

# Being there: The real-time effects of a short visit to a neighbourhood on paranoia and social trust

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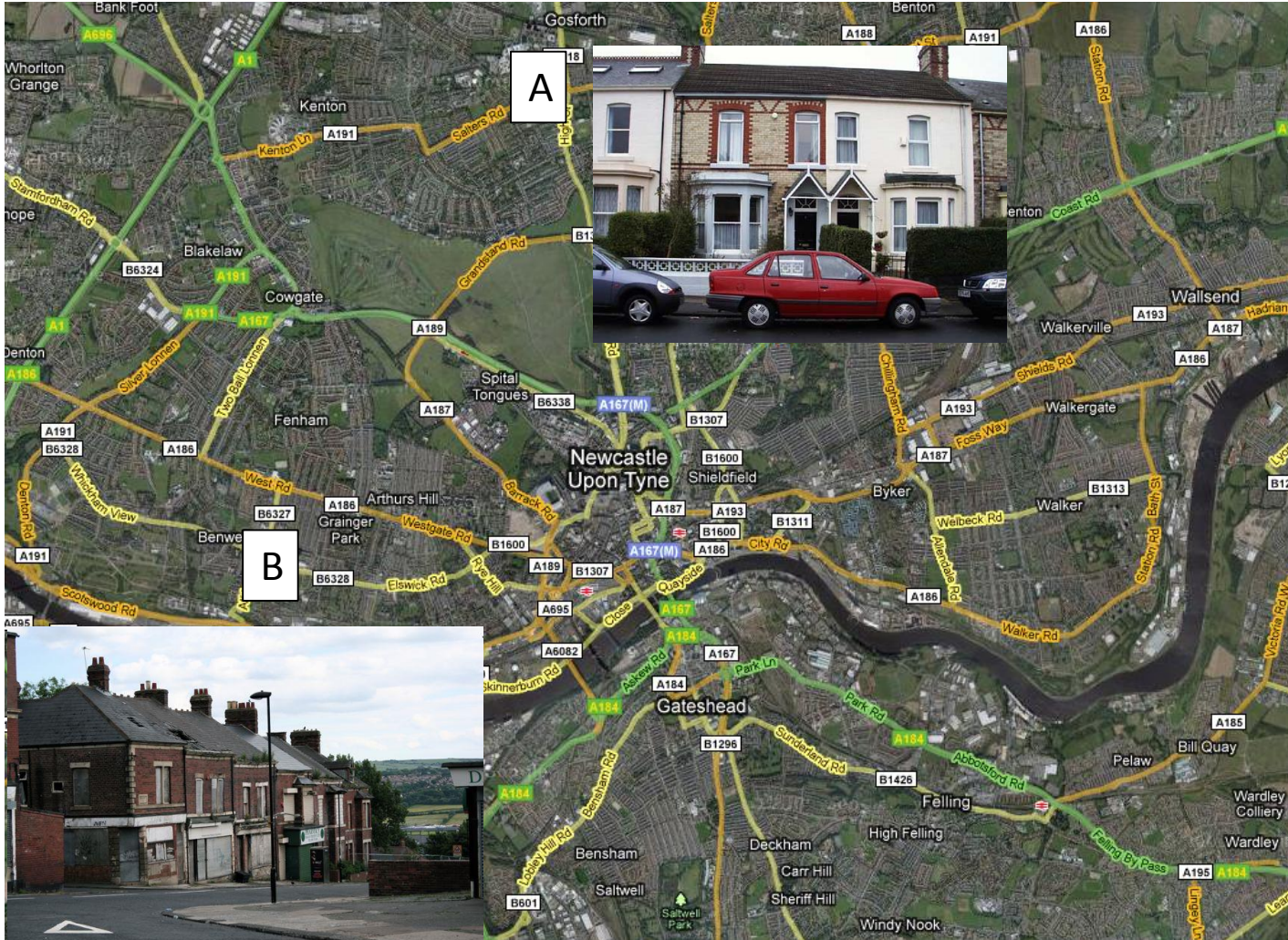
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# The Tyneside Neighbourhoods Project: Study sites



