

COMP 20090

Introduction to Cognitive Science

Lecturer: Fred Cummins
School of Computer Science & Informatics

Organization

- 12 weeks - about 12 topics
- <http://cogsci.ucd.ie/introtocogsci/>
- No set text: readings on the website
- Fred Cummins, Room A1.11, Comp. Sci.
- fred.cummins@ucd.ie

Evaluation

- Mid-term exam, Thursday March 8th, Week 7
 - This exam will be held *in class*
 - Counts for 40%
- Final exam, May
 - Counts for 60%

Lectures

- Tuesday at 10 (Agriculture, G 15),
- *repeated at 11 (B004, Comp Sci Lecture theatre)*
- Thursday at 10 (Science Hub, H2.22),
- *repeated at 12 (Science Hub, H2.22)*

Doing this course

- Come to lectures
- Do required reading each week
- Read beyond the required readings as your interest takes you....

Topic 1.1:

Introducing Cognition

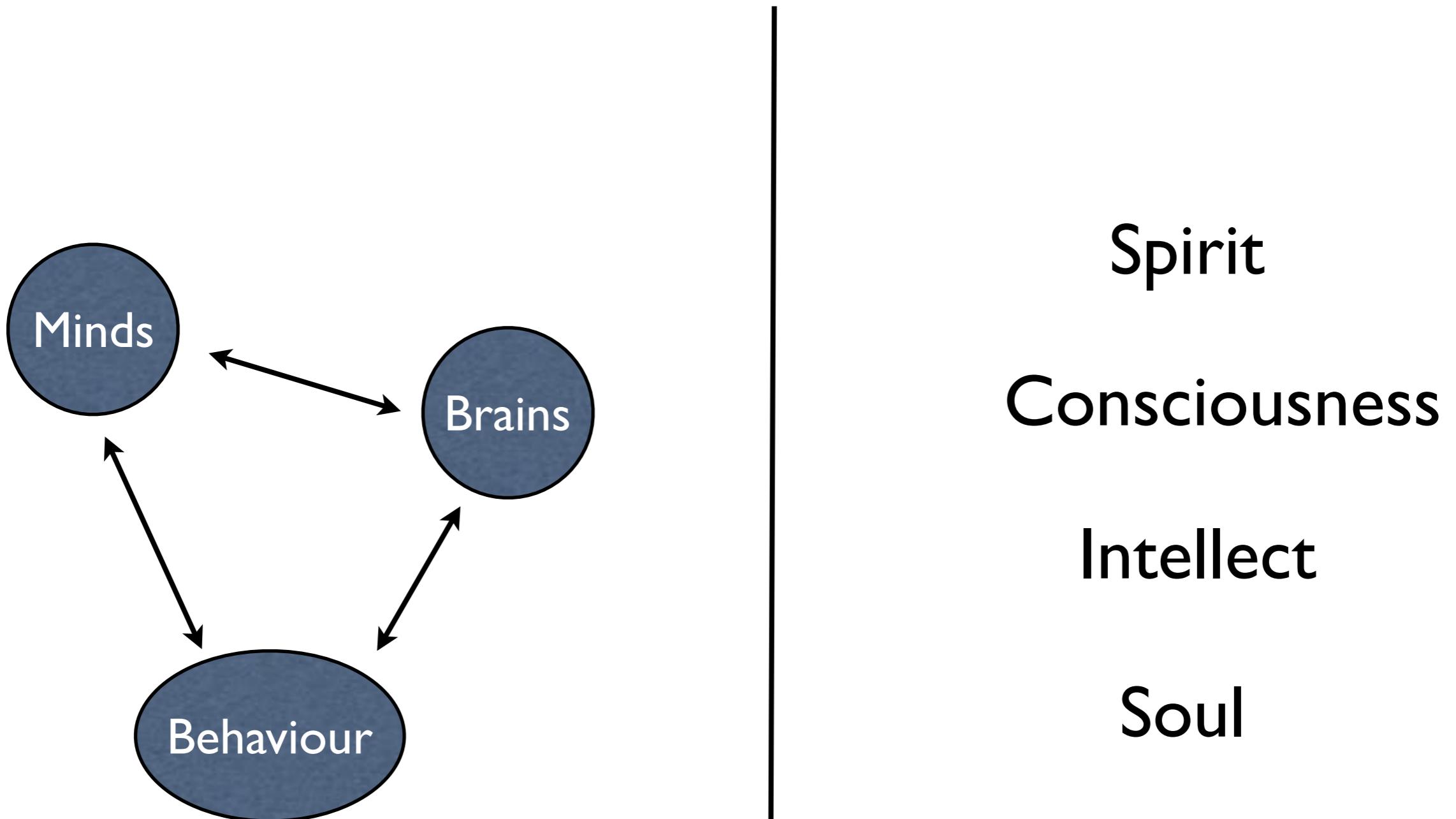
cognition

. . . is about *knowing*

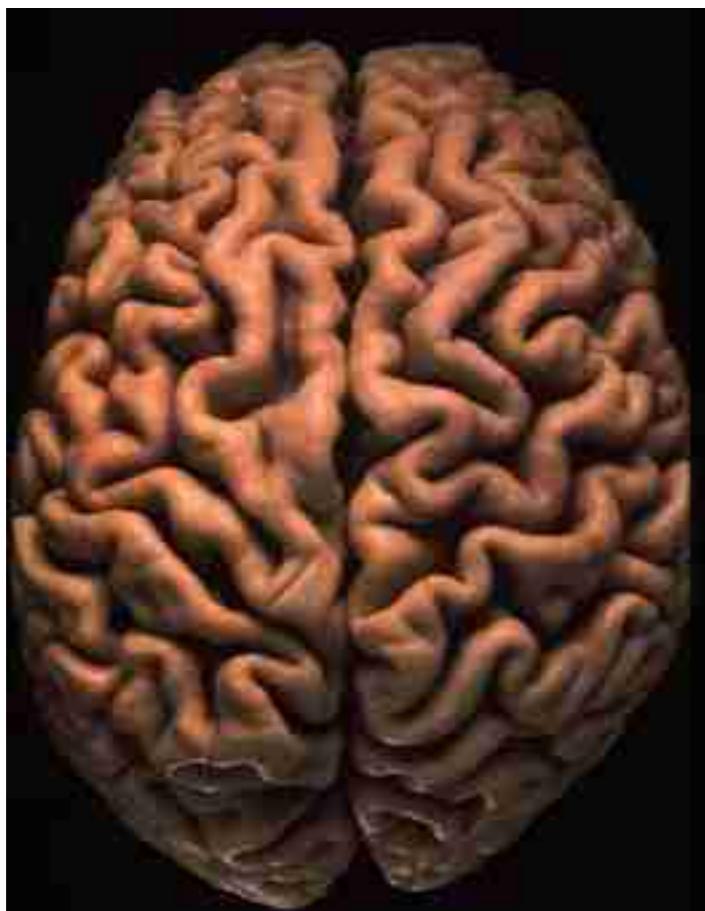
. . . hence about the **relationship** between the
knower and the *known*

Subject \longleftrightarrow **World**

Doing science here is challenging, and important!



We know what brains are



They may be the most complex object in the known universe. But we know at least how to find them, how to count them, etc.

What about behaviour?



We can ask the question “what is this person doing?”.

But we need to be aware that the answer depends on us, the observers, as much as the person observed



pushing

digging

burying a corpse

breathing

worrying

digesting

What about minds?

Do you have a mind?

Can we study minds?

How should we talk about minds?

We will need to be careful when talking about minds.
Our everyday use of language may mislead us.

Make up your mind

Put your mind at ease

In my mind's eye....

It will blow your mind

You must be out of your mind!!!

One track mind

Absent minded

An idle mind...

A mind like a steel trap!

Mind/Brain and Mental/Physical is not a simple distinction

Not all languages distinguish two classes here.

When discussing “reality”, or attempting to be scientific, it is wise to remember that much of the language one uses is determined, not by facts, but by the culture around one.

If you think about it, are you clear what you mean by “mental” or “physical”?

When Doubting Thomas put his fingers in the wounds, what kind of proof was he looking for?

Many everyday uses of the term “physical” seem to mean something more like “experiential”





brigette @lillibizzle

it's **physically** impossible for me to pay attention during class

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4m

Discuss the many meanings of the word “physical” here.



Inside Higher Ed @insidehighered

Physically attractive high school students are more likely to complete college: insidehighered.com/news/2013/12/1...

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2h



Imran Sheik @imranbsheik

Have you ever missed someone so much you feel **physically** sick?

