#### Interests

Some slides to illustrate

Aristotle, Rousseau, Kant, Hegel, Marx Weber, Nietzsche Dewey, Mead, Vygotsky, Whorf Wittgenstein (late) Magpie's Freud, Luria trove World Wars Habermas, Lyotard, Merleau Ponty Prigogine, Thom (Autism) Goffmann, Mey Neisser, Kahneman, Minsky Friston

## From fleeting moments to lifelong concerns

- If something is relevant/salient it is so in relation to an interest
- An interest is a dynamic probe, fuelled
- by a scarce processing resource
- An interest has force, flow, momentum

The quotidian mind is apparently occupied with interests and these interests compete for attention which is Conserved and finite, ie N = supply of metabolites.

Interests are aroused and depressed both by autocatalysis, sensory input and by the state of the rest of the system. The arousal of an interest is its emotional content ie the value of X(i,j).

From Mind as a Dynamical System, Mike Lesser and Dinah Murray ca 1995

$$\frac{dy_{i,j}}{dt} = \left( sf\left(x_{i,j}y_{i,j} + wy_{i,j}^{2}\right) + s\frac{(1-f)}{4} \left( \left(x_{i-1,j}y_{i-1,j} + wy_{i-1,j}^{2}\right) + \left(x_{i+1,j}y_{i+1,j} + wy_{i+1,j}^{2}\right) + \left(x_{i,j-1}y_{i,j-1} + wy_{i,j-1}^{2}\right) + \left(x_{i,j+1}y_{i,j+1} + wy_{i,j+1}^{2}\right) \right) \right)$$

 $\mathcal{N}=$  attention

 $x_{ij}$  = interest

 $y_{ij} = activity$ 

b = the rate at which attention becomes interest

s= the rate at which interest becomes activity

m= the rate at which arousal decays

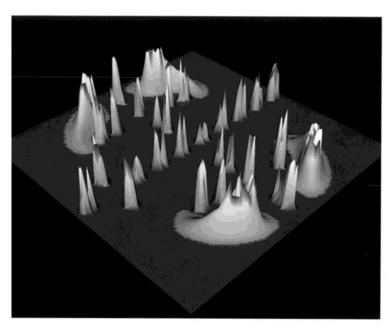
w = the rate of positive feedback

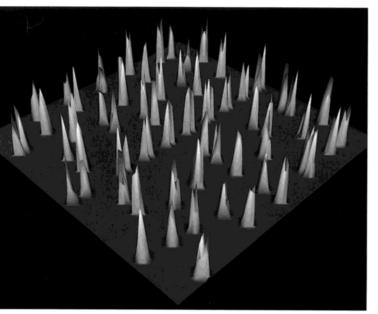
f = the basal rate of associational excitation of interests  $\rho$ =the decay factor in resource overlap with distance d(i,j;i',j') = the distance between  $x_{i,j}$  and  $x_{i',j'}$ 

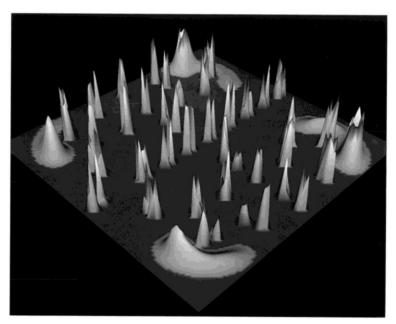


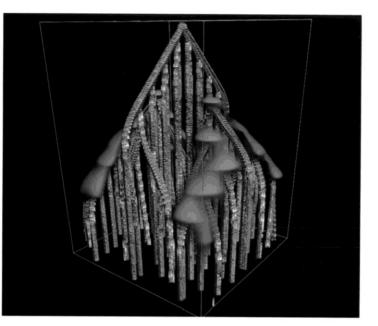
The system comprises two spatially discretised differential equations (X(i,j) and Y,(i,j) arranged as theelements of a Volterra-Lotka equation. Similar to a chemical diffusion reaction model. The state space is closed (toroid). Its metric is cognitive map space with the addition of perception and imagination. Emotion is reduced to a single aversive/attractive value which, in combination with the state of the matrix provides the value of X(i,j). The differential equations are fluctuated to simulate an unknown environment. The brain is modeled as a noisy far from equilibrium network. The dynamic modeled conforms with present psychoneurological findings