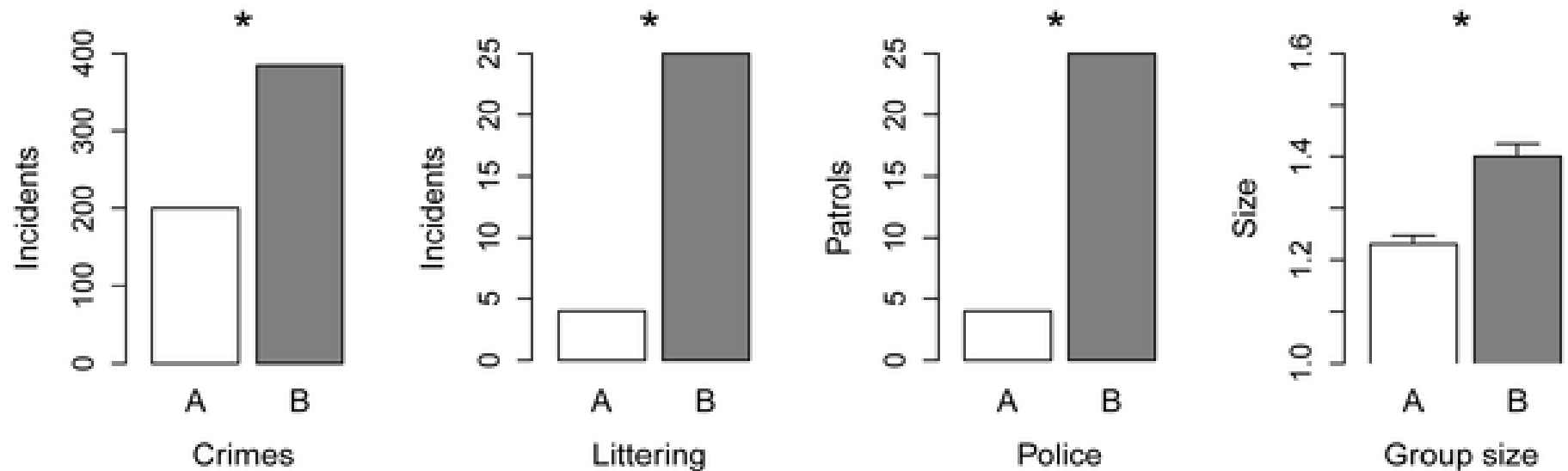
# The Tyneside Neighbourhoods Project:

## Study sites

	Gosforth	Benwell
Population	3098	3223
Males	1502	1508
Children	710	808
Median age	37	34.5
Households	1250	1589
% Born in UK	92%	92%
IMD*	8.74	76.43
IMD percentile*	79 <sup>th</sup>	1 <sup>st</sup>
% Households owner occupied	83%	18%
% Managerial and professional	74%	16%

Sources: \* Indices of Multiple Deprivation for SOAs, 2004; all others, 2001 Census.

## Summary of results from the four types of naturalistic observations across the two neighbourhoods.



Observation period: December 2010 to March 2011

Nettle D, Colléony A, Cockerill M (2011) Variation in Cooperative Behaviour within a Single City. PLoS ONE 6(10): e26922.

doi:10.1371/journal.pone.0026922

<http://www.plosone.org/article/info:doi/10.1371/journal.pone.0026922>



# Neighbourhood effects on mental health

- Might not be causal: People with poor mental health move to cheap/deprived neighbourhoods
- Might be causal but take a long time to have effects; a lifetime of exposure and acculturation needed
- Might be causal but produce effects as an immediate psychological response



