

**Validation of scoring
procedure for the Display
Rule Assessment
Inventory**

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Outline

✦ Display Rules

- ◆ Ekman and Friesen's theory on display rules
- ◆ Measures of Display Rules-DRAI

✦ First empirical support for Ekman and Friesen's theory

✦ Present Study

✦ Factor structure and scoring for DRAI

✦ Conclusion

Modification of Expressions by Display Rules

- ✦ Ekman and Friesen (1969) proposed expressions can be modified via display rules-**expression, deamplification, amplification, qualification, masking, neutralization, simulation**
- ✦ However, there has been no empirical evidence to support the existence of these expressive modes.

Measures of Display Rules

- ✦ Previous measures on expressivity only examined it along a single dimension of expression-suppression.
- ✦ The Display Rules Assessment Inventory (DRAI) was the first measure to assess other different ways in which expression can be modified.

Research Question

✦ Are the responses on the DRAI...

◆ Single latent construct of suppression-expression

OR

◆ Independent of each other?


Answer (Matsumoto, Yoo, Hirayama, Petrova, 2005)

✦ Examined the latent structure by using factor analysis

- ◆ Converted nominal answers to counts for each expressive modes across all ratings
- ◆ Standardized within each participant, then within each country

✦ Results showed 5 factor structure

- ◆ Express, Deamplify, Amplify, Mask, Qualify

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- ✦ Based on these results, created a new cross-culturally valid method of scoring the DRAI and computed scores for express, deamplify, amplify, mask, and qualify
 - ✦ First empirical evidence for Ekman and Friesen
 - ✦ Limitation-only tested on 3 countries

Present Study

✦ Purpose

- ✦ Replicate and extend validation of factor structure on a larger dataset (30 countries, $N = 4739$) using the revised DRAI
- ✦ To test whether scoring procedure is cross-culturally valid for all countries in study.

✦ Method

- ✦ Factor Analysis of double standardized data

Present Study

✦ Results

- ✦ Factor Analyses resulted in 5 orthogonal factors.
- ✦ 5 factors accounted for 89.59% of variance

Present Study-Results Cont'd

✦ Factor Loadings and Factor interpretation

Factor 1	Express it as you feel it	.884	Express
	Show Nothing	-.854	
Factor 2	Hide your feelings by smiling	-.927	Mask
Factor 3	Show less than you feel it	-.982	Deamplify
Factor 4	Show more than you feel it	.917	Amplify
Factor 5	Show the emotion while smiling at the same time	.982	Qualify

Present Study-Results Cont'd

- ✦ Found same factor structures as Matsumoto et al. (2005)
- ✦ Replicated and extended previous findings on the reliable factor structure of DRAI on a much larger sample

Scoring Procedure of DRAI

- ✦ Express scores computed by recoding selection of 'Express' as 1 and 'Show nothing' selections as -1;
- ✦ Deamplify, Amplify, Mask and Qualify scores computed by recoding selection of responses corresponding to each score as 1.
- ✦ Each person receives a score for express, deamplify, amplify, mask and qualify for each item. i.e. Express score for Mother (target), private (context), anger (emotion)
- ✦ Internal reliability high for each scores ($\alpha = 0.98, 0.97, 0.97, 0.96, \text{ and } 0.97$)

Is this factor structure applicable to all countries?

✦ YES, because...

- 1) Used double standardized items for Factor Analysis
- 2) Factor structure same for each country separately
- 3) Same factor structure on raw items
- 4) Alphas computed for each score separately for each country are very high.
 - Express: .958 - .988
 - Deamplify: .941-.979
 - Amplify: .942-.978
 - Mask: .944-.989
 - Qualify: .887-.973

Conclusion

- ✦ Further cross-cultural validation of expressive modes proposed by Ekman and Friesen
- ✦ Additional evidence for factor structure and validity of scoring method of DRAI
- ✦ This study is significant because it extends the previous validation of the existence of the five expressive modes beyond the 3 countries to 30 countries.

Thank you.

