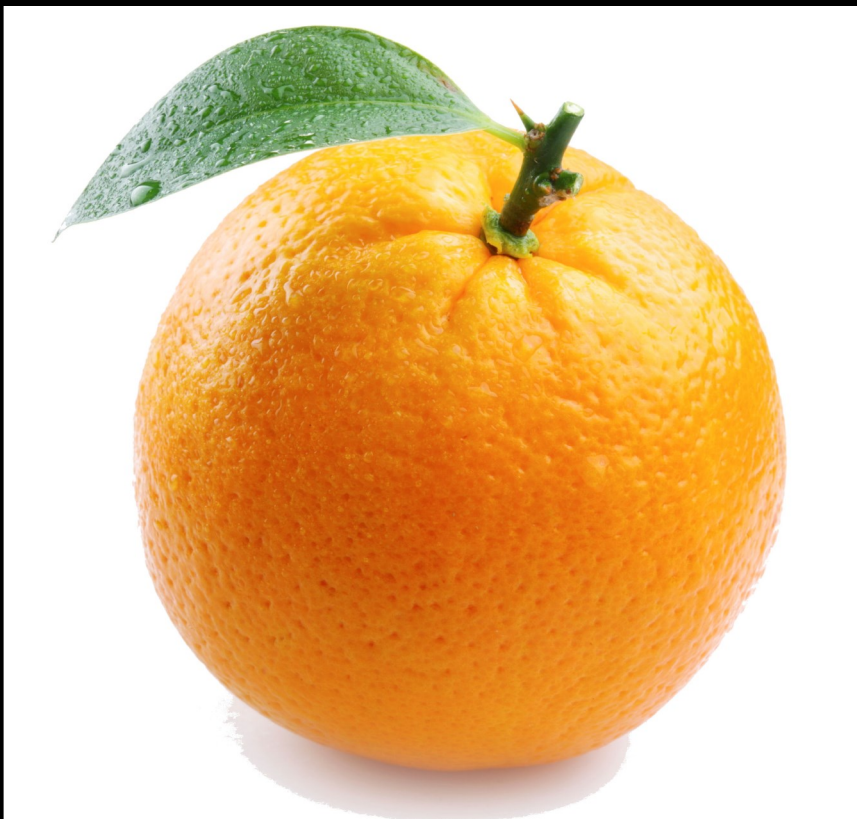




WE CAN'T COMPARE APPLES TO ORANGES: ESTABLISHING VALIDITY BETWEEN DRASTICALLY DIFFERENT EMOTIONAL INTELLIGENCE TESTS



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BACKGROUND:

IN ANY SCIENTIFIC RESEARCH, WHETHER PHYSICAL OR PSYCHOLOGICAL, HAVING ACCURATE TESTS THAT ARE CALIBRATED TO MEASURE A PARTICULAR VARIABLE IS PARAMOUNT. CELLULAR BIOLOGISTS USE GENES THAT CODE FOR FLUORESCENCE TO TEST FOR THE PRESENCE OF A SPECIFIC GENETIC CHANGE IN A LAB ORGANISM. SIMILARLY, PSYCHOLOGISTS USE **EMOTIONAL INTELLIGENCE** TESTS TO MEASURE THE PRESENCE OF CHARACTERISTICS THAT DEFINE **EMOTIONAL INTELLIGENCE** (SEE QUOTE), AND TO CALIBRATE THE VALIDITY OF NEW **EMOTIONAL INTELLIGENCE** TESTS. THIS ENSURES THAT THE NEW TEST IS IN FACT MEASURING **EMOTIONAL INTELLIGENCE** (CONVERGENT VALIDITY) AND NOT ANOTHER VARIABLE (DISCRIMINANT VALIDITY).

