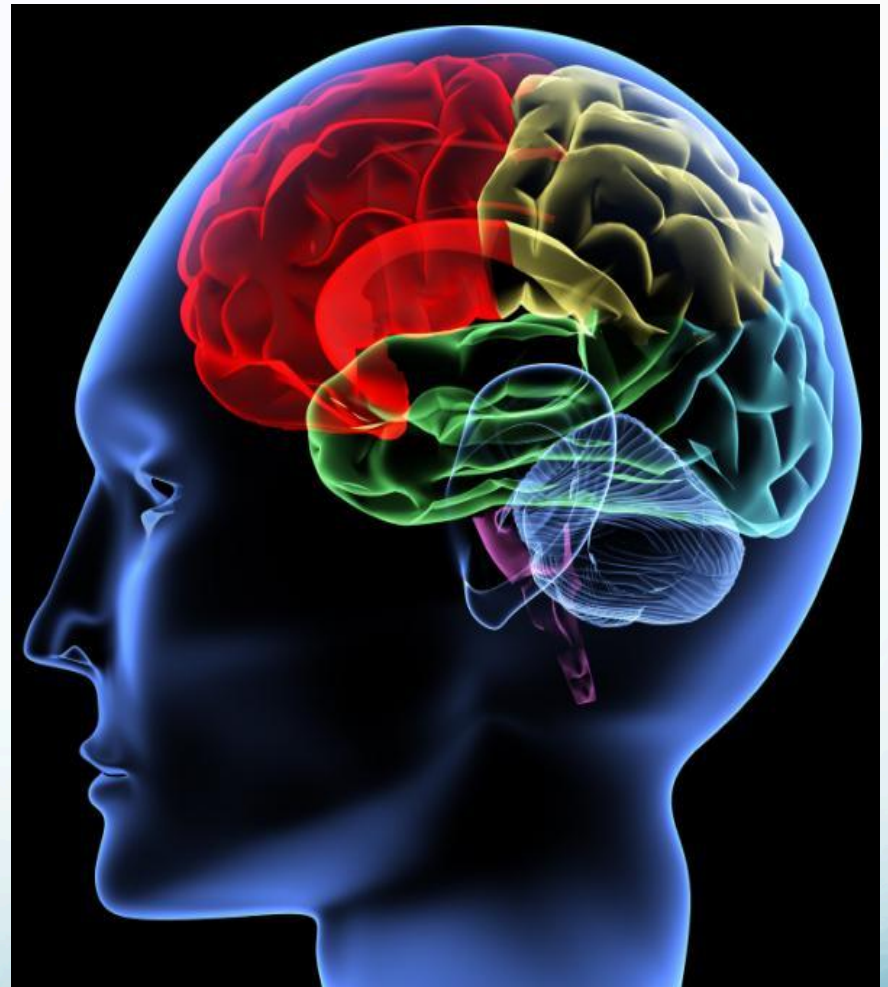# THE EMOTIONAL COHERENCE OF DONALD TRUMP

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Outline

1. Political decisions
2. Value maps
3. Emotional coherence
4. Emotions
5. Emotional communication

Individual Decisions

Models of Decision Making

1. Rational choice by maximizing expected utility based on preferences.

2. Prospect theory

3. Fast and frugal heuristics.

4. Inference to the best plan based on emotional coherence, tied to values. Thagard (2006), *Hot Thought*, MIT Press.

HOT THOUGHT

Mechanisms and Applications of Emotional Cognition

Paul Thagard
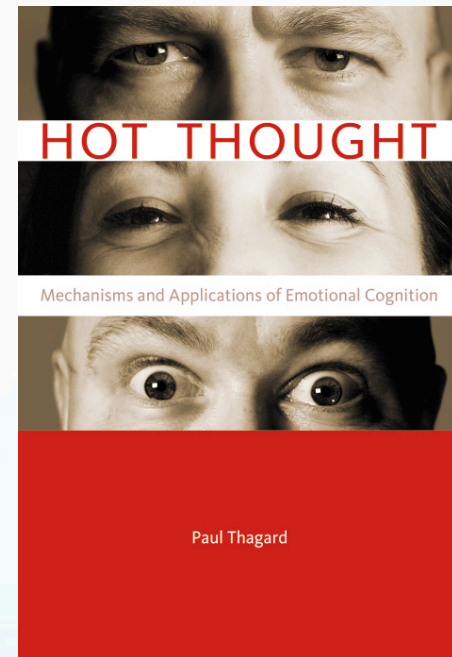
Values in Decision Making

Why did 62 million Americans vote for Trump?