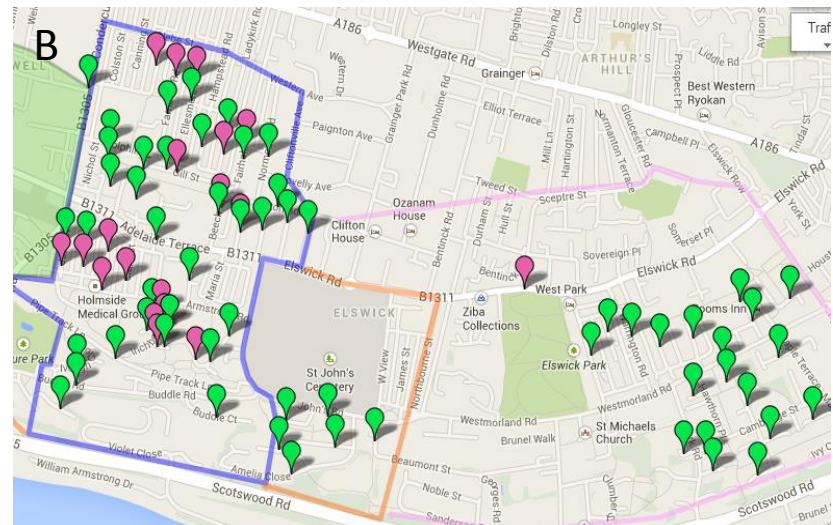
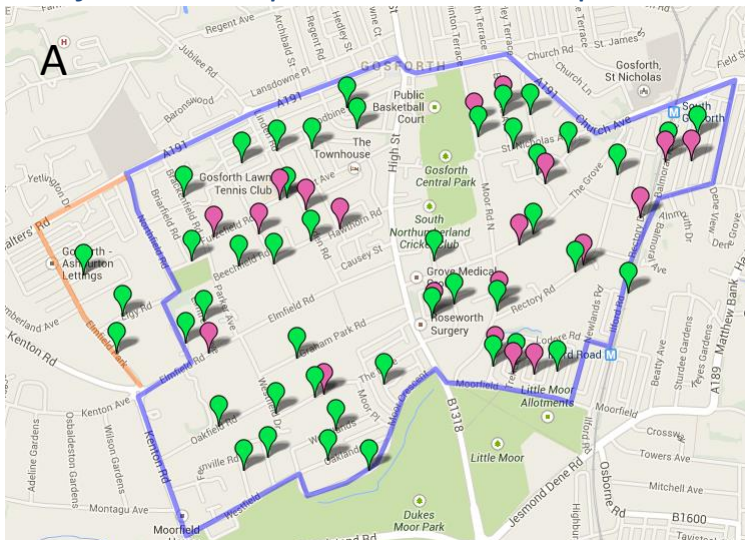
# Aims of the current study

- To **study** trust and paranoia in neighbourhoods A&B
- To **measure** if and **how** the *residents* of the two neighbourhoods **differ**
- To **transport** a group of *visitors* briefly to each **neighbourhood**, and **measure** its impact on their **trust and paranoia**
- To **compare** the trust and paranoia of the *visitors* to a neighbourhood with the that of the *residents*

# Resident sample

- Postal surveys, July 2012 - June 2013, from electoral register
- 259 residents (trust measures), 65 residents (paranoia & trust)
- £5 incentive
- Some data on trust from another field study:

Schroeder KB, Pepper G, and Nettle D. (2013). *Local norms of cheating and the cultural evolution of crime and punishment*. In Prep, Newcastle University.



# Measures: Trust questions

**Trust: How much do you trust people you know personally?** 0 means 'Not at all' and 10 means 'Completely.' Circle your answer on this 10-point scale.

0    1    2    3    4    5    6    7    8    9    10

Not at all Completely

**Trust: How much do you trust people when you meet them for the first time?** 0 means 'Not at all' and 10 means 'Completely.' Circle your answer on this 10-point scale.

0    1    2    3    4    5    6    7    8    9    10

Not at all Completely

Schroeder KB, Pepper G, and Nettle D. (2013). *Local norms of cheating and the cultural evolution of crime and punishment*. In Prep, Newcastle University.



# Measures: Paranoia questions

How strongly do you feel the following things? For each of statements below, please tick a box to tell us how strongly you believe it. This is a measure of your personal beliefs; there are no right or wrong answers.

	Do not believe it (1)	Believe it a little (2)	Believe it somewhat (3)	Believe it a lot (4)	Absolutely believe it (5)
I need to be on my guard against others					
There might be negative comments being circulated about me					
People deliberately try to irritate me					
I might be being observed or followed					
People are trying to make me upset					
People communicate about me in subtle ways					
Strangers and friends look at me critically					
People might be hostile towards me					
Bad things are being said about me behind my back					
Someone I know has bad intentions towards me					

# Measures: Mood and origin

**Your mood:** By circling a number on the bar below, please indicate **how you are feeling right now**, on a 10-point scale where 0 is a very bad mood, and 10 is a very good mood.

