

# First Impressions

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## Current Issues - Lecture 3

Phil McAleer

# As plain as the nose on your face: How strangers can tell if you are powerful, intelligent or even criminal just by a quick glance at your facial features

- Those with higher IQs are usually good-looking, according to researchers
- People with wide faces, such as Martin Sorrell, are powerful and successful
- Research shows paedophiles are more likely to have minor facial flaws
- Evidence means judgment made when we meet strangers is often accurate

MAILONLINE PUBLISHED: 13:34, 16 August 2015 | UPDATED: 12:28, 17 August 2015

*‘Actress Natalie Portman also graduated with a psychology degree from Havard in 2003.’*

<http://www.dailymail.co.uk/news/article-3199929/As-plain-nose-face-strangers-tell-powerful-intelligent-criminal-just-quick-glance-facial-features.html>

# Successful male leaders have wider faces than average man

**The Telegraph**

Wider faces make men appear more dominant, ambitious and powerful and so better business leaders, a study suggests

Thursday 24 September 2015



Former Marks & Spencer chairman Lord Rose might have benefited from his square jaw line Photo: Paul Grover

# 'You had me at hello': People judge how trustworthy you are within half a SECOND

- Discovered that people judge someone on how trustworthy or how dominant they are within the first 500 milliseconds of hearing their voice
- They also found that people will make these judgements, including how attractive they are, without seeing the person to whom we are speaking
- Findings will help to improve the efficiency of voice-operated systems and learning aids, and to shed new light on the automatic judgments we make

MAILONLINE

PUBLISHED: 12:13, 13 March 2014 | UPDATED: 12:20, 13 March 2014



<http://www.dailymail.co.uk/sciencetech/article-2579998/You-hello-People-judge-trustworthy-half-SECOND.html>

# **Your voice betrays your personality in a split second**

You had me at “Hello”! It turns out our opening words speak volumes – people take less than a second to form an impression of someone’s personality based on their voice alone.

<https://www.newscientist.com/article/dn25226-your-voice-betrays-your-personality-in-a-split-second/>

# **Confident? Your voice gives you away in milliseconds**

Watch what you say, or rather, how you say it. People judge how confident you are in just 0.2 seconds.

<https://www.newscientist.com/article/dn27107-confident-your-voice-gives-you-away-in-milliseconds/>

# Have confidence, your first impressions of a stranger usually ARE accurate

. MAILONLINE    UPDATED: 16:45, 18 April 2011

<http://www.dailymail.co.uk/sciencetech/article-1378160/Dont-feel-guilty-impressions-stranger-usually-ARE-accurate.html>

The more confident the volunteers felt in accurately rating another's personality, then the closer their ratings were to the other person's friends and family, the researchers said.

However, the participants with the highest accuracy were those who rated themselves moderately accurate - those highly confident of their judgment were marginally less successful.



Voices

# *Bad news for Labour – first impressions count*

Saturday 13 June 2015 21:00 BST



INDEPENDENT



Ed Miliband last week, making his first speech in the House of Commons since he lost the election *PA*

<http://www.independent.co.uk/voices/bad-news-for-labour-first-impressions-count-10318270.html>

# How To Make The Perfect First Impression (According To Science)

The Huffington Post | By Carolyn Gregoire

Posted: 05/30/2014 8:27 am EDT | Updated: 06/12/2014 12:59 pm EDT

[http://www.huffingtonpost.com/2014/05/30/the-science-and-art-of-first-impressions\\_n\\_5399004.html](http://www.huffingtonpost.com/2014/05/30/the-science-and-art-of-first-impressions_n_5399004.html)



<http://www.enactuscareerconnections.com/wp-content/uploads/first-impression3.jpg>



<http://www.thefitnessu.com/mind/firstimpressions>



You never get a  
second chance to  
make a first  
impression

*Will Rogers or Oscar Wilde or about 100 other people*

# First Impressions

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1. Why do they occur?
2. What drives them?
3. Are they consistent?
  - Duration?
  - From one participant to the next?
4. Are they accurate?



# The functional basis of face evaluation

Nikolaas N. Oosterhof and Alexander Todorov\*

PNAS | August 12, 2008 | vol. 105 | no. 32 | 11087–11092

“... thieves are notable for their expressive faces and manual dexterity, small wandering eyes that are often oblique in form, thick and close eyebrows, distorted or squashed noses, thin beards and hair, and sloping foreheads”

**Cesare Lombroso – 19<sup>th</sup> Century Criminologist**

“... made up his mind that no man with such a nose could have energy”


***Henrietta Darwin on why Captain Robert Fitzroy of HMS Beagle almost didn't take her father, Charles***

“ His brow saved him.”



# How Do You Say 'Hello'? Personality Impressions from Brief Novel Voices

Phil McAleer<sup>1\*</sup>, Alexander Todorov<sup>2</sup>, Pascal Belin<sup>1,3,4,5</sup>

 PLOS ONE March 2014 | Volume 9 | Issue 3 | e90779

“ Within voice perception, a focus on personality has endured: from Cicero’s apparent pondering of competent speakers in *DeOratore*; through the golden period of radio exploring status [5]; to modern researchers examining various personality traits including attractiveness and dominance [6–12] ”

*NB: numbers parenthesis relate to references in PLOS paper.*

*E.g. [5] Allport & Cantril (1934) Judging Personality from Voice, J. Soc. Psychol. 5, 37-54*





# Predicting political elections from rapid and unreflective face judgments

Charles C. Ballew II\* and Alexander Todorov\*<sup>1‡</sup> 17948–17953 | PNAS | November 13, 2007 | vol. 104 | no. 46

Evolution and Human Behavior 28 (2007) 18–27

## Facial appearance affects voting decisions

Anthony C. Little<sup>a,c,\*</sup>, Robert P. Burriss<sup>a</sup>, Benedict C. Jones<sup>b</sup>, S. Craig Roberts<sup>a</sup>

Evolution and Human Behavior 33 (2012) 210–216

## Voice pitch influences voting behavior<sup>☆</sup>

Cara C. Tigue, Diana J. Borak, Jillian J.M. O'Connor, Charles Schandl, David R. Feinberg\*



## Sounds like a winner: voice pitch influences perception of leadership capacity in both men and women

Casey A. Klofstad<sup>1,\*</sup>, Rindy C. Anderson<sup>2</sup> and Sus

*Proc. R. Soc. B* (2012) **279**, 2698–2704

doi:10.1098/rspb.2012.0311

Published online 14 March 2012





# Perceptions of Competence, Strength, and Age Influence Voters to Select Leaders with Lower-Pitched Voices

PLoS ONE 10(8): e0133779. 2015

Casey A. Klofstad<sup>1,2\*</sup>, Rindy C. Anderson<sup>2,3</sup>, Stephen Nowicki<sup>2</sup>

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## Perceptions of facial dominance, trustworthiness and attractiveness predict managerial pay awards in experimental tasks

*The Leadership Quarterly xxx (2015) xxx–xxx*

Laura S. Fruhen<sup>a,\*</sup>, Christopher D. Watkins<sup>b</sup>, Benedict C. Jones<sup>c</sup>

## The Impact of Litigants' Baby-Facedness and Attractiveness on Adjudications in Small Claims Courts\*

*Law and Human Behavior, Vol. 15, No. 6, 1991*



## Do Impressions of Health, Dominance, and Warmth Explain Why Masculine Faces Are Preferred More in a Short-Term Mate?



Victor X. Luevano, Department of Psychology, Brandeis University, Waltham, MA, USA. Email: vluevano@brandeis.edu (Corresponding author)

2007

Leslie A. Zebrowitz, Department of Psychology, Brandeis University, Waltham, MA, USA.

