

The science of psychotherapy: are we getting there at last?

Jeremy holmes

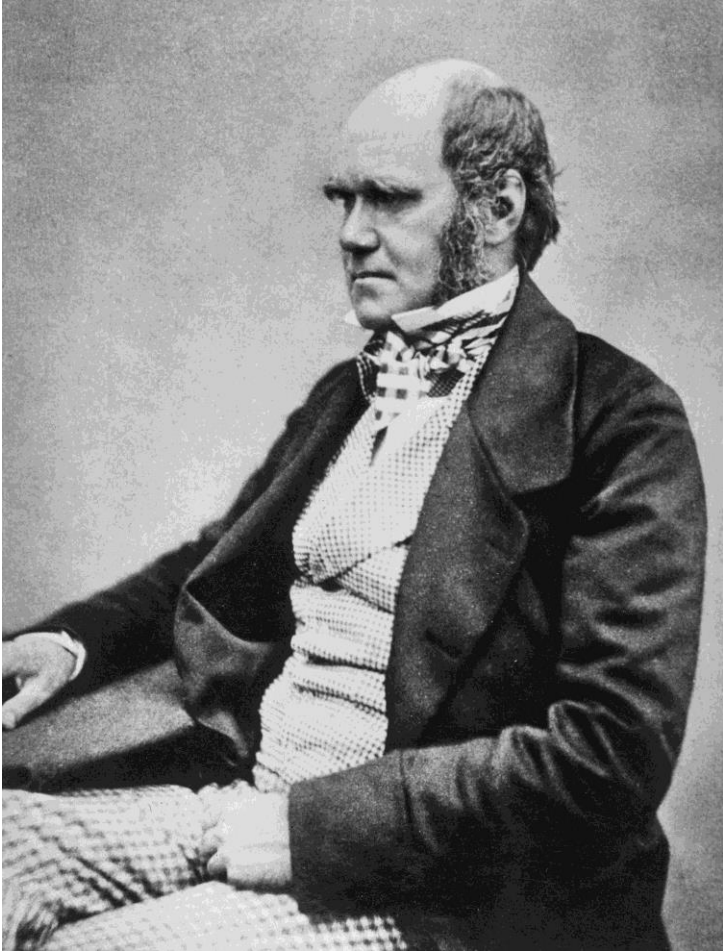
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Disclosure statement

I have no financial or other conflicts of interest
to declare in this presentation

