

Becoming-Sound

Affect and Assemblage in Improvisational Digital Music Making

Ben Swift
Research School of Computer Science
Australian National University



Outline

- Affect and assemblage
- Jamming in Viscotheque: a case study



The *intensity* of
jamming

complex socio-technical
interactive systems

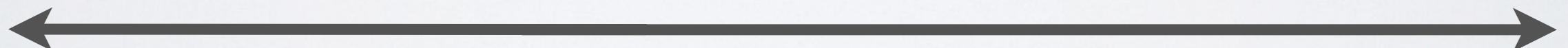
beyond usability...

...towards experience

experience

beautiful
snowflake

all the
same



affect

affect / intensity

Spinoza

Deleuze

Massumi

<i>affect</i>	pre-personal
<i>feeling</i>	personal, biographical
<i>emotion</i>	performed, projected

affect is *unstructured potential*

feelings represent the
registration of affect

affect gives rise to movement,
transformation and difference

what can a body do?

assemblage is the network(ing) of
affective/intensive forces

...which can open up new
potentials for action

agency is complex

posture

toe-tappin'
thigh-slappin'

music is *affective*

mood

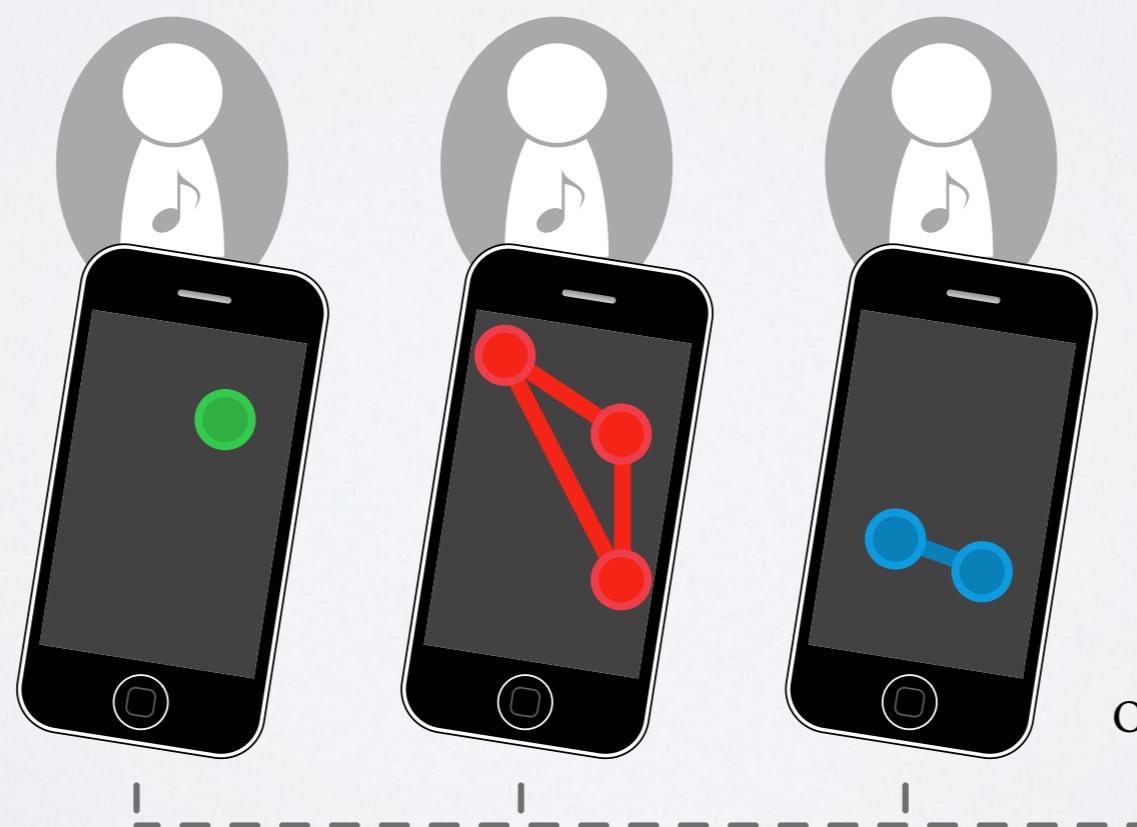
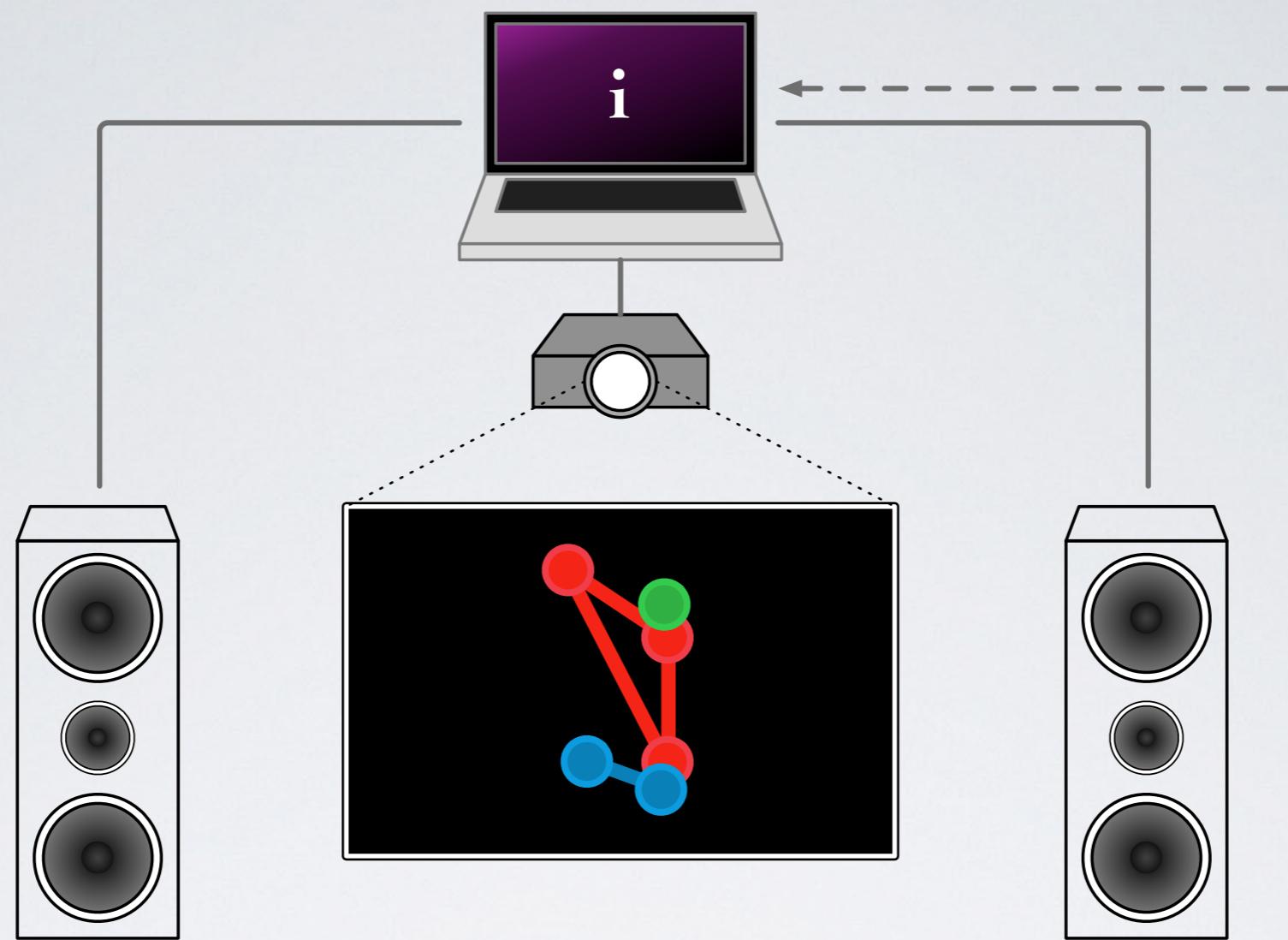
memory

manipulative

focus
concentration



Viscotheque
iOS group
music making
environment



what are the affective
atmospheres in Viscotheque?

