

Emotional abilities and the development of cross-cultural competence and adjustment.

An empirical study conducted by

Patrice A. Reid, Ph.D.
Defense Language and National Security Education Office

Erin Richard, Ph.D.
Florida Institute of Technology

Background



"Because in the 21st century, military strength will be measured not only by the weapons our troops carry, but by the languages they speak and the cultures they understand."

~ President Barack Obama

"Both military and civilian personnel should have cross-cultural training to successfully work in DOD's richly diverse organization, and to better understand the global environment in which we operate."

~ Leon Panetta, Secretary of Defense



Study Objectives

- To investigate the role of understanding emotions and managing emotions in the development of cross-cultural competence.
- To examine the impact of cross-cultural competence on cross-cultural adjustment.

Cross-Cultural Competence (3C)

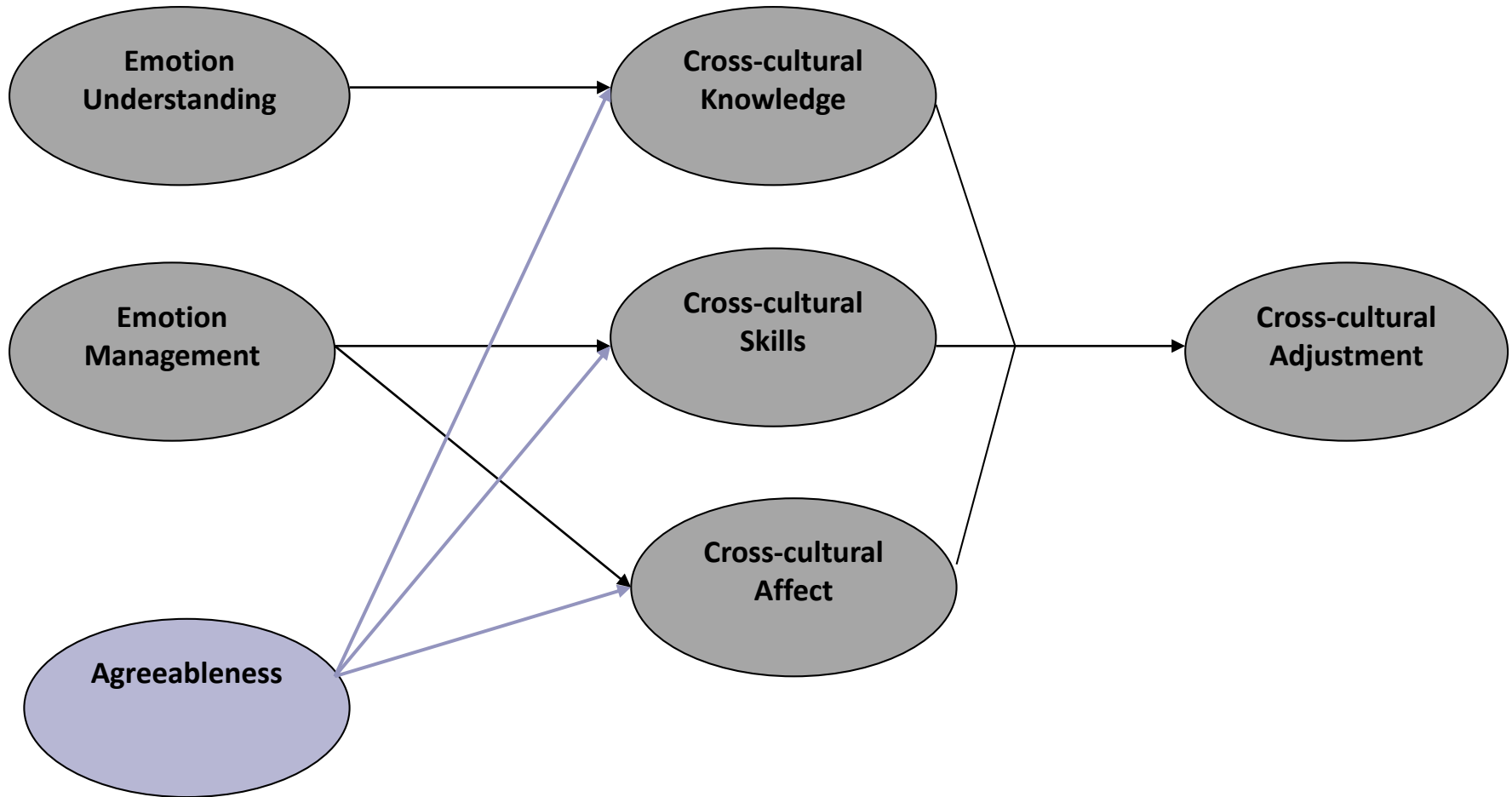
Knowledge and Cognition	Skills	Affect and Motivation
Cultural Awareness	Flexibility	Initiative
Schema	Interpersonal skills	Openness
Cognitive Complexity	Self-regulation	Empathy
		Motivation