Evolutionary Psychology

5(1): 15-27

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## WHAT SOUNDS BEAUTIFUL IS GOOD: THE VOCAL ATTRACTIVENESS STEREOTYPE

Miron Zuckerman  
Robert E. Driver

*Journal of Nonverbal Behavior* 13(2), Summer 1989  
© 1989 Human Sciences Press



## Voice pitch predicts reproductive success in male hunter-gatherers

C. L. Apicella<sup>1,\*</sup>, D. R. Feinberg<sup>2</sup>  
and F. W. Marlowe<sup>3</sup>

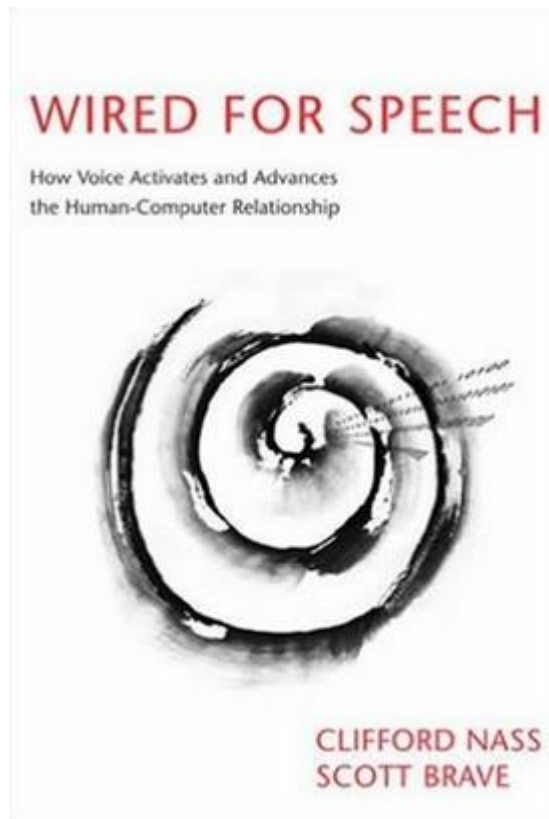
biology  
**letters**  
Evolutionary biology

*Biol. Lett.* (2007) 3, 682–684  
doi:10.1098/rsbl.2007.0410  
Published online 25 September 2007

# Does Computer-Synthesized Speech Manifest Personality? Experimental Tests of Recognition, Similarity-Attraction, and Consistency-Attraction

Clifford Nass and Kwan Min Lee  
Stanford University

Journal of Experimental Psychology: Applied  
2001, Vol. 7, No. 3, 171–181



<https://www.youtube.com/watch?v=e7PvUUhDrfk>



# The functional basis of face evaluation

Nikolaas N. Oosterhof and Alexander Todorov\*

PNAS | August 12, 2008 | vol. 105 | no. 32 | 11087–11092

## Free Response

Trait dimension	Frequency count
1. Attractive	150
2. Unhappy	95
3. Sociable	89
4. Emotionally stable	85
5. Mean	63
6. Boring	60
7. Aggressive	43
8. Weird	43
9. Intelligent	35
10. Confident	24
11. Caring	21
12. Egotistic	21
13. Responsible	20
14. Trustworthy	12
15. Dominant	–



- Purpose was to narrow down the number of traits

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PNAS | August 12, 2008 | vol. 105 | no. 32 | 11087–11092

Trait dimension	Reliability ( $\alpha$ )	Sample size ( $n$ )
1. Attractive	0.95	21
2. Weird	0.95	22
3. Mean	0.93	19
4. Trustworthy	0.93	20
5. Aggressive	0.92	19
6. Caring	0.93	22
7. Emotionally stable	0.92	21
8. Unhappy	0.93	23
9. Responsible	0.91	18
10. Sociable	0.92	20
11. Dominant	0.93	28
12. Confident	0.91	23
13. Intelligent	0.90	27
14. Egoistic	0.81	22
15. Boring	0.67	22

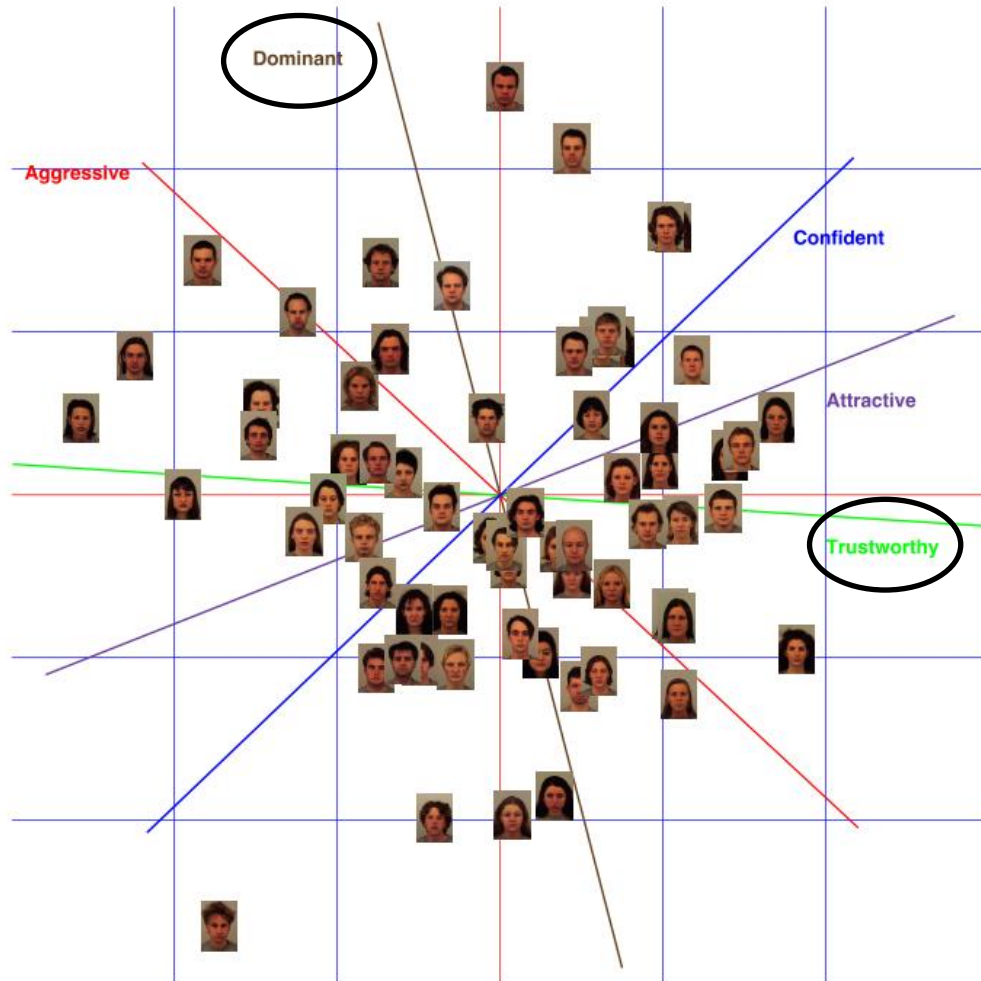
- Purpose was to narrow down the number of traits