Charles & Gregor



Siggy & Karl



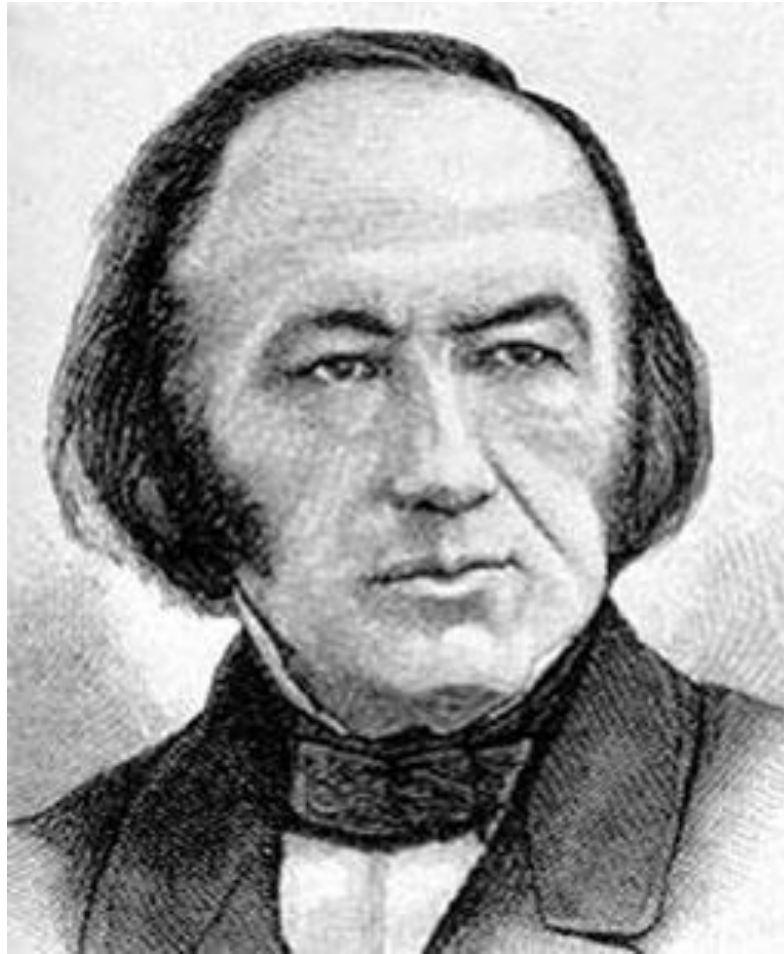
Helmholtz 1821-1894



Helmholtz

- Freud's intellectual grandfather (via Wundt), understood *unconscious* aspect of the mind
- *Dual aspect monist*: mind influences brain and vice versa
- Brain organised *hierarchically* with *feed-forward and feed-back* between levels

Claude Bernard 1813-1878



Claude Bernard & Homeostasis