Positive values: America, jobs, military, law and order

Negative values: illegal immigrants, terrorists, Washington insiders, elites

Hypothesis: people vote for candidates whose values are emotionally coherent with their own. Westen 2007: *The Political Brain*.

Simon, Stenstrom, & Read, *JPSP*, 2015.

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What are Values?

1. Preferences?
2. Abstract ideas?
3. Subjective opinions?
4. Values are mental processes that combine cognitions and emotions in the brain.

Values are not isolated, but occur in *systems.*

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Cognitive-Affective Maps

New kind of concept map that represents values and emotions.

Nodes represent concepts and objects.

Positive: green ovals
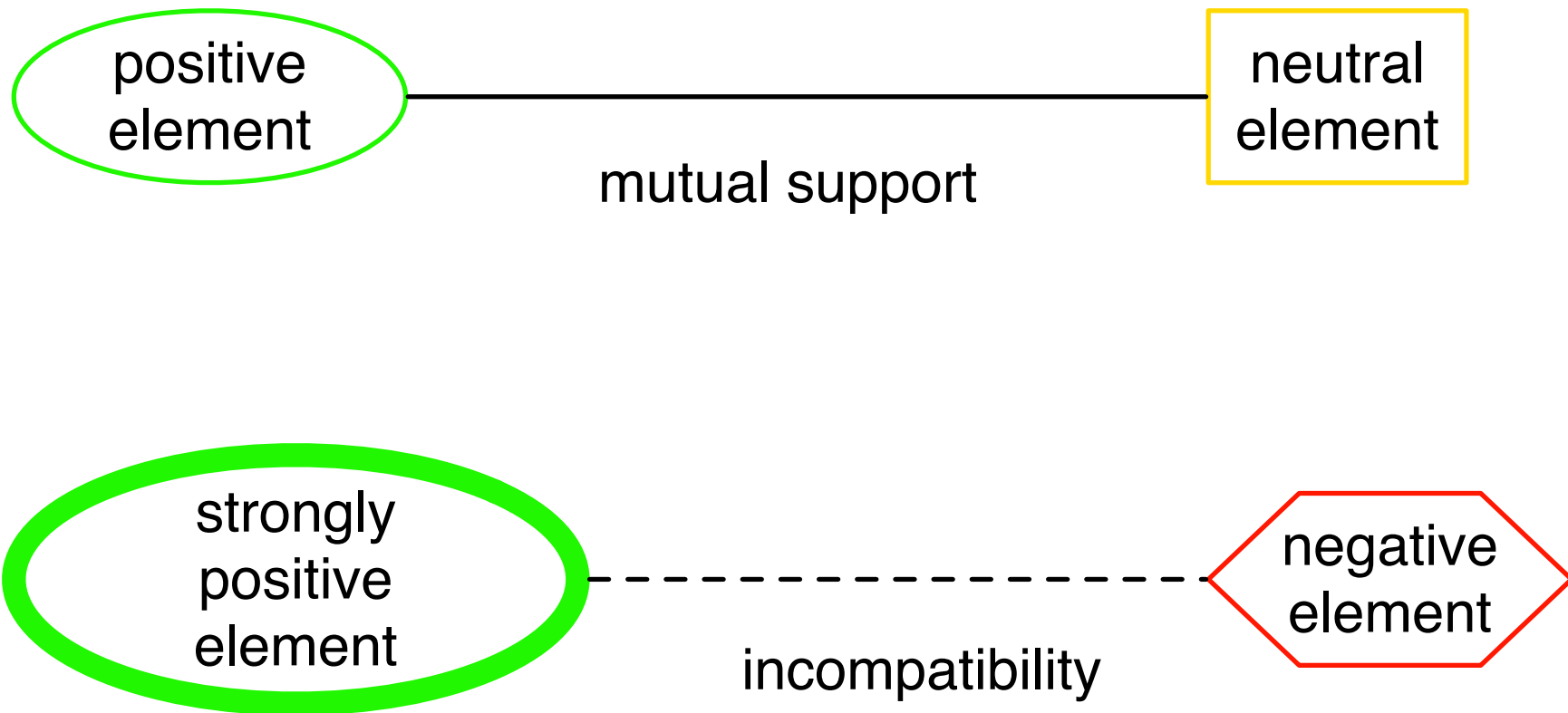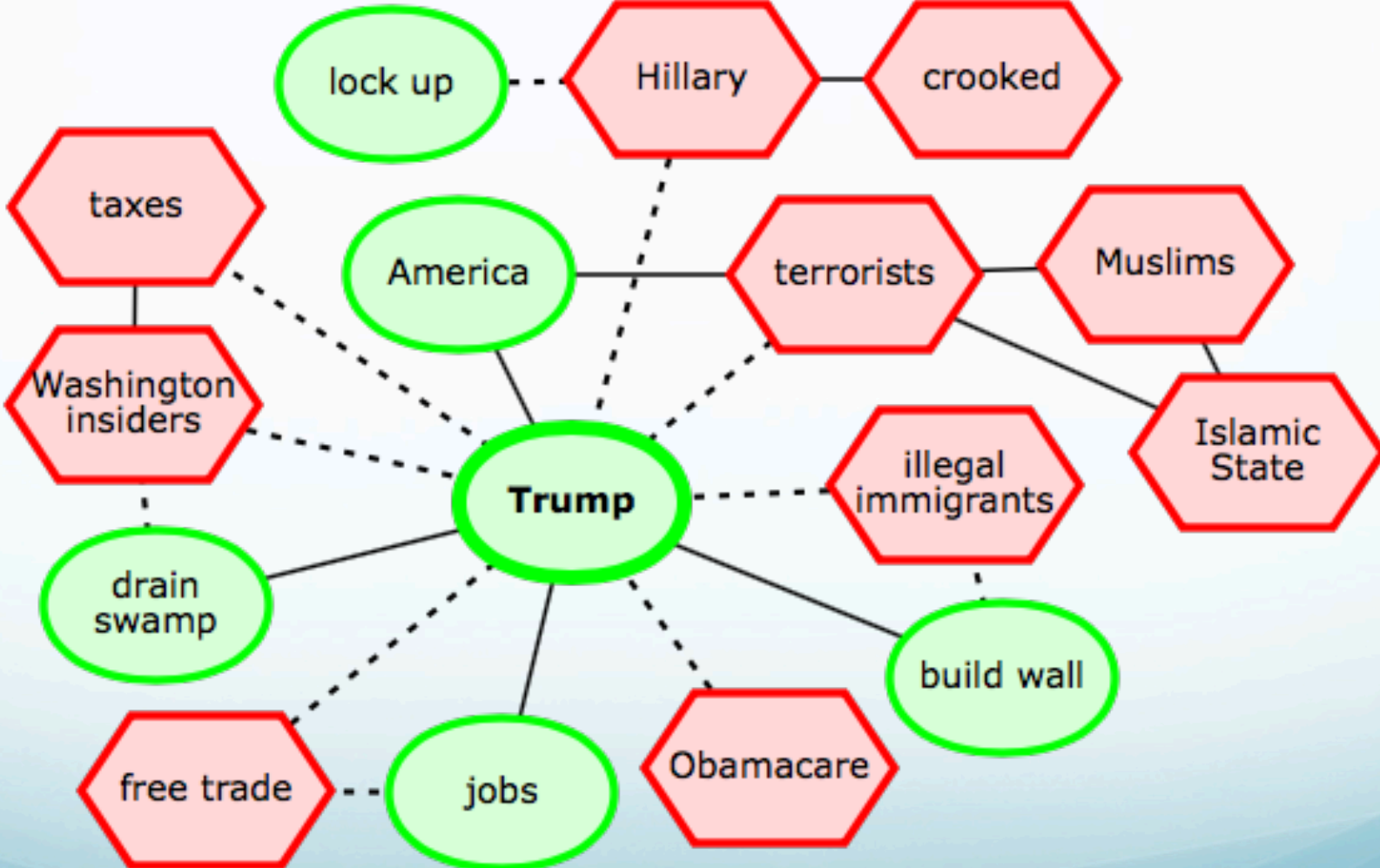
Negative: red hexagons