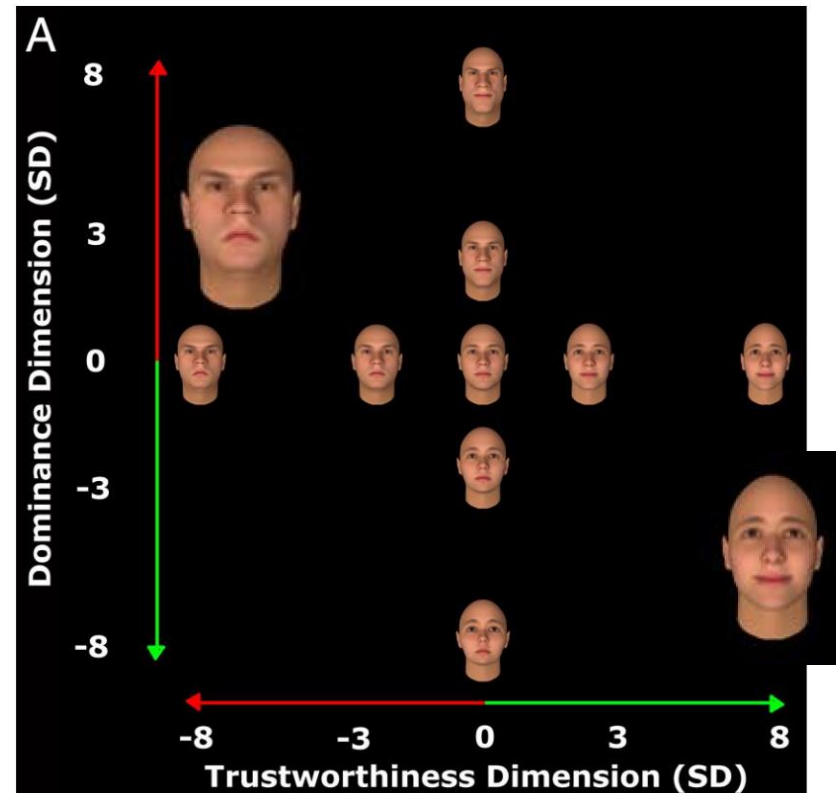
# The functional basis of face evaluation

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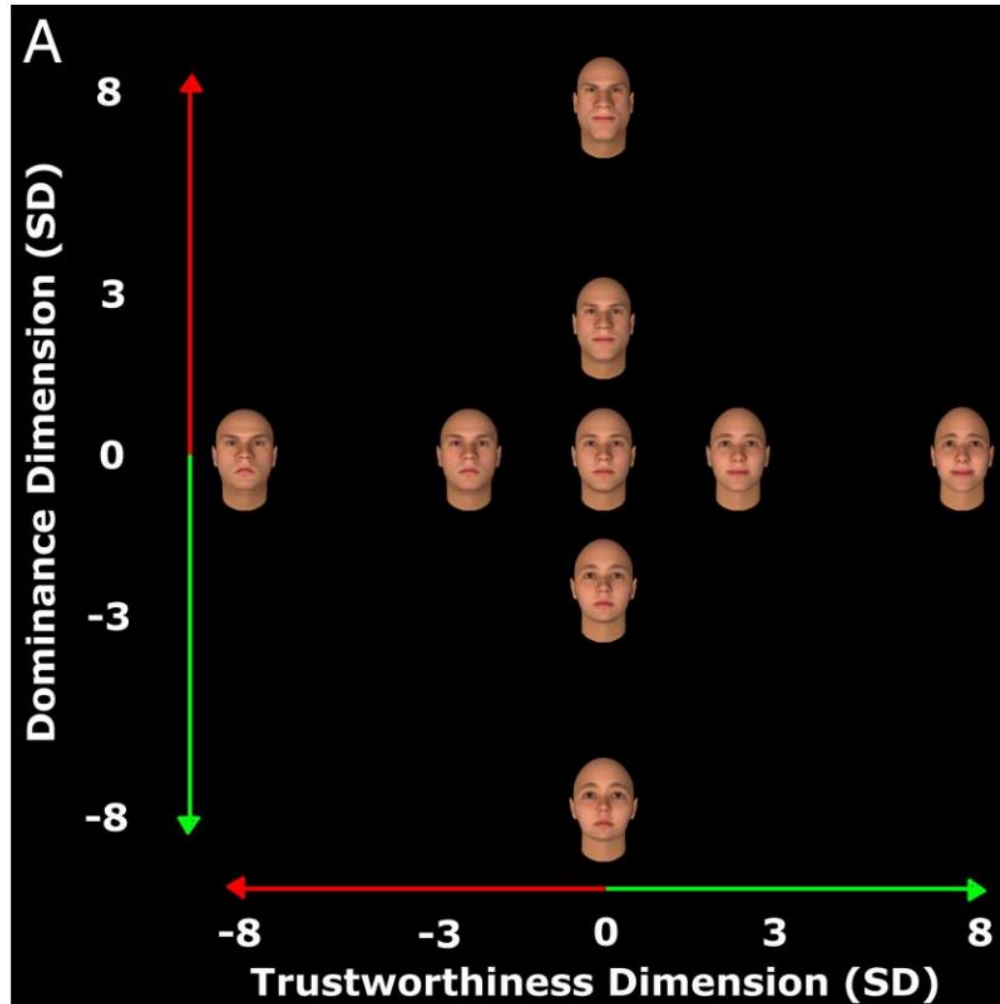
Principal Component Analysis



# The functional basis of face evaluation

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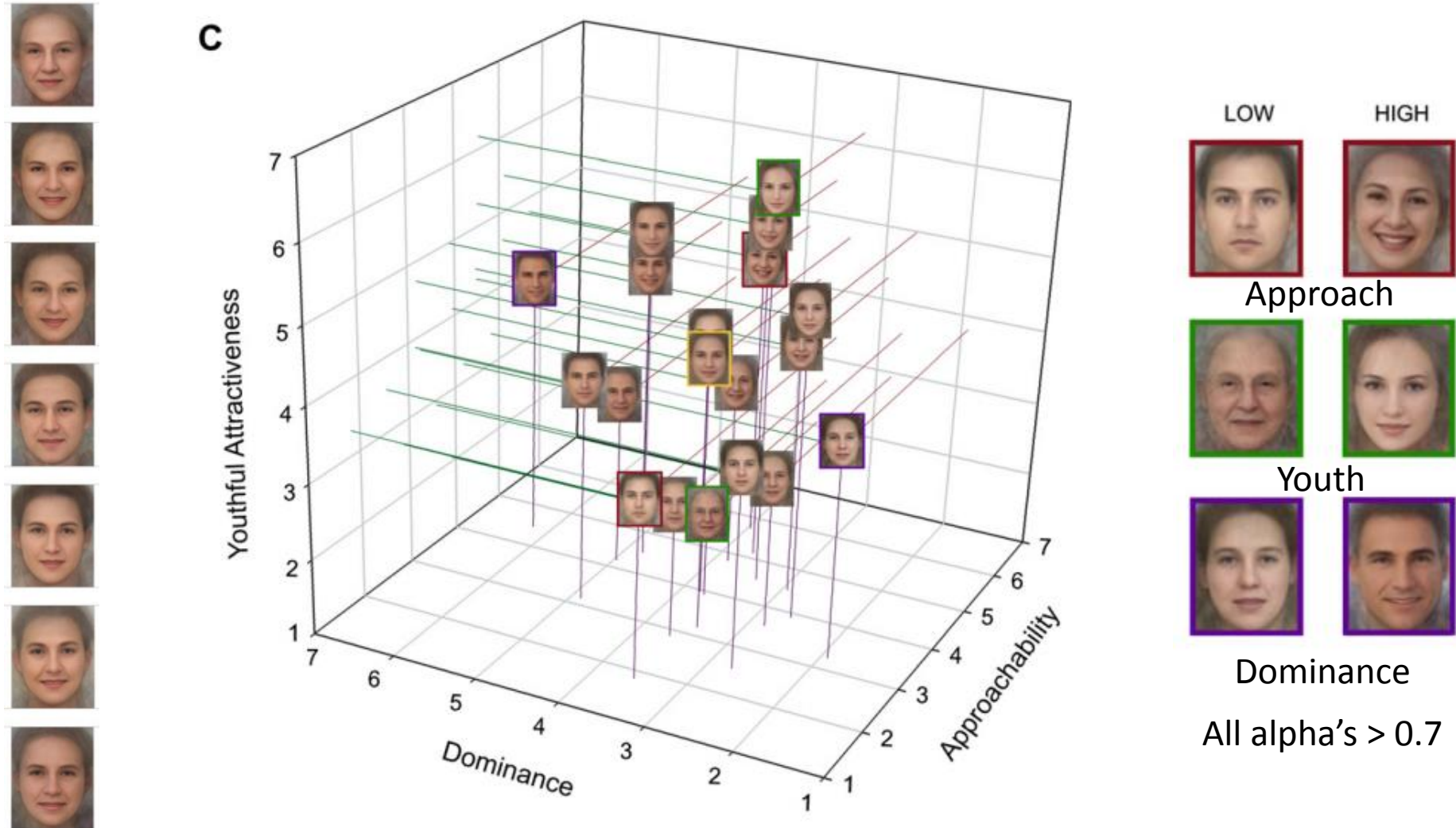
PNAS | August 12, 2008 | vol. 105 | no. 32 | 11087–11092



