



*Projecto de Investigação “Harmonia”
Diversidade social na escola:
Compreender, gerir e agir*

*Research Project “Harmonia”
Social diversity in schools:
Understanding, managing and acting*

**VII Simpósio Nacional
Investigação em Psicologia**

**Universidade do Minho
Braga 4-6 Fevereiro 2010**



Is there any bias in looking? Eye-tracking as an indirect measure of intergroup attitudes

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Instituto Universitário de Lisboa (ISCTE-IUL)

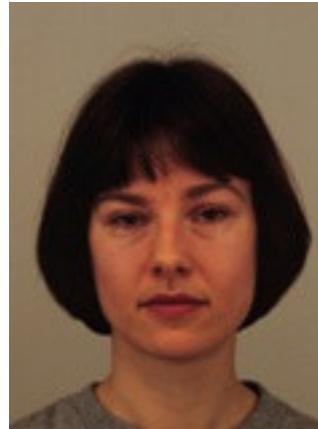
Getting to know people



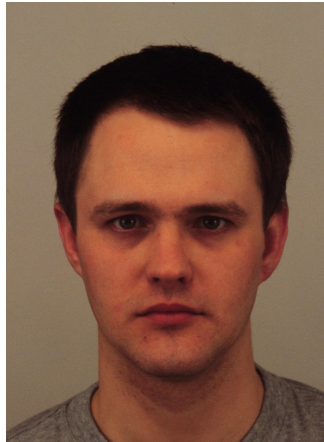
Unintelligent



Warm



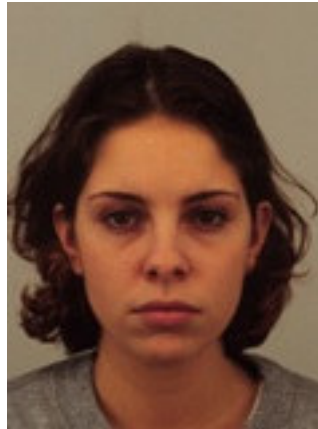
Clumsy



Competent

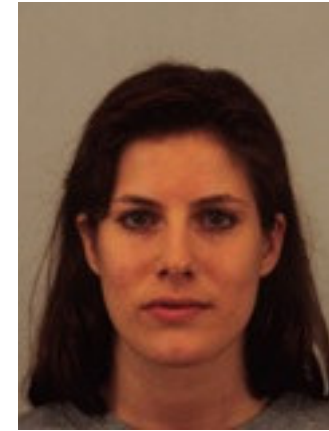


Persistent

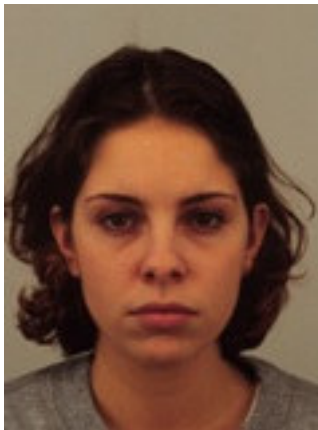


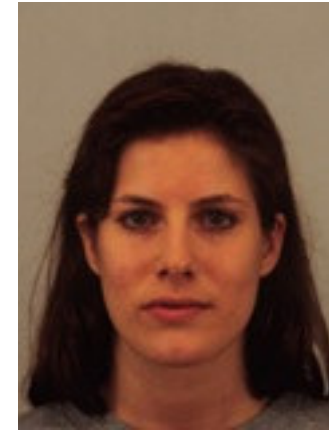
Cold

Is the correct person present?
When you think so, clap your hands!

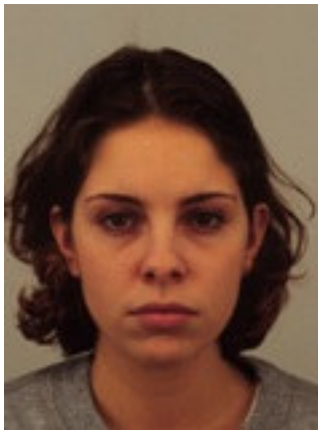


Clumsy



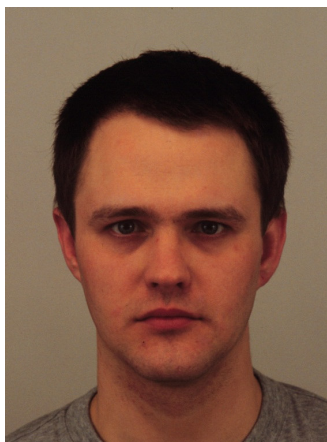


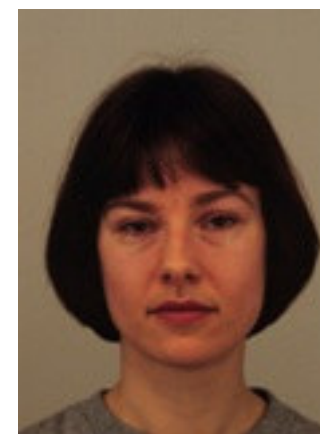
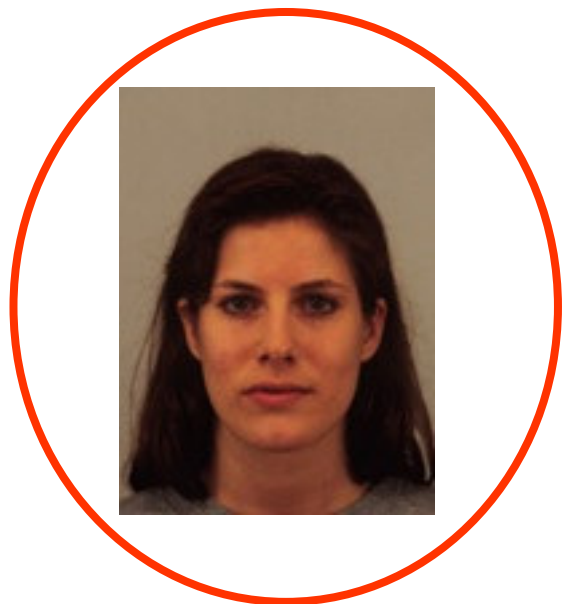
No clumsy person...