Neutral: yellow rectangles

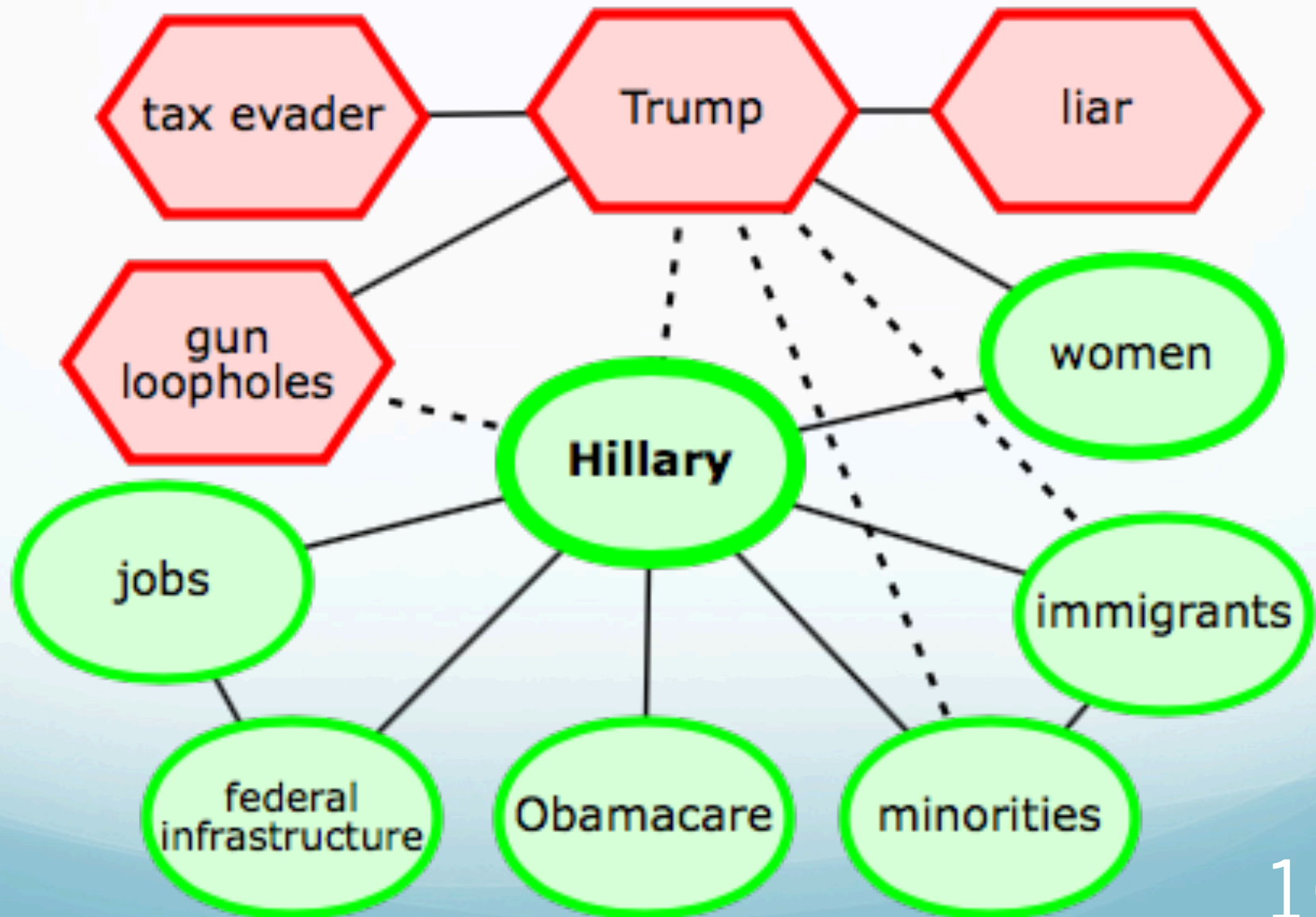Lines represent mutual support (solid) or incompatibility (dotted).

Cognitive-Affective Maps

positive element — mutual support — neutral element

strongly positive element - - - incompatibility - - - negative element

Value Map: Trump

Value Map: Hillary

EMOTIONAL COHERENCE

Inference (e.g. voting) is not based on argument, but on parallel processing of coherence (Thagard 2000, 2006).

Coherence can be modeled computationally using units that stand for mental representations (e.g. beliefs, concepts) that have excitatory and inhibitory connections.

In emotional coherence, representations have both an acceptability and an emotional valence.

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EMOTIONAL COHERENCE

Decisions and other inferences result from an "emotional Gestalt", in which people figure out what fits best with their beliefs and their goals.

People adopt a plan because it "makes sense", cognitively and emotionally, i.e. because it is emotionally coherent.

HOTCO (for hot coherence) provides a mathematical/computational model of how emotional coherence produces inferences.

Problems: What are emotions?   How does the brain compute emotional coherence? Distributed.

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The New Synthesis

Thesis (1950s):   Intelligence results from the processing of physical symbols (Herbert Simon, traditional AI, ACT).

Antithesis (1980s): Intelligence results from sub-symbolic processes in neural networks, operating with distributed representations.