- ‘La fixite du milieu interior...’
- Security/exploration dialectic
- Adaptation: aligning present moment with prevailing circumstances...
- ...versus clinging the past; fear of the future

Erwin Schroedinger (1887-1961)

- Schrodinger: life as negentropy, i.e. order(NE)
- 'Death instinct'/thanatos = entropy



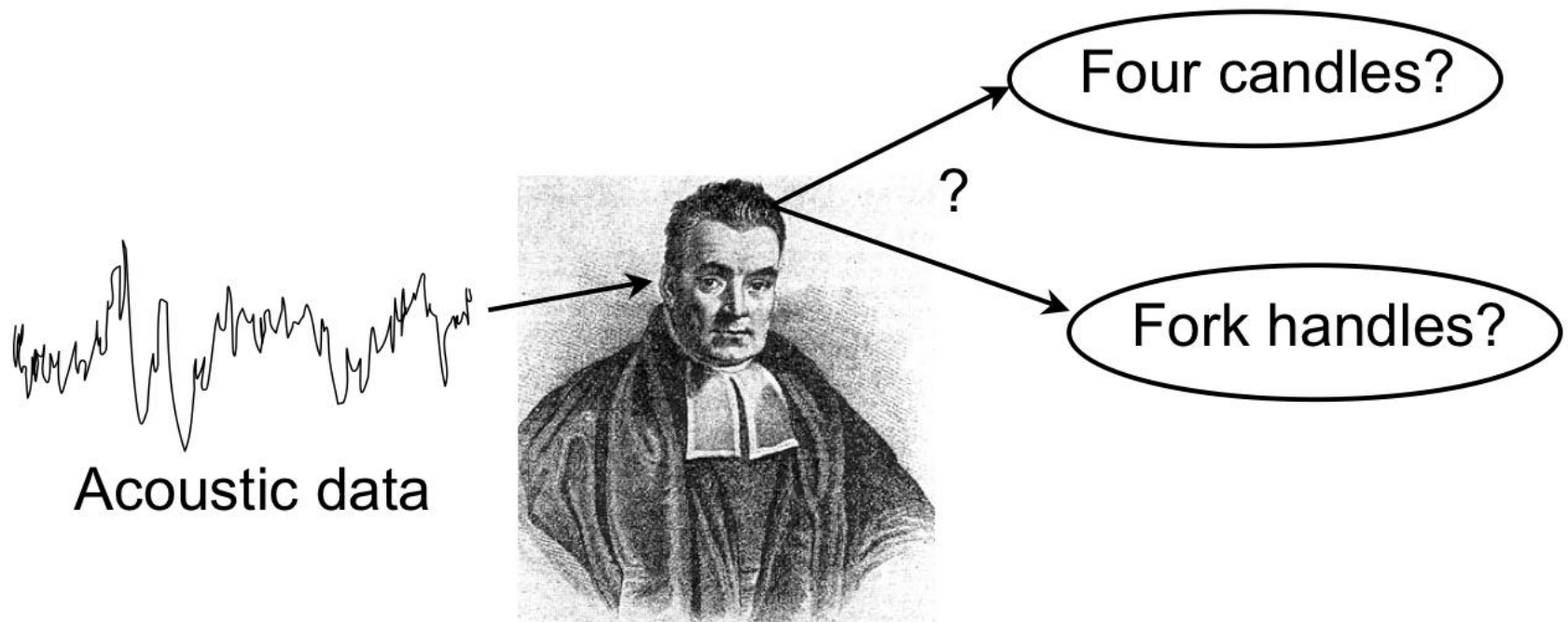
Friston and 'free energy'