Viscotheque

P1

P2

P3

Participants

obs

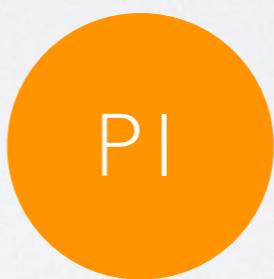
Viscotheque

P1

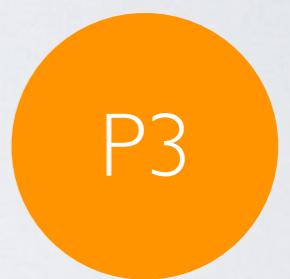
P2

P3

obs



Group
Interview



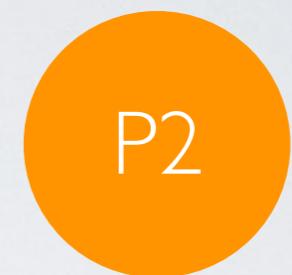


system
logs

video of
session



Group
Interview



interview
transcripts

Week I

Group I



Week 1

Group 1



Group 2



Group 3



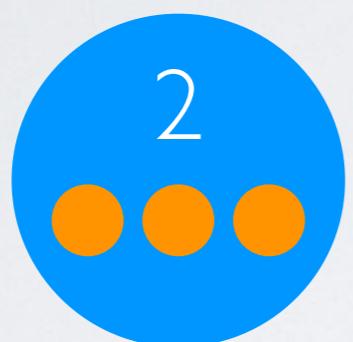
Group 4



Group 1



Group 2



Group 3



Group 4



Week 1

Week 2

Week 3

Week 4



Interview themes

- 50k words, grounded theory
- The affective power of the sound
- Ownership of/identification with the sound
- The need to differentiate, to *find* a sound

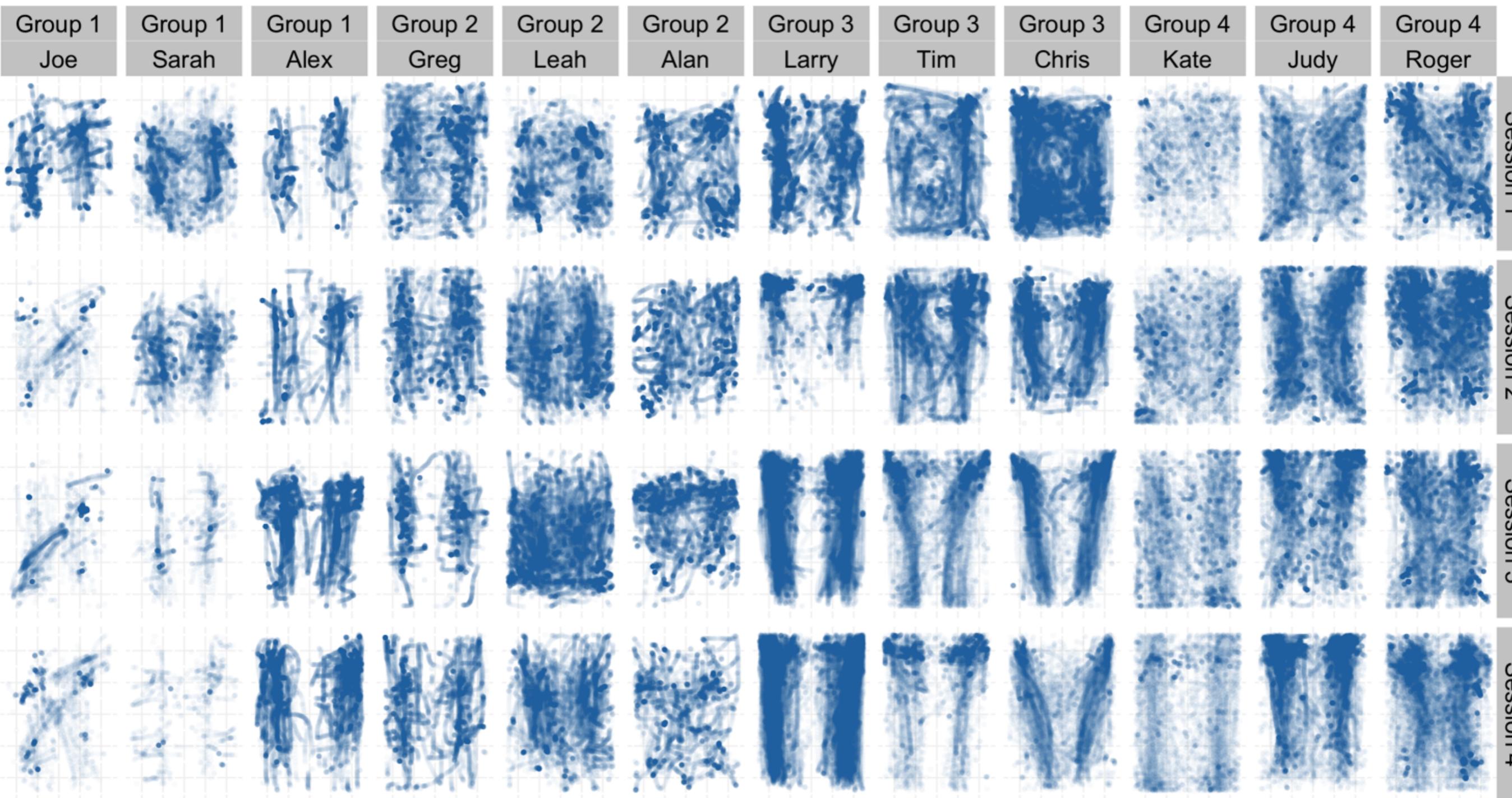
Observations

- Moments of real intensity
- Earlier sessions—flighty, skittish
- Later sessions—sedate, subdued
- Punctuated equilibrium

becoming-sound

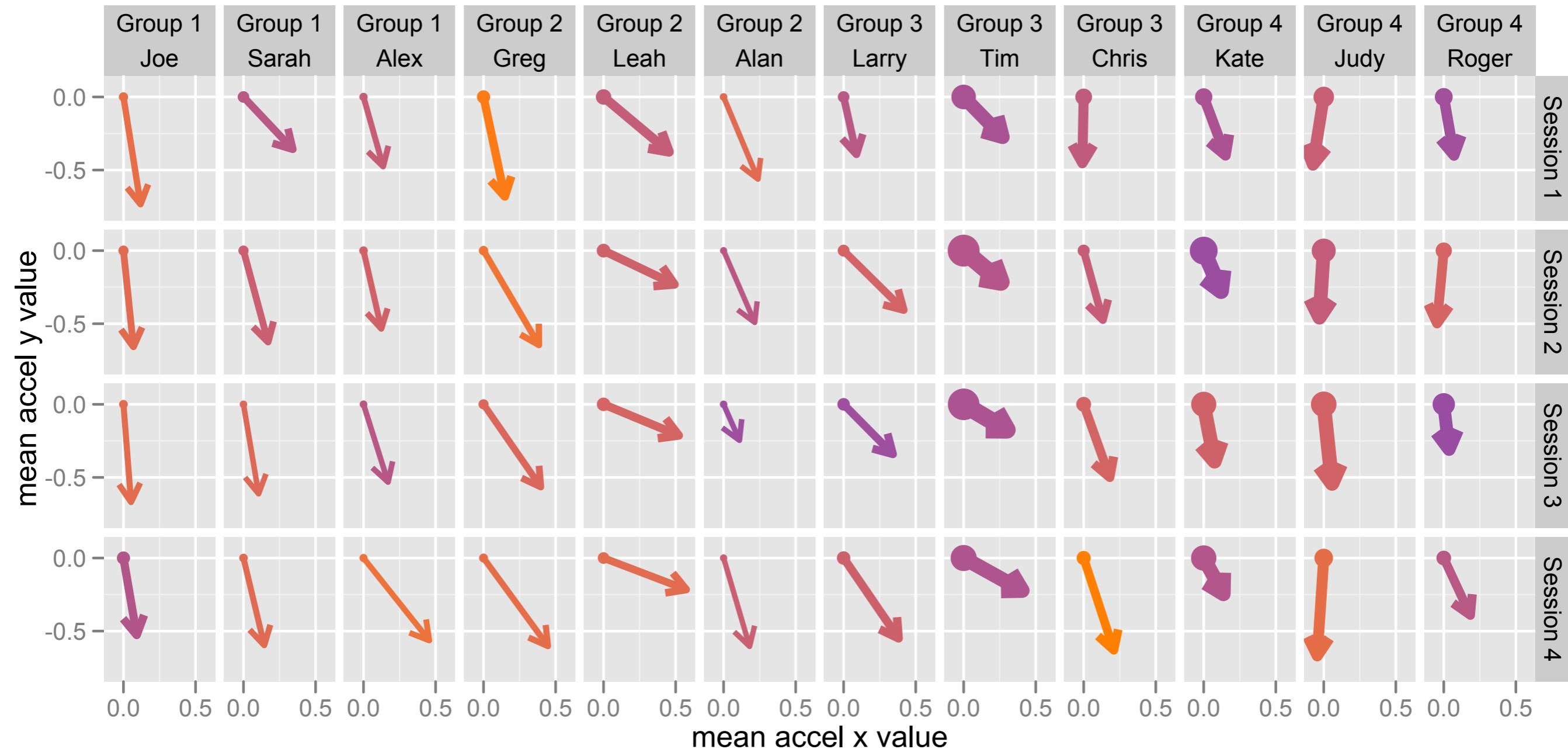
but we have all this log data...

