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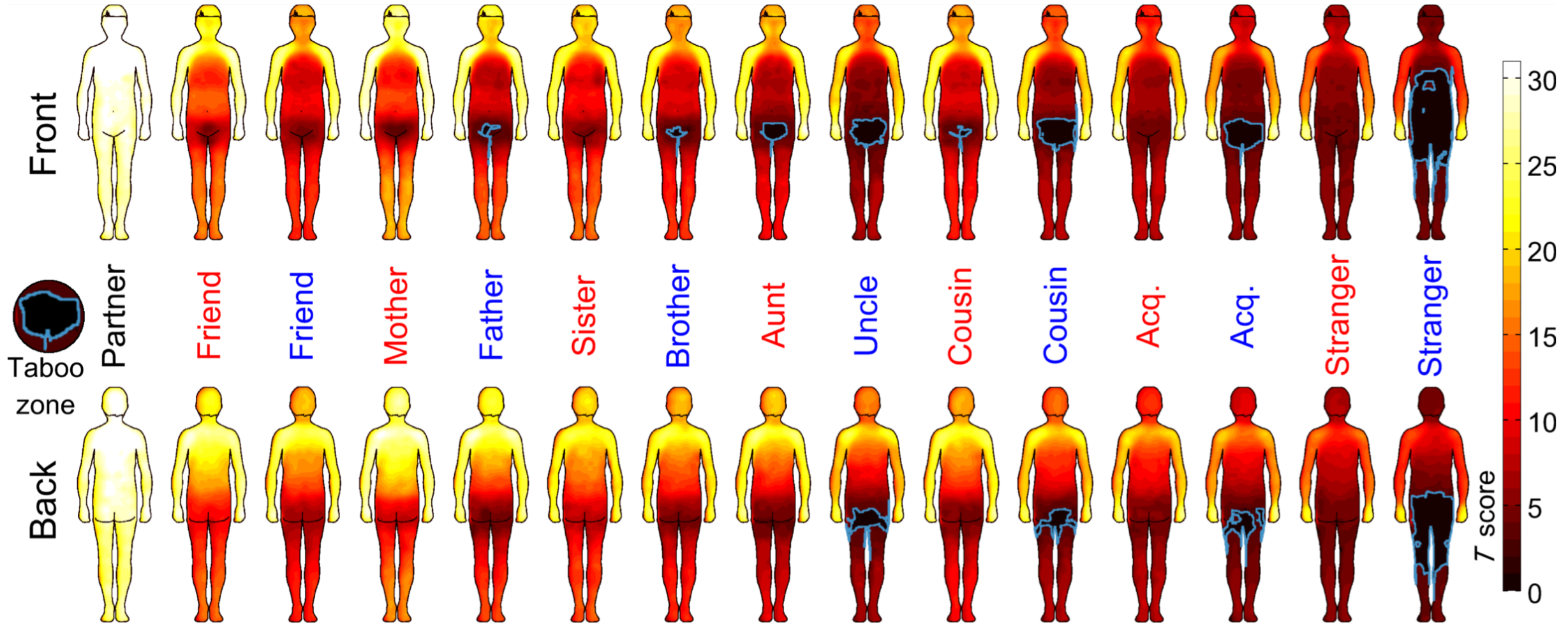
Social touch is relationship-specific for children and adults

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Aalto University and University of Turku



Picture from Richald Renaldi's Touching strangers project
Used with permission

Social touching is very relationship-specific



The colours in the labels indicate the sex of the toucher, e.g. **Female Cousin**, **Male Cousin**. Colouring of the bodies shows FDR-thresholded T-scores.

Suvilehto et al. (2015). Topography of social touching depends on emotional bonds between humans. *PNAS*



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Methods

On-line data collection with the emBODY tool

Total N = 1312 from four European cultures

- 545 British ,194 Finnish, 111 French, and 426 Italian

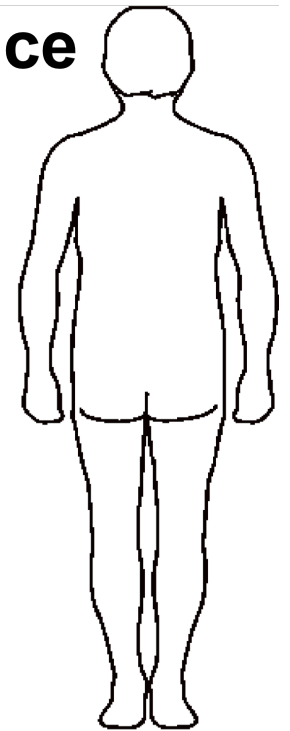
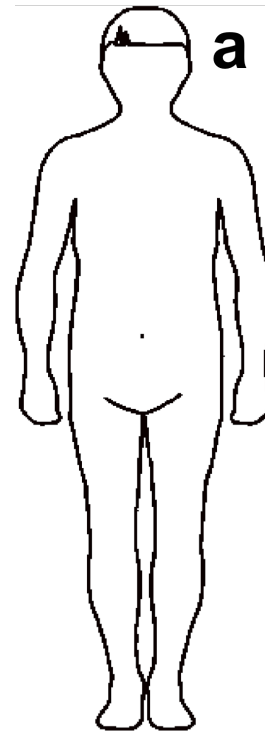
Three categories of children

- own child (N = 300)
- an under elementary school aged girl/boy you know but who is not your own child (Ns 820 and 793 respectively)
- under elementary school aged girl/boy who you do not know (N 1312 for both)

Three categories of adults

- Partner, m/f acquaintance, m/f stranger

Colour in the areas where
a female acquaintance
could touch you



[click here when ready](#)

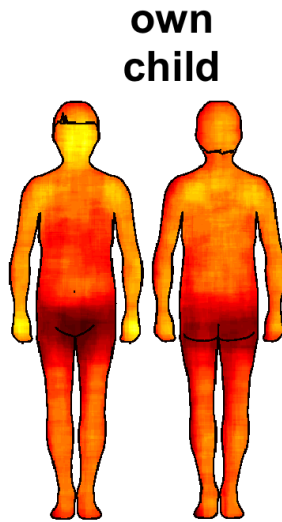
Topographies of acceptable touch



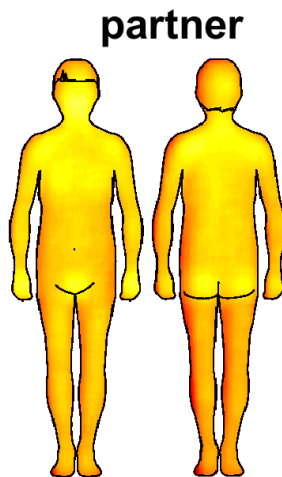
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Adults and young children