- 'Surprise' (startle reflex) stimulates 'free energy'
- Free energy = entropy, chaos, incoherence
- The negentropised brain's aim:
- Minimise free energy and surprise

The Rev Thomas Bayes (1702-1761)

- The future's not ours to tell...
- So we make predictions...
- Based on prior experience...
- While constantly revising them...
- In the light of experience
- BUT...

Rev Bayes goes shopping



Exmoor





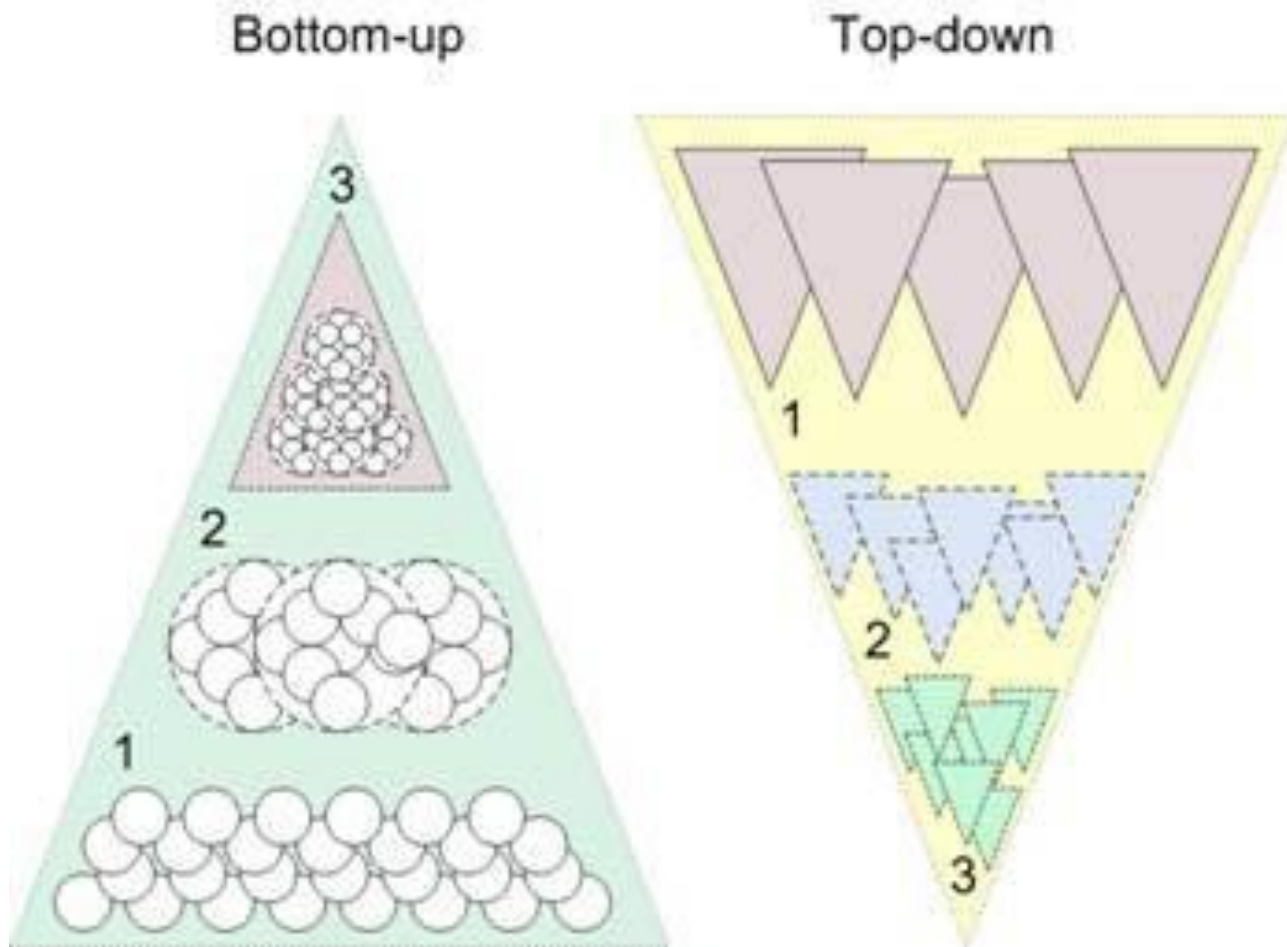
Baysean story

- Spring; daily run; farmer recently sprayed weed-killer,
- Sickly smell and slight feeling of nausea.
- Next day: smell gone, but (*peripheral vision*) dark flapping object.
- Bayes says: ?poisoned crow, but *action + mentalise* :
- Prediction revised: wind-blown black plastic

Bayesean brain