(Source: adapted from Abbe & Hajjar, 2009; Abbe et al., 2007)

Study Variables

- Emotional abilities as predictors
 - Emotional intelligence (EI)
 - Ability model
 - Emotion understanding
 - Emotion management
- Outcomes of cross-cultural competence
 - Cross-cultural Adjustment
- Role of personality
 - Agreeableness

Proposed Model



Understanding Emotions and Cross-Cultural Knowledge and Cognition

Understanding emotions:

- Contributes to the understanding of key cultural concepts (i.e., cultural awareness).
- Helps to garner knowledge of the new social environment by using that information to develop a cross-cultural schema.
- Helps to identify and decipher emotional cues.
- H1: The ability to understand emotions will be positively related to one's cross-cultural knowledge and cognition.

Managing Emotions and Cross-Cultural Skills

Managing emotions:

- Is integral to social functioning and the development of interpersonal skills.
- Contributes to an individual's flexibility whereby the modulation of emotions target subsequent changes in thought and behavior.
- Is an important aspect of self-regulation.
- H2: The ability to manage emotions will be positively related to one's cross-cultural skills.

Managing Emotions and Cross-Cultural Affect and Motivation

Managing emotions:

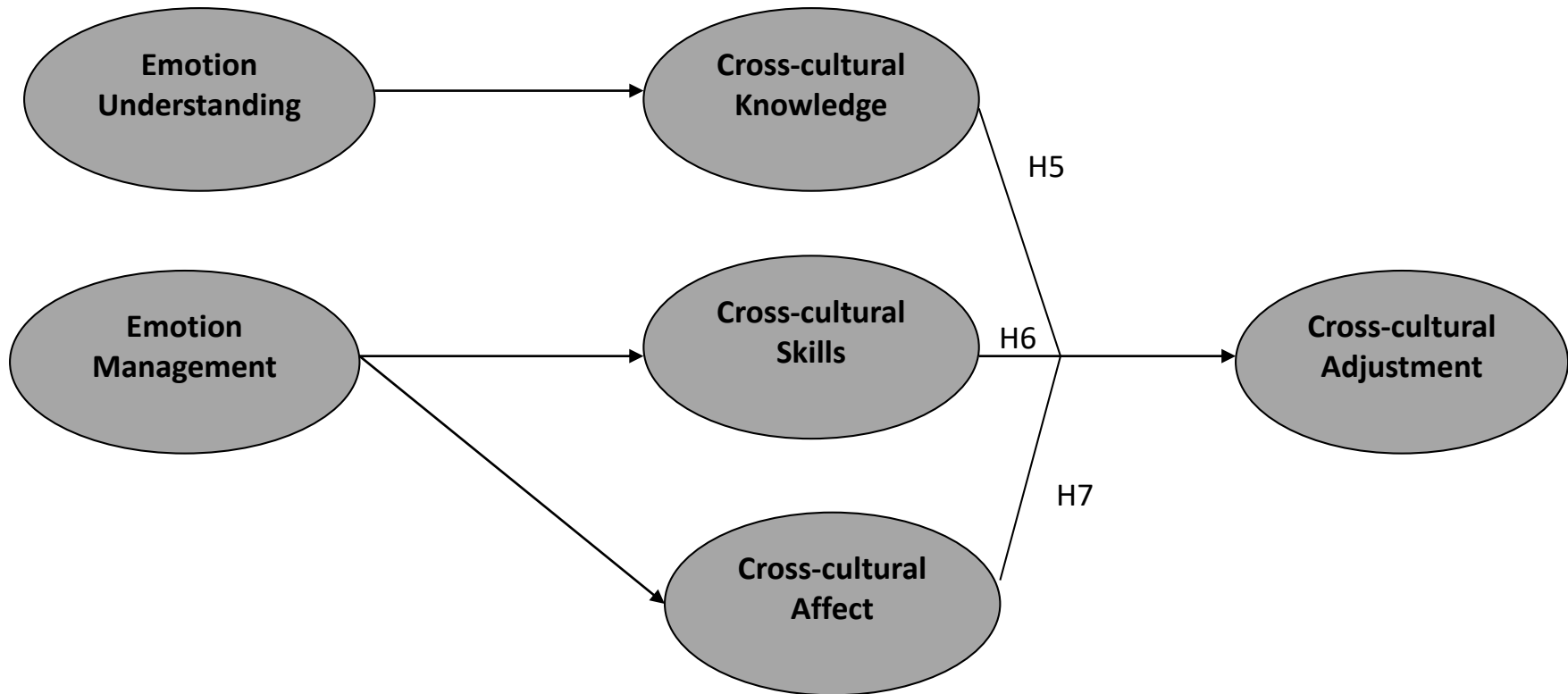
- Shows the individual's openness to learn about the new culture.
- Increases one's likelihood to initiate and engage in social interactions.
- Influences one's level of cultural empathy.
- Facilitates positive social interactions, which contribute to one's motivation to engage the culture.
- H3: The ability to manage emotions will be positively related to one's cross-cultural affect and motivation.