# Social inferences from faces: Ambient images generate a three-dimensional model

*Cognition* 127 (2013) 105–118

Clare A.M. Sutherland<sup>a,\*</sup>, Julian A. Oldmeadow<sup>a</sup>, Isabel M. Santos<sup>b</sup>, John Towler<sup>c</sup>,  
D. Michael Burt<sup>d</sup>, Andrew W. Young<sup>a</sup>



1000 images taken from the internet

# How Do You Say ‘Hello’? Personality Impressions from Brief Novel Voices

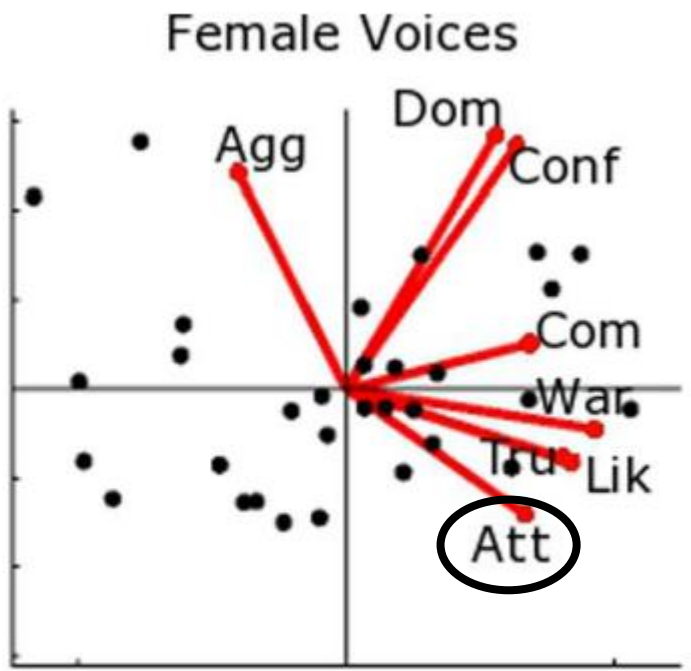
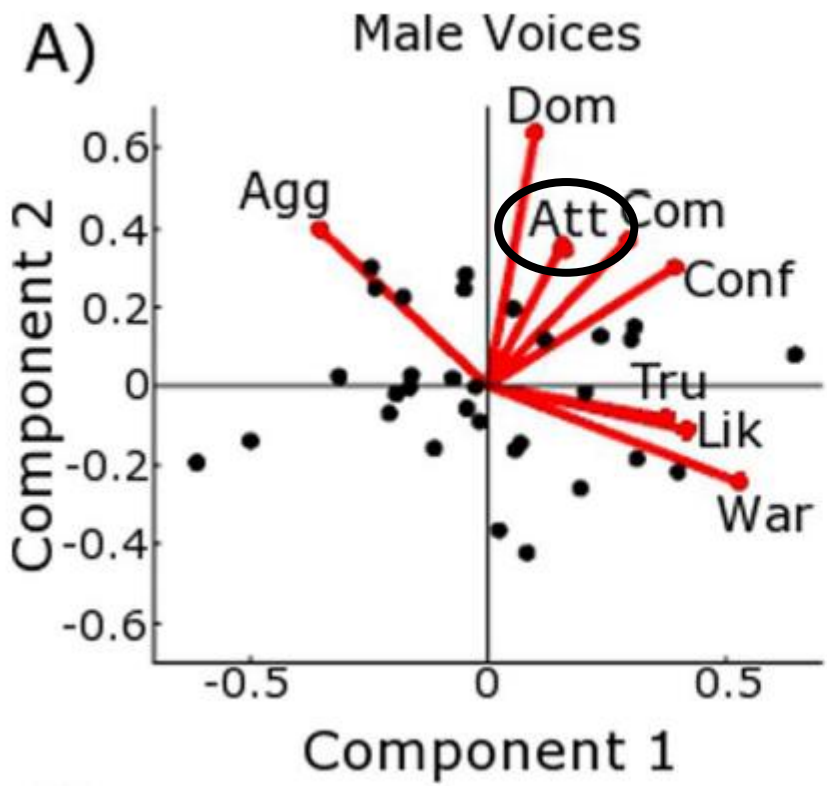
Phil McAleer<sup>1\*</sup>, Alexander Todorov<sup>2</sup>, Pascal Belin<sup>1,3,4,5</sup>

**Table 1.** Cronbach alpha scores, indicating reliability of judgments, and number of participants per trait judgment.

Social Trait	Cronbach Alpha	N
Aggressiveness	0.98	33
Attractiveness	0.91	31
Competence	0.90	36
Confidence	0.88	34
Dominance	0.88	28
Femininity	0.98	24
Likeability	0.88	30
Masculinity	0.98	25
Trustworthiness	0.93	28
Warmth	0.92	33
Average	0.92	30.2

# How Do You Say 'Hello'? Personality Impressions from Brief Novel Voices

Phil McAleer<sup>1\*</sup>, Alexander Todorov<sup>2</sup>, Pascal Belin<sup>1,3,4,5</sup>





# Males

A slightly higher pitch sounds more trustworthy

- Pitch high; hnr down



**Trustworthy**

**Not Trustworthy**

# Females

Avoid raising voice at the end of sentences.

- hnr down; glide down; intonation up



**Trustworthy**

**Not Trustworthy**

# Dominance

Male or female, you either have it or you don't

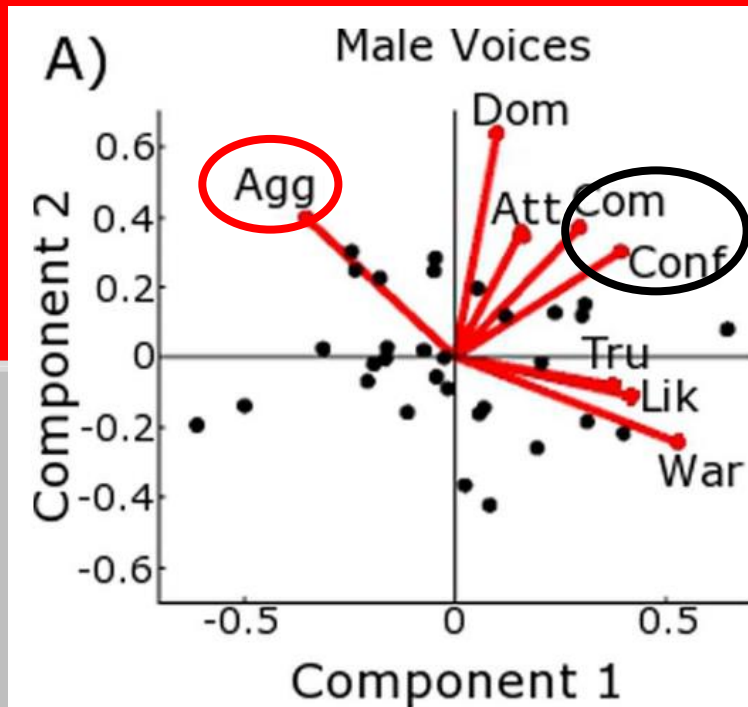
- Male – low pitch; low hnr (older); low dispersion
- Female – low dispersion; higher pitch



