

Introduction to Cognitive Science

(11: Consciousness)

(Ch. 15)

The knowledge argument

Black and white room Mary

She knows the frequencies of things (as labels;
colors=frequencies)

Exits the room, does she see anything new?

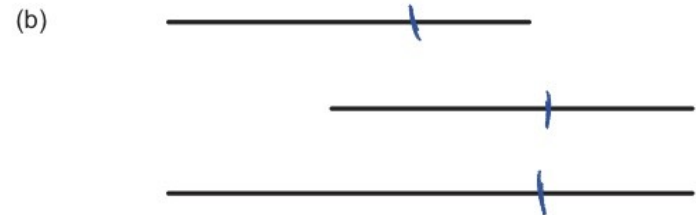
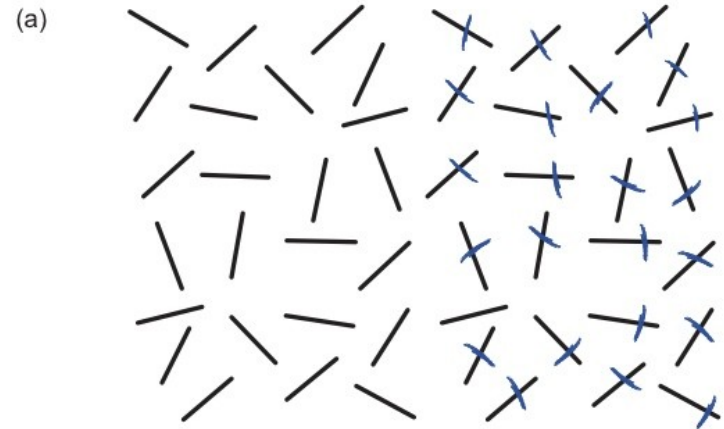
According to physicalism, world=physical facts!

There seems to be something about knowledge that is
beyond information processing. Hard to define.

Unilateral spatial neglect

Damage to the right hemisphere, neglect on left side

(vast majority of cases, neglect on the left side)



Neglect, house on fire



Figure 15.4 An illustration of the two houses presented to P.S. The houses are identical, except that one has flames shooting out of its left side. Because P.S. possesses left-side spatial neglect, she reported not being able to see the flames but still consistently selected the other house when asked which house she would prefer to live in. (From Marshall and Halligan 1988)

Blindsight

They have a scotoma
not damage:

Scotoma is a region of
very diminished
visual activity

Experiment: low
contrast images
(2%), 89% accuracy
despite being in the
blind side

