

# SUMMARY OF FINAL GRADE WORK

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## “FACIAL EMOTION RECOGNITION: SPANISH PSYCHOMETRIC VALIDATION OF A NIMSTIM STIMULI SUBSET”

### Resumen:

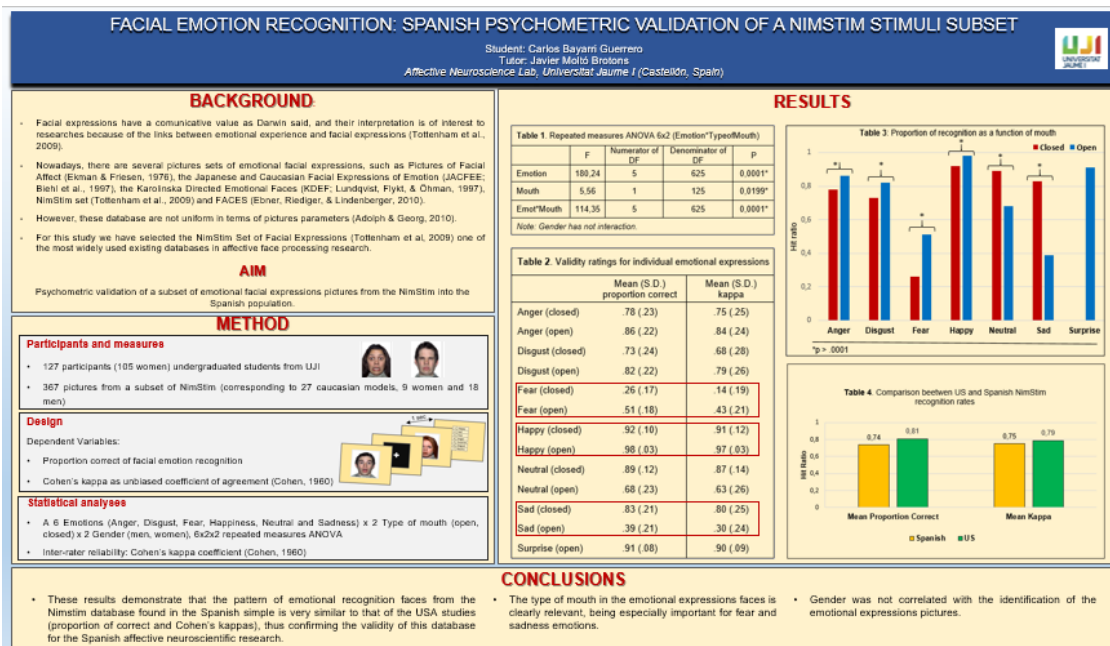
Las expresiones faciales nos sirven para guiarnos y hacernos comprender las experiencias que tienen los demás hacia nosotros, y también para dirigir nuestra conducta de manera adaptativa. Darwin argumentaba que las expresiones faciales tenían un valor comunicativo y la interpretación de éstas es de interés para los investigadores debido a la relación entre la experiencia emocional y las expresiones faciales (Tottenham et al., 2009). Actualmente son varios los conjuntos de imágenes de expresiones faciales emocionales que están disponibles (Adolph & Georg, 2010). Sin embargo, estas bases de datos no son uniformes y varían ampliamente en sus parámetros físicos. Una de las bases de datos más utilizada en la investigación afectiva es el *the NimSim set of facial expressions* (Tottenham et al., 2009). El propósito de este estudio es la validación psicométrica de un subconjunto de 367 estímulos del NimStim en la población española para el reconocimiento de expresiones faciales emocionales. En este estudio participaron 127 estudiantes (105 mujeres). La tarea consistía en el reconocimiento de la expresión facial de las seis emociones básicas y una neutra. El ANOVA de medidas repetidas mostró que el tipo de emoción, la forma de la boca y, especialmente, la interacción entre ambas, son variables estadísticamente significativas para el reconocimiento de expresiones faciales emocionales. Los resultados mostraron que: a) el patrón de reconocimiento de las distintas emociones obtenido en la muestra española es muy similar al publicado para muestras norteamericanas (la alegría fue la mejor reconocida y el miedo la peor); b) la forma de la boca al expresar una emoción es una importante variable moduladora para el reconocimiento de la expresión faciales emocionales (especialmente, para el miedo y la tristeza); y c) no hay diferencias significativas entre hombres y mujeres a la hora de reconocer expresiones faciales emocionales. Los resultados de la presente investigación corroboran empíricamente la validez del NimStim para su uso en muestras españolas en investigaciones en el ámbito de la neurociencia afectiva, particularmente en el reconocimiento de expresiones faciales emocionales.

### Abstract:

Facial expressions are used to guide us and make us to understand the experiences that others have towards us, and also to lead our behavior in an adaptive way. Facial expressions have a communicative value as Darwin said, and their interpretation is of interest to researches because of the links between emotional experience and facial expressions (Tottenham et al., 2009). Nowadays, several sets of emotional facial pictures sets are currently available (Adolph & Georg, 2010). However, these pictures sets are anything but uniform and vary extensively in terms of physical characteristics. One of the most used databases is the NimSim set of facial expressions (Tottenham et al., 2009). The purpose of this study is the psychometric validation of a 367 stimuli from the NimStim into the Spanish population for the emotional facial recognition. In this study, 127 students (105 women) participated. The task consisted of the emotional facial recognition of the six basic emotions and one neutral expression. Repeated measures ANOVA showed that type of motion, the type of mouth, and the interaction between

them, were statistically significant variables for the emotional facial expressions recognition. The results showed that: a) The Spanish and American population follow the same pattern of emotional facial expressions recognition (happiness is the best recognized emotion, and fear the worst); 2) the type of mouth is an important moderator variable for the facial emotional expressions recognition; and c) there are not significant gender differences in the facial emotional recognition. The results of the present research empirically corroborate the validity of the NimStim for its use in Spanish samples in the affective neuroscientific research, particularly in the emotional facial expressions recognition field.

## PÓSTER



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