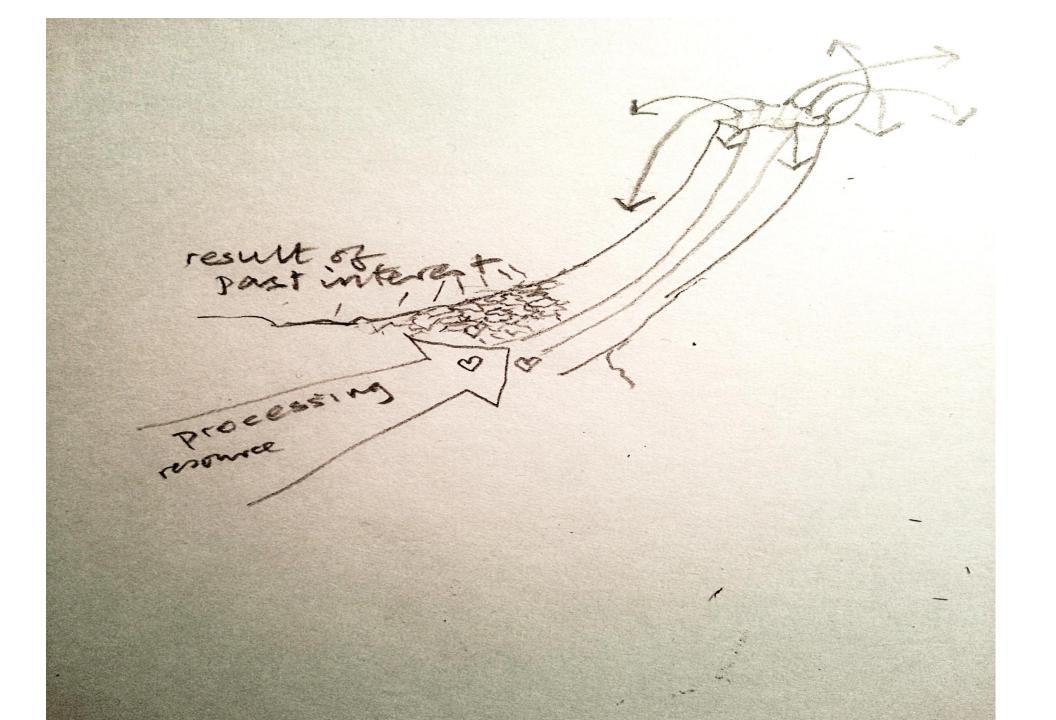
Images from 1991

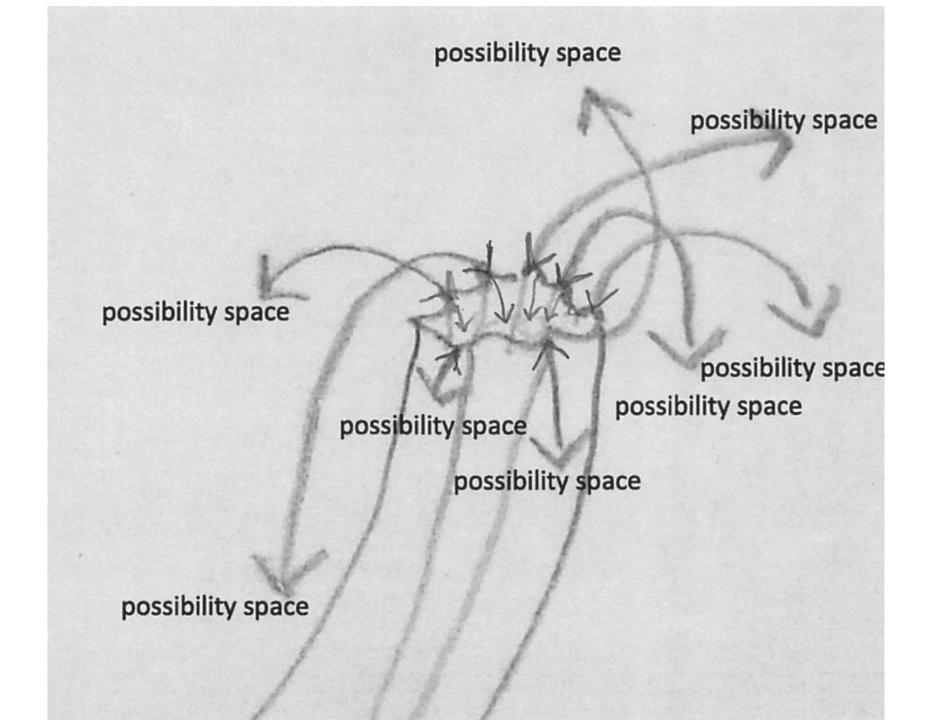




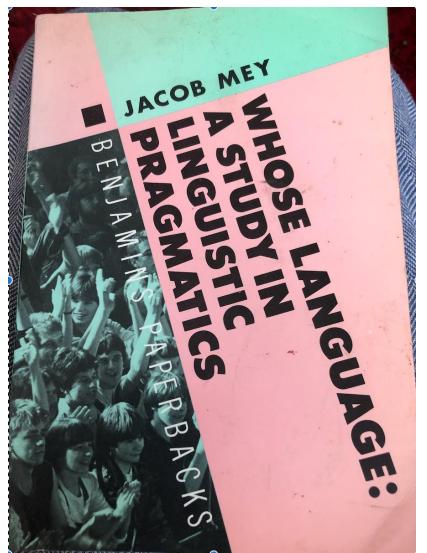








## This, from 1985, is about Language as a Manipulative Tool – it's very persuasive! ;}



http://www.thinkingautismguide.com/2019/03/meltdowns-how-autistic-humans.html



I felt like a huge force was overwhelming me and I couldn't stop it: suddenly I

http://www.thinkingautismguide.com/2019/03/meltdowns-how-autistic-humans.html

## How it feels



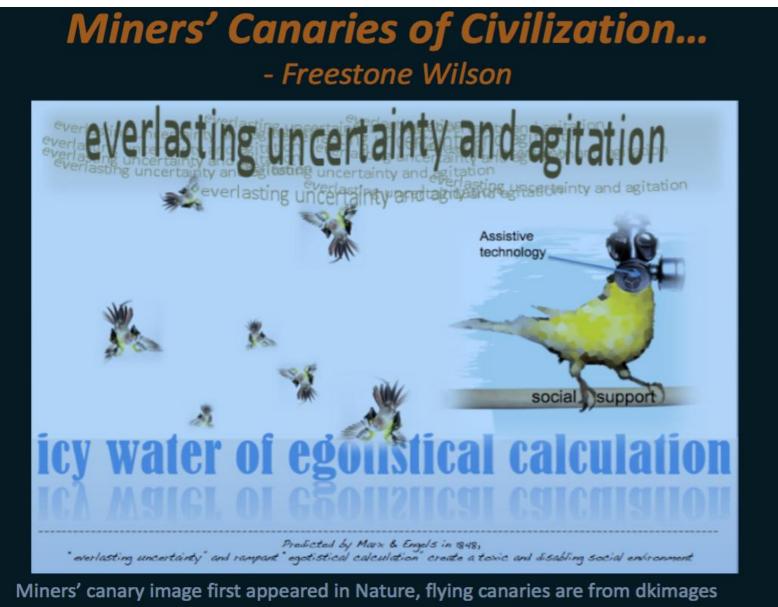
http://www.thinkingautismguide.com/2019/03/meltdowns-how-autistic-humans.html



# How it looks

Little trobulence reduce lood Like la Em Ann Azza h Enobalence theor much Camp expense winn R show r power et in det mation (eg of words) werend likelihood 1 of hese

<u>http://www.larry-arnold.net/Autonomy/index.php/autonomy/article/view/OP3</u> for Freestone Wilson article (the postcard was assembled by me)





#### Thanks to

- the Playing A/Part project and all its members
- Damian Milton for the synergy
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- Karl Friston for his generous and beautiful mind

Friston, K. J., Parr, T., & de Vries, B. (2017). The graphical brain: Belief propagation and active inference. Network Neuroscience, 1(4), 381–414. https://doi.org/10.1162/ netn\_a\_00018