



Psychometric Properties of an Acculturation Scale:

Exploring Dimensions of Marginality of a Diverse Latino Population

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Overview of Presentation

- Background of Acculturation
- Acculturation Rating Scale for Mexican Americans -II
- Aim of the study
- Methods
- Results
- Discussion
- Directions for future research

[What is Acculturation?]

- Acculturation involves the changes that result when two distinctly different cultures come into first hand contact with each other and involves the social, attitudinal, and psychological changes that transpire (Berry, Trimble, & Olmedo 1986; Redfield et al., 1936)
 - Focuses on how minority cultures are affected by dominant cultures
- Although it is widely accepted that acculturation is an important part of cross-cultural interactions and research, there is disagreement about how to conceptualize and measure it (Berry, 2003).

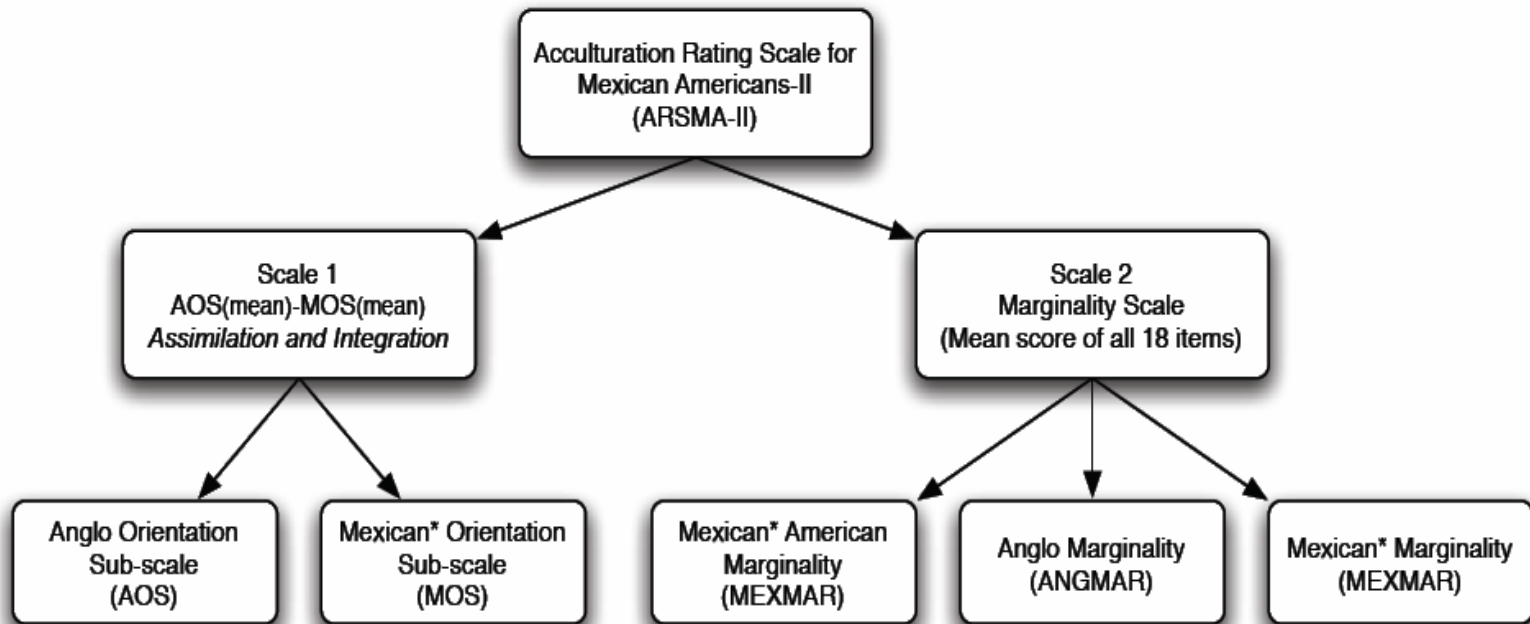
Acculturation Measures

- Proxy Variables
 - Language Use, Generation Status, Nativity, or a some combination
- Acculturation Scales
 - A tool used to measure a theory of acculturation
 - Numerous, varying in length, context, and theory used
 - May be invalidated (in differing contexts)
- If the theory of acculturation and its effects are of importance, the need for a valid and reliable measure to accurately capture acculturation is vital to research

[ARSMA-II]

- The ARSMA-II, developed by Cuellar et al. (1995), utilizes Redfield et al's (1936) definition and measures four modes of acculturation:
 - 1) Assimilation
 - 2) Integration
 - 3) Separation
 - 4) Marginalization

ARSMA-II



* Although the original study of the ARSMA-II used a Mexican population, this study changed the term MEXican to depict the respondents own ethnic identity (e.g. Puerto Rican, Venezuelan, etc.).

