

# Detecting Cultural Influences on Social Cognition: The South African-Adapted NEmo Test Battery



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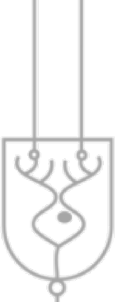
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# Social Cognition



Source: pexels.com

- Mental processes governing social interactions
- Enables facilitation of better interpersonal communication
- Contributes to overall wellbeing and a good quality of life



# Why Emotion Recognition and ToM?





# Cross-Cultural Differences in Social Cognition

Numerous studies describe cross-cultural differences in its development and expression





# Specific Aims

- Pilot study to describe and evaluate a South African adaptation of the NEmo battery of social cognition.
- First step in a larger research project that aims to compare the NEmo performance of healthy Swiss and South African adults.





# Methods



Cross-sectional pilot study

Comparing the performance of three language groups of healthy South African adults



UCT Students ( $n = 40$ )

Matched in terms of demographics



Online sociodemographic and medical questionnaire

Beck Depression Inventory-II

# Methods

## NEmo Test Battery - Developed by the Swiss Epilepsy Centre

Tasks	Description	Runs
Prosodic FER	Recognition of similarities in emotional signals between voices and faces	40
Simultaneous FER	The ability to recognise emotional facial expressions from multiple sources simultaneously	60
Static FER	Recognition of basic emotion forms in static images of faces	56
Dynamic FER	Recognition of basic emotion on dynamic videos of faces	48
EST	Inhibition of interfering social signals	40

## NEmo Test Battery

### ToM tasks

Tasks	Description	Runs
Faux Pas	Detection of social faux pas committed in a vignette and ability to infer mental states of characters in the scenes	5
Movie Assessing Social Cognition (MASC)	Involved inferring the mental states of characters in the current scene	15-mins
Irony	Differentiate between irony, friendliness, and neutrality in spoken expressions	18



# Results & Discussion



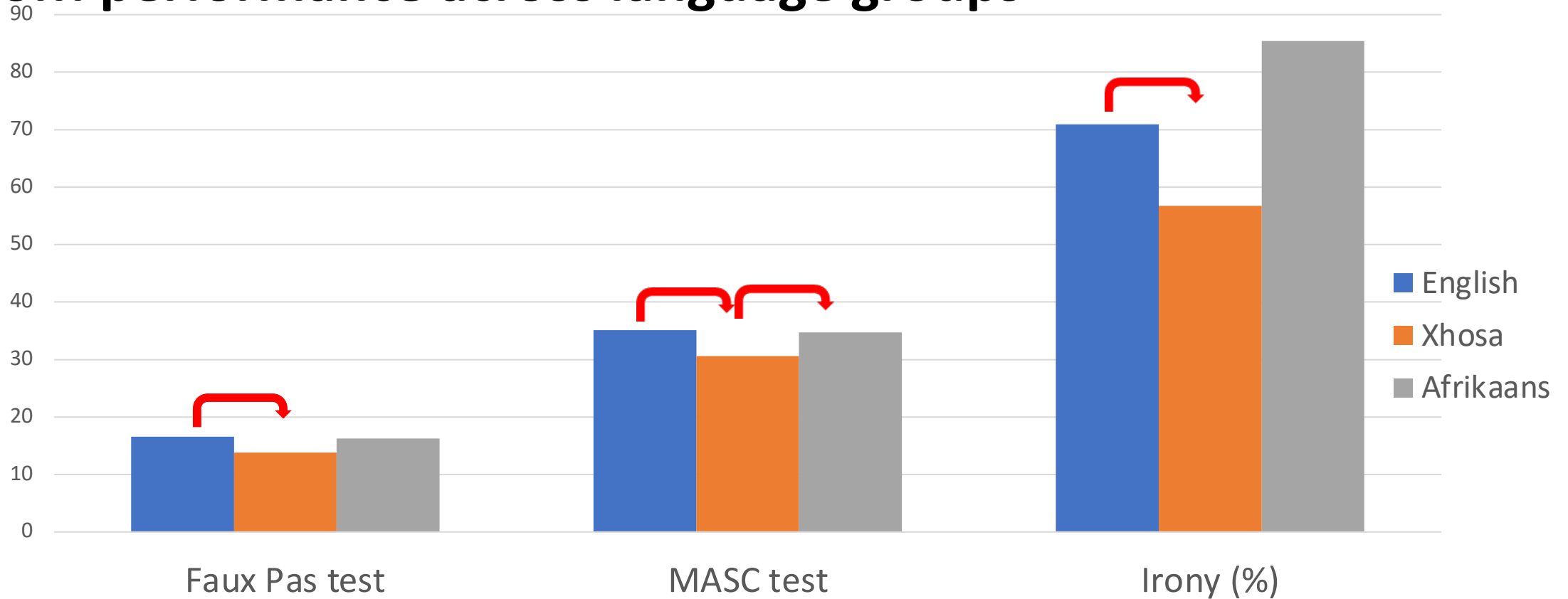
## Emotion Recognition across language groups

	Language Group					
	English	Xhosa	Afrikaans			
Variable	(n = 13)	(n = 19)	(n = 8)	F	p	$\eta^2$
EST-C (s)	23.62 (4.17)	28.89 (5.60)	26.00 (4.60)	4.39	.019*	.192
Simultaneous FER (%)	74.87 (7.80)	69.82 (8.44)	76.67 (6.55)	2.79	.077	.129
Dynamic FER (%)	88.30 (6.34)	83.11 (10.51)	91.15 (6.67)	2.88	.069	.135
Static FER (%)	84.34 (7.00)	82.81 (8.71)	84.38 (6.02)	0.20	.818	.011
Prosodic FER (%)	77.89 (5.85)	71.18 (7.65)	76.88 (5.79)	4.39	.020*	.192

# Results & Discussion



## ToM performance across language groups



# Results & Discussion



## ToM across Language Groups

### Story A

Kim's cousin, Scott, was coming to visit and Kim made an apple pie especially for him. After dinner, she said, "I made a pie just for you. It's in the kitchen."

"Mmmm," replied Scott, "It smells great! I love pies, except for apple, of course."

# Discussion



## Directions for Future Research

- **Generally, tasks must not only be translated but designed with cross-cultural awareness in mind.**
- **Neuroethical implications**
- **Incorporate the use of neuroimaging (neural correlates of ToM)**



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- Co-Supervisor: **Dr Vicki Ives-Deliperi**
- Data Collection: **Rebecca Johannessen**
- Participants

**\*\*Disclosures: None\*\***