Cross-Cultural Competence and Cross-Cultural Adjustment

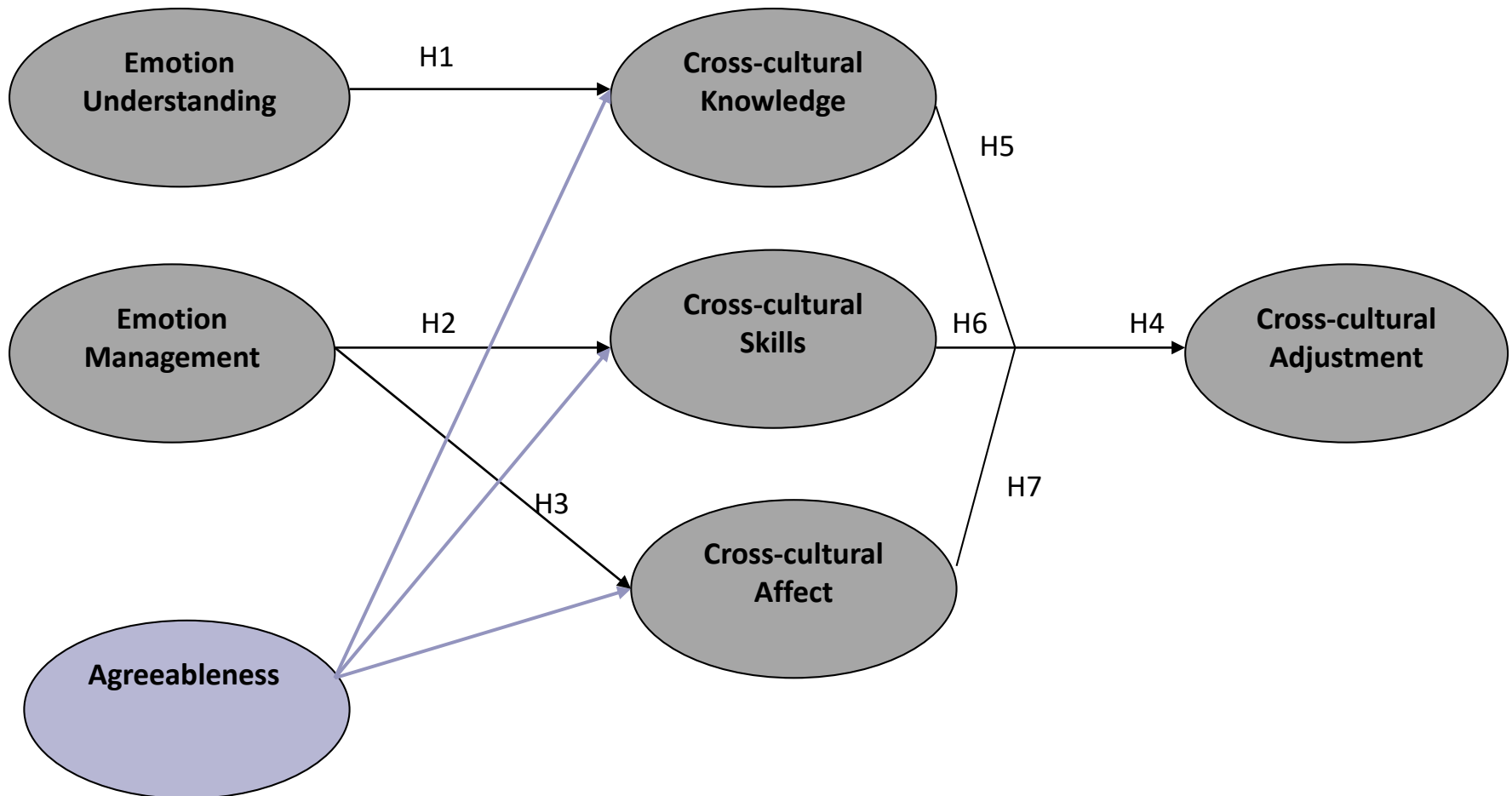
Cross-cultural competence:

- Enhances the psychological and sociocultural adjustment of individuals.
- Provides the requisite knowledge, cultural flexibility, relational and perceptual skills, extra-cultural openness, etc., that are critical to one's cross-cultural adjustment.
- H4: Cross-cultural competence, defined as (a) knowledge and cognition, (b) skills, and (c) affect and motivation will be positively related to cross-cultural adjustment.

Mediated Models



Hypothesized Model



Methodology

- Pilot Study
 - NEO-FFI
 - Agreeableness was related to the ability to manage emotions ($r = .20, p < .05$).

- Focal Study
 - Participants
 - 425 Department of Defense (DOD) military, civilian, and contract personnel
 - Data were representative of both genders and all age groups
 - Had previous or current overseas experience or deployment history; had some contact with host nationals

- Procedure
 - Online survey; addendum to the DEOCS
 - Data analyses
 - SPSS , AMOS v. 18.0 and the Sobel test for mediating effects.

Measures

Study Variable	Measure	# of Items	Scale Dimensions	Reliability (α)
Emotion Understanding	STEU (MacCann, 2006)	14	Emotions in Work Context	.69
Emotion Management	STEM (MacCann, 2006)	5	Anger; Sadness	.70
3C	Various sources	5	Knowledge & Cognition	.95
		6	Skills	.88
		8	Affect & Motivation	.91
Cross-cultural Adjustment	Black & Stephens (1989)	14	Work, Interaction & General Adjustment	.98
Personality	NEO-FFI (Costa & McCrae, 2004)	3	Agreeableness	.82

Hypothesized Measurement Model

Model	χ^2	<i>df</i>	χ^2/df	GFI	CFI	PNFI	RMSEA
Hypothesized Exogenous Measurement Model	124.47***	62	2.01	.96	.96	.74	.05
Hypothesized Endogenous Measurement Model	1063.12***	265	4.01	.82	.92	.79	.08

*** $p < .0001$

SEM Fit Statistics for Alternate Model

Model	χ^2	<i>df</i>	χ^2/df	GFI	CFI	PNFI	RMSEA
Alternative Endogenous Measurement Model	101.92***	24	4.25	.95	.98	.65	.09
Alternative Overall Measurement Model	378.54***	194	1.95	.93	.97	.79	.05
Alternative Structural Model	455.47***	202	2.26	.91	.96	.81	.05