accelerometer signatures



average RMS motion energy

mean accel z value



Implications

- Agency is complicated in affectively-charged environments

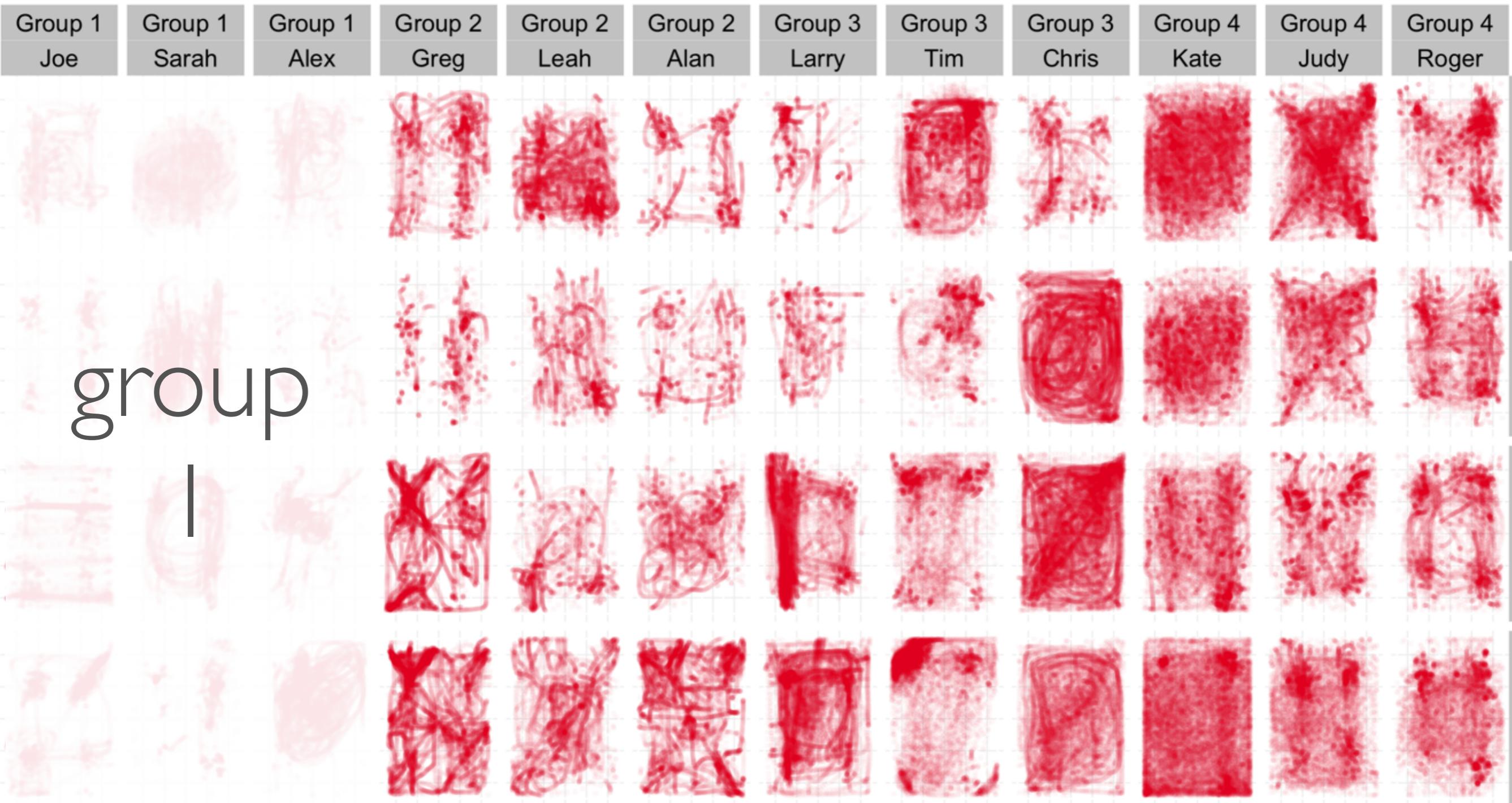
Future work

- Co-location vs remote interaction
- Instrumentation: GSR, motion analysis

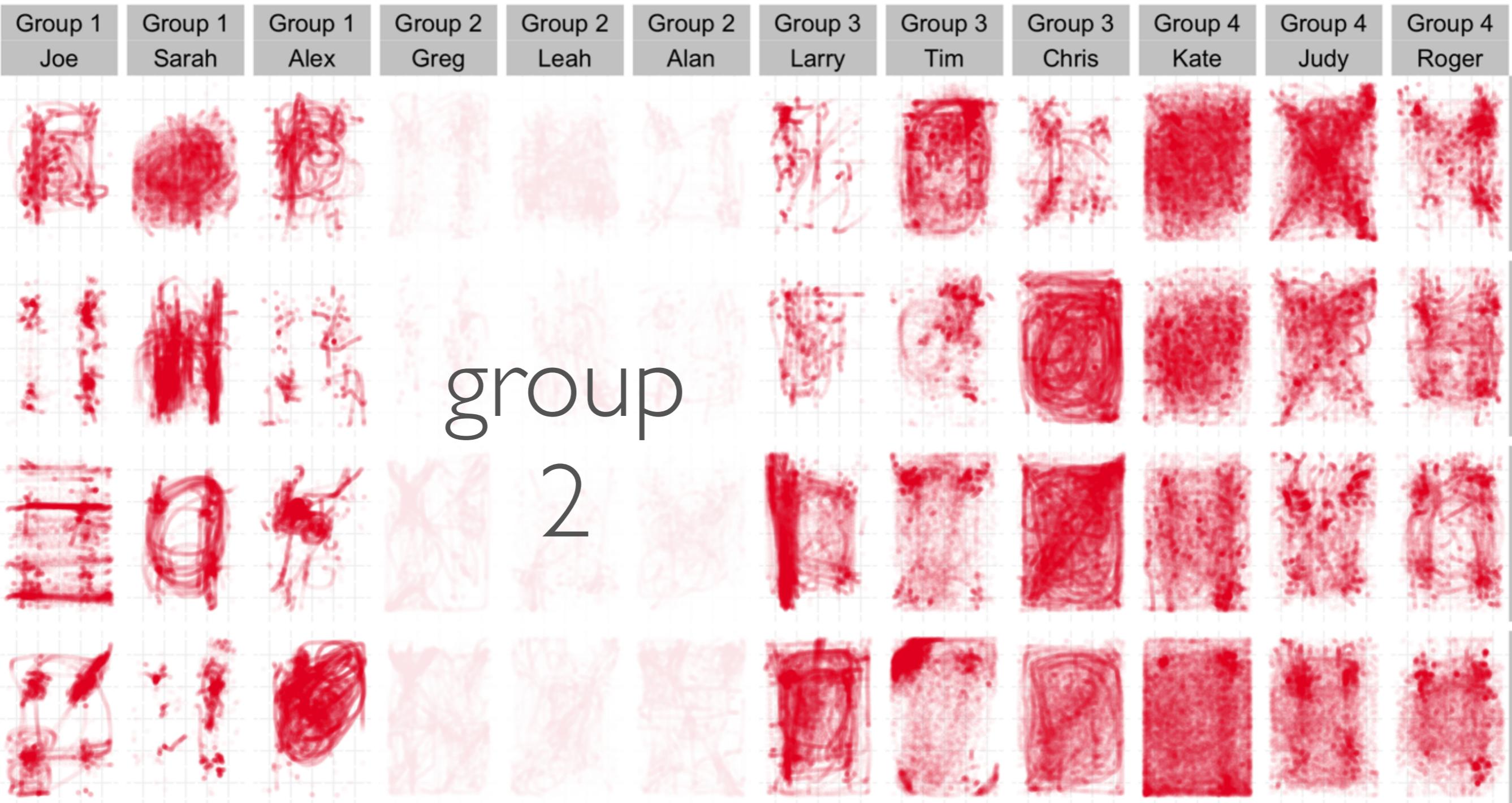
Cheers

ben.swift@anu.edu.au