**Dominant**

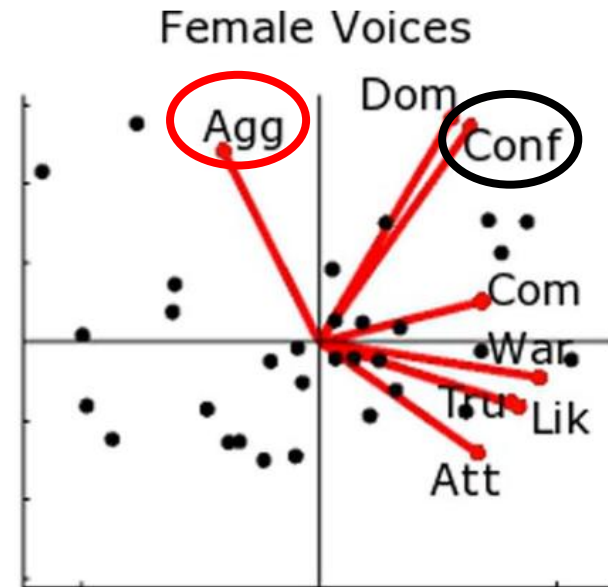
**Not Dominant**

**Not Trustworthy  
and  
Dominant**



**Not Trustworthy  
And  
Not Dominant**

**Trustworthy  
and  
Dominant**

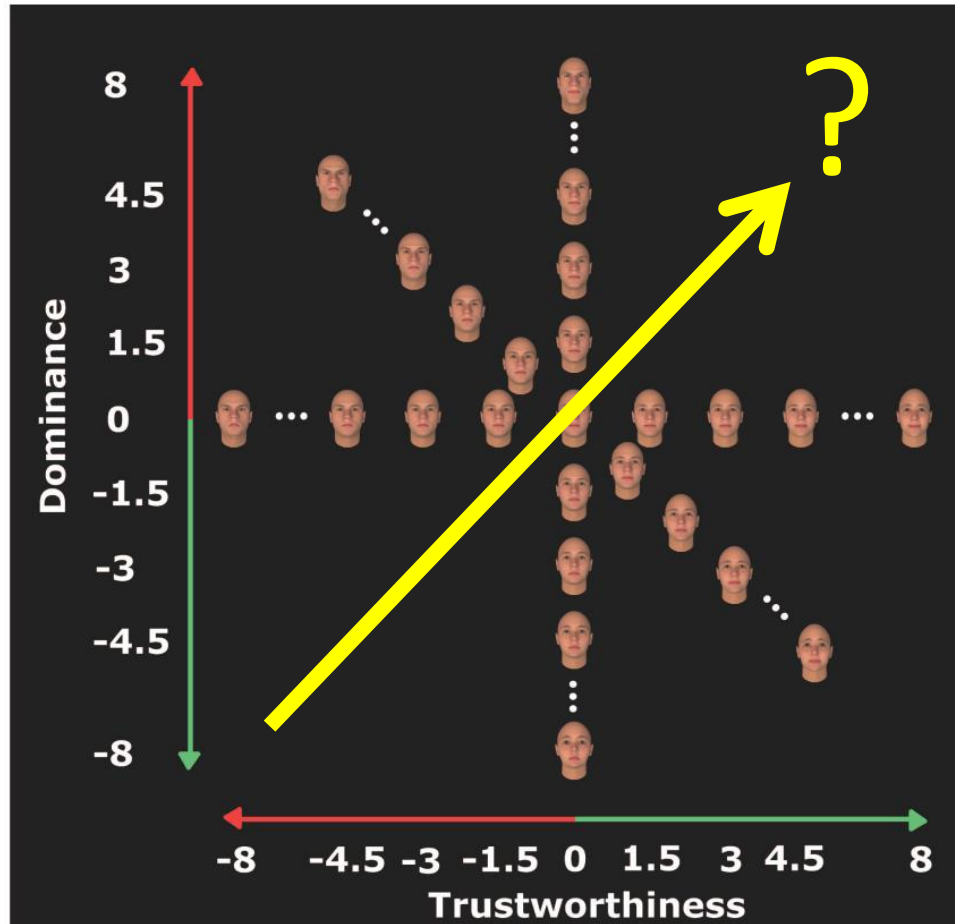


**Trustworthy  
but  
Not Dominant**

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PNAS | August 12, 2008 | vol. 105 | no. 32 | 11087–11092

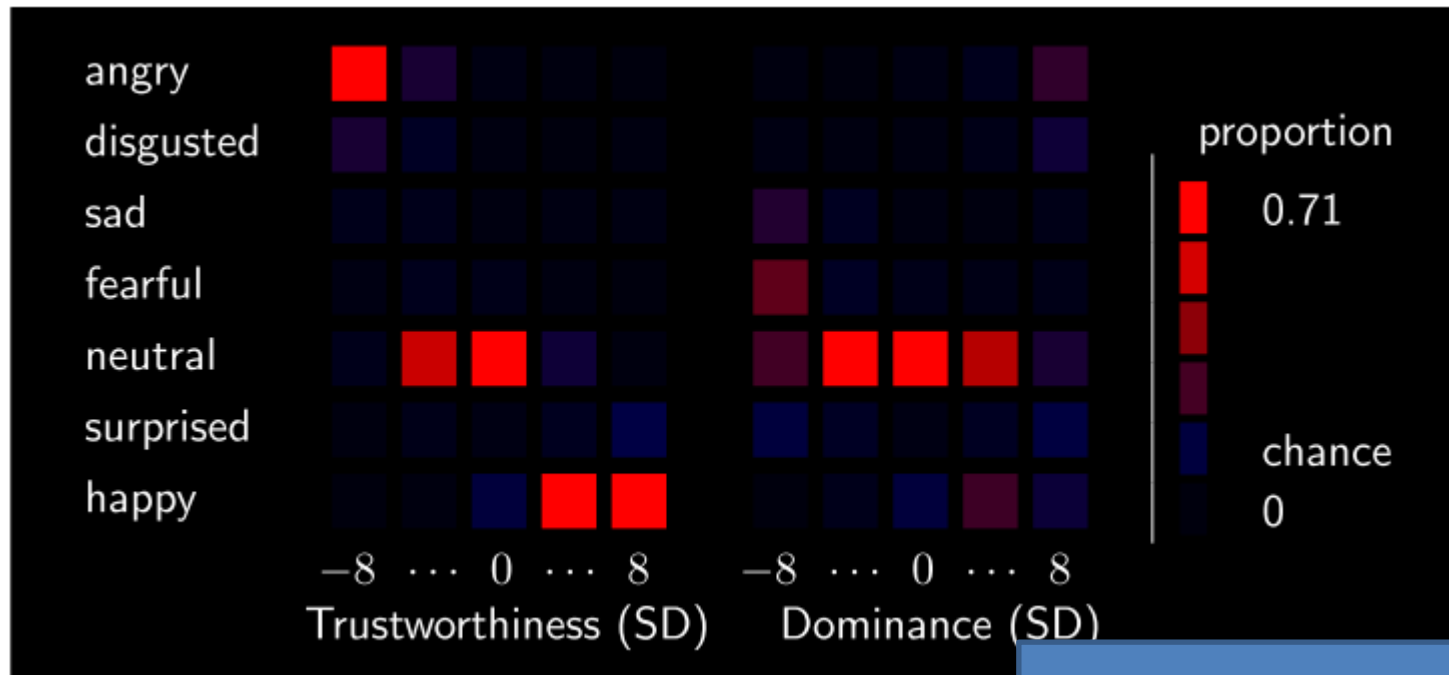




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PNAS | August 12, 2008 | vol. 105 | no. 32 | 11087–11092



“A temporal extension effect whereby the perceiver regards a momentary characteristic of the person as if it were an enduring attribute (Secord, 1958)”