- Free energy generated by an ambiguous stimulus leads to a motor response...
- ... align *sensation* with concept-derived *perception* and minimize unbound energy.
- *Perception* guided by *entero-ception* (nausea on the previous day)
- and *pre-conception* (weed spraying):
- Past determines present meanings *unless continuously updated*

Bottom-up/Top-down causation



In psychopathology...

- 'Action/agency' & mentalising compromised
- Minimise free energy: cling to past perceptions ('transference')
- Mis-alignment with present moment
- Rigid homeostasis (organised insecurity)
- Unmentalised preconceptions (D)

A safe space...for 'surprise'



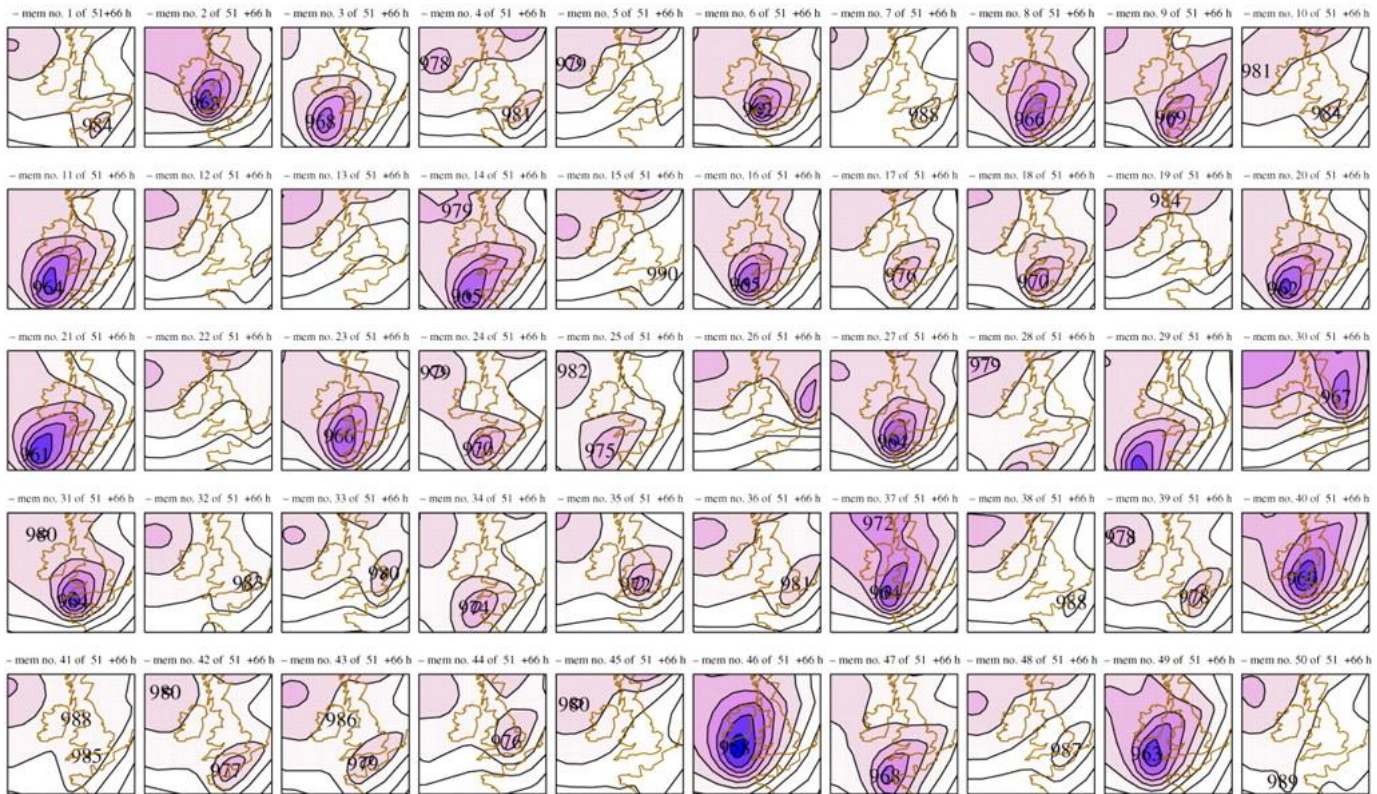
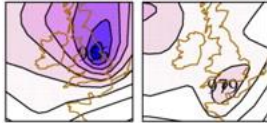
Freud on trauma (BPP)