[The Marginality Scale]

- Scale 1 was validated in the original study among Mexican / Mexican Americans
- Scale 2, the Marginality Scale, lacks validation
- Validating the Marginality Scale is a vital next step to further understanding the concept of marginality, its relationship to acculturation

[Aim of Study]

- To analyze the underlying structure of the Marginality Scale of the ARSMA-II
- To examine the relationship between the underlying structure of the measure and a set of theoretically relevant variables

[Methods: Sample]

- Participants were part of a larger community needs assessment study conducted in a large Northeast U.S. city
- This study used only participants who identified themselves as Hispanic (n=193)
- Using standard telephone interviewing techniques, participants were interviewed either in English or Spanish depending on their preference

Sample Characteristics

- Female = 58%
- Age
 - 18-34 = 50%
 - 35-44 = 20%
 - > 45 = 30%
- Income
 - < \$19,999 = 24%
 - \$20,000-\$39,999 = 33%
 - > \$40,000 = 22%
 - Did not know = 21%
- Education Level
 - < high school education = 28%
 - High school education = 33%
 - > High School education = 39%
- Generation Status
 - 1st generation = 63%
 - 2nd generation = 31%
 - 3rd generation = 3%
 - 4th generation = 0.5%
 - 5th generation = 3%
- Language Use
 - 59% Spanish
 - 41% English

Methods: Measures

- *Acculturation*: The Acculturation Rating Scale of Mexican Americans –II (ARSMA-II) was used in the analyses
 - Scale 1 = 30 items that pertain to language factors, ethnic identity factors, and ethnic interaction factors
 - Scale 2 = 18 items that pertain to acceptance of beliefs, attitudes, and ideas of both cultures
 - All questions are measured on a 5-point Likert scale: 1 (not at all) to 5 (extremely often or almost always)

- *Demographics*: age, income, education, and generational status

[Methods: Analysis]

- Four analyses were conducted for this study
 - 1). Confirmatory Factor Analysis (CFA)
 - 2). Exploratory Factor Analysis (EFA),
 - 3). Multivariate Analysis of Variance (MANOVA), and
 - 4). Bivariate Correlation

[Analysis: CFA]

- Two CFAs were performed using the maximum likelihood estimation procedures of AMOS 4.01 (Arbuckle & Wothke, 1999)
- Two models were tested:
 - Model 1, the one-factor Marginalization Scale
 - Model 2, the three-factor Marginalization Scale, including the three sub-scales, ANGMAR, MEXMAR, and MAMARG (Cuellar et al., 1995)

Results: CFA Model Fit Statistics

Models	One-factor Marginality Scale	Three-factor Marginality Scale
Measures of Fit		
Discrepancy χ^2	960.747	558.439
df	135	132
p-value	.000	.000
Discrepancy /df	7.117	4.231
GFI	.602	.752
AGFI	.495	.678
TLI	.710	.847
CFI	.744	.868
RMSEA	.178	.130
BIC	1150.204	763.684

[Results: EFA]

- Failing to confirm the hypothesized structure of the Marginality Scale of the ARMSA-II
- An EFA was conducted in search of a reasonable multifactor solution

[EFA]

- The resulting two-factor solution, the Adapted Marginality Scale (AMS) consists of two sub-scales
 - Dominant Culture Marginality (DCM)
 - The DCM scale (coefficient alpha = .96) consisted of five items addressing participant difficulty with accepting certain attitudes, beliefs, and action performed by Anglos
 - Native Culture Marginality (NCM)
 - The NCM scale (coefficient alpha = .90) consisted of twelve items addressing attitudes, beliefs, and behaviors performed by both participants' native culture as well as Latino-American culture