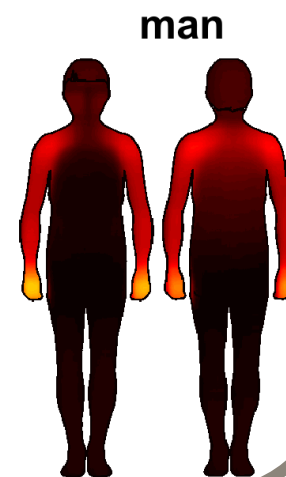
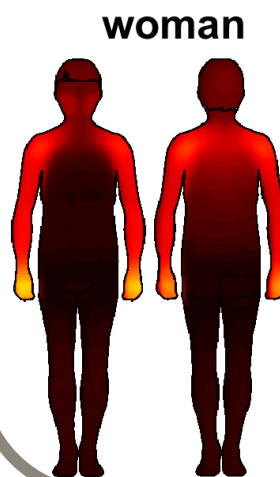
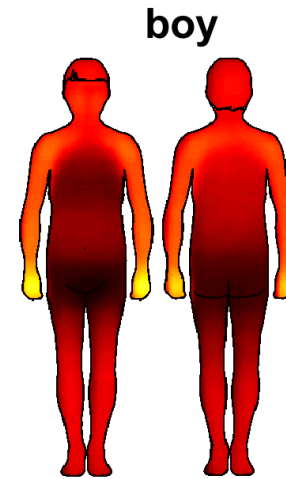
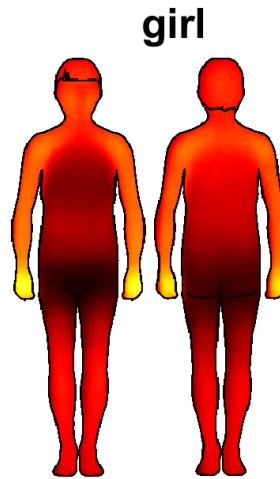
Under school-
aged child
(age range
approx. 0-6,
depending on
country)



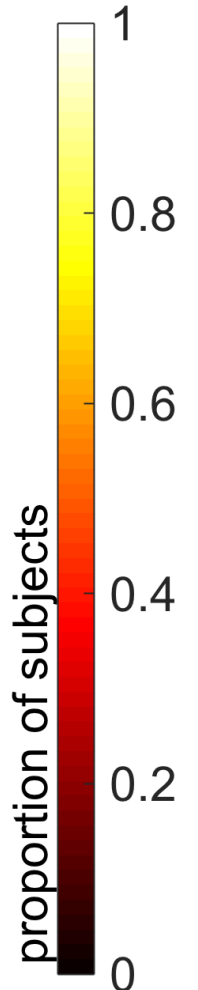
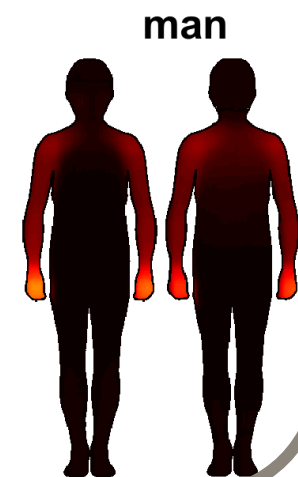
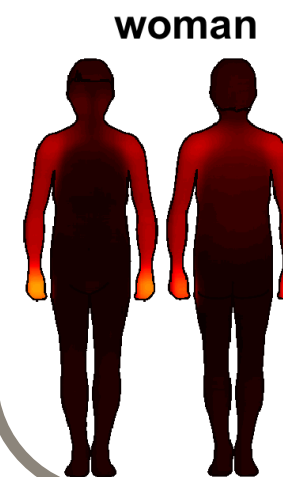
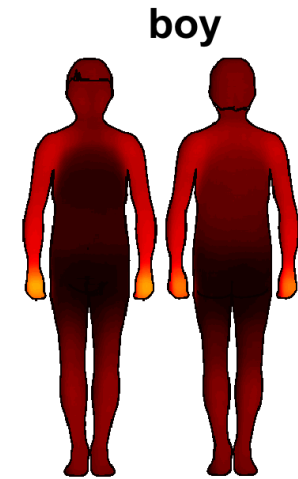
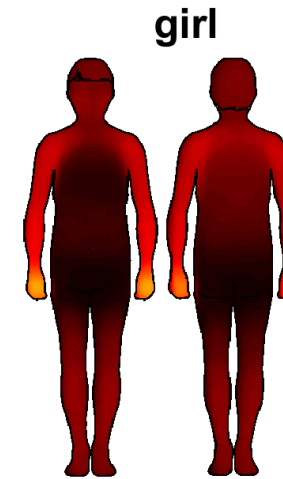
Adult,
approximately the
same age as the
subject