He reported NO
awareness of the
images

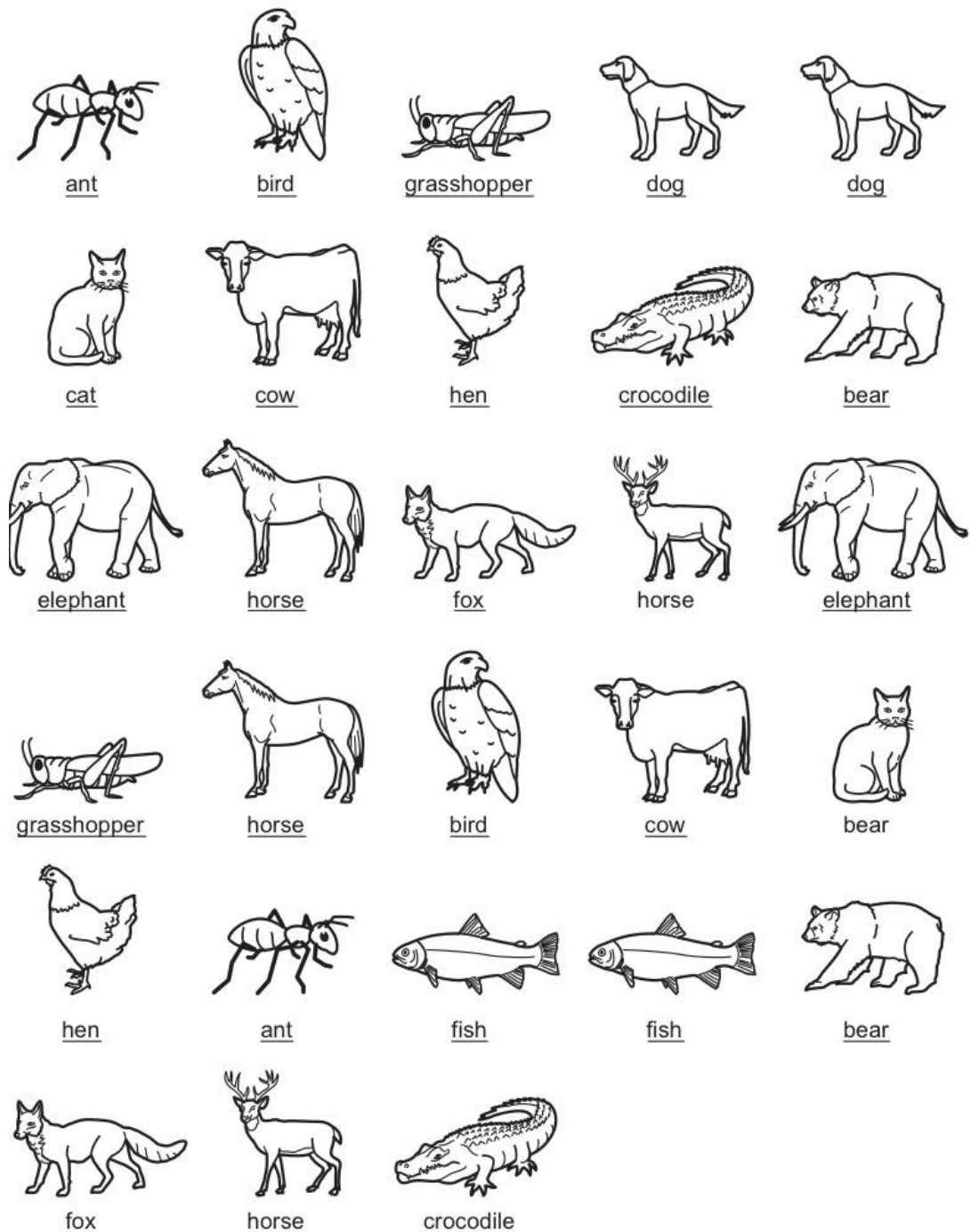


figure 15.3 D.B.'s responses to pictures of animals presented in his blind field. Correct answers are underlined. (From Trevethan, Sahraie, and Weiskrantz 2007)

Consciousness

(Note: blindsighted patients can respond to stimuli in the scotoma, and vis. Negl. Patients can sometimes „see” the left side of the visual field)

Another example, priming

Consciousness:

Last great frontier of CogSci?

The proof that CogSci has a fatal flaw?

What is the connection between these topics?

Consciousness

Experiments on damaged and scotoma patients indicate that many information processing tasks can be achieved without conscious awareness

What does consciousness contribute?

Important: patients do not direct any action towards that area

They receive info from both, yet they act upon only the right

- Receiving info is both conscious and nonconscious, acting is only conscious

Block\Chalmers

We must be careful when drawing conclusions about consciousness from disorders

This is confusing two types of consciousness

Phenomenal consc. : experience, sensations

Access consc.: a subject is A-conscious iff it is poised for direct control over actions and thoughts

All problems so far, A problems, easy problems

„Easy problems” (none has been even partially solved)

Explain how and org reacts to environ stimuli

How a cog sys integrates info

Why mental states are reportable

How attention gets focused

...>>>>>>>>>>Global workspace theory

Hard problem: How and why we experience the world as we do? The problem of **experience**

if any problem classifies as THE problem of consc., it is this one!