EMOTIONAL INTELLIGENCE IS A SET OF COGNITIVE ABILITIES THAT ENABLE SOMEONE TO ACCURATELY PERCEIVE OTHER'S EMOTIONS CORRECTLY, ACCESS AND GENERATE EMOTIONS TO ASSIST THOUGHT, UNDERSTAND EMOTIONS AND THEIR MEANING, AND MANAGE THEIR OWN EMOTIONS (MAYER, SALOVEY, CARUSO 2004)

THREE TESTS THAT WERE DESIGNED TO ASSESS LEVELS OF **EMOTIONAL INTELLIGENCE**, THE PONS, DANVA-2, AND MSCEIT, WERE EXAMINED. OVERALL, THE PONS, DANVA2 AND MSCEIT CORRELATE WELL WITH EACH OTHER, THUS SUPPORTING CONVERGENT VALIDITY FOR MEASURING **EMOTIONAL INTELLIGENCE**. IN THIS STUDY, THE CONVERGENT VALIDITY OF EACH TEST WAS REEXAMINED BY OVERALL CORRELATION AND SECTIONAL CORRELATION. TESTS THAT SHOW OVERALL CONVERGENT VALIDITY, SHOULD ALSO SHOW SECTIONAL CONVERGENT VALIDITY. IF THE TESTS DO NOT CORRELATE BY SECTIONAL COMPARISON, CONVERGENT VALIDITY IS NOT SUPPORTED.

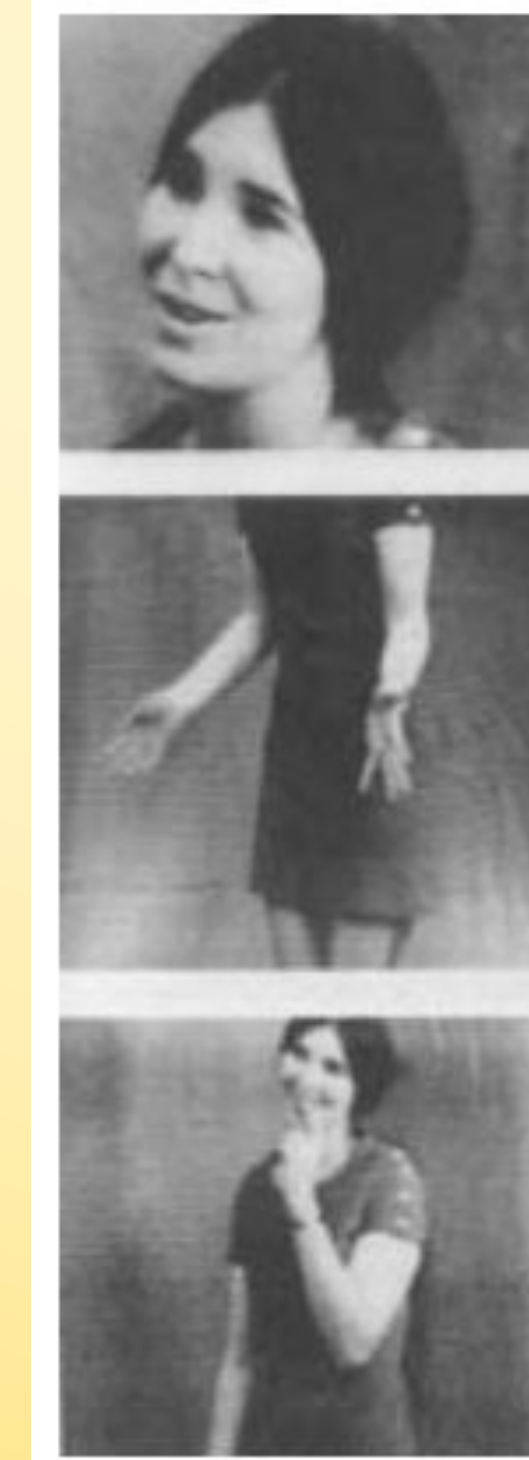
LOW **EMOTIONAL INTELLIGENCE** IS A CHARACTERISTIC SYMPTOM IN INDIVIDUALS WITH AUTISM AND ALEXITHYMLIA. INDIVIDUALS WITH THESE DISORDERS TEND TO PERFORM POORLY ON **EMOTIONAL INTELLIGENCE** TESTS, AND IT HAS BEEN SUGGESTED BY SOME RESEARCHERS THAT THE DANVA-2 AND MSCEIT COULD THEORETICALLY BE USED FOR CLINICAL PURPOSES.