0	1	2	3	4	5	6	7	8	9	10
<div style="border: 1px solid black; height: 20px; width: 100%;"></div>										
Bad mood					Good mood					

**What was the postcode of the house you lived in when you were 10 years old?** If you can't remember the postcode, please write the name of the street you lived on and the town or city it was in.

Postcode at **age 10** (or street and town/city): \_\_\_\_\_

# Visitor sample

- 52 students
- Recruited to post surveys to our neighbourhood residents
- £5/course credit as incentive
- Screened to ensure that they did not live in either study area





# Visitor sample: neighbourhood reaction

- **Neighbourhood** questions: open ended – coded to give a “reaction score”

## About the neighbourhood

We would like to know what you thought of the neighbourhood you have been delivering questionnaires in. **Please write about two things that seemed important about the neighbourhood. Please tell us why you chose these things.**

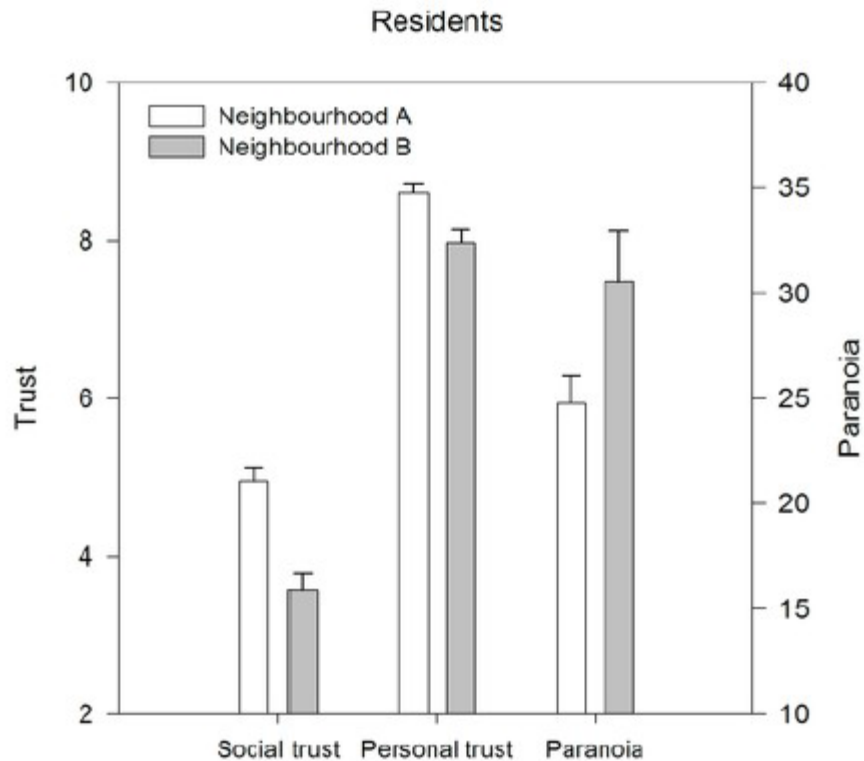
What did you think was most important about the neighbourhood?	Why did you think it was important?
<p>1.</p> <p>“Being able to walk around and feel safe in your surroundings, street layout was confusing, felt as if anyone can jump out so felt uneasy .”</p>	<p>“How run down and scruffy it looked. Doesn’t give a very friendly or welcoming atmosphere.”</p>
<p>2.</p> <p>“Large houses, quite long drives etc. Perhaps shows this is a wealthy area, indicates the type of people that may live here.”</p>	<p>“Extremely well kept. Noticeable that everyone took care of their property and gardens etc. seems like it is quite a well-off area.”</p>

# Visitor sample: time measure

- **Same survey as residents** was filled out by visitors while still in the taxi/minibus
- **Time spent making deliveries** was recorded