Synthesis: Neural networks are capable of symbolic processes, using semantic pointers.

Chris Eliasmith: *How to Build a Brain*, Oxford U. Press, 2013. Eliasmith et al. (2012), *Science*.
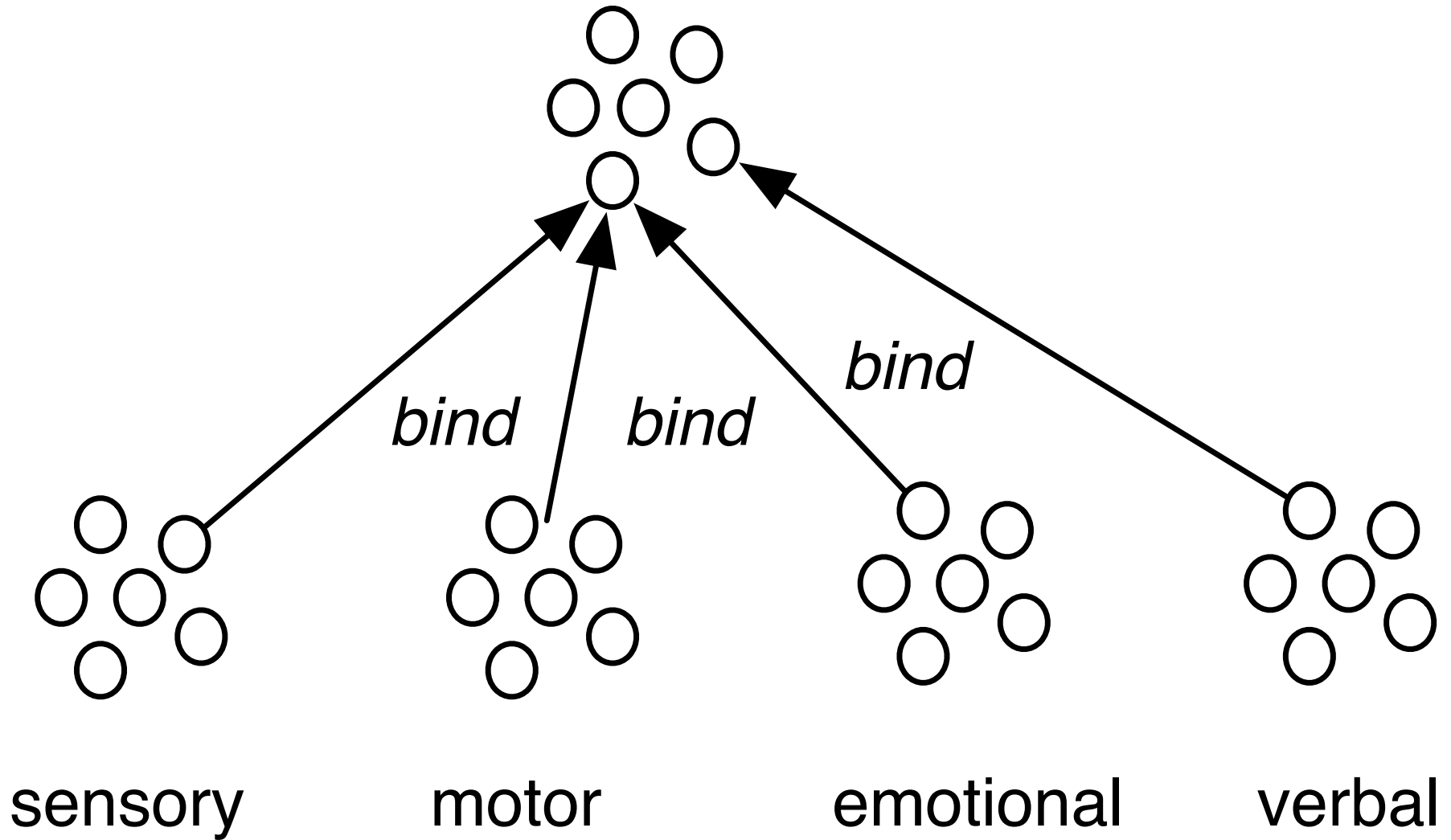
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Semantic Pointers
(Eliasmith 2013)

Semantic pointers are patterns of neural firing that:

1. provide *shallow meaning* through symbol-like relations to the world and other representations;

2. expand to provide *deeper meaning* with relations to perceptual, motor, and emotional information;

3. support complex syntactic operations;