'we describe as 'traumatic' any excitations from outside...powerful enough to break through the protective shield...and result in permanent disturbances of the manner in which the energy operates.'

Trauma elicits 'startle': no 'top-down' predictions available

Probabilistic weather maps

AN 19871016, 06GMT EPS Cont FC +66 h



Rare, but predictable events...



Role of psychotherapy

- Re-open sensitive period (prematurely aborted in adverse developmental environments)
- Uncouple sensation and perception
- ‘Bind’ surprise
- Facilitate secure ‘fusion of horizons’ conversations
- Create mentalising milieu: revise and extend preconception repertoire

‘Sensitive periods’



Affect co-regulation



Coan et al (2006)

- fMRI study; subjects in scanner; mild shock with anticipation
- 3 conditions: alone; husband's hand; stranger's hand
- Linear inverse relationship between marital quality and fMRI patterns of arousal and use of self-oriented strategies

Handholding Task



Partner

Handholding



Stranger

Handholding



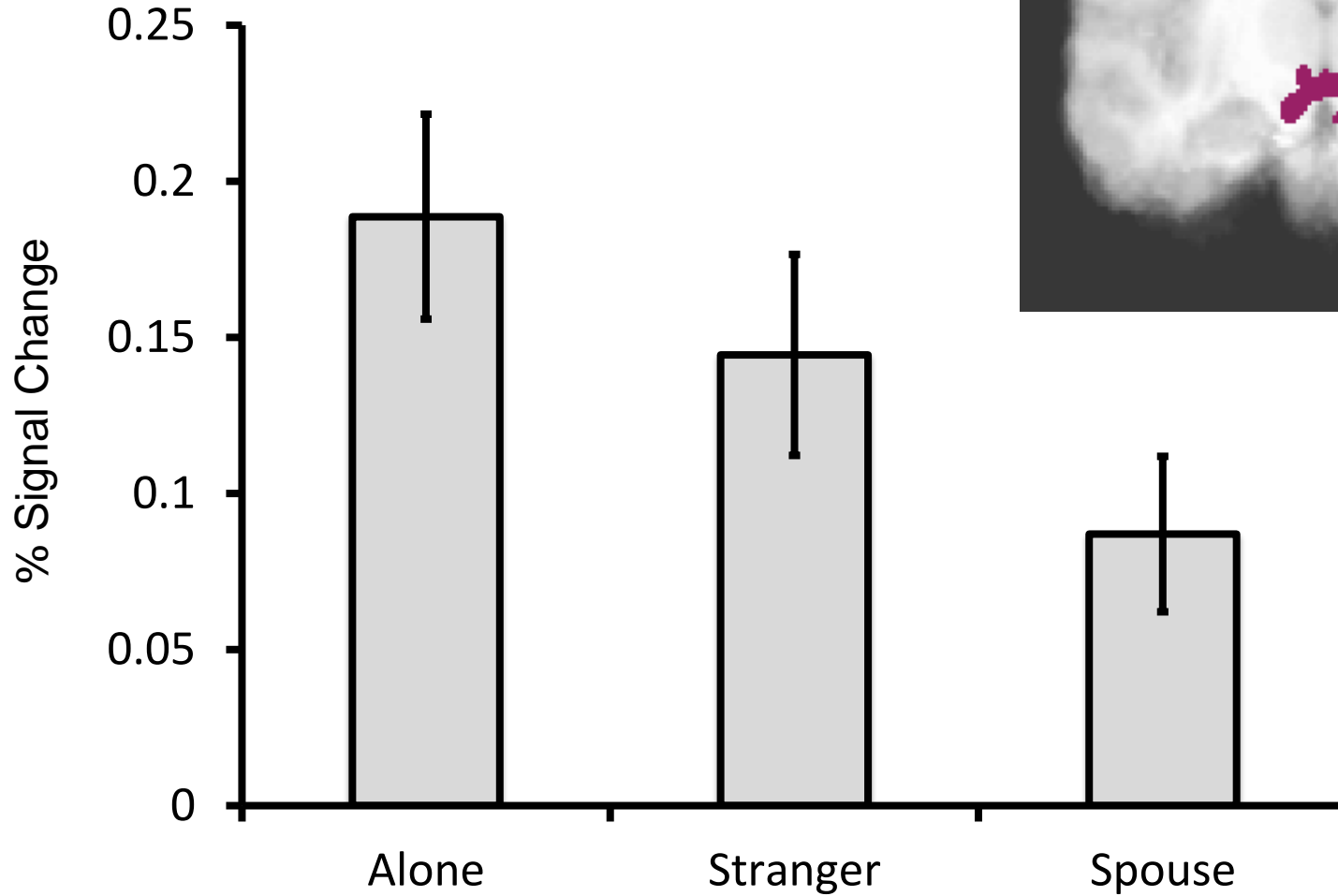
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Handholding