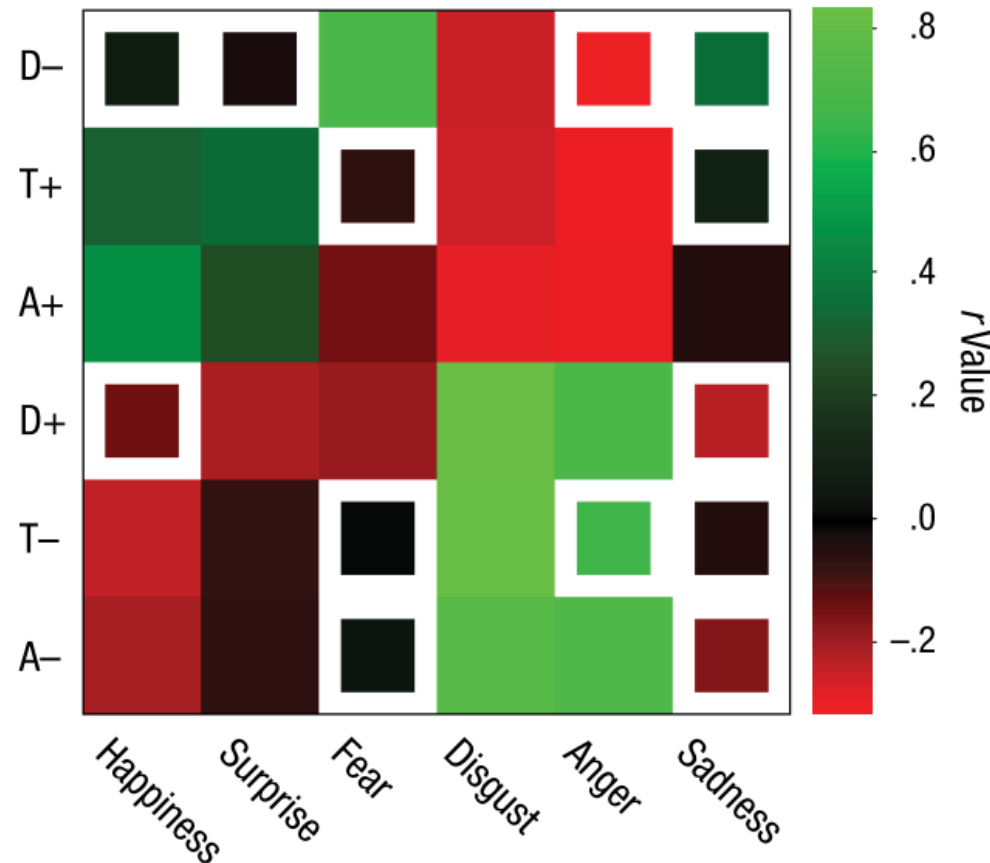
## Overgeneralization hypothesis

Montepare JM, Dobish H (2003) The contribution of emotion perceptions and their overgeneralizations to trait impressions. *J Nonverb Behav* 27:237–254.

# Facial Movements Strategically Camouflage Involuntary Social Signals of Face Morphology

Psychological Science  
2014, Vol. 25(5) 1079–1086

Daniel Gill, Oliver G. B. Garrod, Rachael E. Jack,  
and Philippe G. Schyns



**Fig. 4.** Results from Experiment 3: Pearson correlations between the action units of six dynamic social masks (left axis) and models of facial expressions of emotion (bottom axis). Dynamic social masks were created for dominance (D), trustworthiness (T), and attractiveness (A); the plus and minus signs indicate, respectively, high and low intensity of those traits. Models were also created for the six classic emotions: happiness, surprise, fear, disgust, anger, and sadness. The color coding indicates whether each correlation was positive (green) or negative (red). Complete filling in of a square indicates that the correlation was significant ( $p < .05$ ; corrected for multiple comparisons; Mandel & Betensky, 2008); white outlining indicates that the correlation was nonsignificant.

Ignore the white boxes (n.s.)

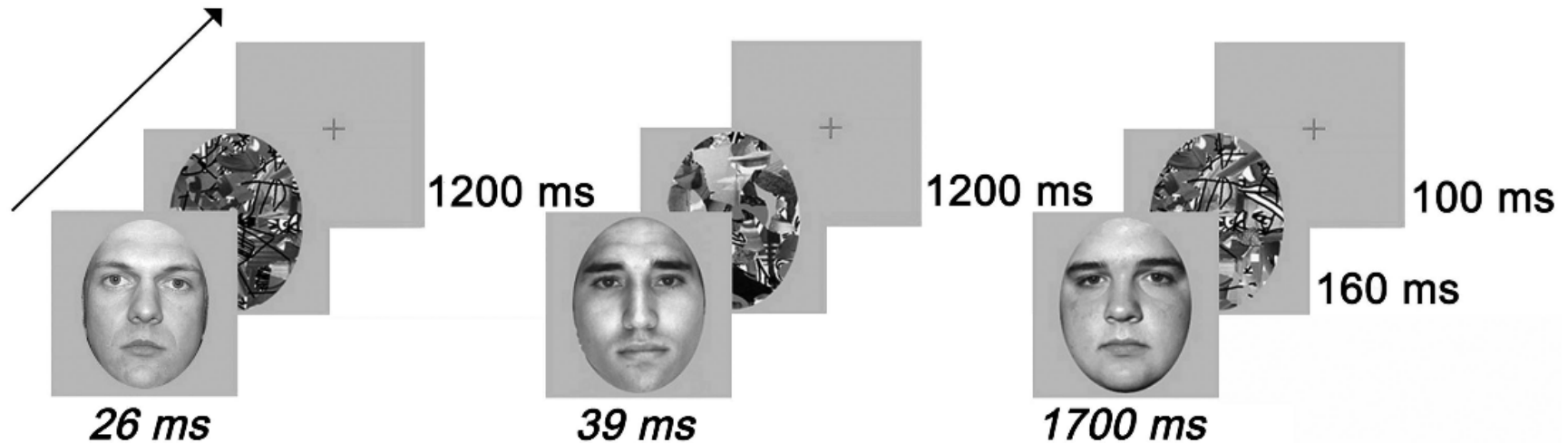
# Very First Impressions

Emotion

2006, Vol. 6, No. 2, 269–278

Moshe Bar, Mital Neta, and Heather Linz

Martinos Center at Massachusetts General Hospital, Harvard Medical School



*Figure 1.* Threat judgment of static face images presented for different durations. Three different groups of participants saw all faces for one of the following exposures: 26 ms, 39 ms, or 1700 ms, followed by a mask and fixation. Participants' task was to judge the level at which they perceived each emotionally neutral face to be threatening (i.e., rate on a scale of 1 to 5), and they were instructed explicitly to follow their immediate gut reaction in judging the faces (see Experiment 1, Method section).