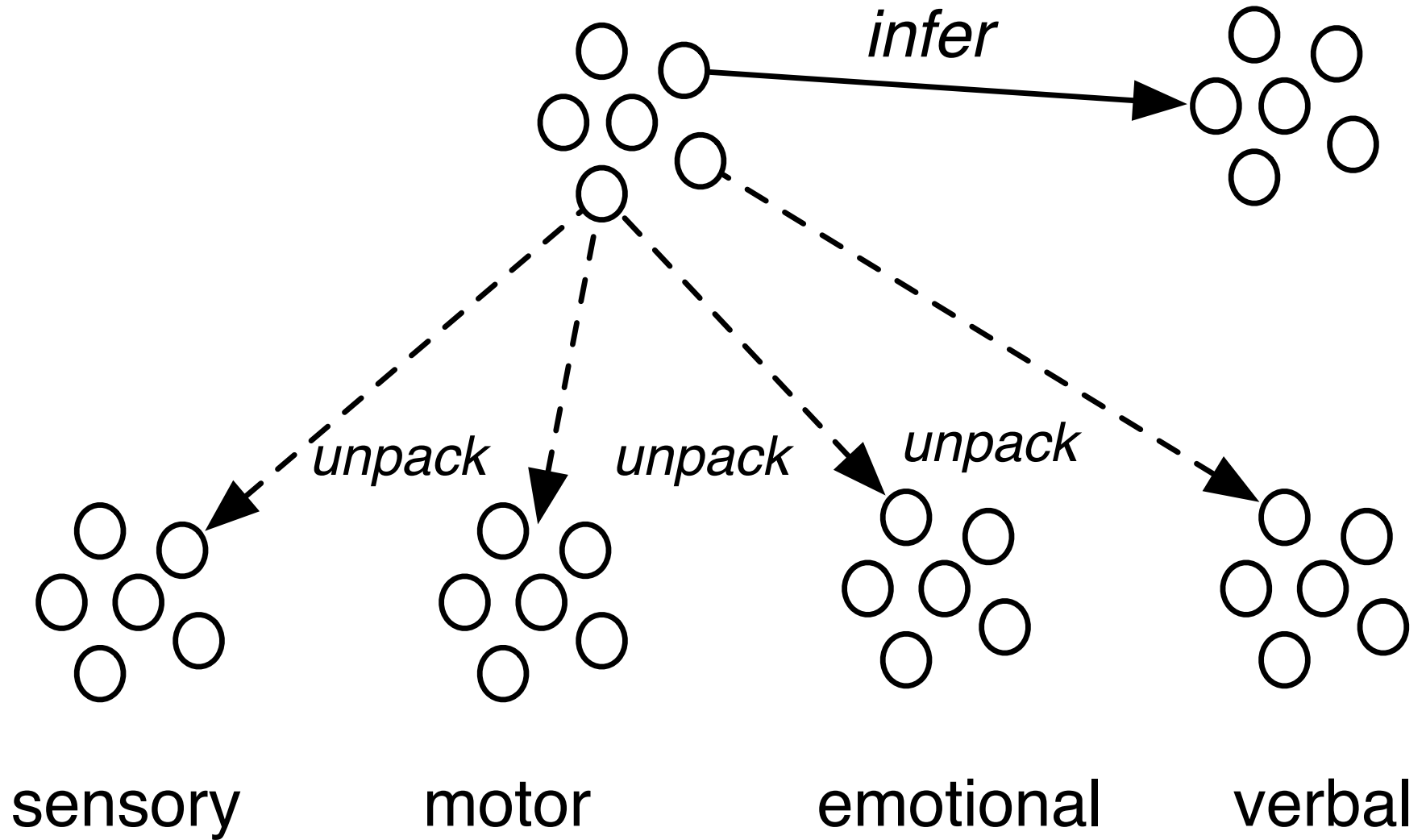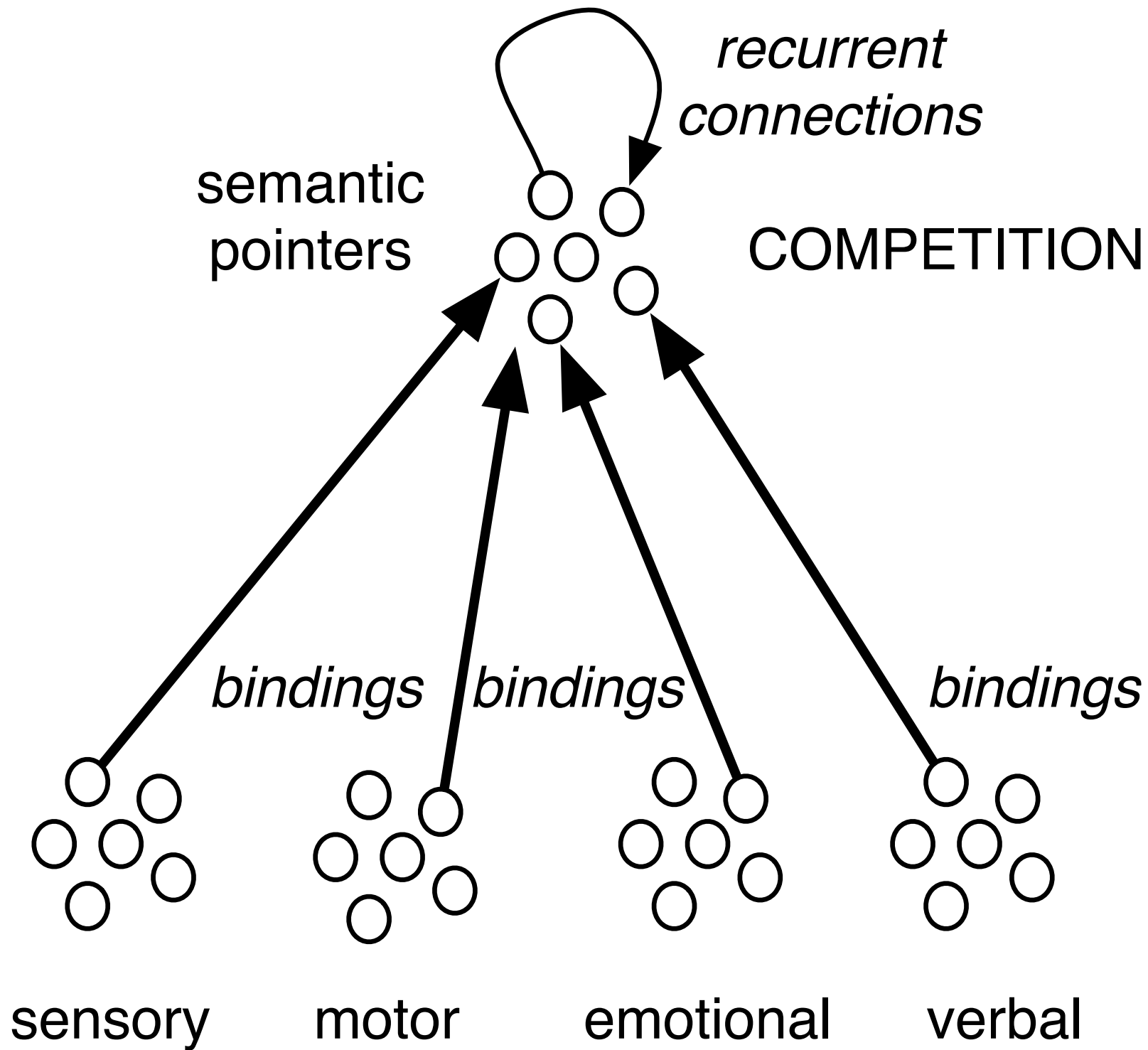4. help to control the flow of information through a cognitive system to accomplish its goals.