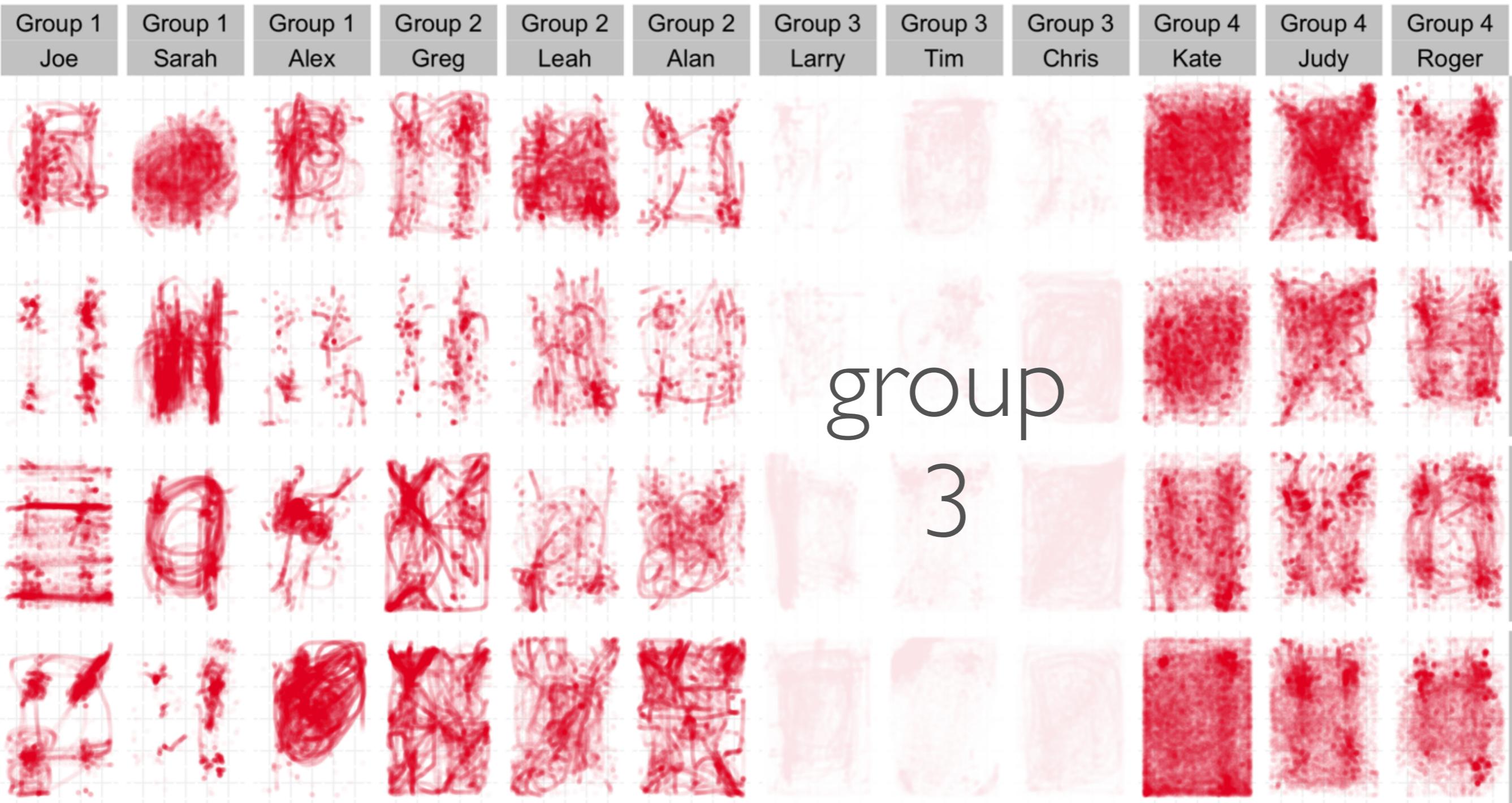
touch count  1  2  3



touch count  1  2  3

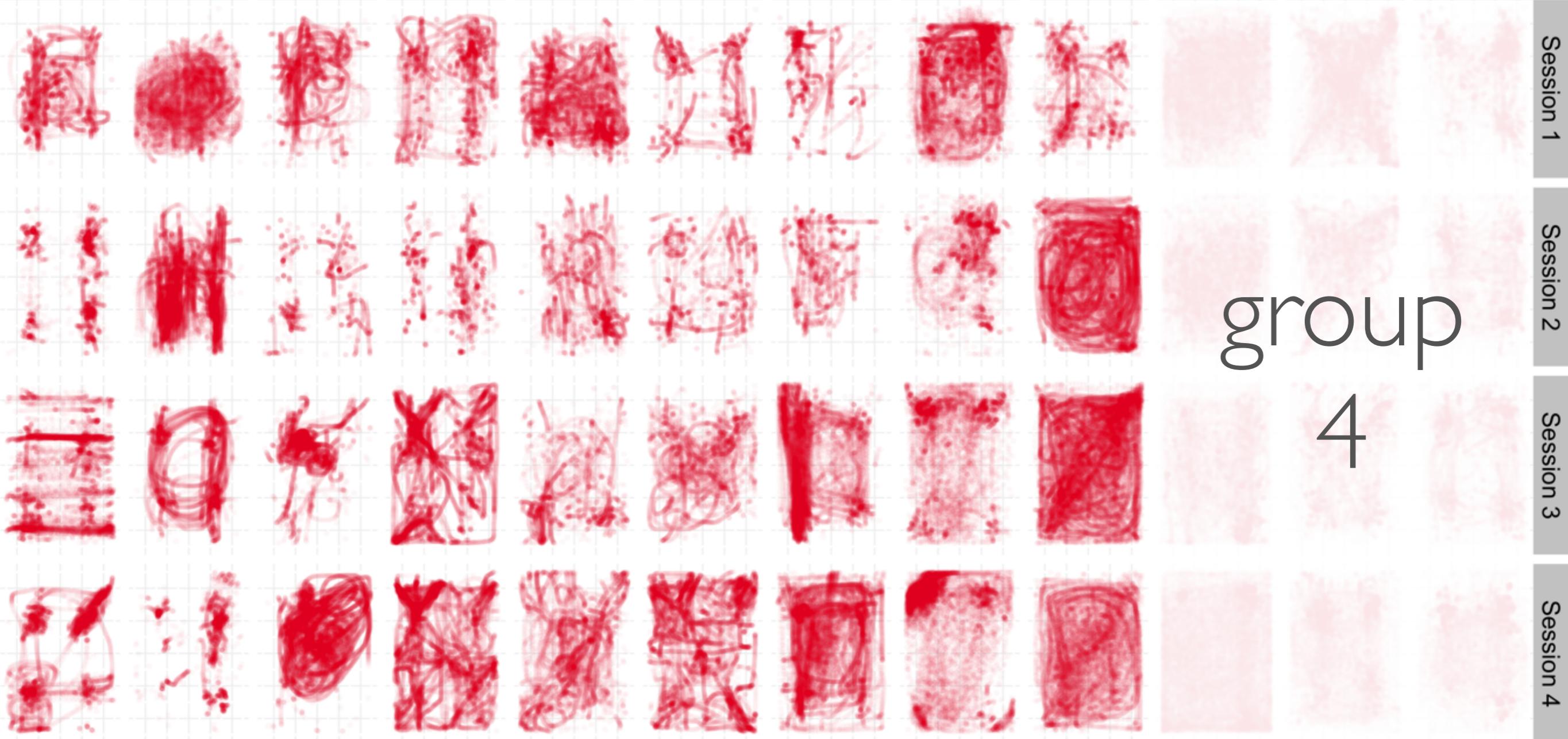


touch count  1  2  3



touch count  1  2  3

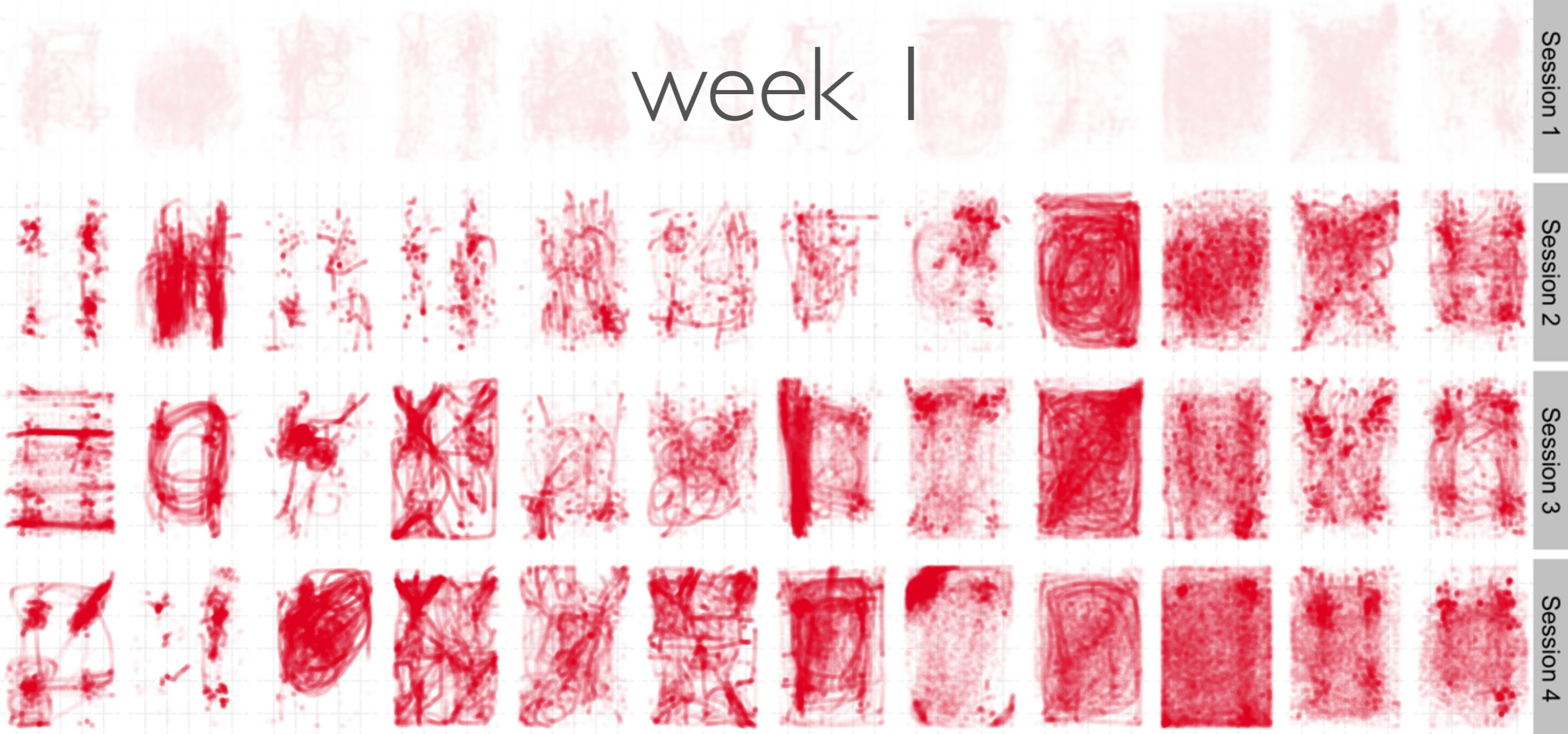
Group 1	Group 1	Group 1	Group 2	Group 2	Group 2	Group 3	Group 3	Group 3	Group 4	Group 4	Group 4
Joe	Sarah	Alex	Greg	Leah	Alan	Larry	Tim	Chris	Kate	Judy	Roger