*** $p < .0001$

Mediated Results

	R	F	B	SE	β
Model 1 (DV: Cross-Cultural Adjustment)					
Agreeableness	.48**	124.02**	.36	.05	
Emotion Management	.51**	75.12**	.05	.01	.22**
Model 2 (DV: Cross-Cultural Competence)					
Agreeableness	.57**	205.19**	.35	.03	
Emotion Management	.59**	112.51**	.03	.01	.17**
Model 3 (DV: Cross-Cultural Adjustment)					
Agreeableness	.48**	124.02**	.12	.05	
Emotion Management	.51**	75.12**	.03	.01	.14*
Cross-Cultural Competence	.65**	102.10**	.66	.06	.49**

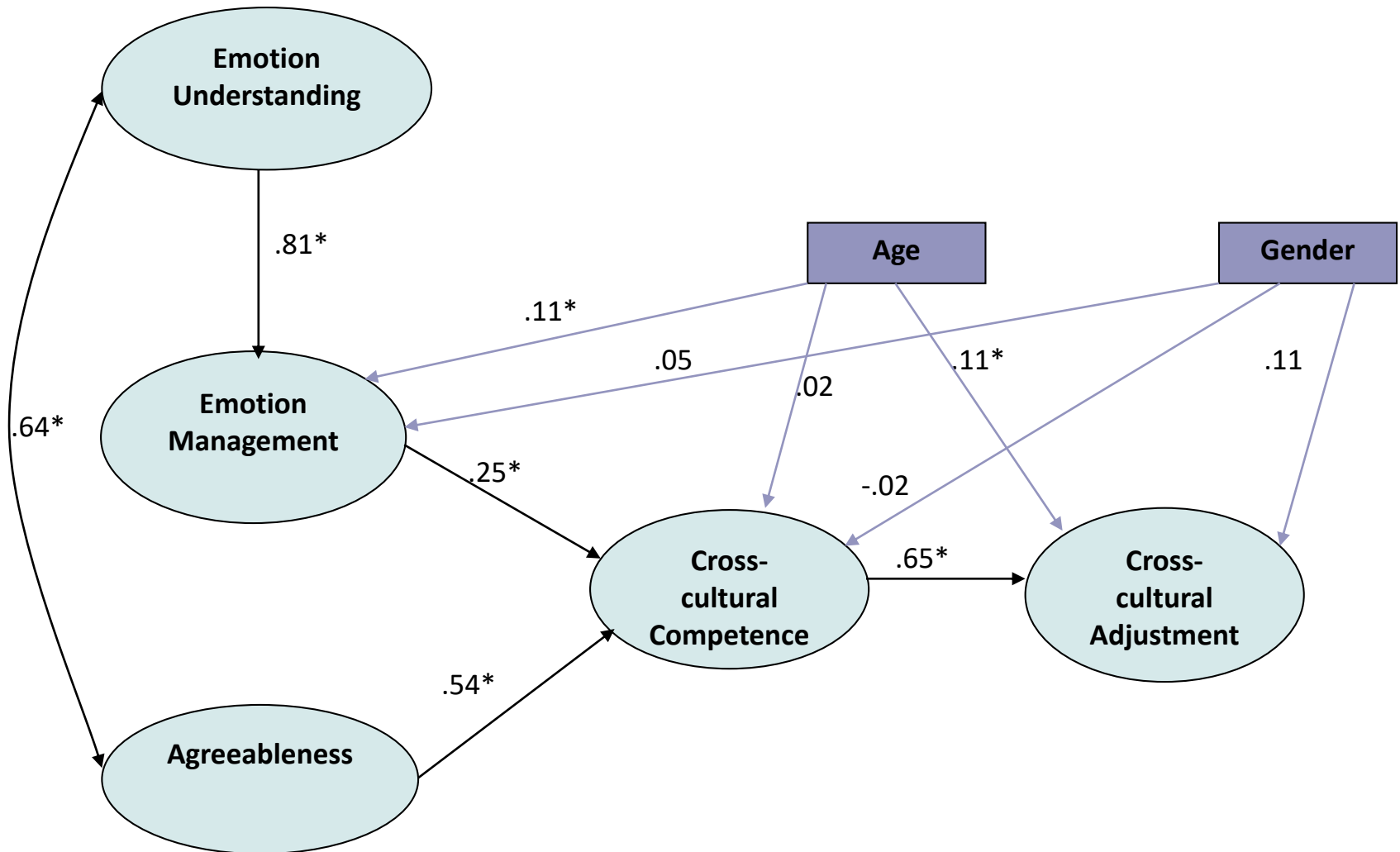
* $p < .01$

** $p < .001$

Summary of Results

- There exists a “cascading effect” between the emotional abilities.
- Findings hold after controlling for agreeableness.
- Cross-cultural competence (as one construct) plays a mediating role.
- Cross-cultural competence positively impacts adjustment.
- All hypotheses were generally supported.
 - Hypotheses 1-3
 - Hypothesis 4
 - Hypotheses 5-7

Alternate Model with Control Variables



Summary of Findings

- Hierarchical relationship between emotional abilities (Joseph & Newman, 2010; Mayer & Salovey, 1997; Mayer et al., 2008).
 - Emotion understanding serves as an antecedent to emotion management.
- Validation of cross-cultural competence as one construct.
 - Cross-cultural dimensions act in a cumulative, interdependent manner.

Summary of Findings

- The role of agreeableness
 - Incremental validity of emotion abilities
- Mediating role of cross-cultural competence
- Cross-cultural adjustment as an outcome of cross-cultural competence
- The role of gender and age

Limitations and Future Directions

- External validity of findings
- Common method variance
- Validate a cross-cultural competence measure
- Explore the specific role of cognitive ability
- Development of a DOD 3C framework

Questions?

For more information, please contact:

Patrice Reid, Ph.D.

Defense Language and National Security Education Office