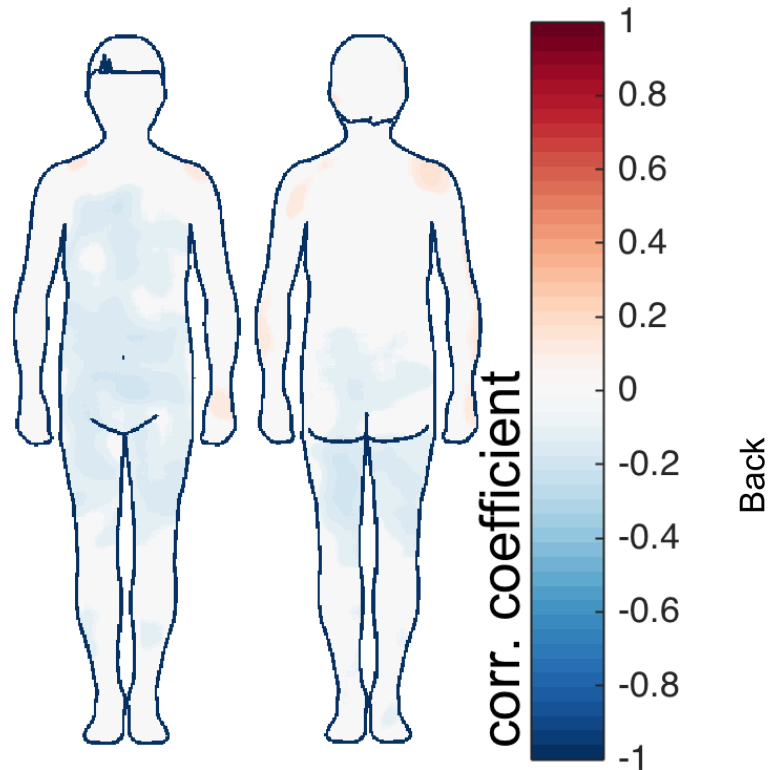
Acquaintance



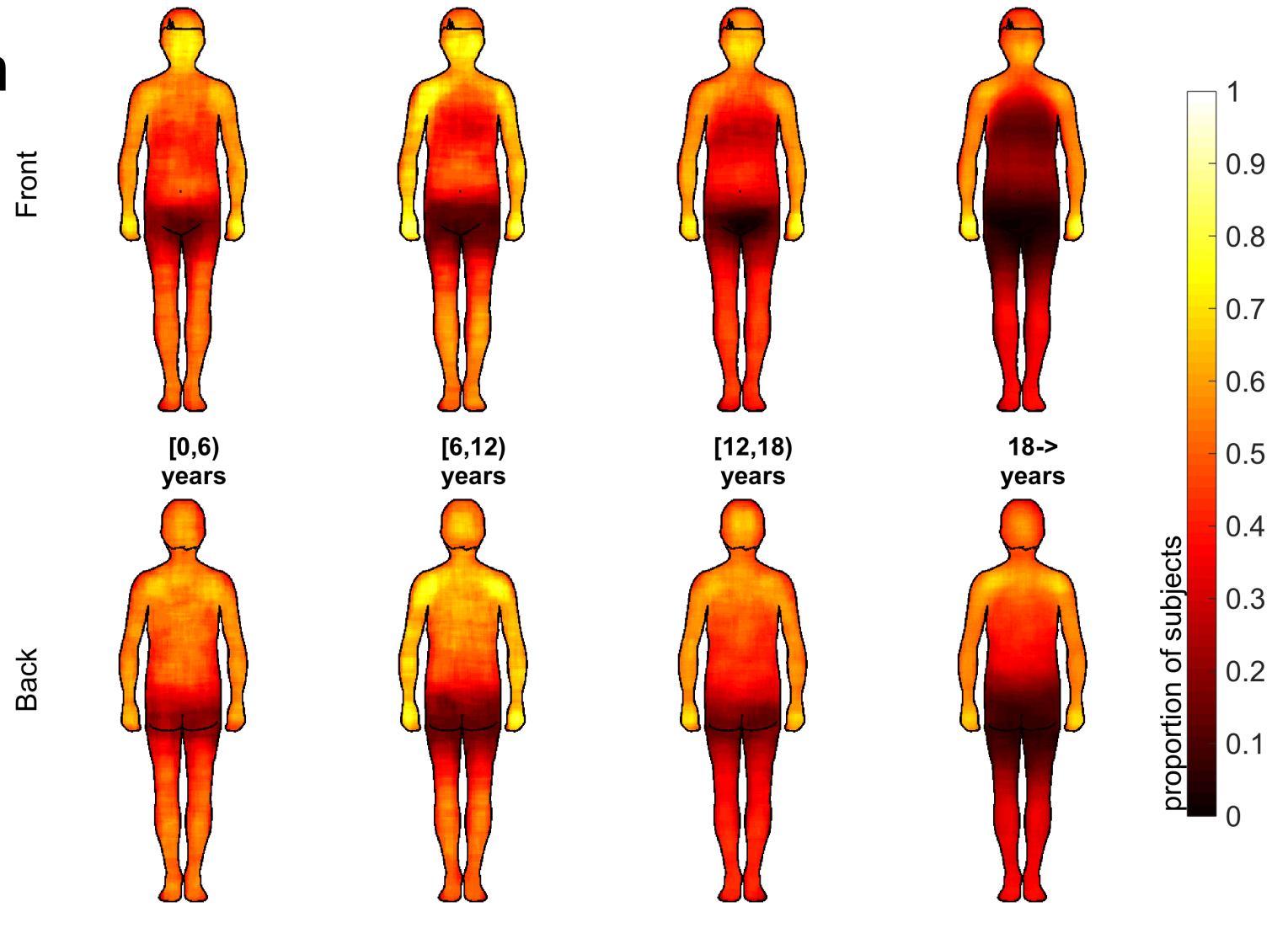
Stranger



The age of one's own child has little impact on touch allowances

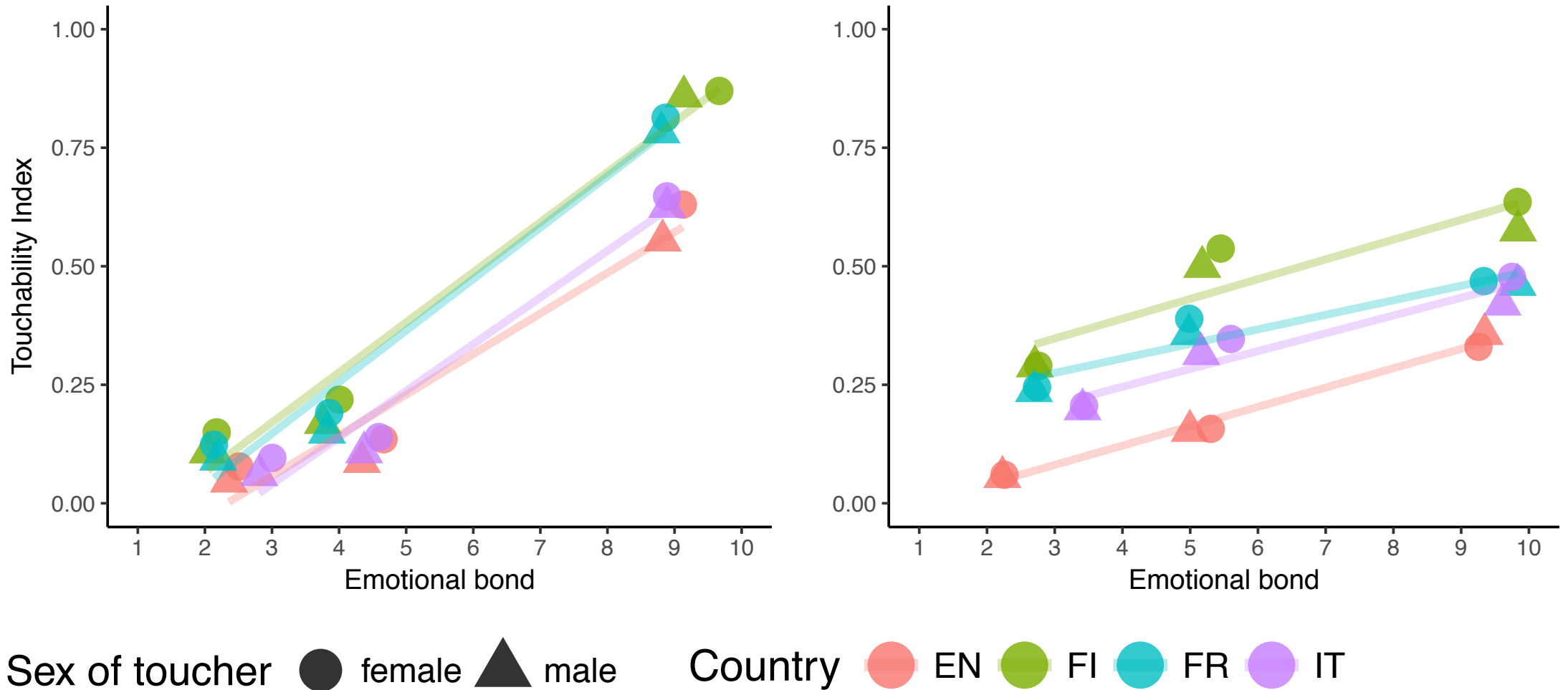


r within range $[-0.2, 0.16]$



Touchability and emotional bond