touch count  1  2  3

Group 1	Group 1	Group 1	Group 2	Group 2	Group 2	Group 3	Group 3	Group 3	Group 4	Group 4	Group 4
Joe	Sarah	Alex	Greg	Leah	Alan	Larry	Tim	Chris	Kate	Judy	Roger

week 1



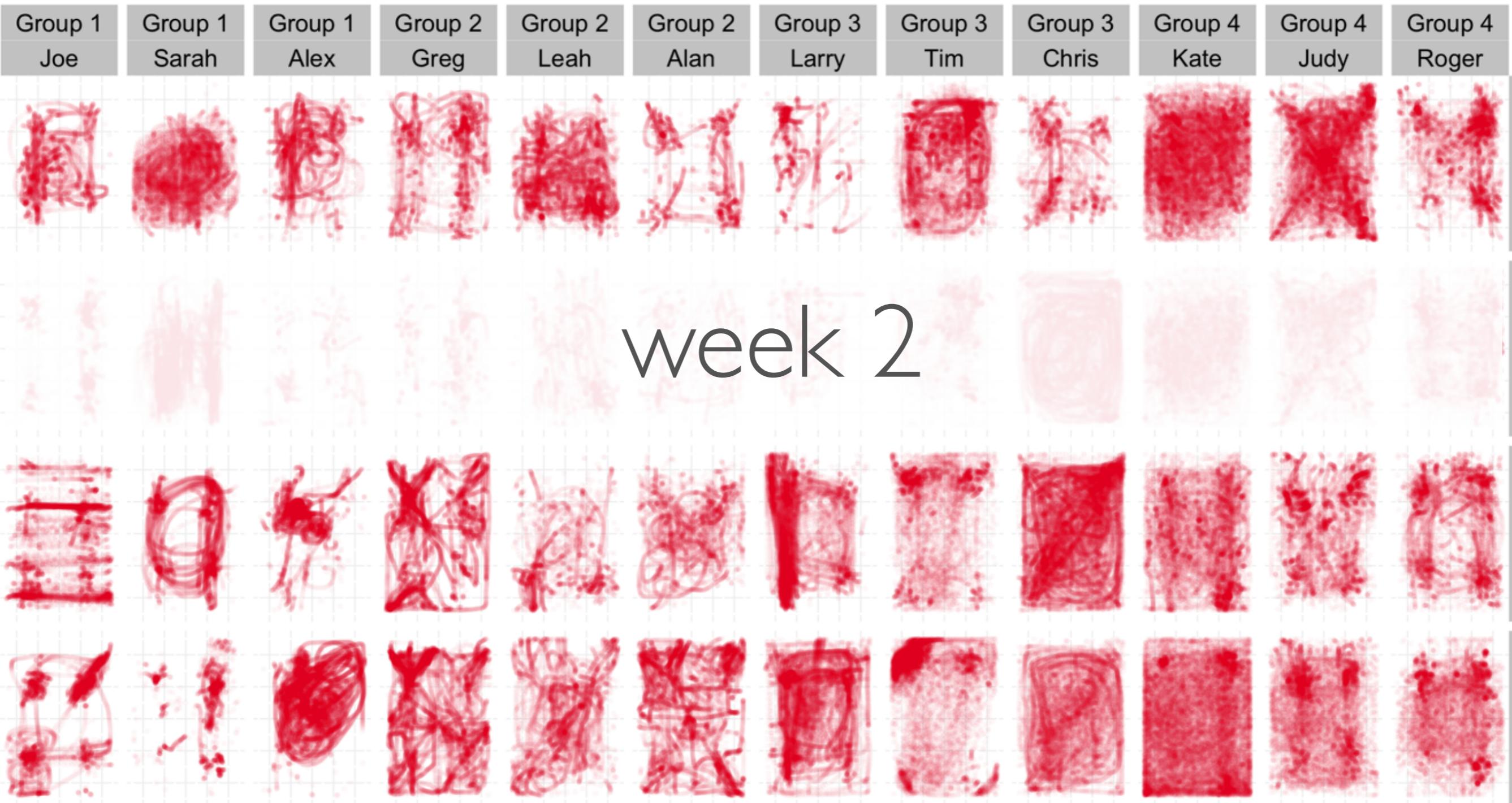
Session 1

Session 2

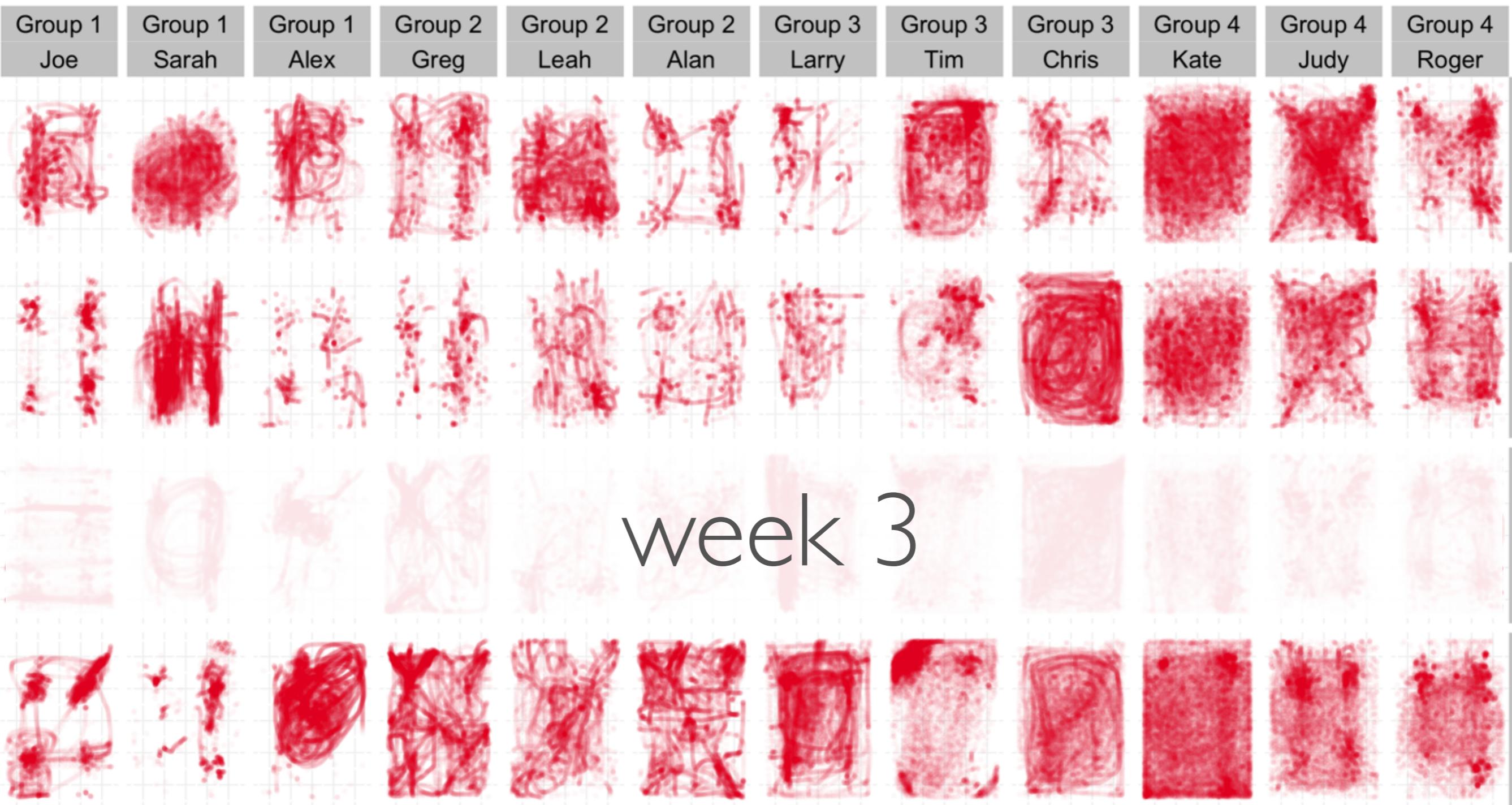
Session 3

Session 4

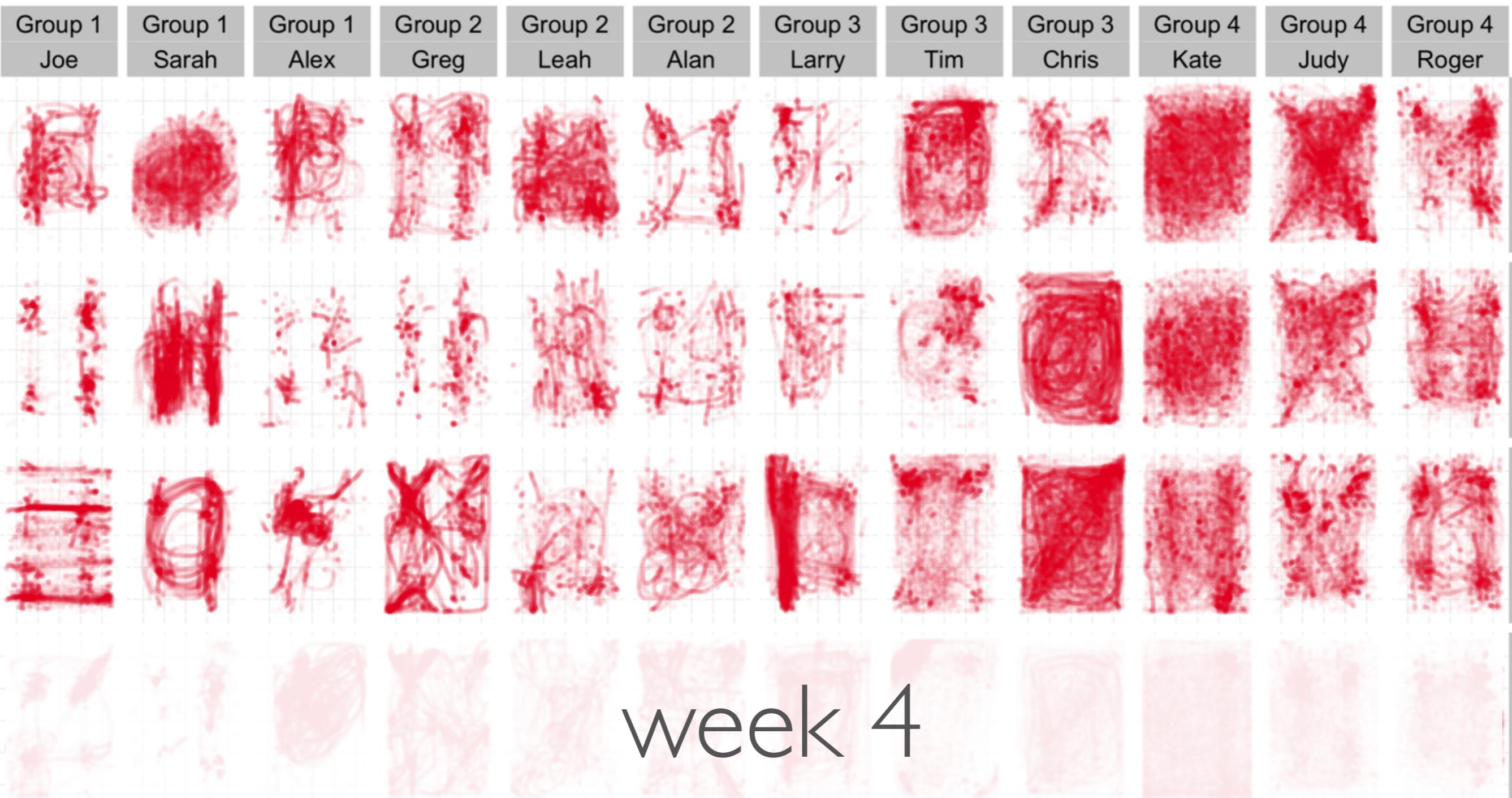