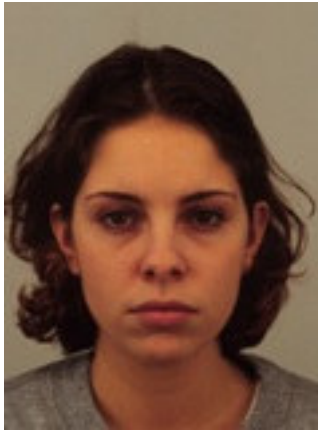
Warm



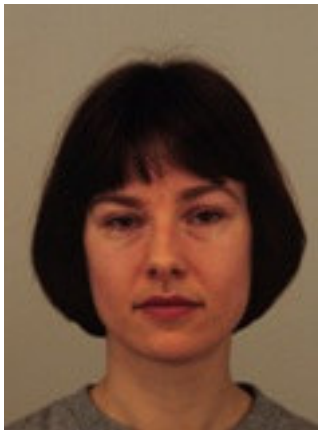


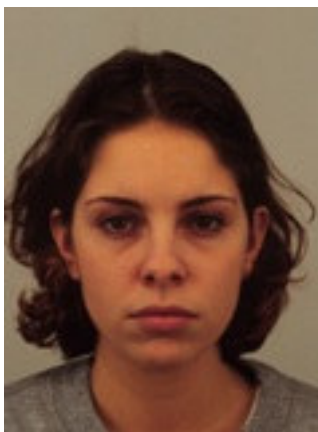
Warm



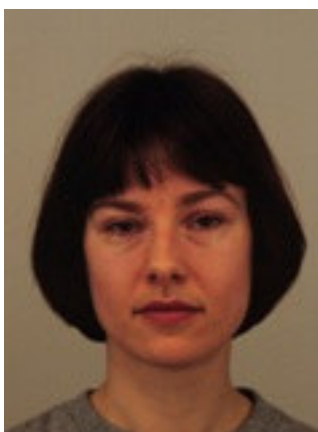


Competent





Competent





Prejudice



- *Prejudice*
“the holding of derogatory social attitudes or cognitive beliefs, the expression of negative affect, or the display of hostile or discriminatory behavior towards members of a group on account of their membership of that group”
(Brown, 1995, p. 8)
- Blatant prejudice → hot, close, direct
Subtle prejudice → cold, distant, subtle
(Pettigrew & Meertens, 1995)
- Normative concerns & social desirability
(i.e., Monteiro, de França, & Rodrigues, 2009)



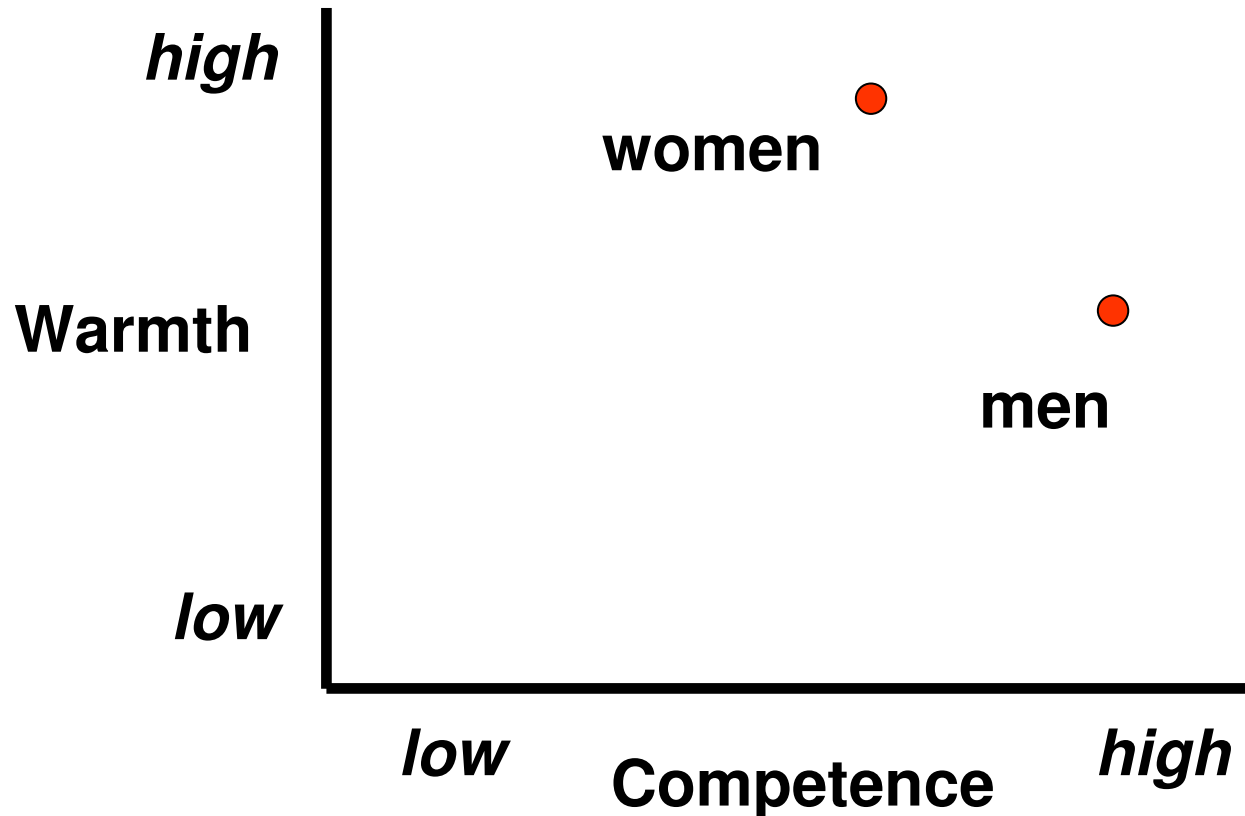
Measurement of Prejudice

- Implicit (indirect) measures of prejudice
 - associative information people are unwilling to report
 - i.e., negative attitudes toward minority groups
- Strength of associations between concepts
(Greenwald et al., 1998; Nosek et al., 2007)
 - Strong associations → quicker information processing
 - Weak associations → slower information processing
- Eye-tracking: Looking quicker when strong associations



Stereotypical Traits

- Content vs. Valence of stereotypes
(Fiske et al., 1999; Fiske et al., 2002; Cuddy et al., 2008)





Hypotheses



- I) People look quicker at faces when strong associations with previously learnt traits
- II) When presented with a “competence” trait people look quicker at men
- III) When presented with a “warmth” trait people look quicker at women