Connection between bond & TI exists in both adults and children

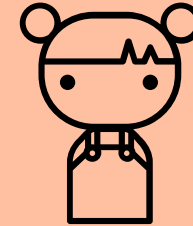


Sex effects

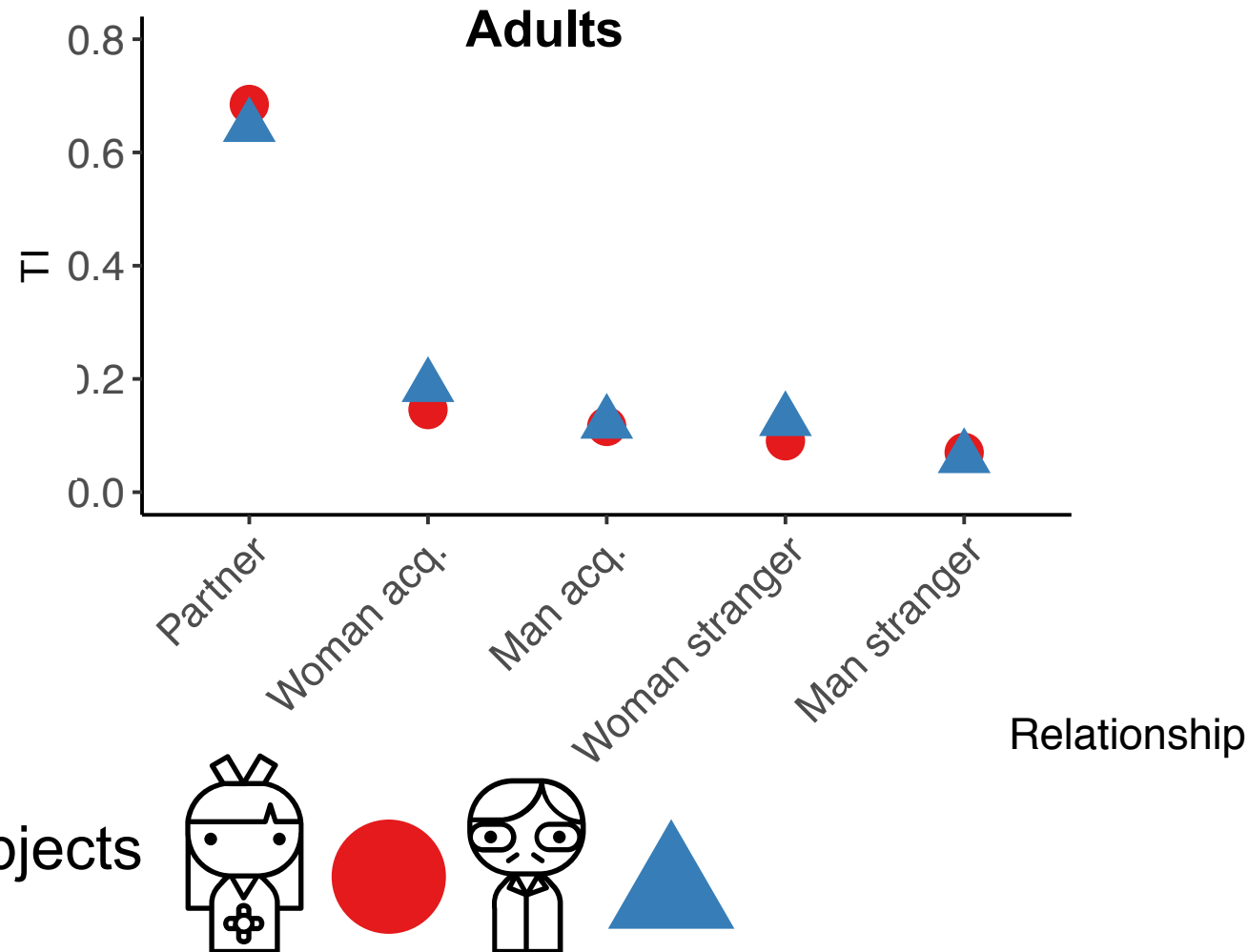
Subjects



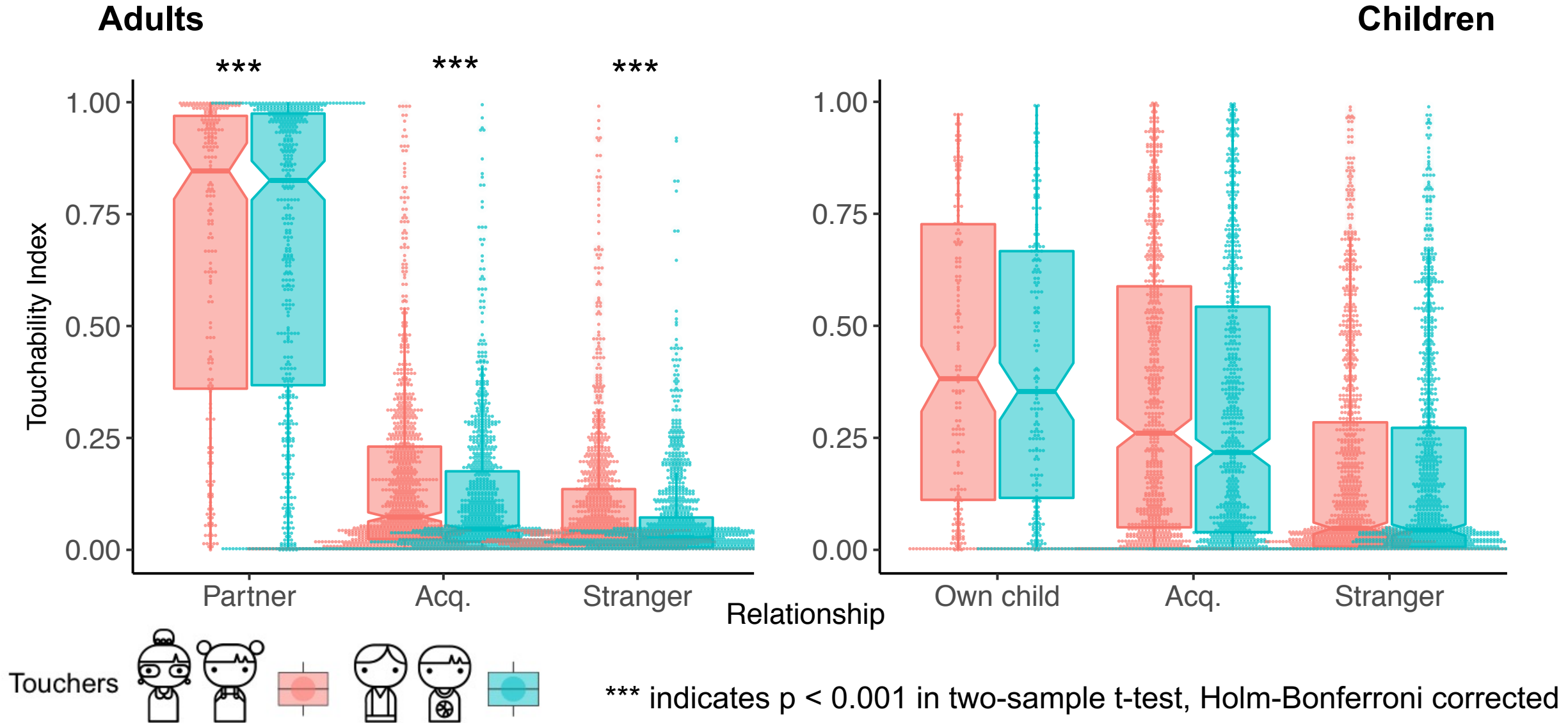
Touchers



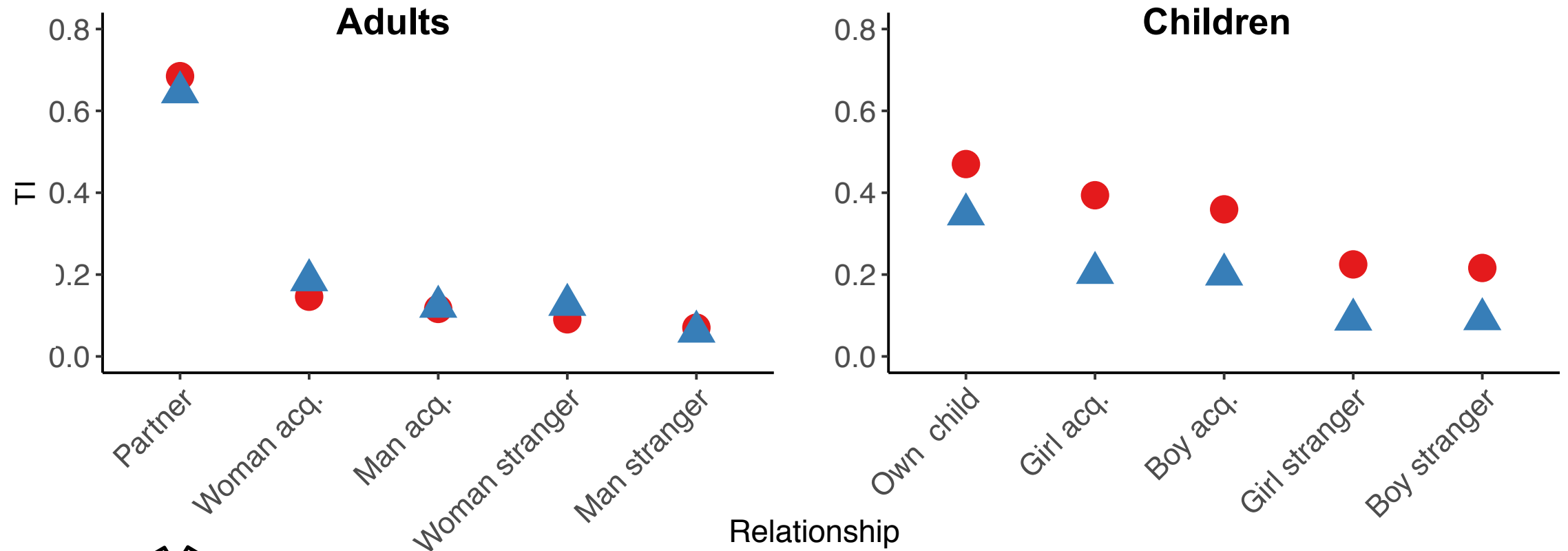