# Very First Impressions

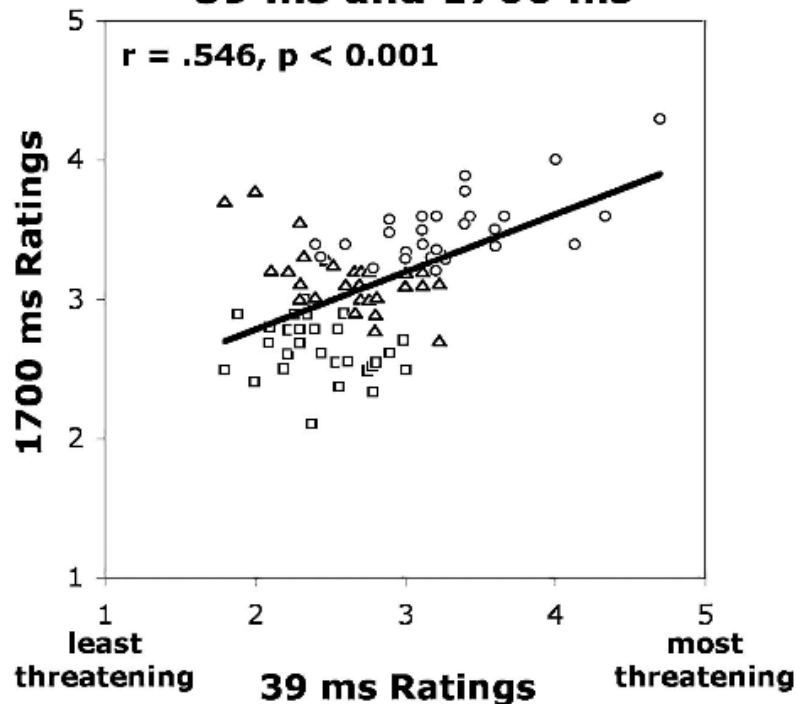
Emotion

2006, Vol. 6, No. 2, 269–278

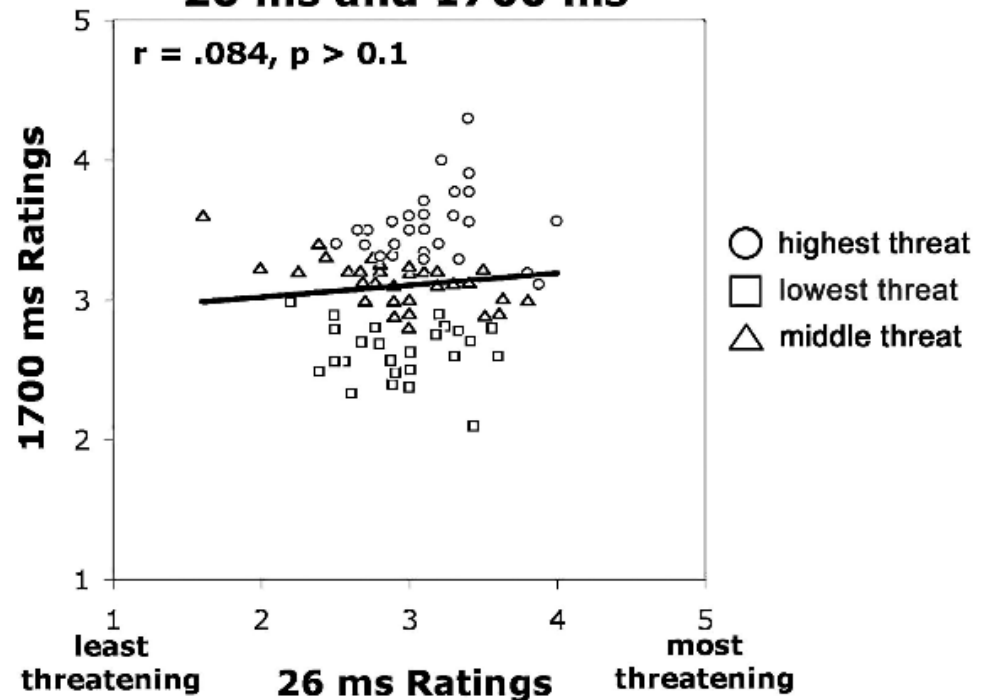
Moshe Bar, Maital Neta, and Heather Linz

Martinos Center at Massachusetts General Hospital, Harvard Medical School

## Agreement between 39 ms and 1700 ms



## Agreement between 26 ms and 1700 ms



- Only worked for threat trait judgements and not for intelligence trait judgements
  - Approach/avoidance – survival?

## Making Up Your Mind After a 100-Ms Exposure to a Face

Janine Willis and Alexander Todorov 2006



**TABLE 1**

*Correlations Between Time-Constrained Trait Judgments From Facial Appearance and Judgments Made in the Absence of Time Constraints*

Trait judgment	Exposure time					
	100 ms		500 ms		1,000 ms	
	Zero-order correlation	Partial correlation	Zero-order correlation	Partial correlation	Zero-order correlation	Partial correlation
Trustworthiness	.73	.63	.66	.59	.74	.69
Competence	.52	.39	.67	.58	.59	.50
Likeability	.59	.40	.57	.46	.63	.50
Aggressiveness	.52	.52	.56	.58	.59	.61
Attractiveness	.69	—	.57	—	.66	—

**Note.** The partial correlations control for judgments of attractiveness made after the same exposure time. All correlations were significant,  $p < .001$ ,  $p_{\text{rep}} > .98$ .

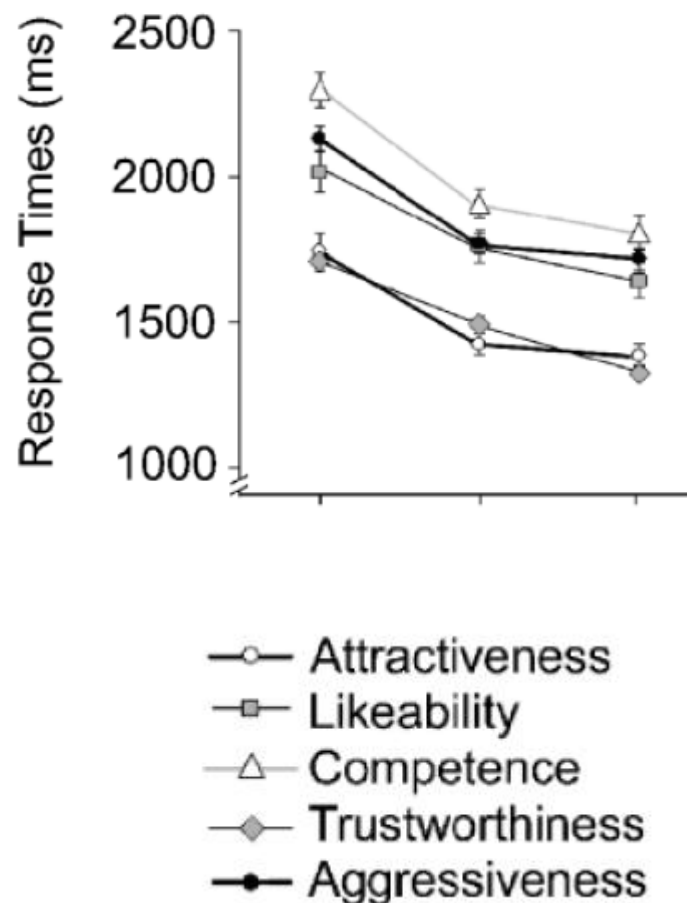
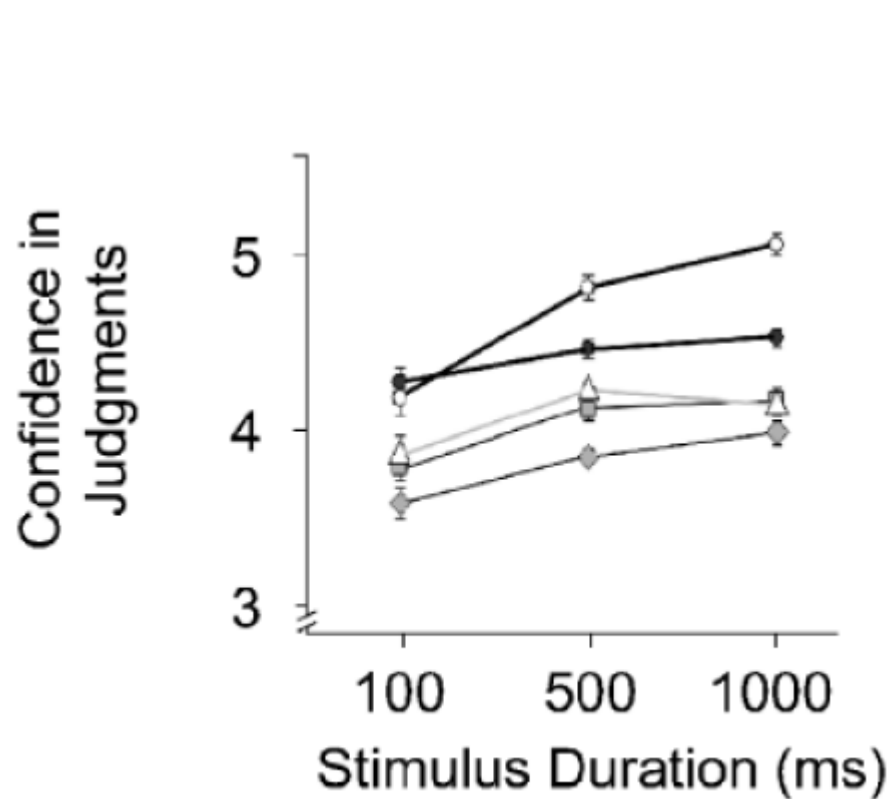
# First Impressions