Design & Participants

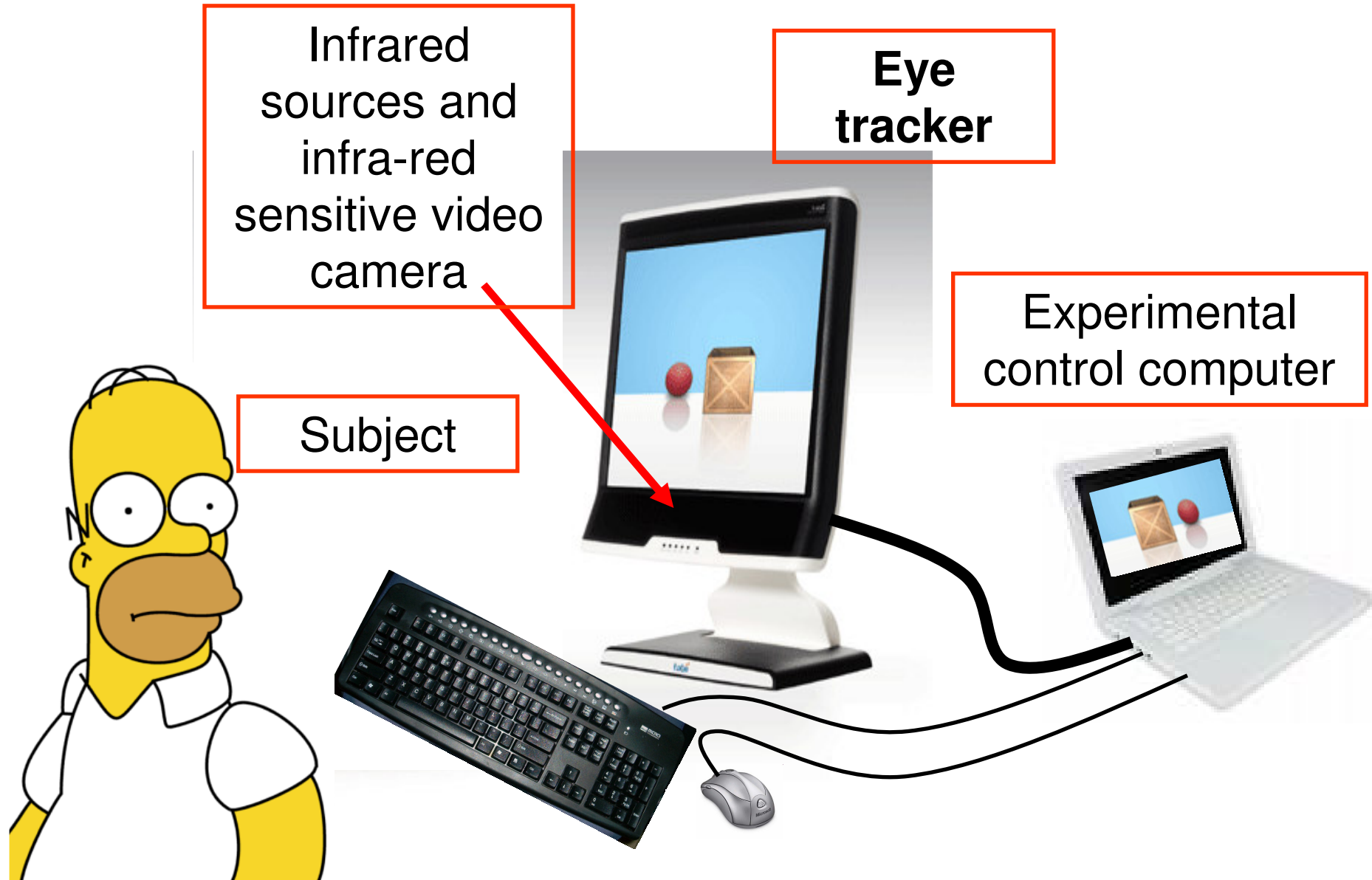
- Design:
2 (content: competent traits vs warmth traits) x
2 (gender: male faces vs. female faces)
- Measure: Time to first fixation to the face



- Psychology students at ISCTE-IUL
- 81 Participants (21.2% male, 78.8% female)
- Mean age = 21.73 yrs (SD = 3.29)



Apparatus

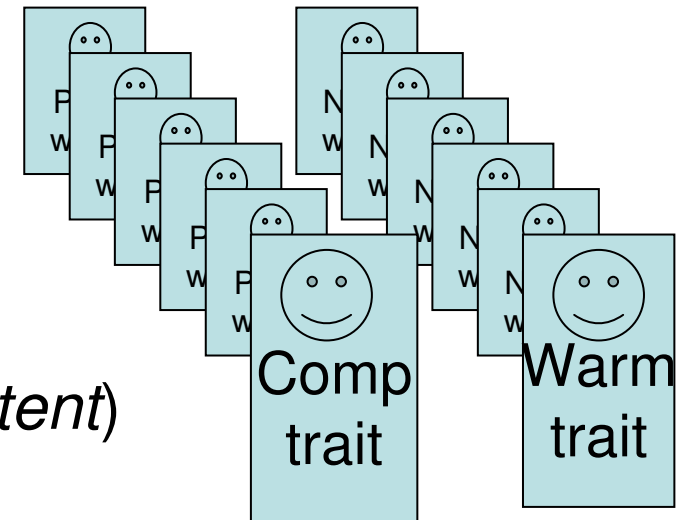




Part I: Learning Task

- Pairing 16 traits with 16 faces (8 male, 8 female)

- 8 “competence” traits
(i.e., *intelligent, inconsistent, competent*)
- 8 “warmth” traits
(i.e., *kind, egoistic, warm*)





Part I: Learning Task

Instructions



Fixation
point
500ms



Start of trial

Image & trait
3s



Fixation
point
500ms



End of trial

Part I: 48 trials



Part II: Recognition Task



- Four faces are presented
 - 2 male faces
 - 2 female faces
- Right face present or absent?
- 32 quadrants (16 present, 16 absent)