Sex effects are different when being touched by adult vs child



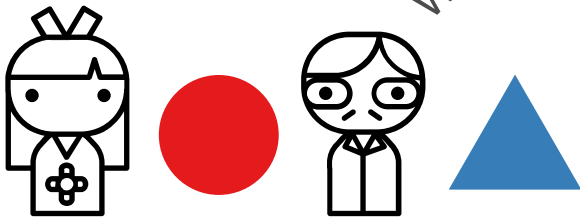
The sex of the toucher modulate TI for adults



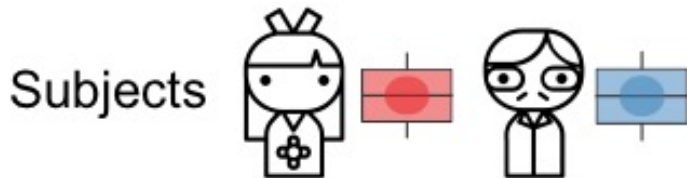
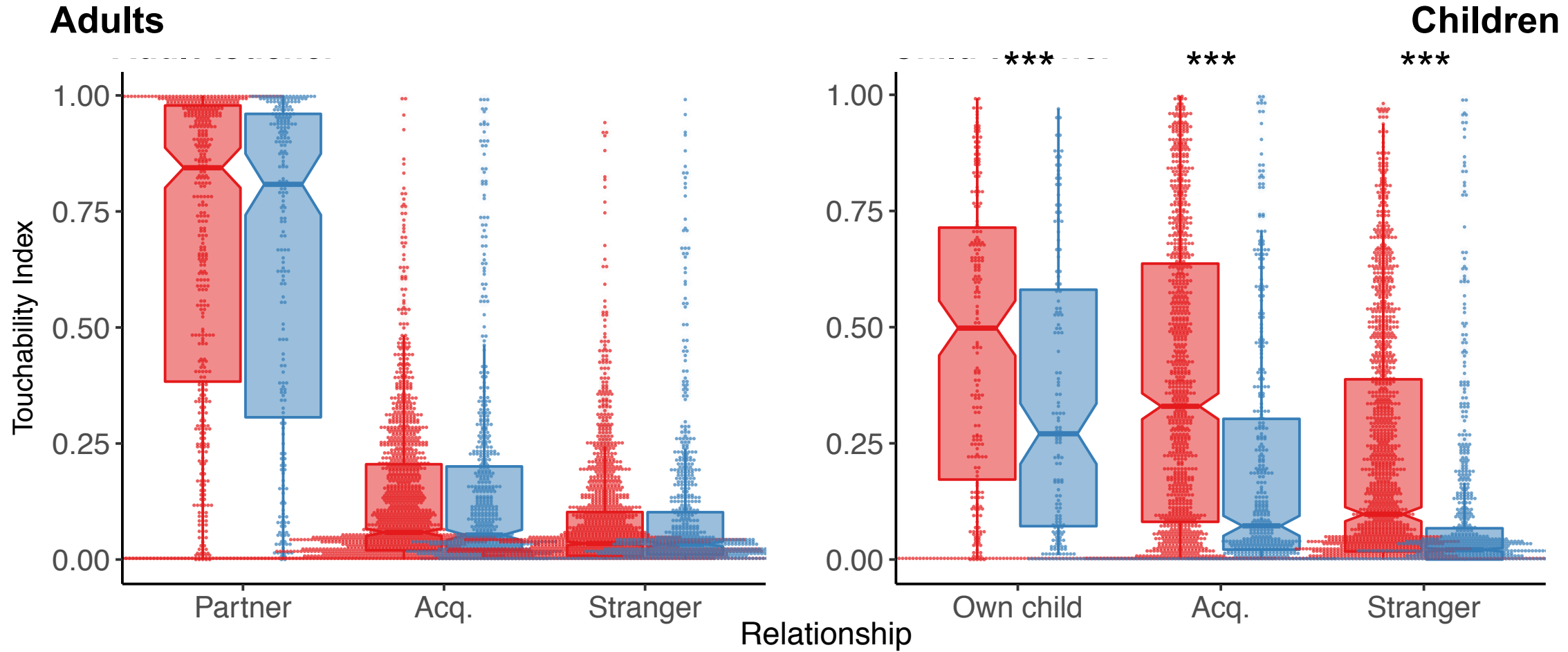
Sex effects are different when being touched by adult vs child