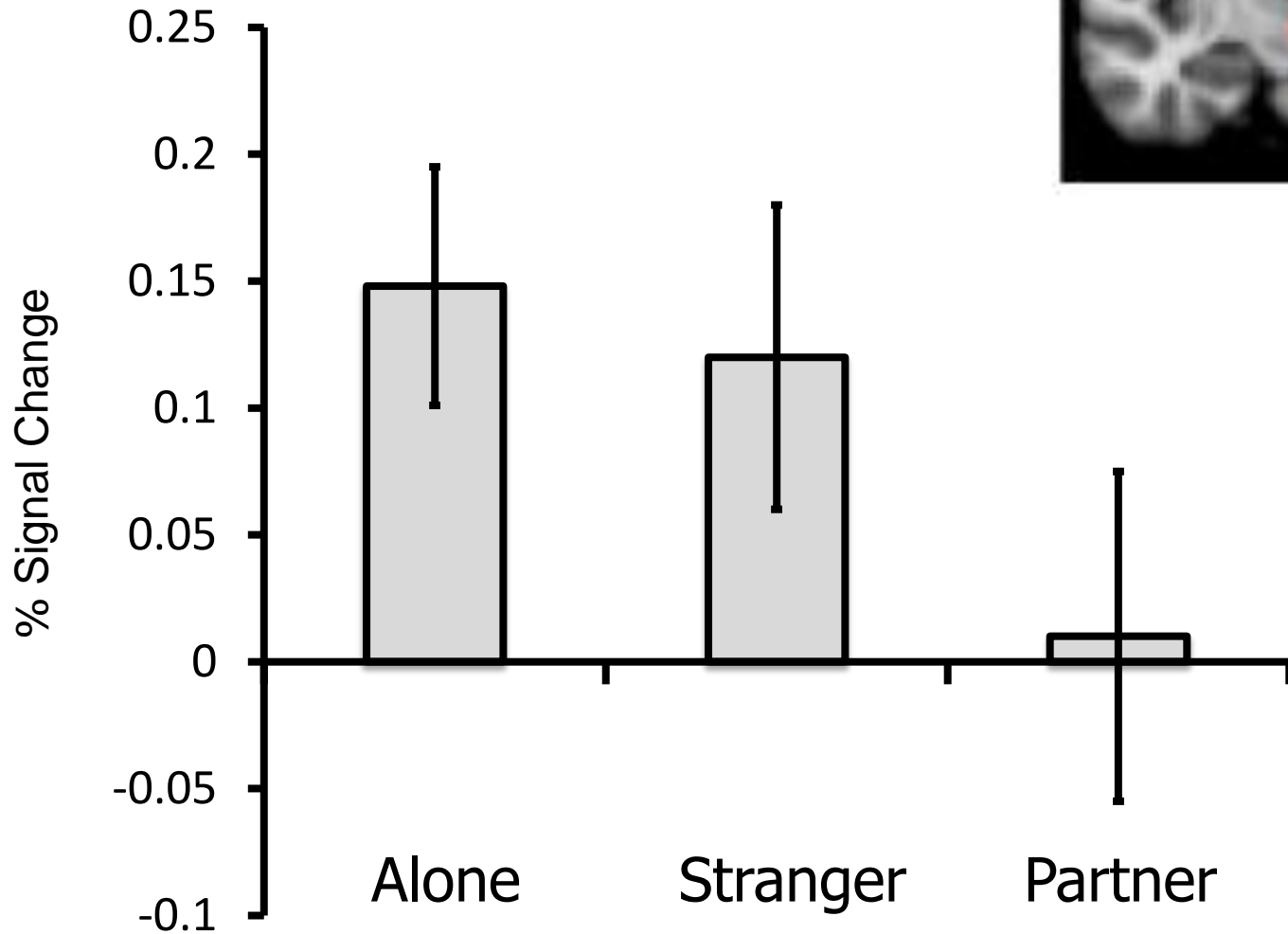
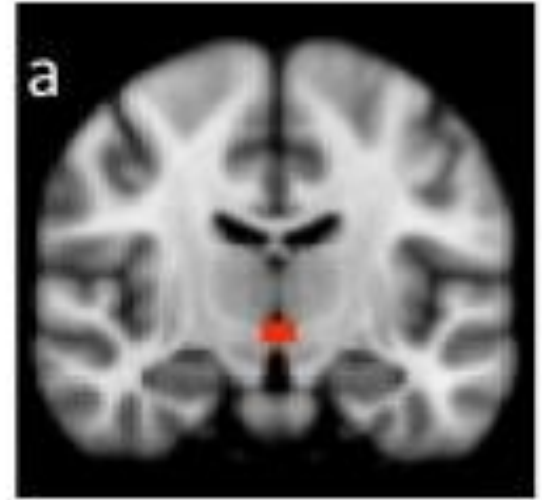
Hypothalamus

- $F(2,27) = 4.31, p = .02$
- “HPA-Axis”; Immune function



Hypothalamus

- $F(2,42) = 4.05, p = .025$
- “HPA-Axis”; Immune function



The dog that didn't bark



Jean Laplanche (1924-2012)



Psychotherapy implications

- Therapist as ‘enigmatic signifier’
- Thus ‘predictions’ (aka ‘assumptions’ phantasies) available for mentalising
- ‘Bringing trauma into the area of omnipotence’ (Winnicott)
- C.f. dreaming, play...

