Validation of scoring procedure for the Display Rule Assessment Inventory

Seung Hee Yoo

Yale University

David Matsumoto

San Francisco State University

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.

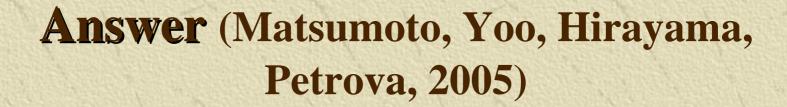
Research Question

* Are the responses on the DRAI...

 Single latent construct of suppressionexpression

OR

• Independent of each other?



- * 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

- ** Based on these results, created a new crossculturally 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 crossculturally valid for all countries in study.

*** Method**

Factor Analysis of double standardized data



*** 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.