Subjects

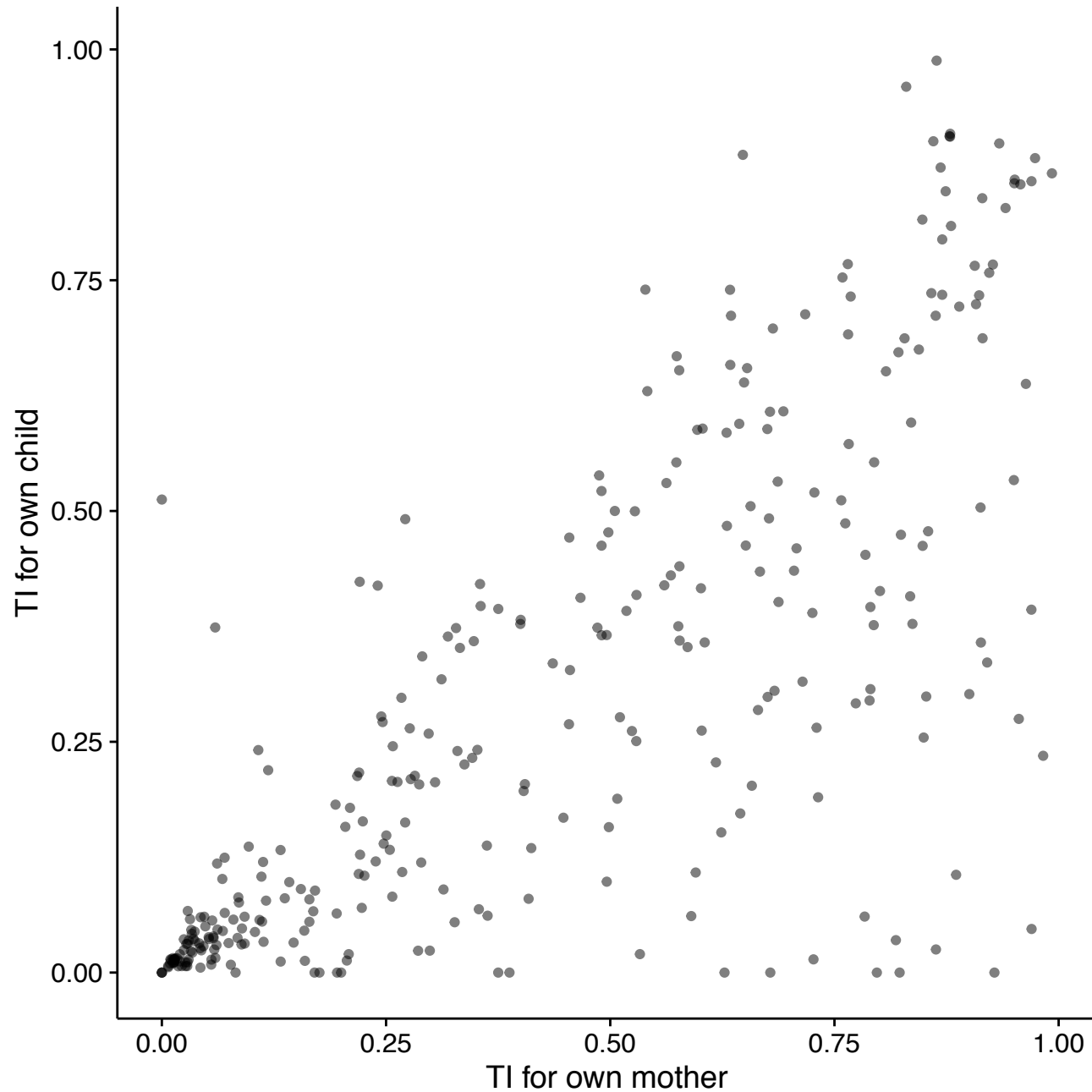


The sex of the subject impacts TI for children



*** indicates $p < 0.001$ in two-sample t-test, Holm-Bonferroni corrected

Bonus: heritability



TI for mother
explains TI for
child

$F(1, 323) = 450.2$, p-value: $< 2.2e-16$
Adjusted R-squared: 0.581

Conclusion

- Touch allowances for children are relationship-specific
- The baseline touchability is higher in children than in adults, but slope is more gradual
- The sex effects are different when being touched by adult or child
 - We modulate touch allowances based on the sex of the adult toucher
 - Males and females have different touch allowances for children

Acknowledgements

Robin Dunbar

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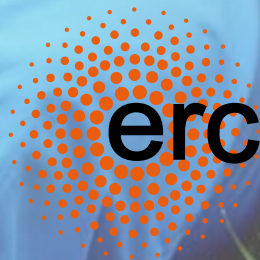
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Slides will be available at <http://users.aalto.fi/~jtsuvile>



ALFRED
KORDELININ
SÄÄTIÖ



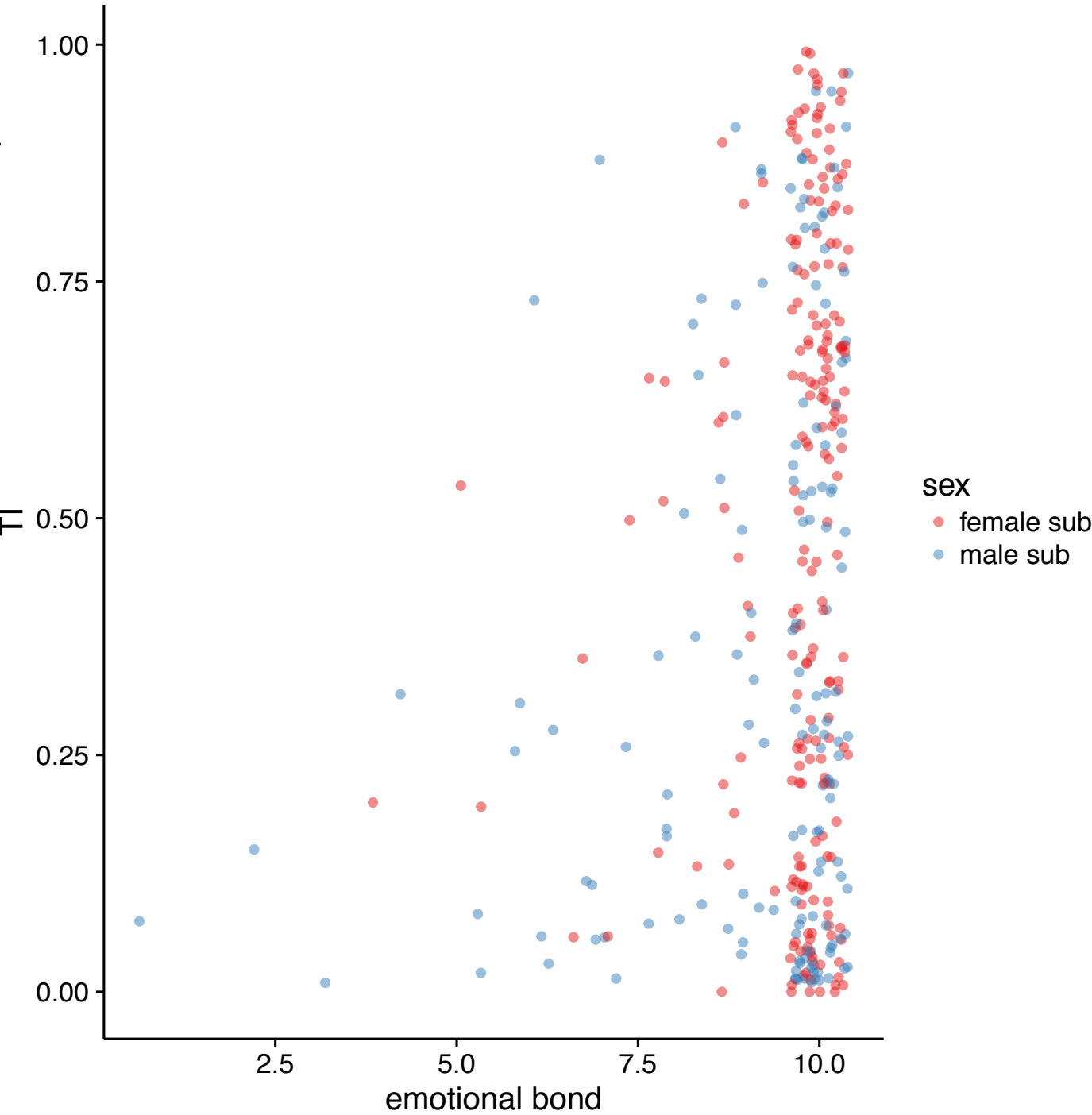
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Extra figures