Part II: Recognition Task

Instructions



Fixation
point
500ms



Start of trial

Image until
key press



Fixation
point
500ms

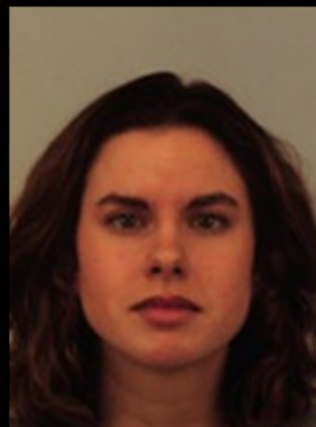
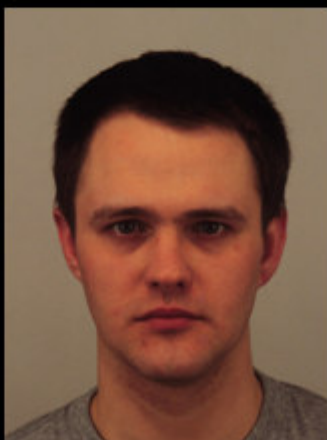


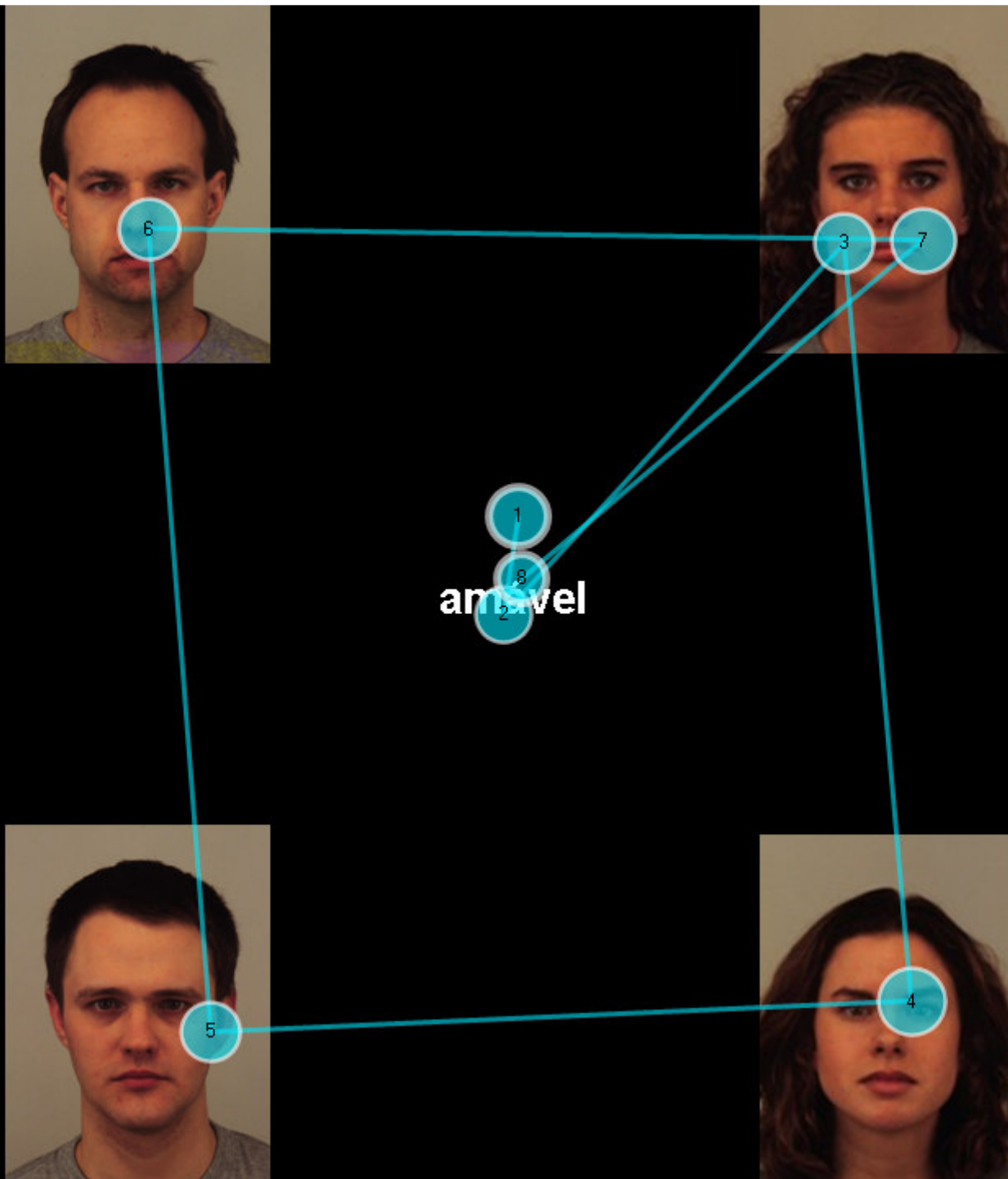