Emily Dickinson

The thought is quiet as a flake,
A crash without a sound,
How life's reverberations
Its explanation found



The 'improbable profession'

- Tolerating, encouraging 'unbound energy' in the consulting room
- Non judgementalism = not being 'surprised' in the neuroscience as well as the moral sense
- Precondition: *'radical acceptance'*

'Parsimony' reduces surprise

Hence meta-theories, e.g. libido or attachment



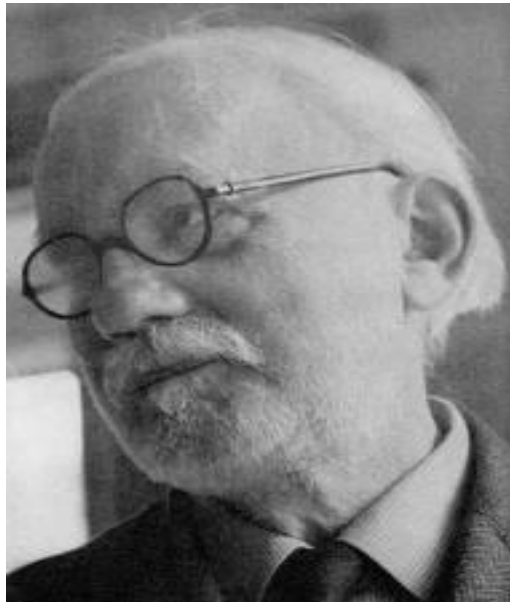
Ludwig Wittgenstein (1889-1951)



Talia et al Language as 'speech acts'

- Therapeutic discourse as 'speech acts' -- i.e. interpersonal 'gestures'
- Analyse therapy sessions with Patient Attachment Coding System (PACS) with known attachment status of client
- Insecure attachments: 'homeostatic conversation'
- Secure: playful, 'fusion of horizons'

The Strachey-Lear model of psychic change



Mutative intimacy (Strachey/Lear)

- Pull of the past, terror of the future, means clinging to outworn pathways
- Th enters the p's world – '*idiolect*' – (chameleon-like aspect of therapy)
- Transference: p expects th to play allocated part -- 'role responsiveness' (Sandler)

Mutative moments continued

- *Discrepancy/non-collusive intimacy*
- Therapist neither conforms nor is expelled
- *Surprise...elicited, confronted, survived*
- *Mentalising: 'what's going on'*
- *Psychic reorganisation: increased complexity*

Example, 2nd session

- Depressed man , aet 56, verbally sophisticated
- Affectless: '*I never want to be where I am*'
(Groucho Marxism again)
- Counter-transference – *sadness*: 'it makes *me* feel sad that *you* are so out of touch with your feelings'
- Tears eruption +++ , subsidence, laughter
- '*I just want to be let be...*'

Example theorised

- Speech act: performative/ostensive avoidance
- Countertransference (R-L-R brain): therapist avoids being deactivated
- Partially contingent mirroring: *reflects* sadness inexactly, 'interpersonalises' it
- 'Hand held', negative affect released

Psychotherapy as reflective discourse

- Reflexive function
- Mentalising
- Mind-mindedness
- Meta-cognitive monitoring
- All associated with SA and may be key to 'earned security'

Reflexive function (RF)/mentalising

- Classic Steele, Steele & Fonagy 1991 study
- AAI for parents; infants SS score 18/mo later
- RF subscale: Parental RF correlates with infant security in SS 15 mo later
- 100% mothers *adversity + high RF*, but only 1/17 mothers with *adversity + low RF* -- secure infants

Reflexive function, mind-mindedness, mentalising

- Sensitive care-givers to see their offspring as separate beings, with their own perspectives, desires and goals, & apply this perspectivism to themselves
- *'To see others from the inside and oneself from the outside'*
- *Reflexive function 'binds free energy,*

menthalising





Burns' Ode to a Louse

Oh wad some power the giftie gie us
To see oursel's as others see us!
It wad frae monie a blunder free us,
And foolish notion

Therapy as learning to mentalise

- Therapy as *in vitro* mentalising arena: playing the ‘intimacy game’ ‘hand up’



Reflection



Warts and all...



Overwhelming 'surprise'/unbound energy



... to surprise, co-regulated



Thanks for listening...

- If you want slides:

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