DANVA-2



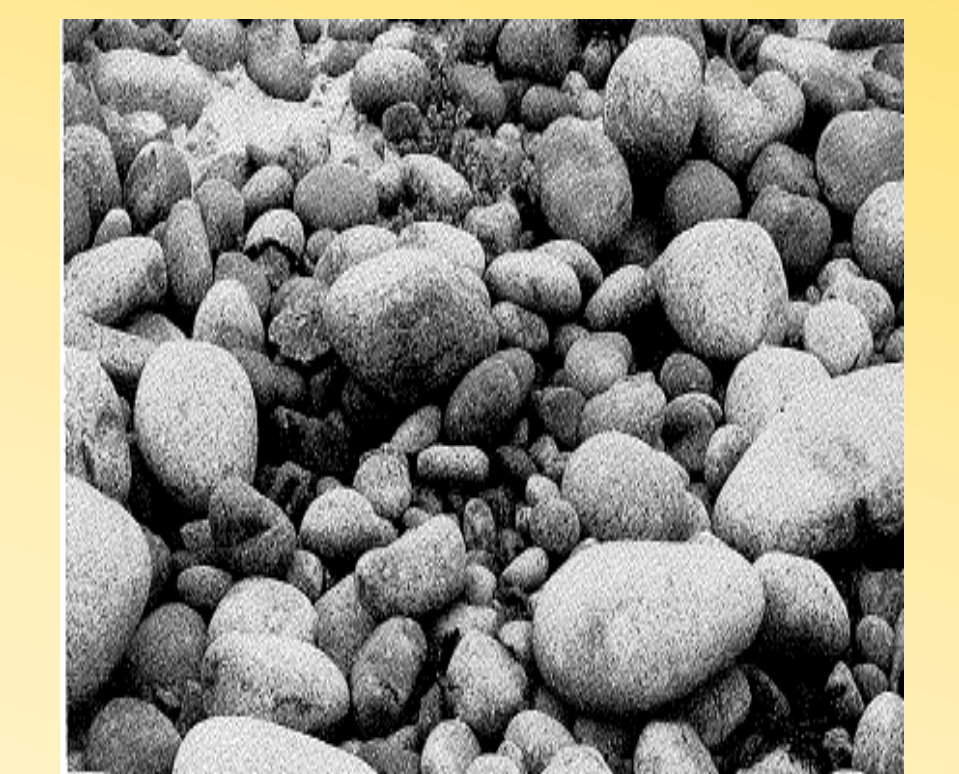
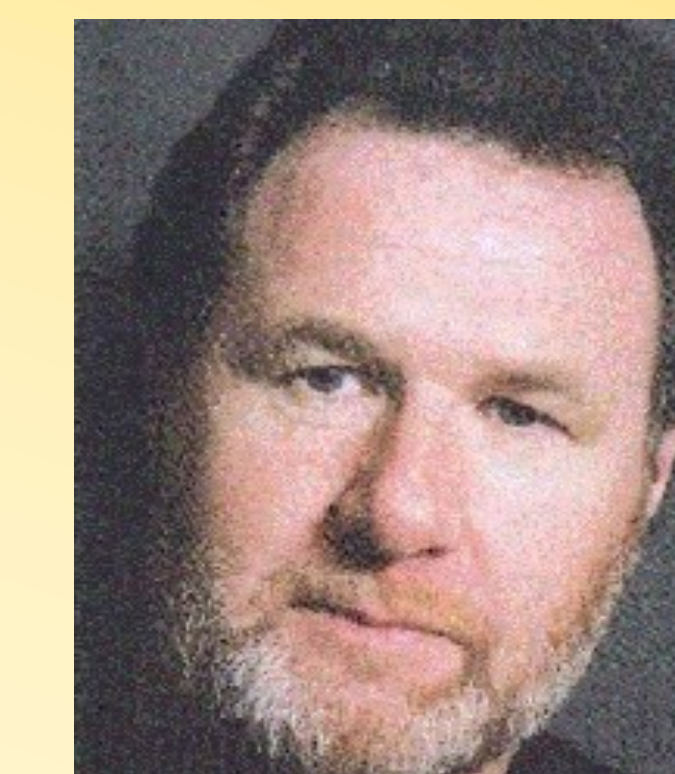
- Happy
- Sad
- Angry
- Fearful

PONS



- Criticizing someone for being late
- Expressing gratitude
- Admiring nature
- Helping a customer
- Expressing deep affection
- Nagging a child

MSCEIT



	Emotion NOT Present	1	2	3	Extreme Emotion
Happy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Angry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Fearful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disgust	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Surprise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Excitement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

METHOD:

FOR THIS STUDY, 189 UNDERGRADUATE STUDENTS PARTICIPATED IN A PSYCHOLOGY 401 RESEARCH CLASS IN WHICH THEY TOOK THE PONS, DANVA2, AND MSCEIT. SCORES ON ALL THREE TESTS WERE ANALYZED.