touch count  1  2  3



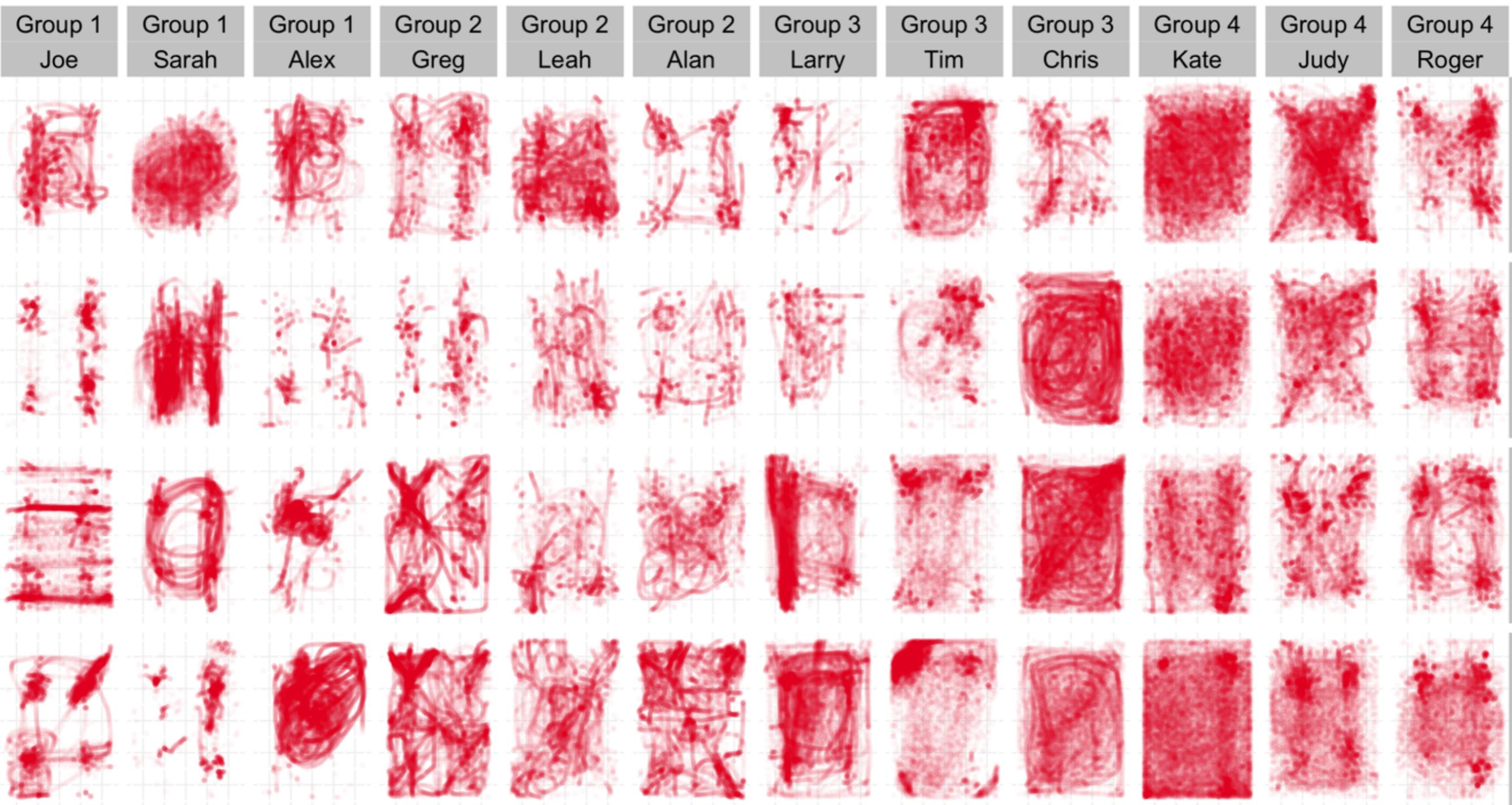
touch count ● 1 ● 2 ● 3

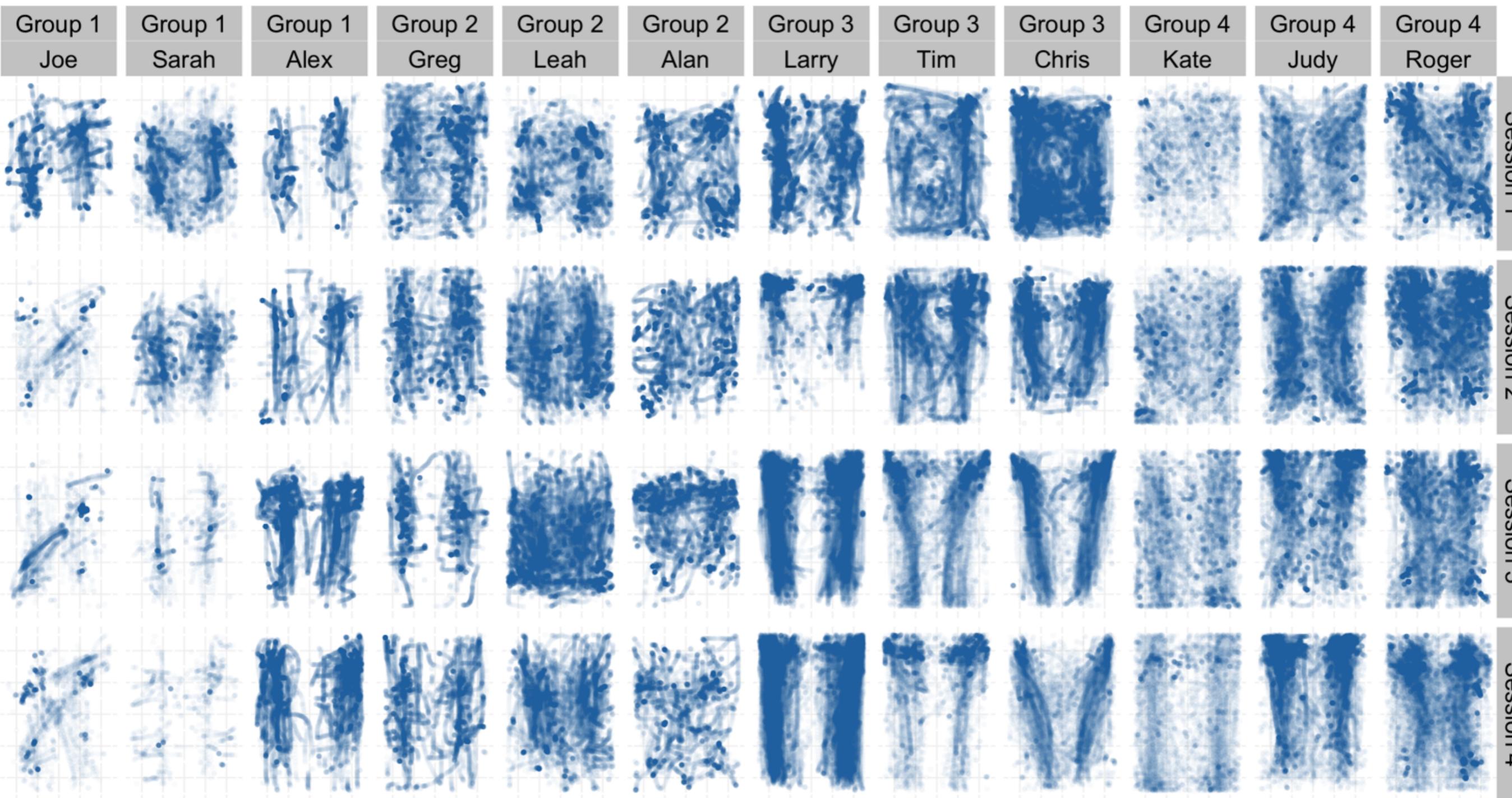


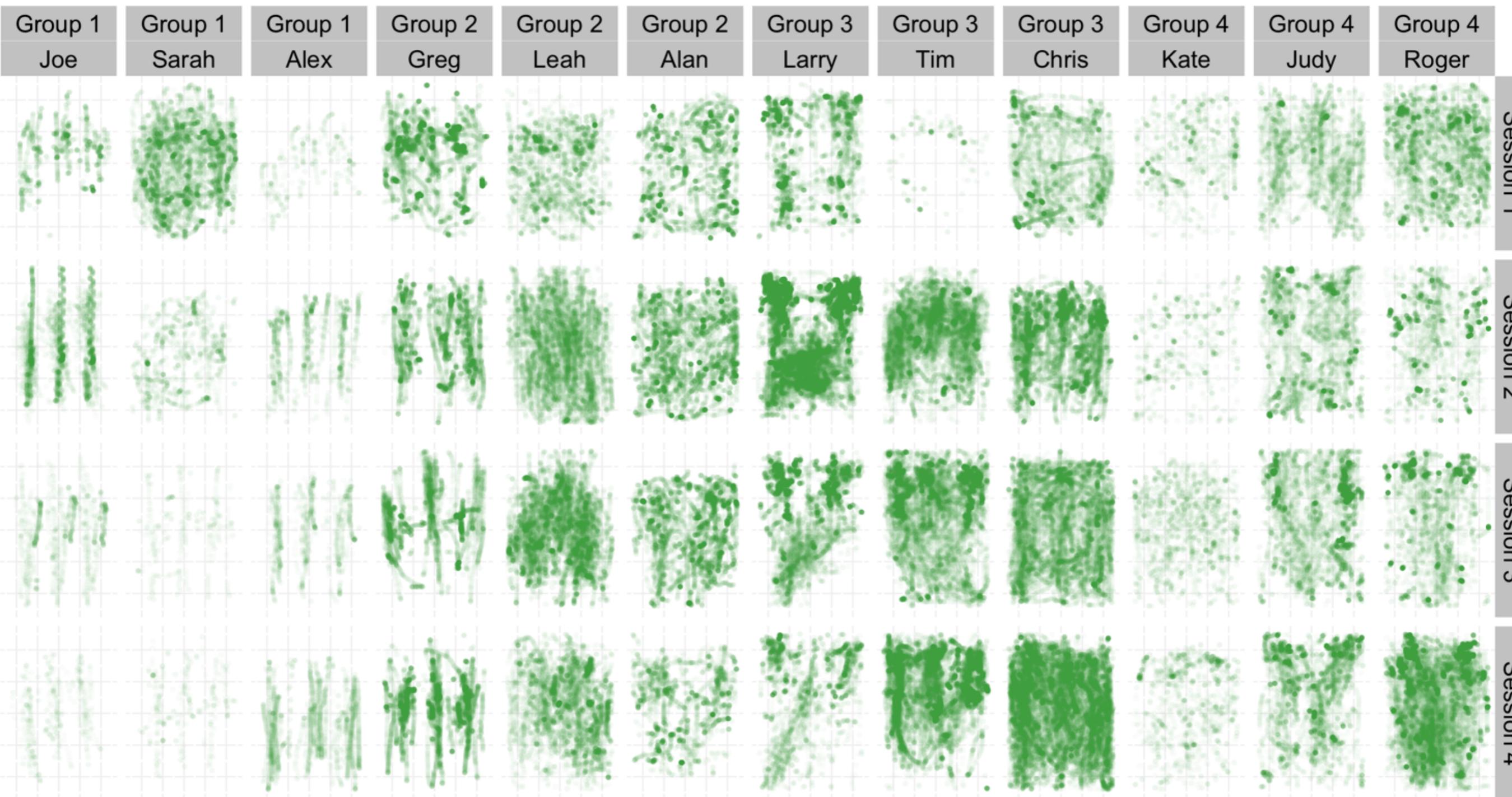
touch count ● 1 ● 2 ● 3



touch count ● 1 ● 2 ● 3

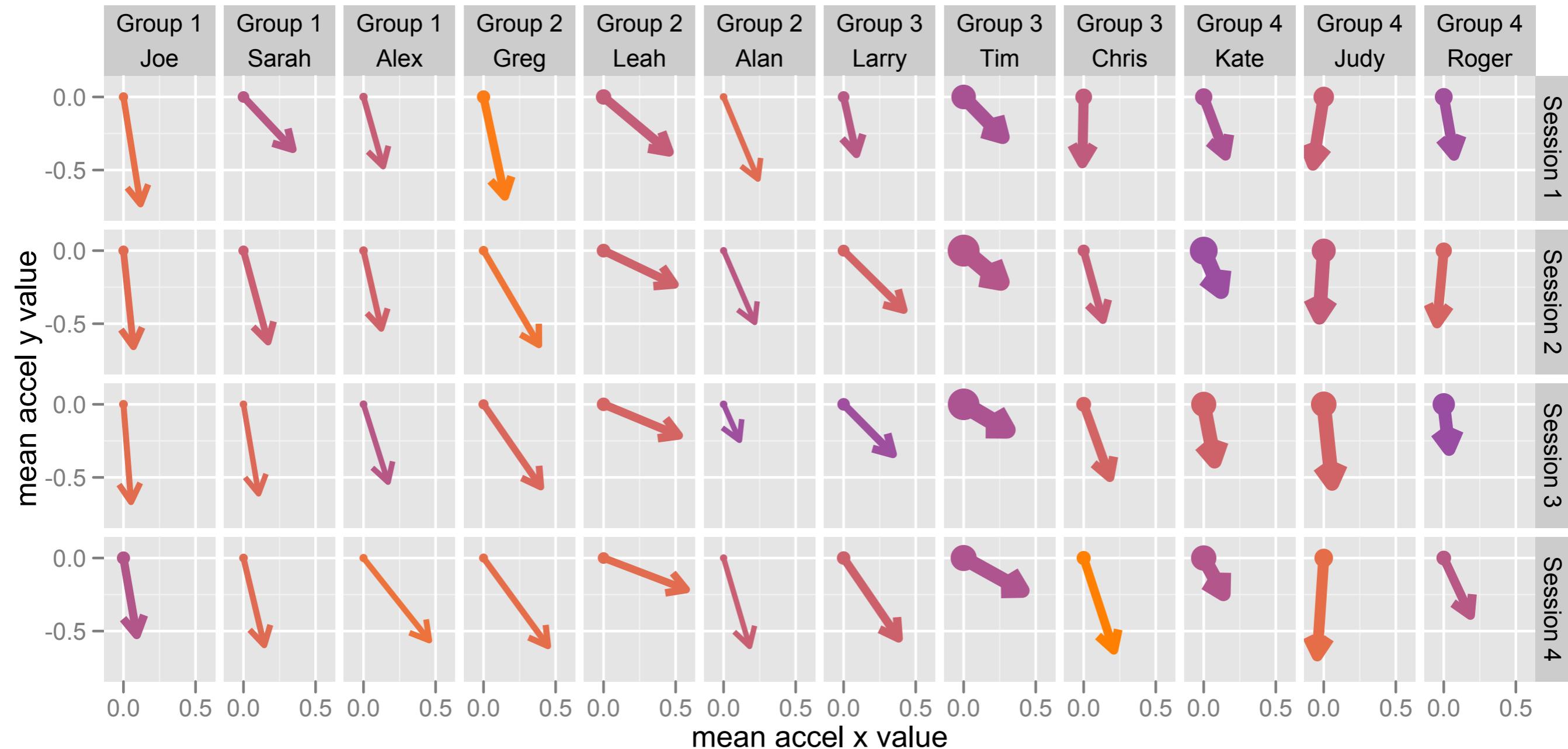






average RMS motion energy

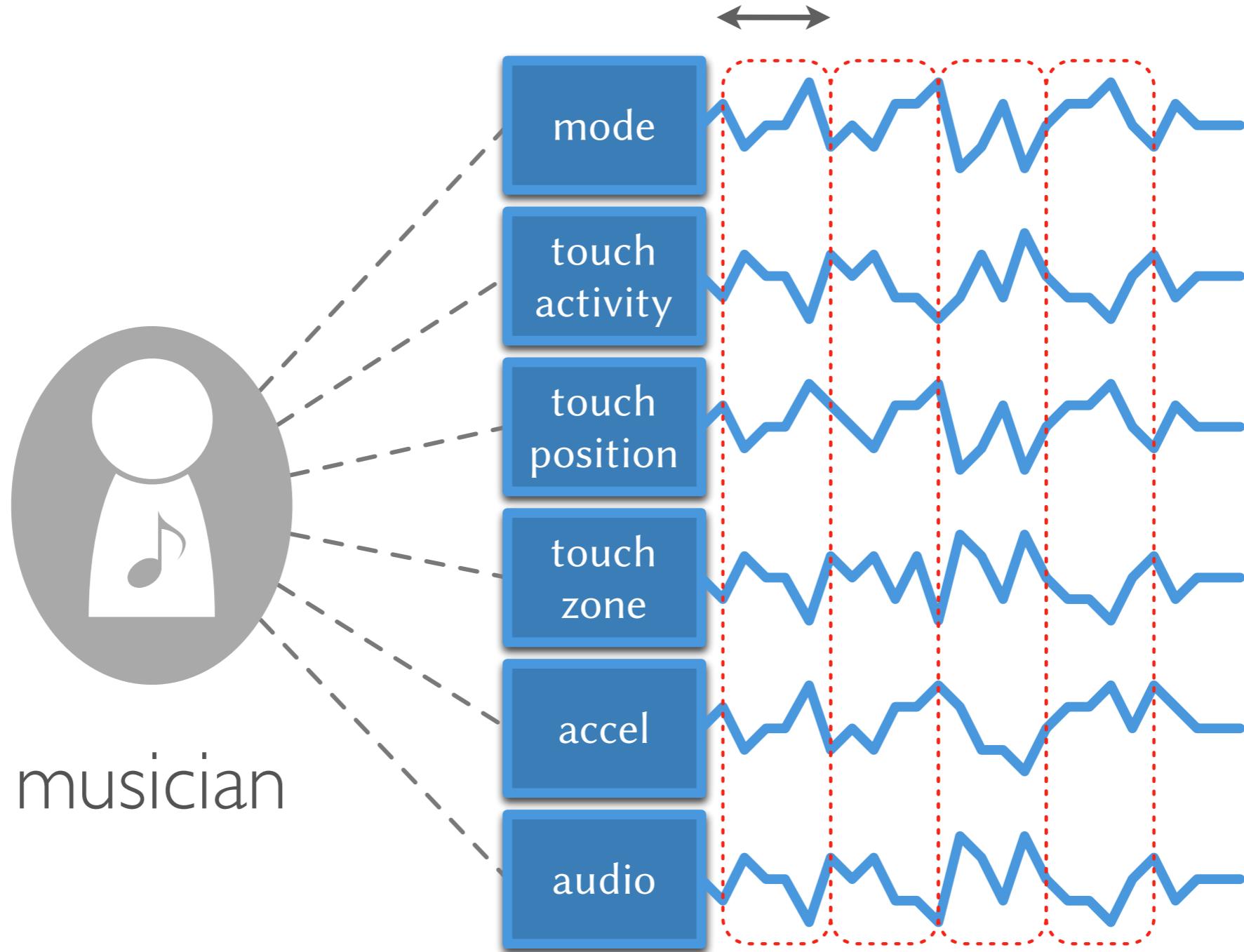
mean accel z value