Items and Factors of the Grouped Marginality Scale

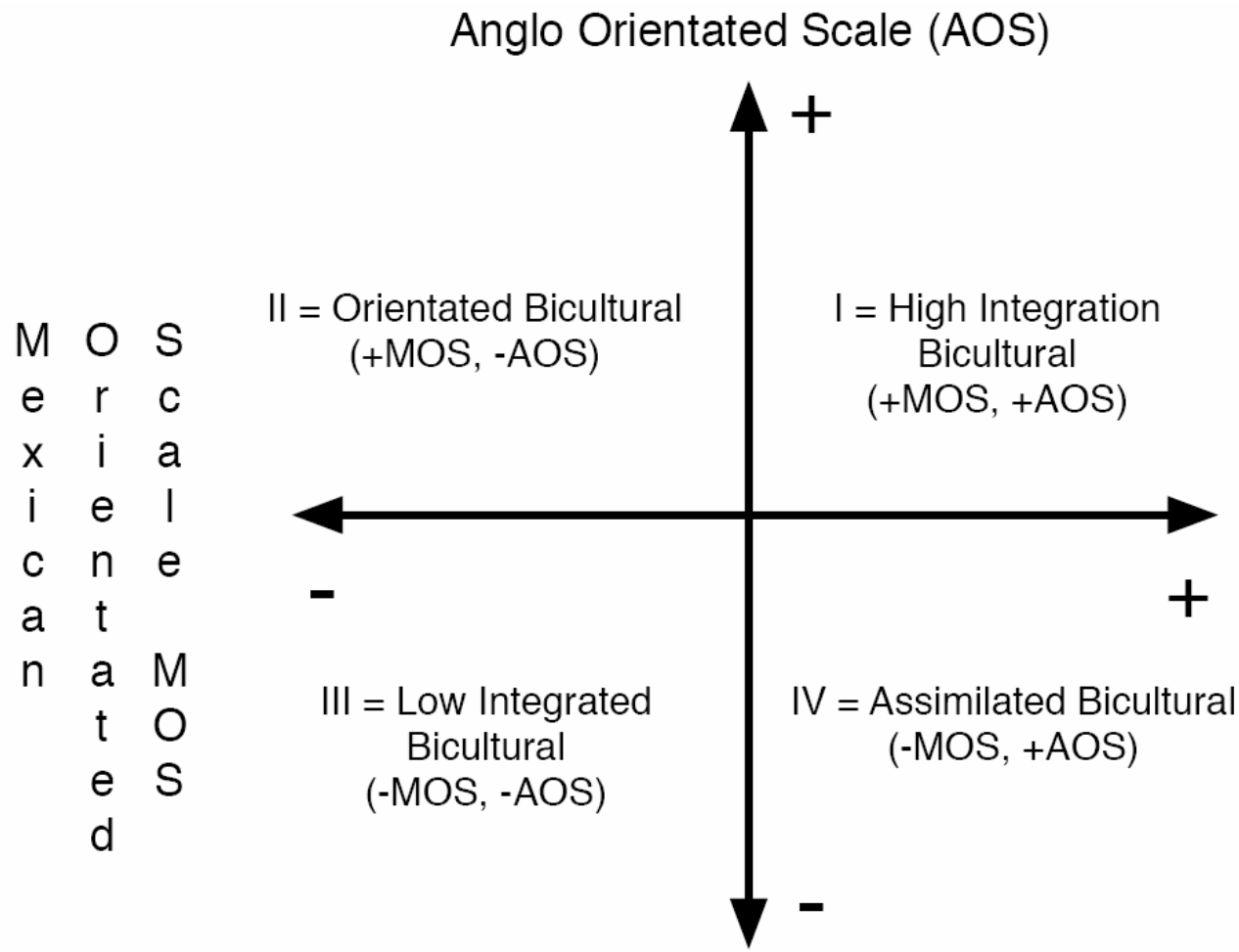
Item	Native Culture Marginality (NCM)	Dominant Culture Marginality (DCM)
“I have difficulty accepting some ideas held by Anglos.”	.006	.807
“I have difficulty accepting certain attitudes held by Anglos.”	-.057	.862
“I have difficulty accepting some behaviors exhibited by Anglos.”	.018	.852
“I have difficulty accepting some values held by some Anglos.”	.181	.775
“I have difficulty accepting certain practices and customs commonly found in some Anglos.”	.129	.732

