

OBJECTIVELY ASSESSED MUSICAL ABILITY AND EMPATHY: AN ANALYSIS BASED ON TWO MULTICOMPONENTIAL MEASURES

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TAKE
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PROBLEM STATEMENT

Empathy plays a crucial role in successful human communication, i.e. by facilitating the perception and interpretation of other persons' intentions and emotional states (Davis, 1983). Although musicians have been shown to have an advantage in the decoding of emotion from speech prosody (Lima & Castro, 2011), little is known about associations between empathy and musical ability more generally. Here we examined whether objectively assessed musical ability would be positively correlated with empathy. Additionally, psychometric properties of a short form of the PROMS-S (Profile of Music Perception Skills, Law & Zentner, 2012) were examined.

MATERIALS & METHODS

The constructs were measured via the PROMS-S, the Big Five Inventory-SOEP (BFI-S, Schupp & Gerlitz, 2005) and the Interpersonal Reactivity Index (IRI, Davis, 1983) in a German speaking sample of N=85 (49 females, mean age: 24.79, SD: 6.30).

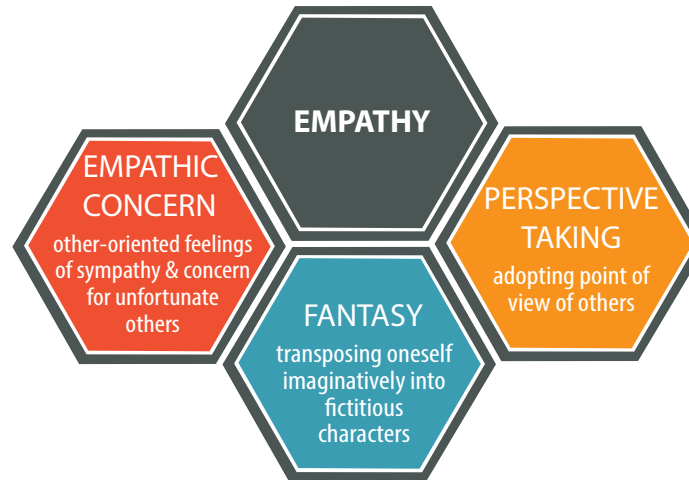
RESULTS

Table 1. Musical ability predicts empathy also when relevant third variables are controlled for.

	<i>B</i>	<i>SE(B)</i>	β
Gender	0.86	1.15	.08
Age	-0.02	0.08	-.02
Musical Training	.219	.803	.03*
Agreeableness	3.77	0.71	.52***
Neuroticism	1.42	0.68	.21*
Musical Ability (PROMS-S)	0.14	0.07	.23*

Note. * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

Graph 1. Subscales of empathy score based on the IRI.



Graph 2. Correlations between PROMS-S subscales and empathy scales.

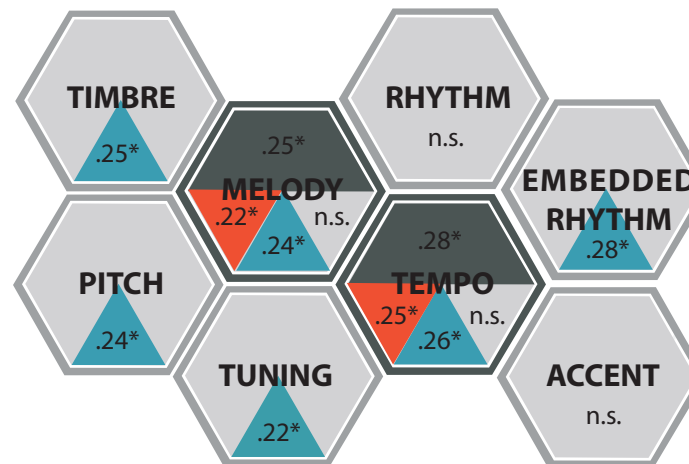


Table 2. PROMS-S subtests and total score show good internal consistency as well as retest reliability.

	ω_{t1}	ω_{t2}	<i>tt</i>
Melody	.67	.69	.67*
Rhythm	.71	.87	.85**
RM	.74	.89	.76**
Tuning	.63	.74	.66*
Accent	.68	.85	.87**
Timbre	.66	.72	.62*
Tempo	.62	.88	.84**
Pitch	.71	.81	.62*
PROMS score	.90	.95	.86**

CONCLUSION

Musical abilities explained 4,9% of variance of empathy beyond personality factors

Empathy was associated with musical ability, but not with extent of musical training.

The PROMS-S has shown good psychometric properties making it easier to administer a multi-componential and objective musical ability test in a short time.

FUTURE DIRECTIONS

The mechanisms underlying the associations between empathy and musical ability remain to be investigated. Musical ability might enhance auditory emotional perception, which in turn is a component of empathy. More research is needed to substantiate this hypothesis

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