European HCI Theory
uniquely disparate perspective

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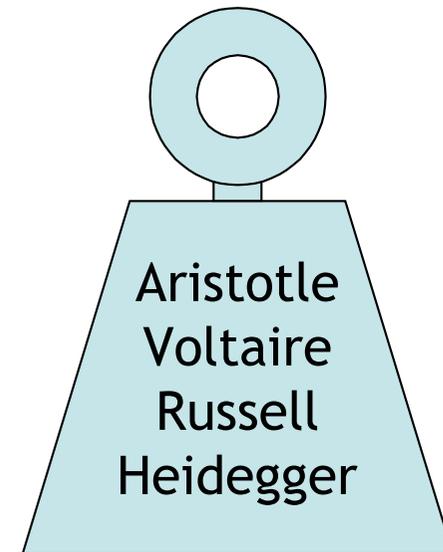http://www.hcibook.com/alan/papers/chi2004-euro-theory

lots of theory (& methods) in europe

Why?

- can't afford to build anything

- weight of history

  deep intellectual roots ...
  or historical shackles?

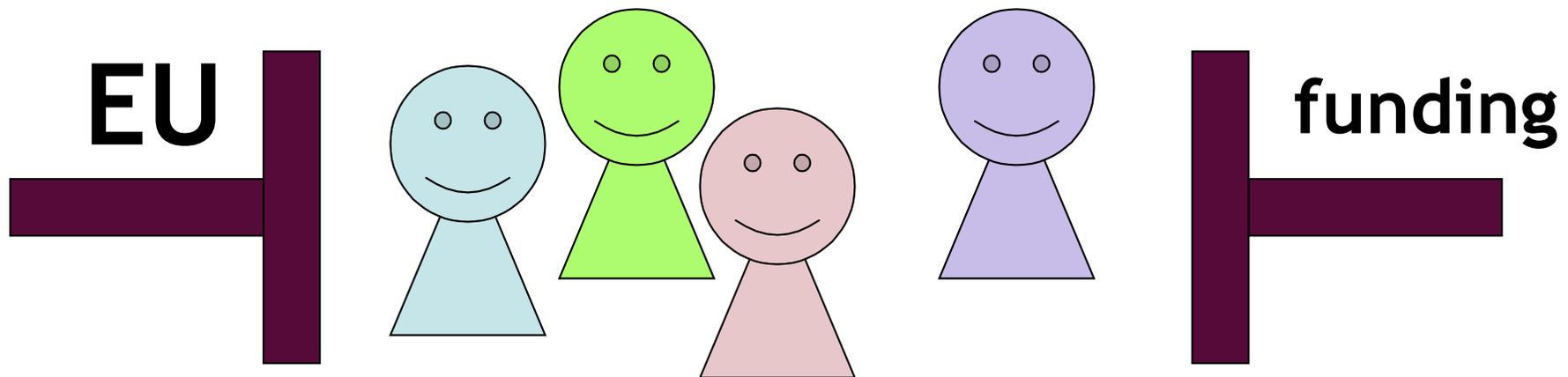Aristotle
Voltaire
Russell
Heidegger

different from ... where?

- Asia, Africa, South America, Antarctica, North America, ...

  ... or USA :-)

- not just distance
- not just reactions to imperial ACM!
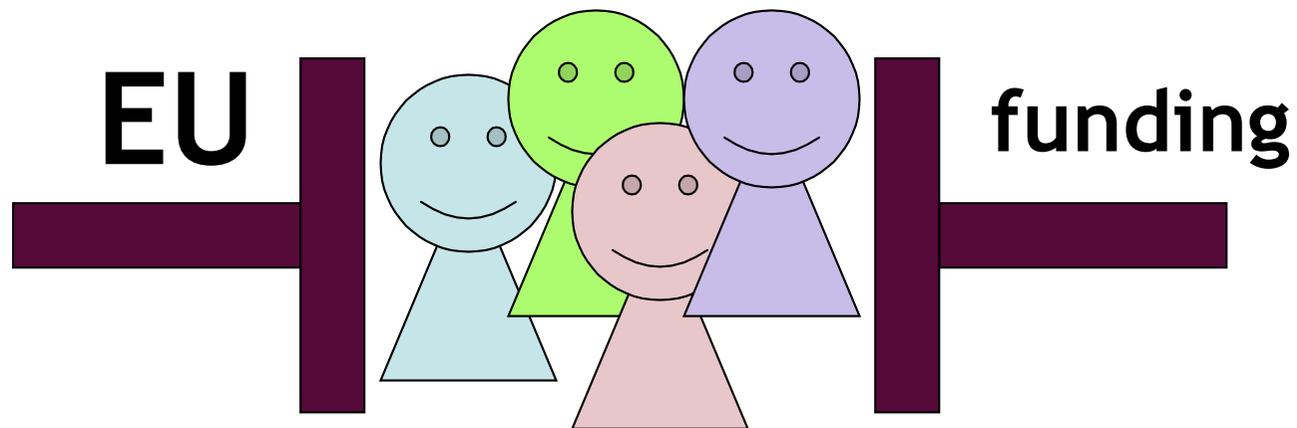- deep intellectual gulfs

close yet far

- differences within Europe
  - intellectual style
  - academic structures: hierarchical v.s. flat
  - stability
  - disciplinary boundaries