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FUNCTION

semantic pointer

infer

unpack   *unpack*   *unpack*

sensory   motor   emotional   verbal

Emotions are Semantic Pointers

Emotion = bind (representation, cognitive appraisal, physiological perception)

Example: liking Trump = bind (Trump, appraisal, physiology)

Concepts, beliefs, appraisal, and physiology are all patterns of neural firing.

Binding is by convolution as performed in the Semantic Pointer Architecture.
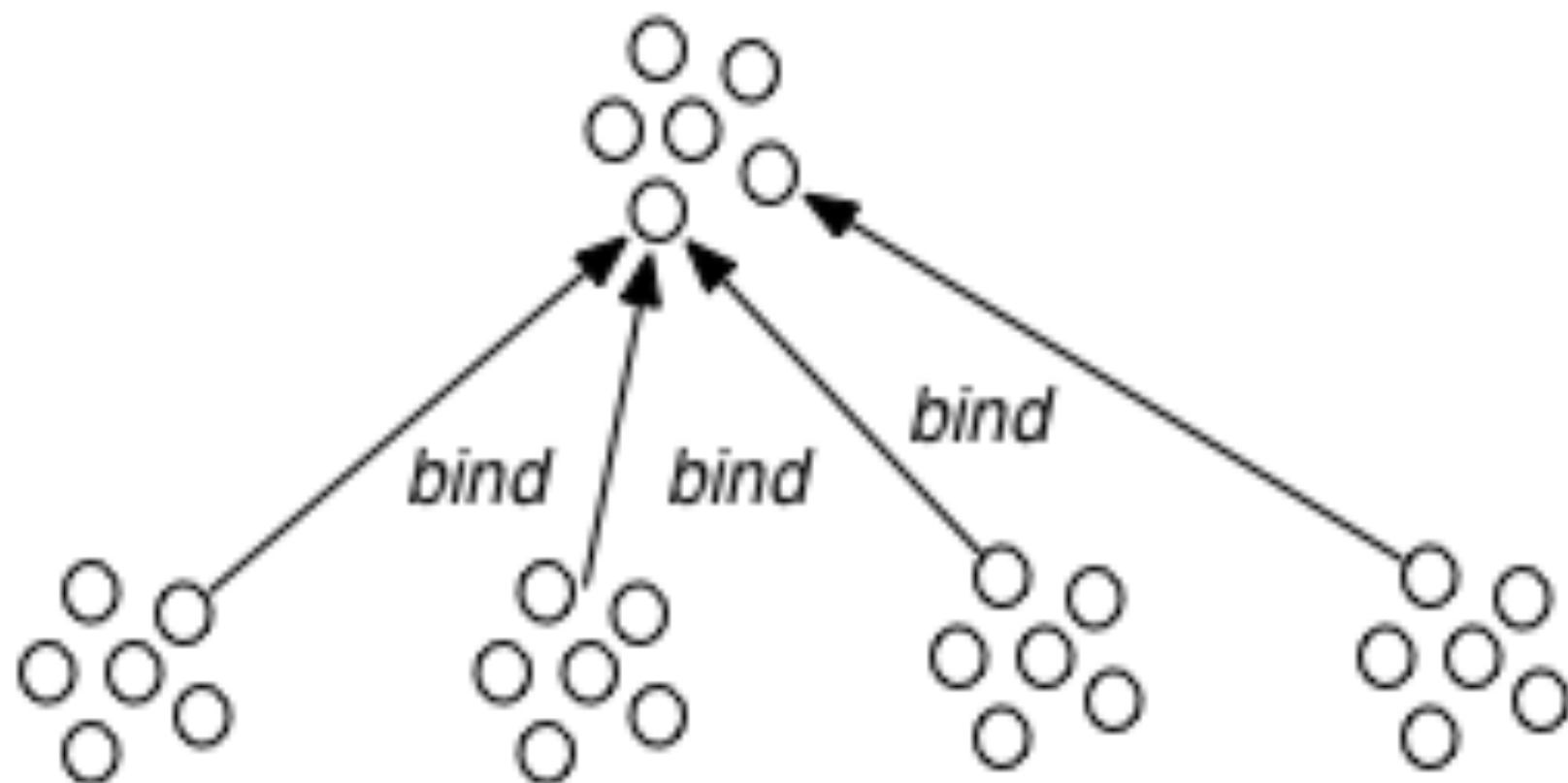
Values are Semantic Pointers

Value = bind (concept or belief, cognitive appraisal, physiological perception)

Example: valuing America = bind (America, appraisal, physiology)

Result: candidates appeal is appealing as the basis for personal decisions if its values fit with your own values and needs.

Trump semantic pointer

situation: Trump (multimodal)

appraisal: goals for self, America

physiology: high heart rate, smile, etc.

motor: vote

Trump's Emotions

Pride: self, America

Sadness, frustration: job loss, decline

Anger, hatred, resentment: terrorists, illegal immigrants, liberals, elites

Fear: terrorists, immigrants

Hope: improve country and people's lives

Disgust: Hillary

RESULT: Emotional metacoherence

Emotional Communication

Mirror neurons

Emotional contagion via mimicry

Nonverbal spread

Verbal spread

Attachment-based learning

Empathy and emotional analogy

Altruism and sympathy

Emotional cuing, e.g. anger -> guilt

Power: provide something desired, or threaten something feared

Propaganda, advertising

Teaching

Interaction rituals

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Conclusions

1. Emotions and values are neural processes – semantic pointers.

2. Voting is driven by emotional coherence.

3. Trump was emotionally coherent with many voters values.

4. Electoral change is a battle of systems of values and beliefs.