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Policemen's and civilians' beliefs about facial cues of deception

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The most commonly discussed nonverbal indicators in studies about subjective cues to deception are smiles, self-adaptors, illustrators, body movements, etc. (Vrij, 2008). Apart from smiles (e.g., Akehurst & al., 1996), facial indicators are underrepresented in comparison to body cues, even though they are central elements of human communication.

Beliefs about cues of deception are commonly evaluated by questionnaires (e.g., "do you think that smile is a relevant cue of deception?"). This is a difficult task because there are types of smiles (true and false smiles) with different patterns that involve two main muscles (*Orbicularis oculi* and *Zygomaticus major*) that can be activated independently to create smile movements that are different, although related to a single description. This difficulty to evaluate patterns of smiles could explain the lack of statistical differences between policemen and civilians (e.g., Vrij & al, 1996).

We reasoned that facial cues' classification might be improved by using photos of indicators instead of written descriptions. To our knowledge, there is no facial indicators investigation with such an experimental paradigm contrasting policemen ($N = 50$) and civilians ($N = 50$).

Stimuli were 54 standardized photos. They accounted for 43 AUs (FACS), 10 AUs' co-occurrences of eyebrow movements and basic emotions, plus a neutral face. Two certified FACS coders evaluated the conformity of expressions. The task was to determine whether the expression was characteristic of deception and if this expression was more or less present during a lie.

Results highlighted the indicators that were perceived more present (e.g., lip wipe) or less present (e.g., fear) in deception. There were differences ($ps < .05$) between civilians and policemen (e.g., head down). Results were also revealing new representations about deception which can be of help for updating trainings on this topic in order to decrease a number of erroneous beliefs.

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