End of trial

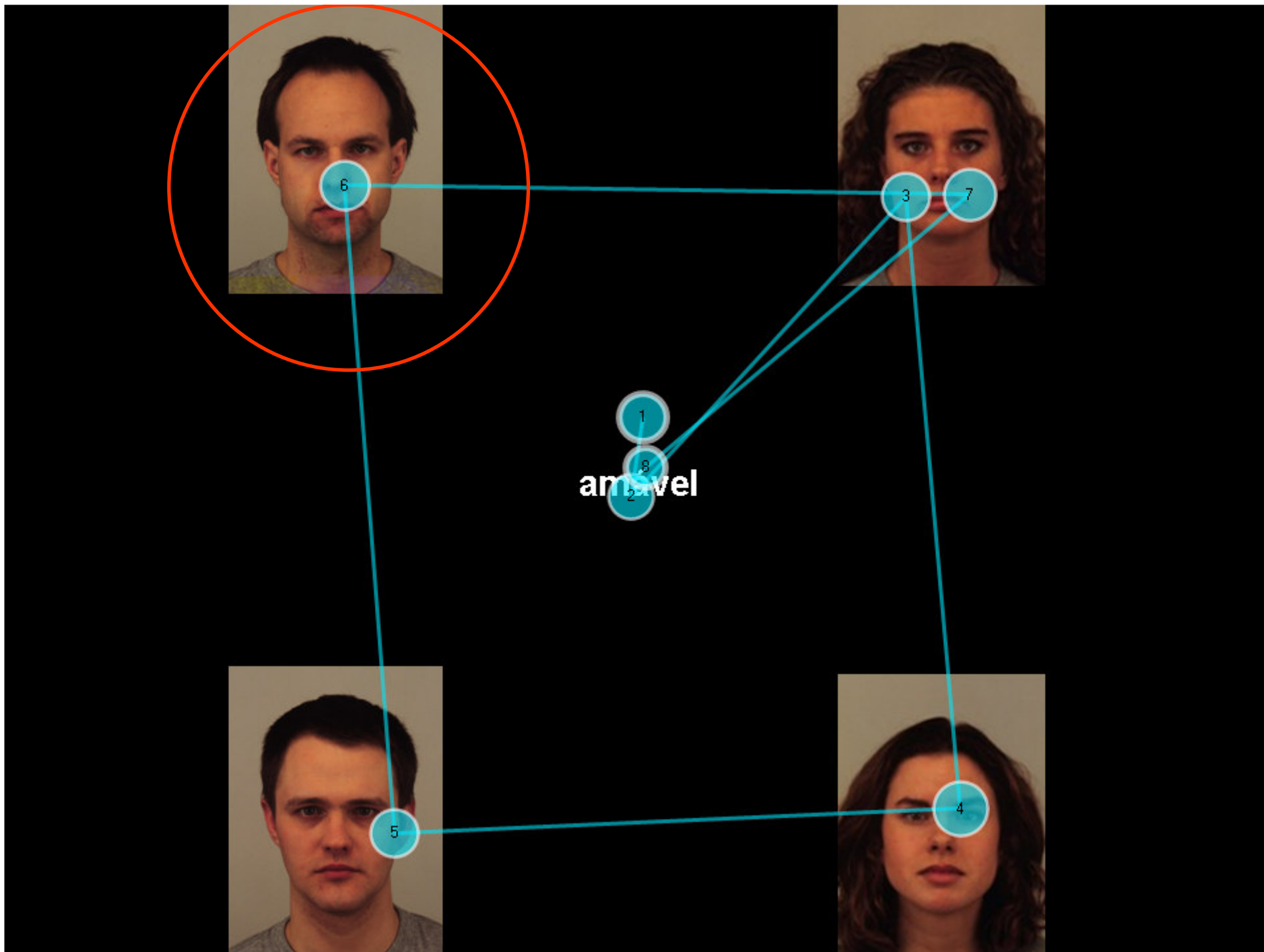
Part II: 32 trials

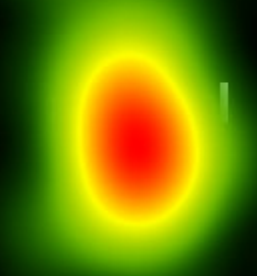
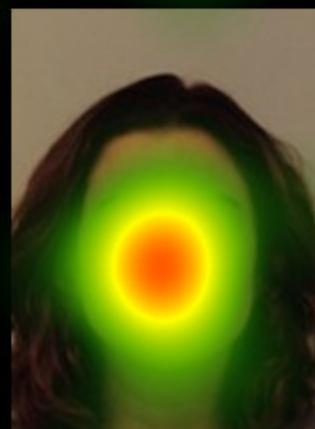
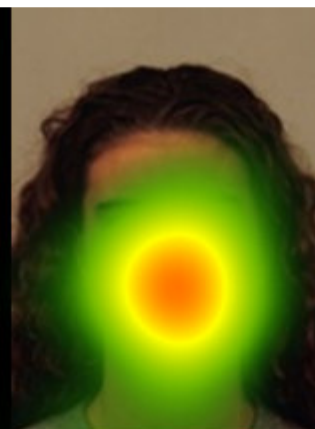
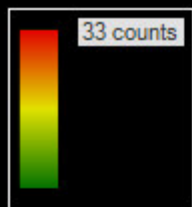