# Results: residents

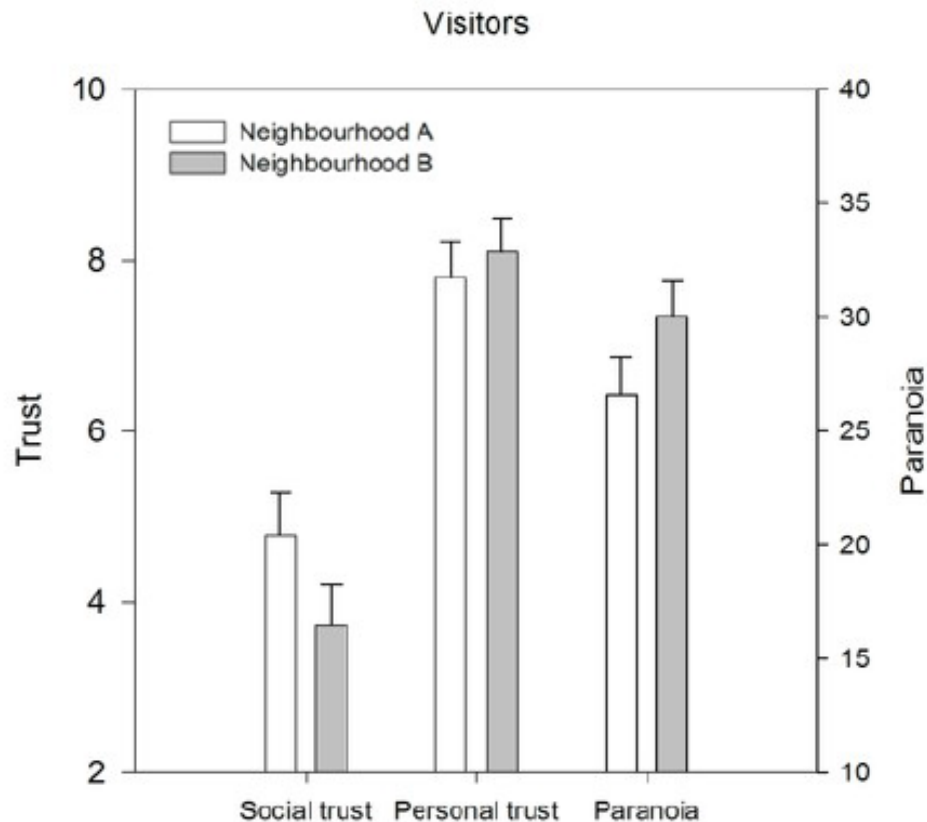


- **Social trust** differed across neighbourhoods: ( $F_{1,308}=29.41, p<0.05$ )
- **Personal trust** differed across neighbourhoods: ( $F_{1,307}=9.28, p<0.05$ )
- **Paranoia** differed across neighbourhoods: ( $F_{1,56}=4.46, p<0.05$ )

Models were adjusted for age, sex and origin.