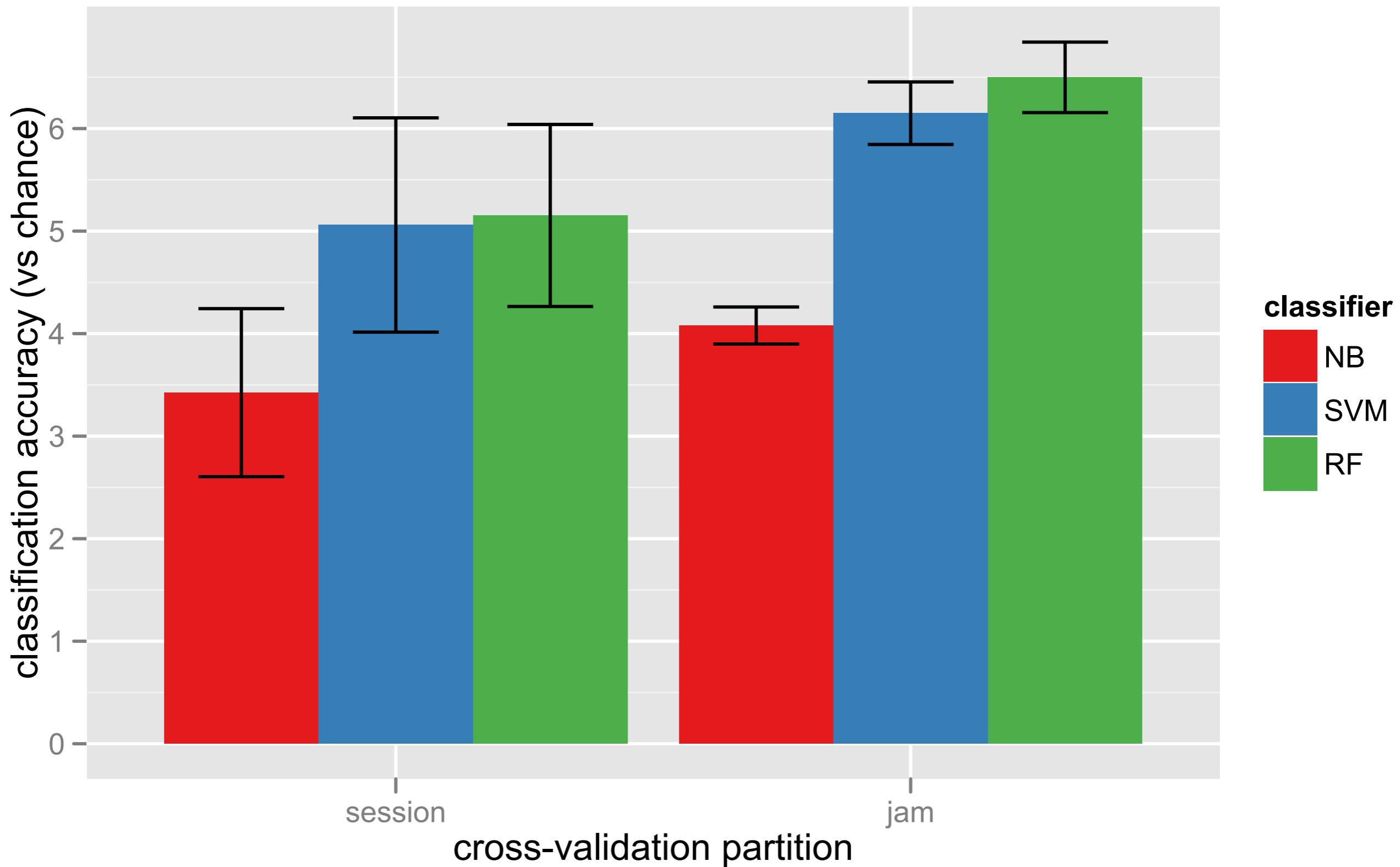


A sensitive synthesis of machine learning
and affect theory requires...

- not attaching numbers to things that aren't
- looking for *differences* in the data
- examining the *nature* of those differences

feature window (5 sec)





session 1

jam 1

jam 2

jam 3

jam 4

session 2

jam 1

jam 2

jam 3

jam 4

session 3

jam 1

jam 2

jam 3

jam 4

session 4

jam 1

jam 2

jam 3

jam 4

session 1

jam 1

jam 2

jam 3

jam 4

session 2

jam 1

jam 2

jam 3

jam 4

session 3

jam 1

jam 2

jam 3

jam 4

session 4

jam 1

jam 2

jam 3

jam 4

session 1

jam 1

jam 2

jam 3

jam 4

session 2

jam 1

jam 2

jam 3

jam 4

session 3

jam 1

jam 2

jam 3

jam 4

session 4

jam 1

jam 2

jam 3

jam 4