Item	Native Culture Marginality (NCM)	Dominant Culture Marginality (DCM)
“I have difficulty accepting ideas held by some (Latino ethnicity).”	.788	.042
“I have difficulty accepting certain attitudes held by (Latino ethnicity).”	.772	.071
“I have difficulty accepting some behaviors exhibited by (Latino ethnicity).”	.761	.079
“I have difficulty accepting some values held by some by (Latino ethnicity).”	.859	.031
“I have difficulty accepting certain practices and customs commonly found in some (Latino ethnicity).”	.829	.011
“I have, or think I would have, difficulty accepting (Latino ethnicity) as close personal friends.”	.883	-.208
“I have difficulty accepting ideas held by some (Latino ethnicity) - Americans.”	.826	.067
“I have difficulty accepting certain attitudes held by (Latino ethnicity) - Americans.”	.848	.051
“I have difficulty accepting certain some behaviors exhibited by (Latino ethnicity) – Americans.”	.735	.193
“I have difficulty accepting some values held by some by (Latino ethnicity) - Americans.”	.794	.153
“I have difficulty accepting certain practices and customs commonly found in some (Latino ethnicity)- Americans.”	.780	.103
“I have, or think I would have, difficulty accepting (Latino ethnicity) - Americans as close personal friends.”	.873	-.179

[Analyses: MANOVA]

- Further examination of these constructs a one-way Multivariate Analysis of Variance (MANOVA) was performed to determine if individuals with varying modes of acculturation differed on their level of marginalization

Cuellar, Arnold, & Maldonado (1995) Categories of Acculturation



Analyses: Bivariate Correlations

- Finally, bivariate correlations were used to test the relationship between the marginality sub-scales and other relevant variables (e.g. generation status, age, income, and education)

Native Culture & Dominant Culture Marginality Bivariate Correlations

Variables	Alpha Coefficients	Age	Generation Status	Income	Education	AMS	NCM	DCM
Age		-						
Generation Status		-.193**	-					
Income		-.143	.168*	-				
Education		-.087	.132	.335**	-			
AMS	.951	-.063	.046	.105	.137	-		
NCM	.897	-.111	-.028	.050	.103	.820**	-	
DCM	.956	-.030	.078	.117	.136	.957**	.619**	-

**p<.01
 *p<.05
 AMS=Adapted Marginality Scale
 NCM=Native Culture Marginality
 DCM=Dominant Culture Marginality

[Discussion]

- This study is the only validation study of the Marginality Scale of the ARSMA-II.
- It also is the only study to test the Marginality Scale of the ARSMA-II with a diverse Latino population.

Discussion

- The original hypothesized factor structure did not fit the data
- The EFA suggested a new factor structure
- However, these new factors were not significantly related to other components of acculturation theory and other demographic variables.

[Discussion]

- Failure of a construct to empirically manifest can be attributed to several factors:
 - The measure inadequately represents the construct's meaning
 - Items do not demonstrate relationship with one another
 - The items are not related as expected to the construct itself (Cronback & Meehl, 1995)

Discussion: 3-factor vs 2-factor

- Why the three-factor structure was not confirmed
 - Homogenous sample VS a diverse Latino population
 - Convenient sample of students VS random sample of community residents
 - Location: Texas VS New Jersey
- The results of this study suggest that the Adapted Marginality Scale (AMS) may be more applicable with diverse Latino populations. However, this cannot be confirmed

Discussion

- This study's findings are consistent with others (e.g. Del Pilar & Udasco, 2004)
- Therefore, the theory of marginality may be of questionable value as it is currently measured
 - Others question the theory of marginality in its entirety
 - This is beyond the scope of this research

Limitations

- Representativeness
 - Telephone data collection
 - Bias against those without telephones
- Generalizability
 - Psychometrics of a scale can only be confirmed for the population tested.
 - Results are only relevant to this sample

[Future Research]

- Continue to critically analyze measures (as they relate to their theory)
- Nomologic Network
- Further testing of the ARSMA-II with diverse Latino populations
- Geographies of culture and ethnic groups

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