# Results: visitors

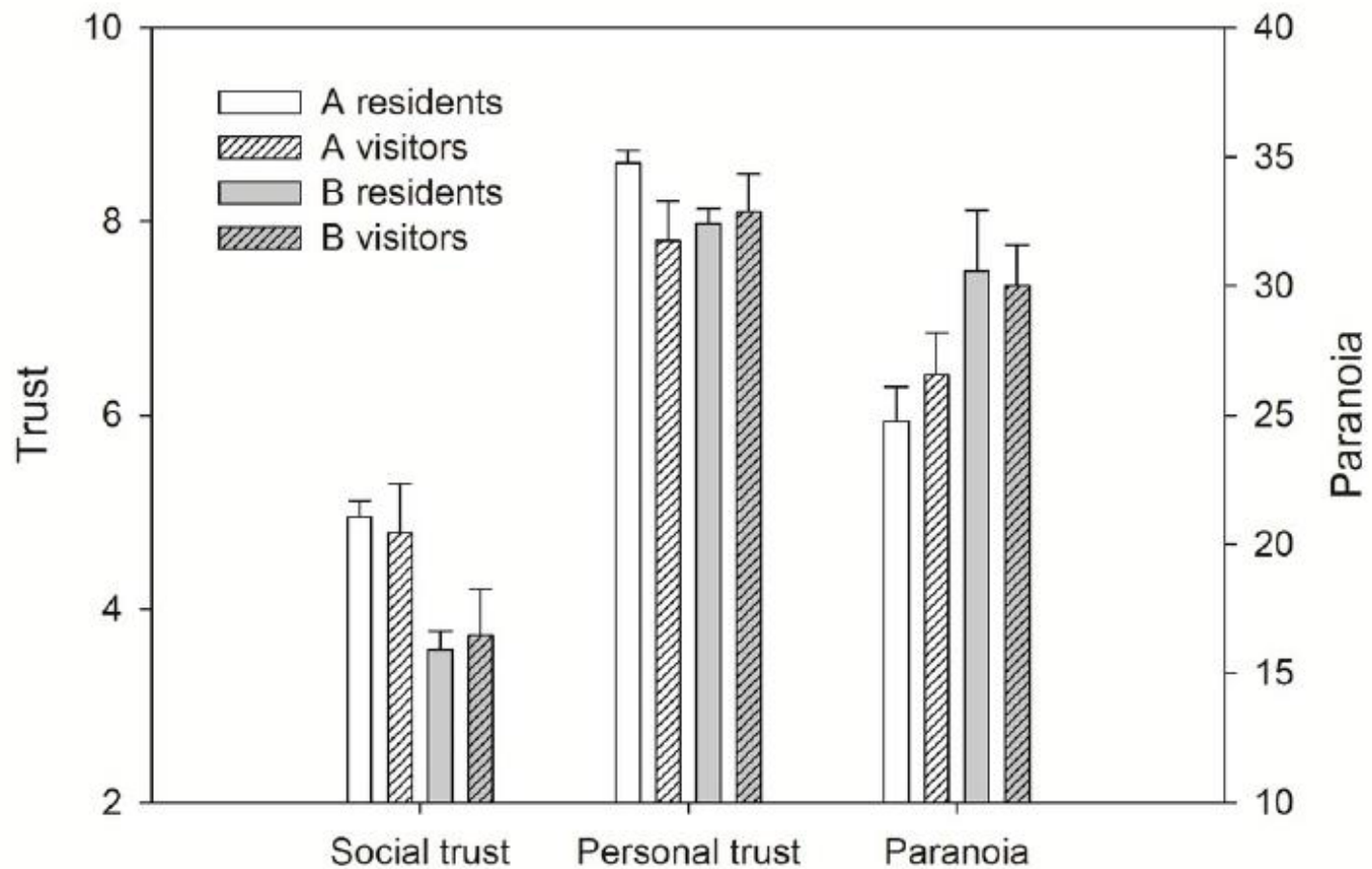


- **Overall neighbourhood effect\*:**  
( $F_{3,45}=3.55$ ,  $p<0.05$ , Wilk's  $\lambda = 0.81$ )
- **Driven by social trust and paranoia**
- **Mood did not differ**
- **Visitor reaction scores:** neighbourhood A, uniformly positive (all 2s); B, varied (mean 0.24, s.d. 1.67, range -2 to 2); a difference ( $t_{24}=5.29$ ,  $p<0.05$ ).

\*Adjusted for age and sex, but not origin (all but one not local).

# Results:

## visitors compared with residents



Marginal means from the model adjusting for age, sex and local origin. Error bars = 1 s.e.

# Summary

- ***Residents* of neighbourhood B had higher paranoia and lower social trust** than residents of neighbourhood A
- For ***visitors***, the **neighbourhood** affected their **trust and paranoia** independently of their mood
- For social trust and paranoia, the differences produced in the ***visitor* sample mirrored** those seen in the ***residents***: visitors looked much like the residents, after less than one hour
- We suggest that **neighbourhoods have a causal impact on cognition and mental health**, and moreover that their **effect is immediate**







# Results:

## visitors compared with residents

Compared to residents' mean of.....		
Visitors to...	Neighbourhood A	Neighbourhood B
<i>Social trust</i>		
Neighbourhood A	$t_{25}=0.48, p=0.63$	<u><math>t_{25}=2.53, p&lt;0.05</math></u>
Neighbourhood B	<u><math>t_{24}=3.41, p&lt;0.05</math></u>	$t_{24}=0.27, p=0.79$
<i>Personal trust</i>		
Neighbourhood A	<u><math>t_{25}=2.46, p&lt;0.05</math></u>	$t_{25}=0.89, p=0.38$
Neighbourhood B	<u><math>t_{24}=2.34, p&lt;0.05</math></u>	$t_{24}=0.06, p=0.96$
<i>Paranoia</i>		
Neighbourhood A	$t_{26}=1.28, p=0.21$	<u><math>t_{26}=4.27, p&lt;0.05</math></u>
Neighbourhood B	<u><math>t_{24}=2.77, p&lt;0.05</math></u>	$t_{24}=0.53, p=0.60$

The resident means are marginal means from the model adjusting for age, sex and local origin.