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6h



♡ **bambi** ♡ @bbambz

i **physically** cannot sleep with pants on

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6h



Julia @JuJuJukebox

I AM **PHYSICALLY** HURTING OMG" @KaylaDz: LOOK AT BRUNO pic.twitter.com/iDHoYZApAL"

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10h



jenna coleman @Imp0ssible_Girl

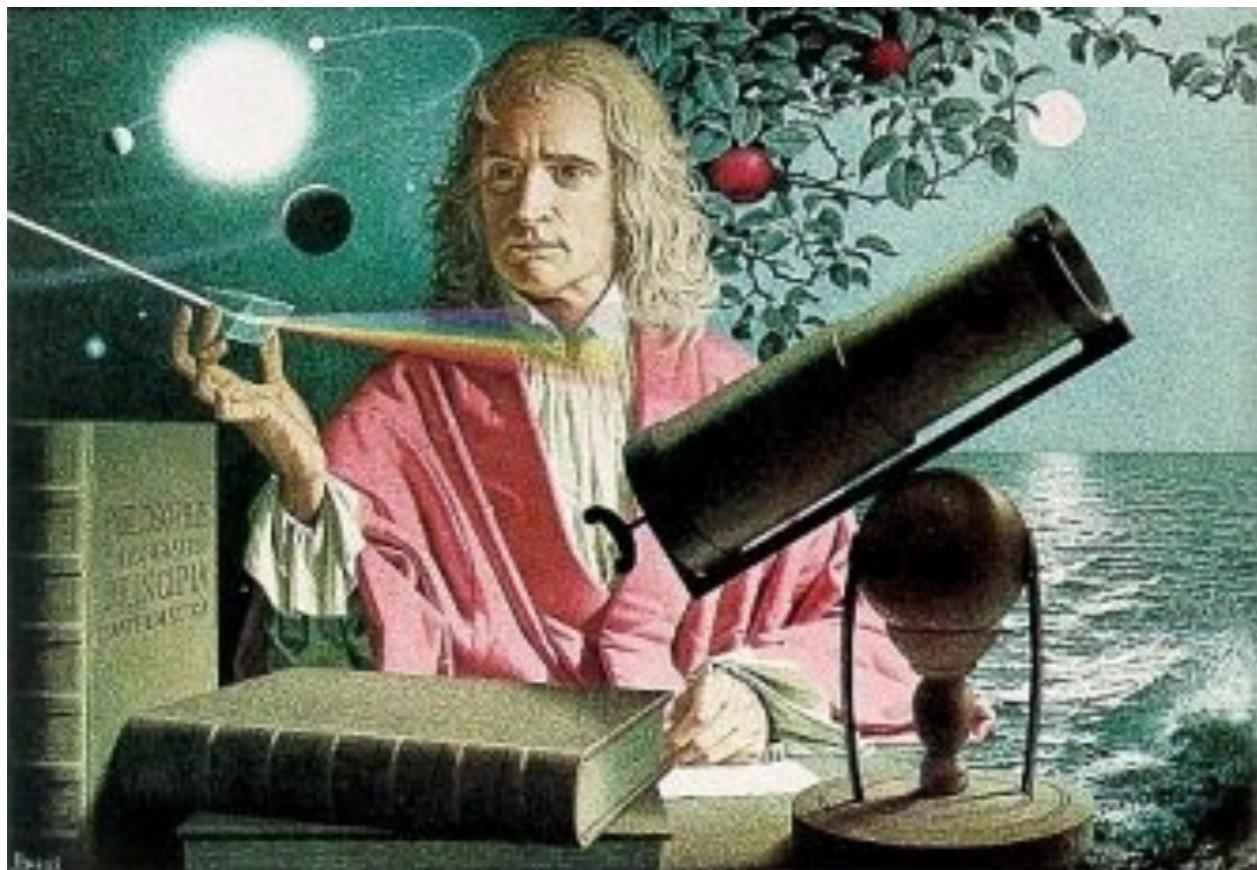
10/10 agree that it is **physically** impossible to say "No" to this face. pic.twitter.com/h6OD2Jx2gl

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21h

Newtonian Physics



The physics of Newton is great for describing how masses move.

It is not much use for discussing minds, or even life.

Modern Physics



Modern physics describes things and processes very far removed from everyday experience.

It too is not much use in discussing the mind

We may have to agree to differ sometimes!

Science does not have a single story to tell here, and scientists often do not agree on some very basic issues, such as what the words “physical” and “mental” mean.

Learning to do science here includes learning how others may use words differently from you!

Cognitive Science is necessarily interdisciplinary