PSYCHOLOGICAL SCIENCE

Volume 17—Number 7

## Making Up Your Mind After a 100-Ms Exposure to a Face

Janine Willis and Alexander Todorov 2006



# First Impressions

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1. Why do they occur?
2. What drives them?
3. Are they consistent?
  - Duration?
  - From one participant to the next?
4. Are they accurate?



# Accurate Social Perception at Zero Acquaintance: The Affordances of a Gibsonian Approach

Personality and Social Psychology Review  
1997, Vol. 1, No. 3, 204–223

Leslie A. Zebrowitz and Mary Ann Collins

Meta-Analysis: the effects that are reported are not trivial, and they are consistently in the moderate range for the traits of extraversion and dominance

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## Social Psychological Face Perception: Why Appearance Matters

Leslie A. Zebrowitz<sup>1\*</sup> and Joann M. Montepare<sup>2</sup>

*Social and Personality Psychology Compass* 2/3 (2008): 1497–1517, 10.1111/j.1751-9004.2008.00109.x

- Women whose neutral faces looked angry actually scored higher on a hostile personality dimension.
- Level of attractiveness provides a valid cue to low, but not high, intelligence or health.
- **BUT!!** – more babyfaced young men were more likely to earn military awards, contradicting impressions of their submissiveness and physical weakness;
  - So can we use masculinity of face/voice to predict?
  - Is everything just situational or maybe just a best guess?

# A thin slice perspective on the accuracy of first impressions ☆

Dana R. Carney, C. Randall Colvin \*, Judith A. Hall

Journal of Research in Personality 41 (2007) 1054–1072

- Personality by self report, peer report and parent reports
  - Exposure time (5, 20, 45, 60, and 300 s) from 5 minute 'getting acquainted interviews'
  - Three hundred and thirty four judges rated 30 targets
  - Accuracy was defined as the correlation between a judge's ratings and the target's criterion scores on the same construct.
- 
- Negative affect, extraversion, conscientiousness, and intelligence were judged moderately well after 5-s exposures
  - Positive affect, neuroticism, openness, and agreeableness required more exposure time to achieve similar levels of accuracy.

# **Not So Fast: The (Not-Quite-Complete) Dissociation Between Accuracy and Confidence in Thin-Slice Impressions**

Personality and Social Psychology Bulletin  
36(2) 264–277 2010

**Daniel R. Ames,<sup>1</sup> Lara K. Kammrath,<sup>2</sup> Alexandra Suppes,<sup>1</sup>  
and Niall Bolger<sup>1</sup>**

Overall, perceivers showed a limited ability to intuit which of their impressions were more accurate than others

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# **Do We Know When Our Impressions of Others Are Valid? Evidence for Realistic Accuracy Awareness in First Impressions of Personality**

2011

Social Psychological and  
Personality Science  
2(5) 452-459

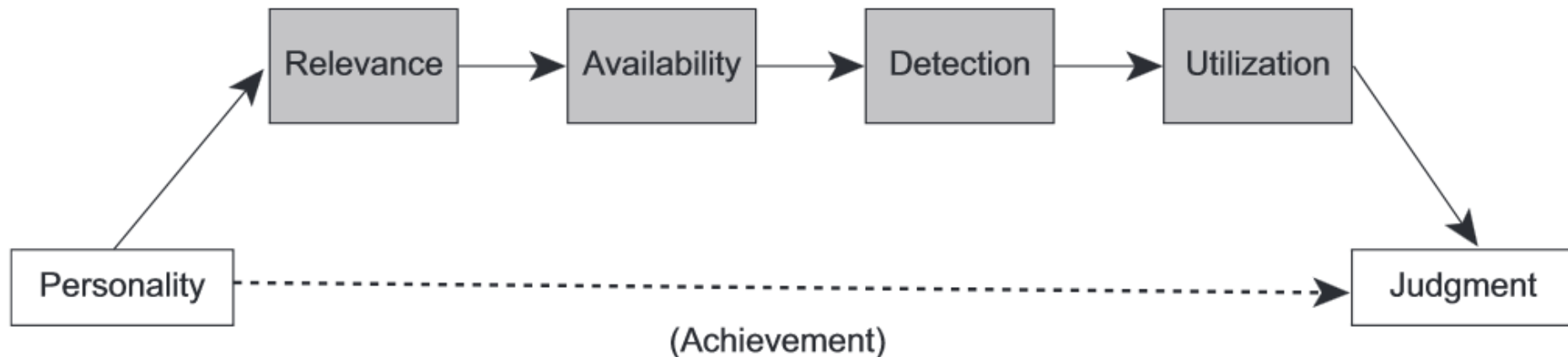
**Jeremy C. Biesanz<sup>1</sup>, Lauren J. Human<sup>1</sup>, Annie-Claude Paquin<sup>1</sup>,  
Meanne Chan<sup>1</sup>, Kate L. Parisotto<sup>1</sup>, Juliet Sarracino<sup>1</sup>, and Randall L. Gillis<sup>2</sup>**

In sum, people are aware of when and for whom their first impressions are more realistically accurate.

# Accurate Personality Judgment

David C. Funder

Current Directions in Psychological  
Science  
21(3) 177–182



**Fig. 1.** The Realistic Accuracy Model (RAM): Accurate judgment of personality (“achievement”) can occur only to the extent that relevant behavioral information is available to and detected by a judge who then utilizes that information correctly.

## 3 methods for measuring accuracy:

1. self-other agreement
2. other-other agreement
3. behavioral prediction

# Accurate Personality Judgment

David C. Funder

Current Directions in Psychological  
Science  
21(3) 177–182

*Gordon Allport (1937) noted many years ago that we are usually able “to select the gifts that our friends will like, to bring together a congenial group at dinner . . . or to pick a satisfactory employee, tenant or room-mate” (p. 353). The mission of research on accuracy in personality judgment is to understand how and when people are able to do this and, thereby, to help them do it better.*

# First Impressions

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## Social Psychological Face Perception: Why Appearance Matters

Leslie A. Zebrowitz<sup>1\*</sup> and Joann M. Montepare<sup>2</sup>

The errors produced by these overgeneralizations are presumed to be less maladaptive than those that might result from failing to respond appropriately to persons who vary in fitness, age, emotion, or familiarity.

The world would be quite overwhelming if we had no expectations about our social and non-social environment because we failed to generalize from known cases to similar unknown ones


# A bit left-field

Jennifer Golbeck:

## The curly fry conundrum: Why social media “likes” say more than you might think

TEDxMidAtlantic 2013 · 9:55 · Filmed Oct 2013

Subtitles available in 29 languages

 [View interactive transcript](#)



**Jennifer Golbeck**  
*Computer scientist*

As the director of the Human-Computer Interaction Lab at the University of Maryland, Jennifer Golbeck studies how people use social media — and thinks about ways to improve their interactions. [Full bio](#)

**TED**