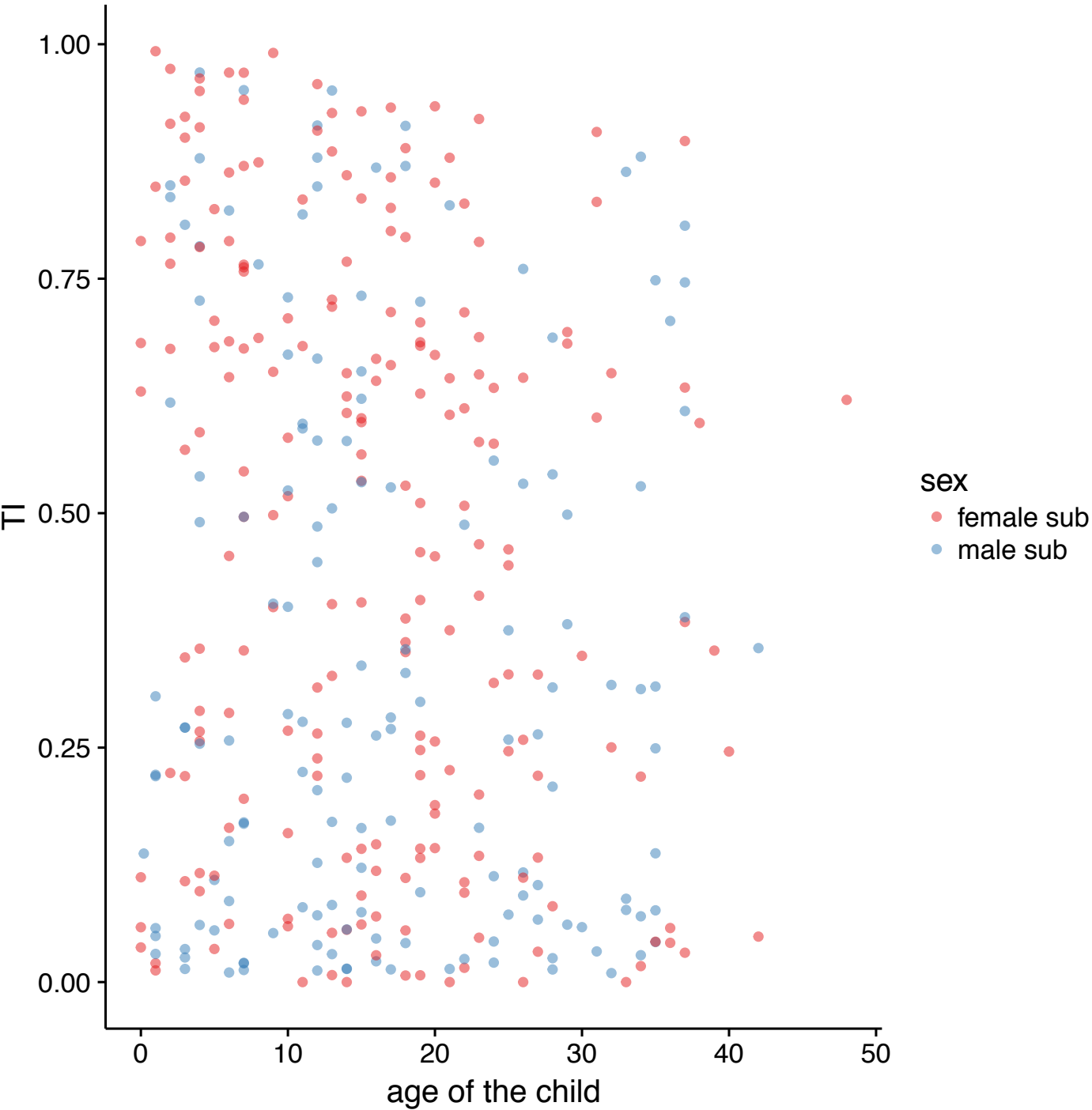


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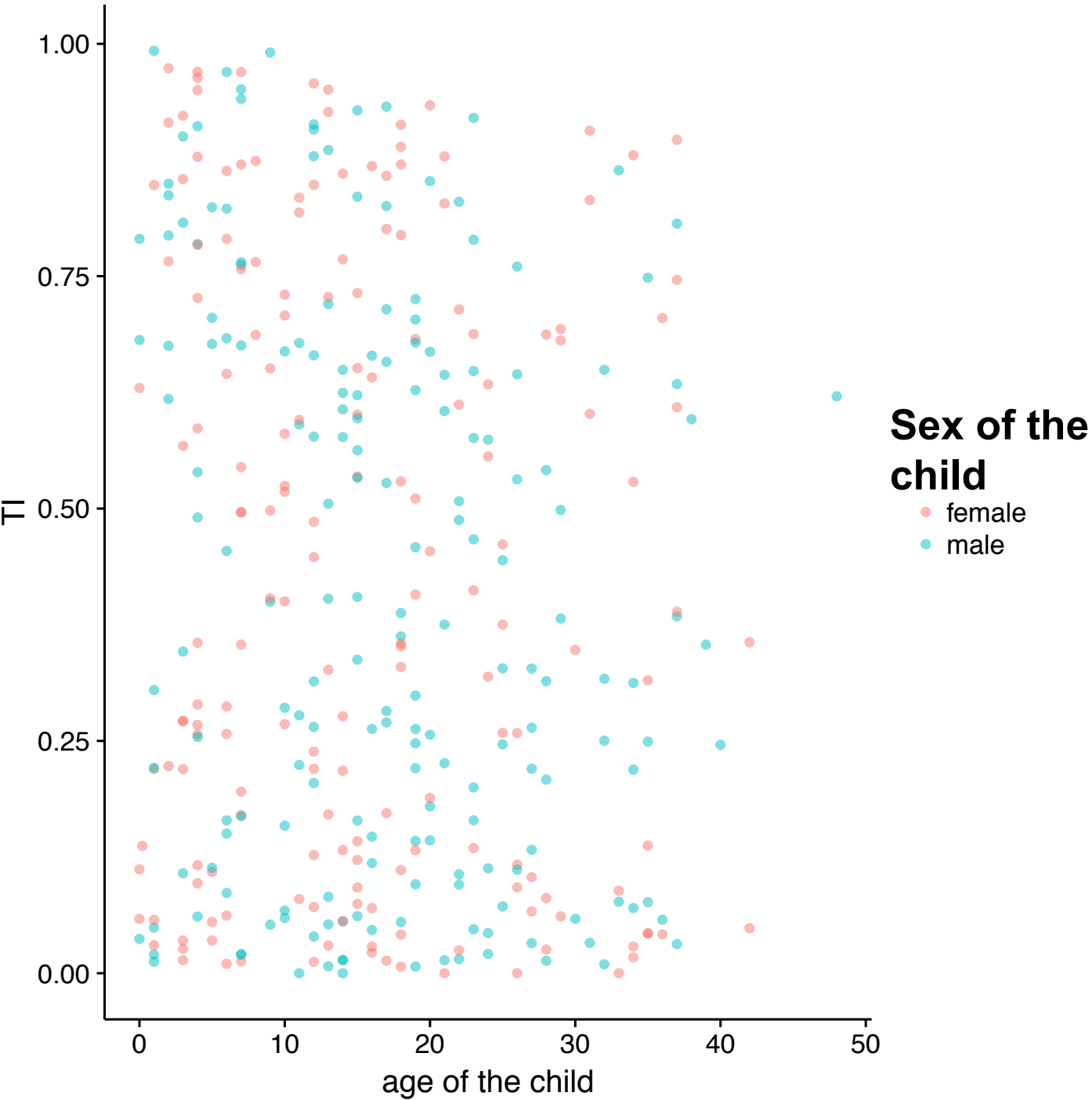
**Touchability Index and emotional bond for
own child (unaveraged data)**



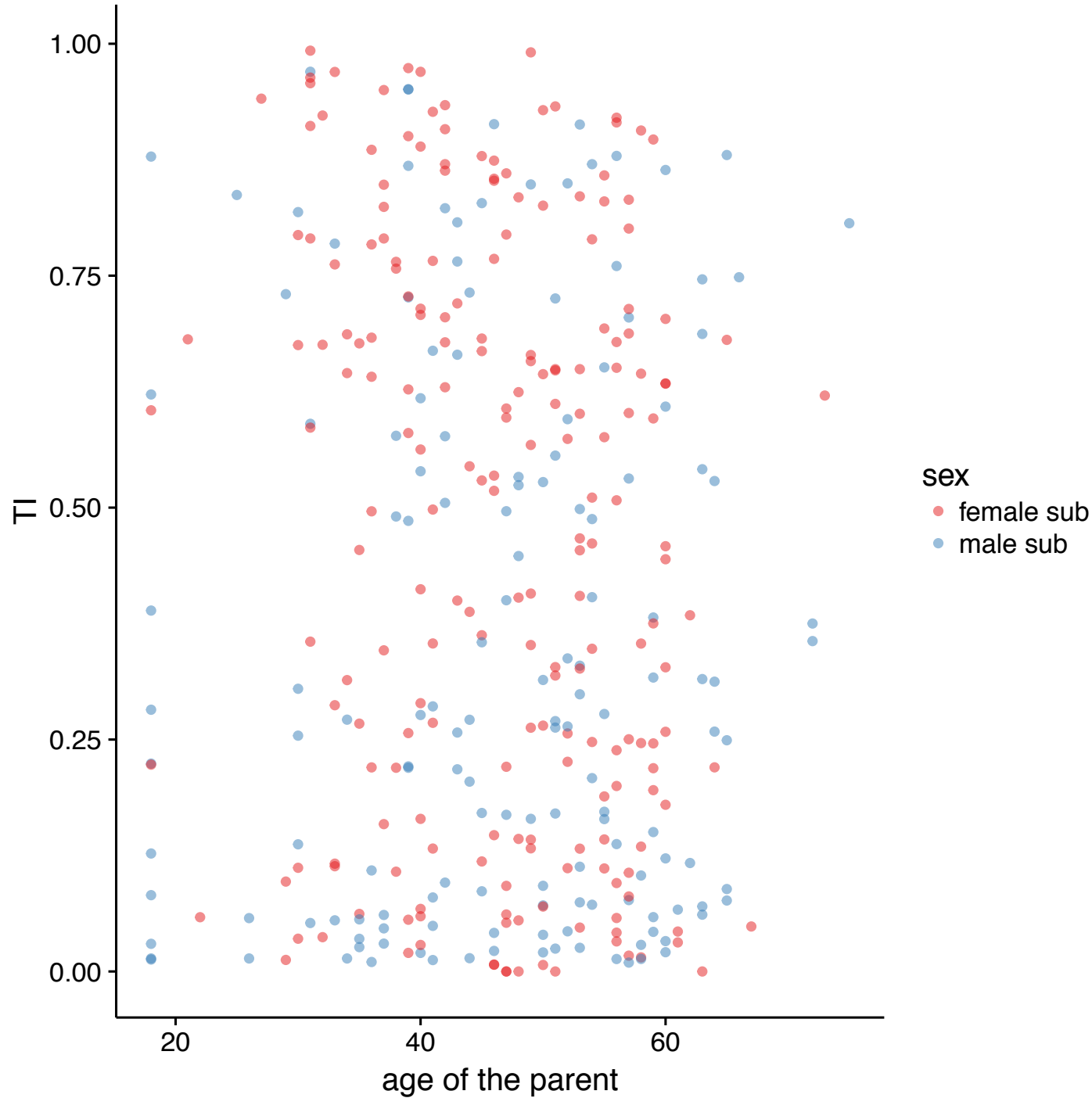
Touchability Index and age of child for own child (unaveraged data)



**Touchability Index and age of child for
own child (unaveraged data)**



**Touchability Index and age of parent for
own child (unaveraged data)**



Touchability towards father and child

$F(1,232) = 269.7$, p-value: $< 2.2e-16$
Adjusted R-squared: 0.5356

Correlation between touchability
for mom and touchability for dad
 $r = 0.8243247$

for comparison, correlation
between touchability for own
child and a female acquaintance
 $r = 0.4948146$, ,
Adjusted R-squared: 0.2431