WE USED STATISTICAL ANALYSIS (SAS) TO GENERATE *r*-VALUES, COMPARING ALL TEST SCORES TO ASSESS WHETHER HIGH PERFORMANCE ON SOME TESTS CORRELATED WITH HIGH PERFORMANCE ON OTHERS. WE ALSO GENERATED *r*-VALUES THAT COMPARED SCORES AMONG EACH SUBSECTION OF THE TESTS.

RESULTS AND DISCUSSION:

BASED ON OUR ANALYSIS FOR OVERALL CORRELATIONS AND SECTIONAL CORRELATIONS AMONG THE THREE TESTS, WE FOUND MODERATE OVERALL CORRELATIONS ($r=.24-.36$) BETWEEN THE PONS, DANVA-2, AND MSCEIT. THIS SUGGESTS THAT ALL THREE TESTS DEMONSTRATE CONVERGENT VALIDITY FOR EMOTIONAL INTELLIGENCE (SEE TABLE 1).

HOWEVER, WHEN EACH TEST IS BROKEN UP INTO ITS INDIVIDUAL SUBSECTIONS (ONLY THE FACE PORTION OF THE MSCEIT HAS A CORRESPONDING SECTION IN THE OTHER TESTS), THERE IS LITTLE CORRELATION ($r<.20$). THIS IS UNUSUAL, AS ONE WOULD EXPECT THAT FACE SECTIONS, WHICH ARE TESTING THE ABILITY TO INTERPRET FACIAL EMOTIONS, SHOULD CORRELATE MODERATELY (SEE TABLE 2 AND 3). IN FACT, WHEN COMPARING THE MSCEIT FACES SECTION TO OTHER SECTIONS OF THE PONS AND DANVA-2, THE MSCEIT FACE SECTION CORRELATES MORE WITH THE PONS BODY, PONS VOICE, AND THE DANVA-2 VOICE SECTIONS. THIS DOES NOT SEEM LOGICAL, AS A SECTION INTENDED FOR INTERPRETING FACES SHOULD NOT CORRELATE MORE STRONGLY WITH SECTIONS INTENDED FOR INTERPRETING VOICE OR BODY.

SINCE THERE IS A LACK OF CONVERGENT VALIDITY AMONG SIMILAR SECTION CORRELATIONS, IT CANNOT BE CONCLUDED THAT THESE THREE TESTS ARE MEASURING EMOTIONAL INTELLIGENCE, OR AT LEAST THE SAME TYPE OF EMOTIONAL INTELLIGENCE.

IF PSYCHOLOGISTS CANNOT DETERMINE THAT A TEST IS MEASURING EMOTIONAL INTELLIGENCE, THEN WE CANNOT ACCURATELY IDENTIFY PEOPLE LACKING EMOTIONAL INTELLIGENCE, NOR CAN WE ASSESS THE CHARACTERISTIC DIMENSION OF EMOTIONAL INTELLIGENCE IN BOTH AUTISM AND ALEXITHYMLIA. THIS PRESENTS AN ISSUE FOR CLINICIANS TO CONSIDER IN THE FUTURE, SHOULD THEY DECIDE TO USE ANY OF THESE TESTS, PARTICULARLY THE MSCEIT, FOR CLINICAL PURPOSES.

TABLE 1: OVERALL CONVERGENT VALIDITY

	PONS	DANVA2	MSCEIT
PONS	-		
DANVA-2	.26*	-	
MSCEIT	.36***	.36**	-

* $P < .05$, ** $P < .01$, *** $P < .0001$ $N=189$

SECTIONAL CONVERGENT VALIDITY

TABLE 2

DANVA-2	PONS		
	VOICE	BODY	FACE
VOICE	.17	-.03	.08
BODY	.11	.15	.05
FACE	.08	-.07	.09

TABLE 3

MSCEIT	PONS		
	VOICE	BODY	FACE
DANVA-2	.22*	.12	.16
PONS	.15	.24**	.03

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