amável











wp+5m_1



wp+5m_3

Word
amável



wp+5m_2



wp+5m_4



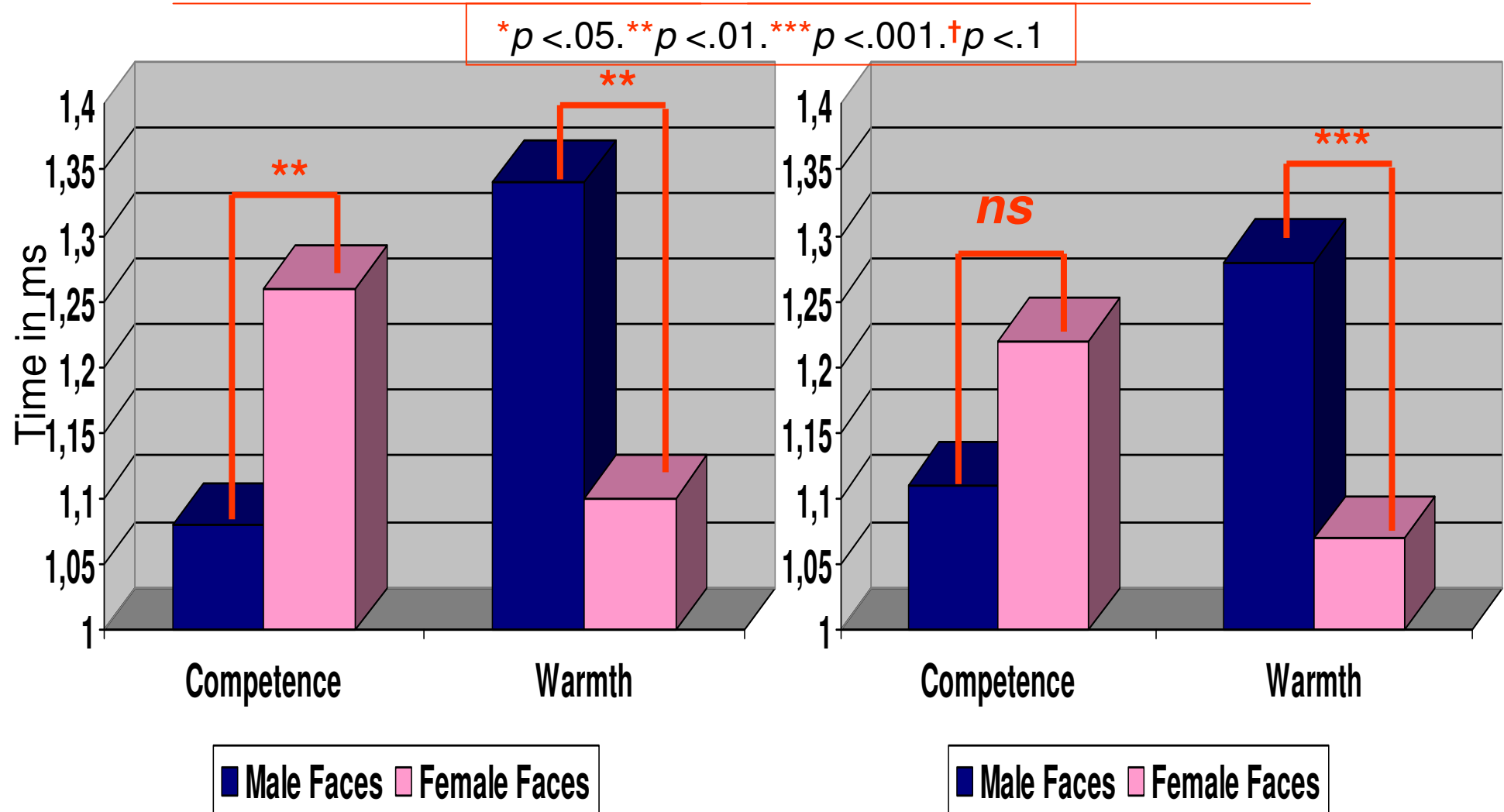
Method



- Design:
2 (content: competent traits vs warmth traits) x
2 (gender: male faces vs. female faces)
- Measure: Time to first fixation to the face
- Analyse separately:
 - Correct face present
 - Correct face absent



Results for Correct Face Present (left) and Correct Face Absent (right)

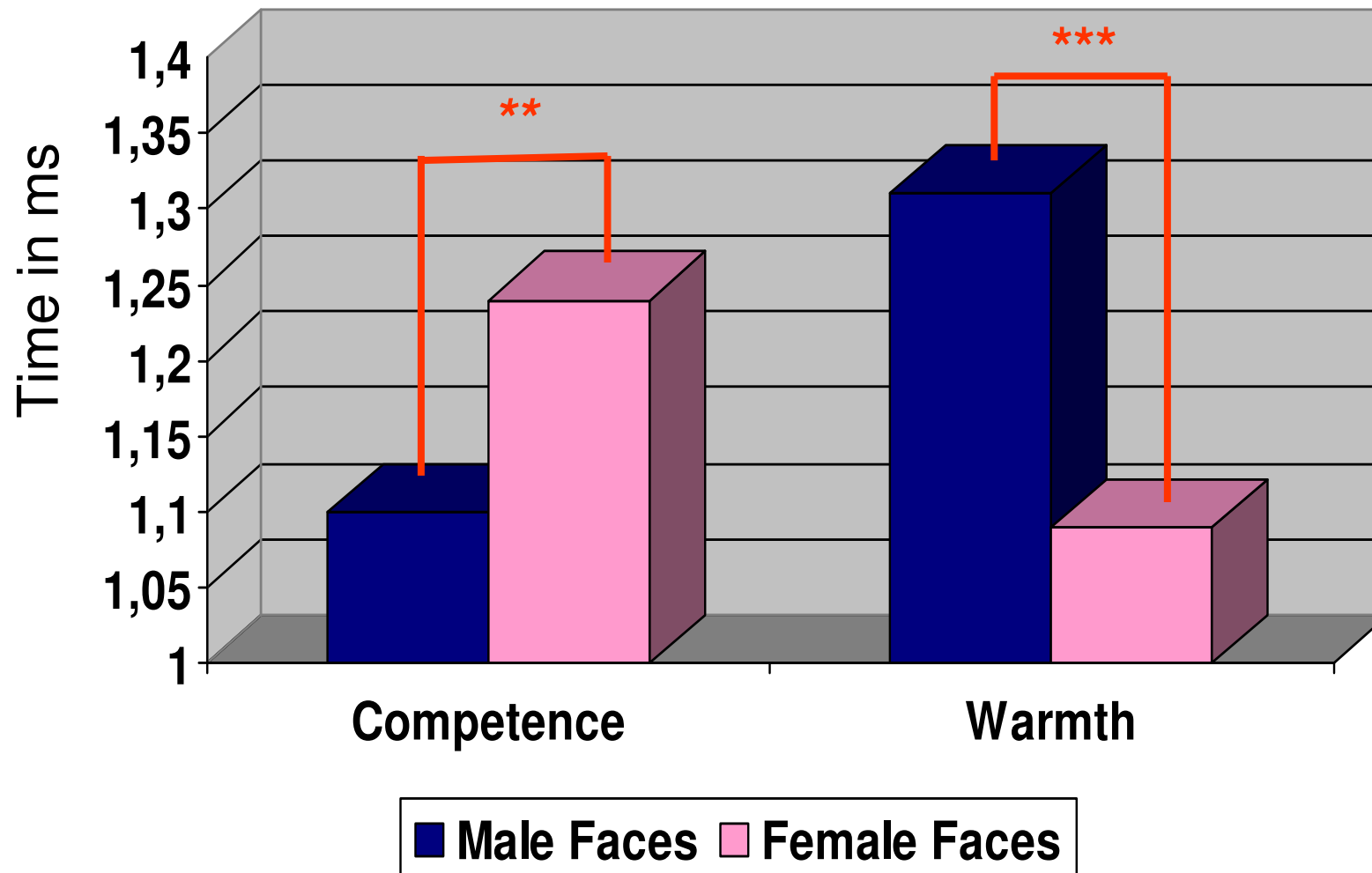


Interaction between gender and condition $F(1, 62) = 30.86, p < .001, \eta^2 = .33$



Overall Results

* $p < .05$. ** $p < .01$. *** $p < .001$. † $p < .1$





Discussion & Future Research



- Potential paradigm for studying gaze-prejudice associations
- Congruence with explicit attitudes
- Congruence with other implicit measures (i.e., IAT)
- Ethnic prejudice: Faces of different ethnicities & traits
- Applicable for research with children



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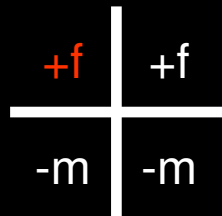
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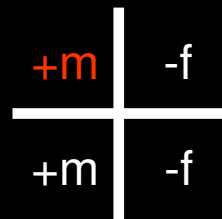


Obrigado!