Patrice.Reid@patrick.af.mil

Support Slides

Results: Correlation Matrix

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	SK	KT
1. Understanding Emotions	7.62	2.98	(.69)	--							-.31	-.60
2. Managing Emotions	13.64	3.93	.52**	(.70)	--						-.77	-.32
3. CC Knowledge	3.66	.78	.33**	.42**	(.95)	--					.17	-.58
4. CC Skills	3.42	.62	.26**	.35**	.80**	(.88)	--				.63	.22
5. CC Affect	3.45	.63	.24**	.34**	.69**	.73**	(.91)	--			.59	.19
6. CC Adjustment	3.89	.82	.36**	.40**	.55**	.56**	.59**	(.98)	--		-.25	-.70
7. Agreeableness	3.80	.85	.40**	.50**	.59**	.48**	.48**	.48**	(.82)	--	-.81	.74
8. Cross-cultural Competence	3.51	.62	.31**	.41**	.93**	.92**	.88**	.62**	.57**	(.95)	.49	-.18

Data generation procedures

- Single-factor (SFA) method
 - Understanding emotions (4 parcels)
 - Job satisfaction (3 parcels)
- Content-oriented method
 - Cross-cultural adjustment (3 parcels)
- Total disaggregation technique
 - Managing emotions
 - Cross-cultural knowledge, skills, affect
 - Agreeableness
- Model trimming

Role of Cognitive Ability (“g”)

- “g” focuses on cognitive abilities
 - Not specific to particular types of context
 - Culturally diverse situations
 - Does not include behavioral or motivational aspects of intelligence
- Emotional abilities predict above and beyond verbal ability (MacCann, 2006).
- Emotional abilities requires some assessment of emotion-related knowledge.
- Relationships between “g” have been small to moderate in size (Ciarrochi et al., 2000; Roberts et al., 2001).

Practical applications

Training programs could include these modules:

- Behavioral and cognitive component of 3C
 - Cognitive structure analysis
 - Dramaturgical exercises (e.g., role plays)
 - Simulation tasks with real-time feedback

- Emotion understanding
 - Virtual reality scenarios

- Emotion management
 - Antecedent-focused strategies
 - Response-focused strategies