EU | funding

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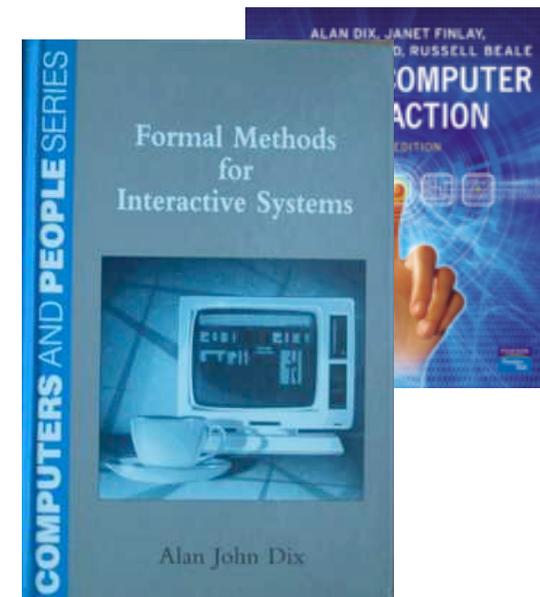 - disciplinary boundaries

EU | funding

what theory?

- lots of soft stuff
  - participatory design
  - activity theory

- lots of hard stuff
  - 'methodology'
  - formal methods

formal methods in HCI

- why?
  - formal traditions of southern europe, engineering credibility, last decade's fashion, solid foundations ?
- lots around ... see DSVIS especially
- the "York School"
  - 1984 Alvey project, EU Amodeus
  - my first book!, lots more ...
- and now ...
  - ubiquity, time, location, ...

P.S. tutorial @ AVI in Gallipoli!

need for theory

- Rise of postmodernism

- Anti-intellectualism

- ….

changing expertise

in the past ...

psychologists
computer scientists } who do   HCI
etc.

now ...

HCI people   who use { psychology
computing
etc.

the danger

- loss of roots

- intellectual decoupage

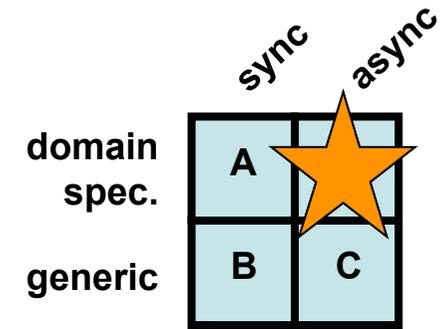- professional practice passed off as academic

importance of HCI

- late 20th and 21st century
            … technology meets people

- so where is our own theory and methods?

- some … MHP, Norman, Inf. Foraging Theory …
  … but enough?

- do we need it anyway?
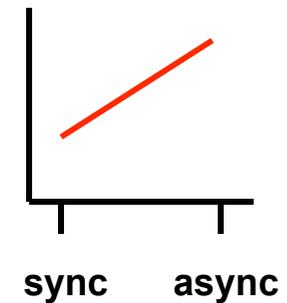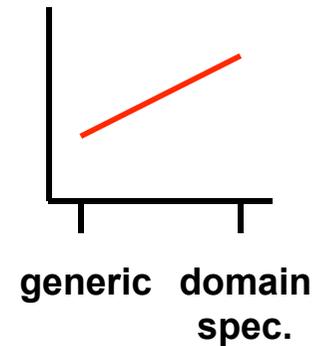
a little story ...

- BIG ACM sponsored conference
- 'good' empirical paper
- looking at collaborative support for a task X
- three pieces of software:
  - A – domain specific software, synchronous
  - B – generic software, synchronous
  - C – generic software, asynchronous

	sync	async
domain spec.	A	
generic	B	C

experiment

sync   **async**

domain spec. | A | ★
generic | B | C

- reasonable nos. subjects in each condition
- quality measures

- significant results p<0.05
  - domain spec. > generic
  - asynchronous > synchronous
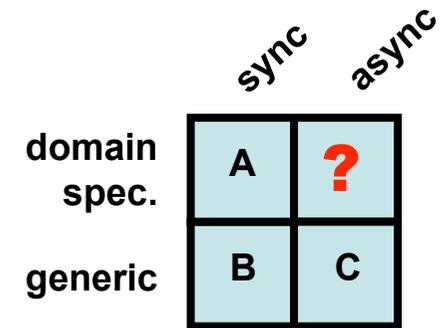
generic   domain spec.

sync   async

- so really want asynchronous domain specific

what's wrong with that?

interaction effects
- gap is interesting to study
- not necessarily good to implement

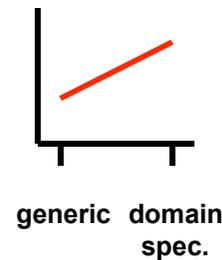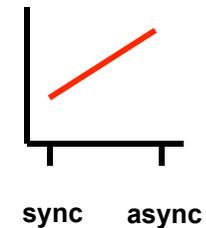|	sync	async
domain spec.	A	?
generic	B	C

more important ...
   if you blinked at the wrong moment ...

NOT independent variables
- three different pieces of software
- like experiment on 3 people!
- say system B was just bad

generic domain spec.   sync   async

B < A   **B < C**

can we fix it?

- borrowed psych method
  - … but method embodies assumptions
  - single simple cause, controlled environment
- HCI needs ecologically valid exp.
  - multiple causes, open situations
- what to do?
  - understand assumptions and modify
- both and …
  - quantitative – what is true end to end – phenomena
  - qualitative and anecdotal – why – mechanism

so ...

- HCI needs theoretical and methodological foundations

- European HCI community ...
  ... in unique position to develop it