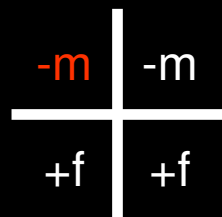
Version II / Warmth/ Default Present



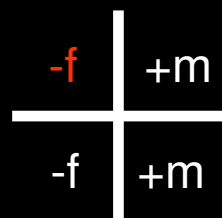
gentil



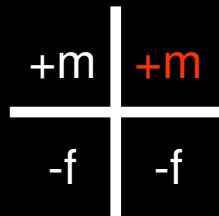
amável



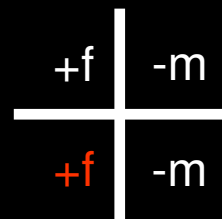
rude



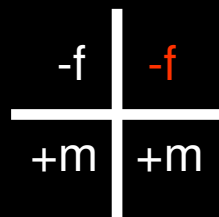
anti-social



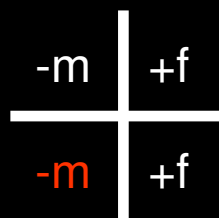
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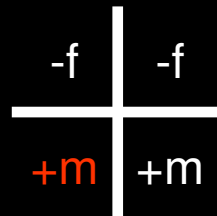
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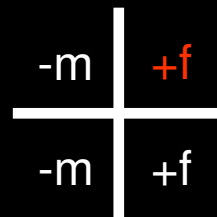
infeliz



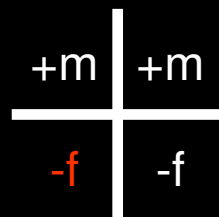
intolerante



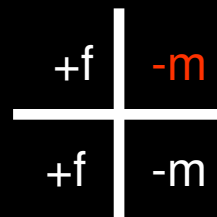
tolerante



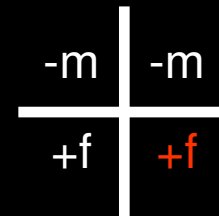
feliz



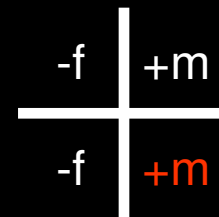
impopular



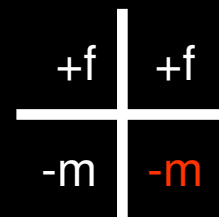
irritável



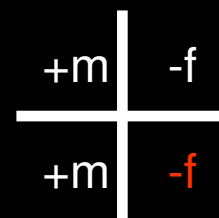
popular



confiante



arrogante



egoísta

+ : 4T 4B 4L 4R

+ : 12T 12B 12L 12R

- : 4T 4B 4L 4R

- : 12T 12B 12L 12R

wp+1f =

warmth

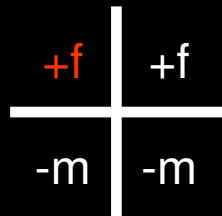
present

positive

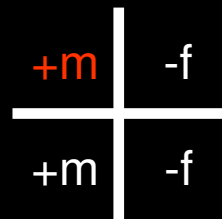
1st item

female pair

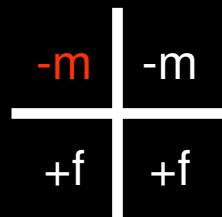
Version II / Warmth/ Default Present



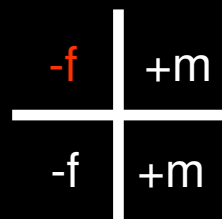
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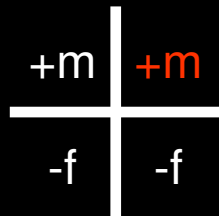
wp+5m



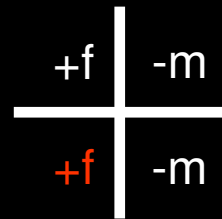
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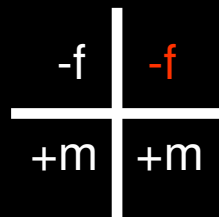
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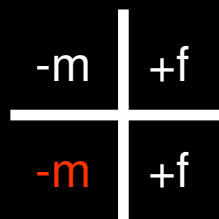
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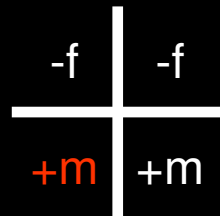
wp+6f



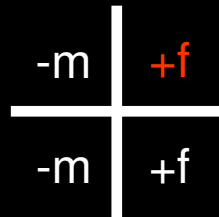
wp-2f



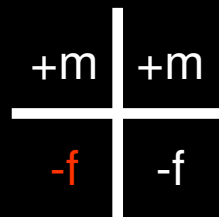
wp-6m



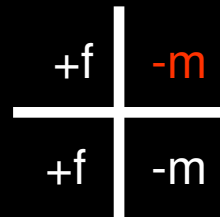
wp+3m



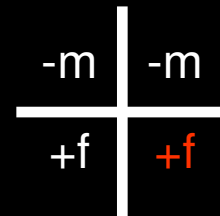
wp+7f



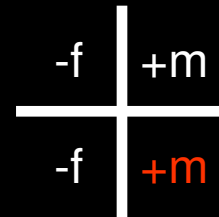
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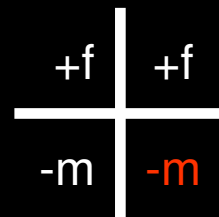
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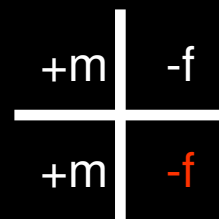
wp+4f



wp+8m



wp-4m



wp-8f

+ : 4T 4B 4L 4R

+ : 12T 12B 12L 12R

- : 4T 4B 4L 4R

- : 12T 12B 12L 12R

wp+1f =

warmth

present

positive

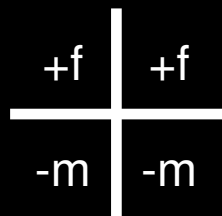
1st item

female pair

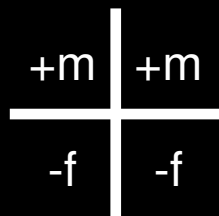
Version II / Warmth/ Default Absent

+ : 16T 16B 16L 16R

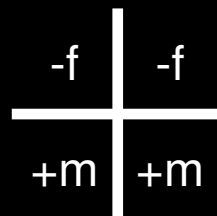
- : 16T 16B 16L 16R



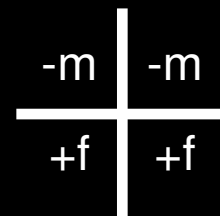
wa+1f



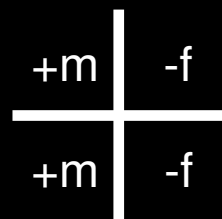
wa+2m



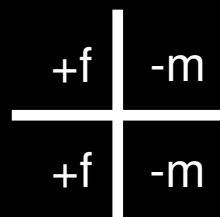
wa+3m



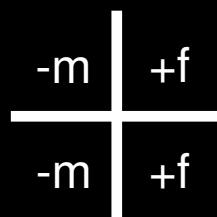
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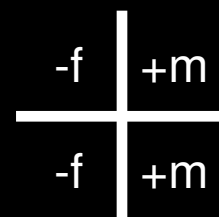
wa+5m



