, so it may not be appropriate to present items or questions which consist of only individual adjectives to them. At first, we had started with the task of Barron-Cohen, Wheelwright, Hill, Raste, and Plumb (2001). The items of their task considered only one-dimensional values of the emotion, but we selected items considering two dimensional values of emotion: pleasure-displeasure and arousal-relax. And then we converted question forms of Barron et. al. to answer forms, and answer forms to question forms. We could get similar results from both tasks (Park, Cho, Chung, & Ghim, 2006). In this study, we changed presentation forms of questions which were used for studying face reading.

## Methods

### Participants

The participants are Korean undergraduate students. The 58 students participated in old task experiment similar to Park et. al., and the 73 students participated in new task experiment.

### Procedures

The questions of old task were adjectives, but the new task consisted of the questions with 2-cut images and story telling which describe special situations to induce some emotional states. The participants should choose one

corresponding expression among four facial expressions in both tasks. The 32 emotional states and facial expressions were used. These were different from Park et. al.'s except several basic emotions.

## Results

The correct response ratios were compared. The difference between old task and new task are statistically non-significant ( $F(1, 124) = .067, MSE = .070, n.s.$ ). The effect differences of actor's or actress's gender are statistically non-significant, either ( $F(1, 124) = 3.783, MSE = .070, n.s.$ ). We concluded that the various types of tasks for studying facial expressions are equivalent in the cases of 4-alternatives force choices – not related with answer types or question types. It means we can study reading ability of facial expressions with the easier tasks in the cases of children or patients.

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