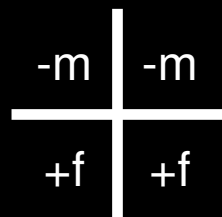
wa+6f



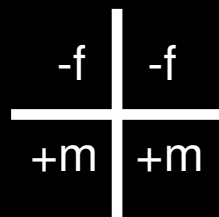
wa+7f



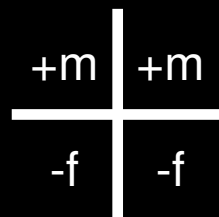
wa+8m



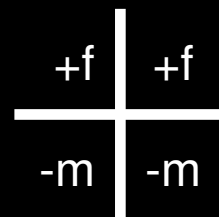
wa-1m



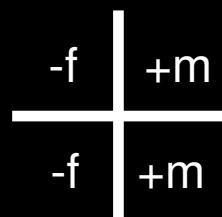
wa-2f



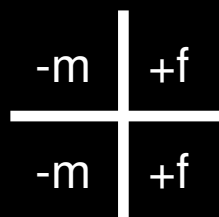
wa-3f



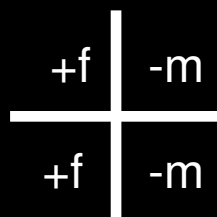
wa-4m



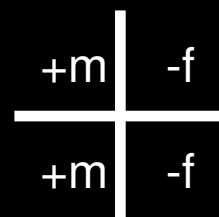
wa-5f



wa-6m



wa-7m



wa-8f

wa+1f =

warmth

absent

positive

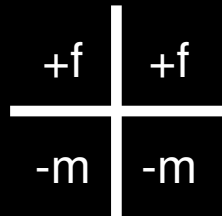
1st item

female pair

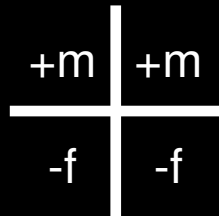
Version II / Warmth/ Default Absent

+ : 16T 16B 16L 16R

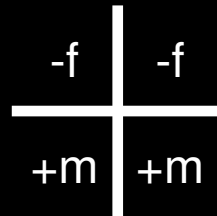
- : 16T 16B 16L 16R



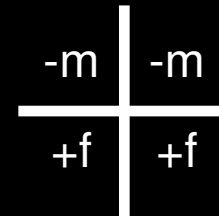
gentil



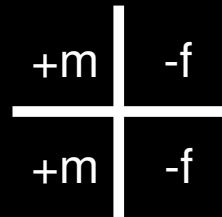
sociável



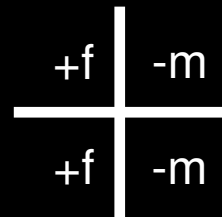
tolerante



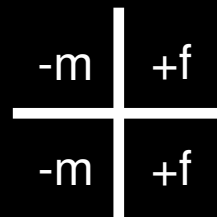
popular



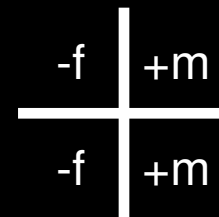
amável



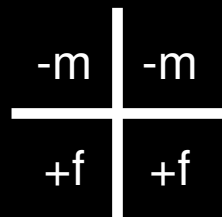
humilde



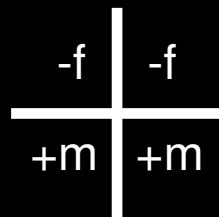
feliz



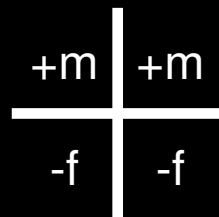
confiante



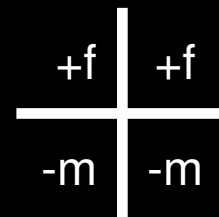
rude



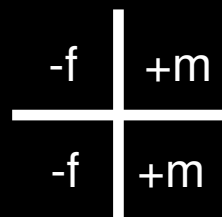
infeliz



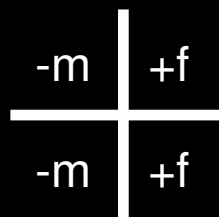
impopular



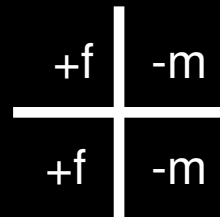
arrogante



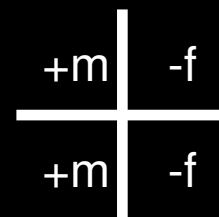
anti-social



intolerante



irritável



egoísta

wa+1f =

warmth

absent

positive

1st item

female pair

Competence 16 traits

Positive traits (c+)

Persistent / Persistente

Consistent / Consistente

Skillful / Competente

Intelligent / Inteligente

Responsible / Responsável

Confident / Confiante

Independent / Independente

Important / Importante

Negative traits (c-)

Irresponsible / Irresponsável

Inconsistent / Inconsistente

Not persistent / Impersistente

Hostile / Hostil

Incompetent / Incompetente

Superficial / Superficial

Dependent / Dependente

Insignificant / Insignificante

Warmth 16 traits

Positive traits

Gentle / Gentil

Happy / Feliz

Kind / Amável

Sociable / Sociável

Humble / Humilde

Popular / Popular

Tolerant / Tolerante

Trusting / Confiante

Negative traits

Not sociable / Anti-social

Unhappy / Infeliz

Rude / Rude

Irritable / Irritável

Inpopular / Impopular

Egoistic / Egoísta

Intolerant / Intolerante

Arrogant / Arrogante