

Doing interdisciplinary research

Interdisciplines, Transdisciplines

Swinburne University of Technology, Faculty of Design

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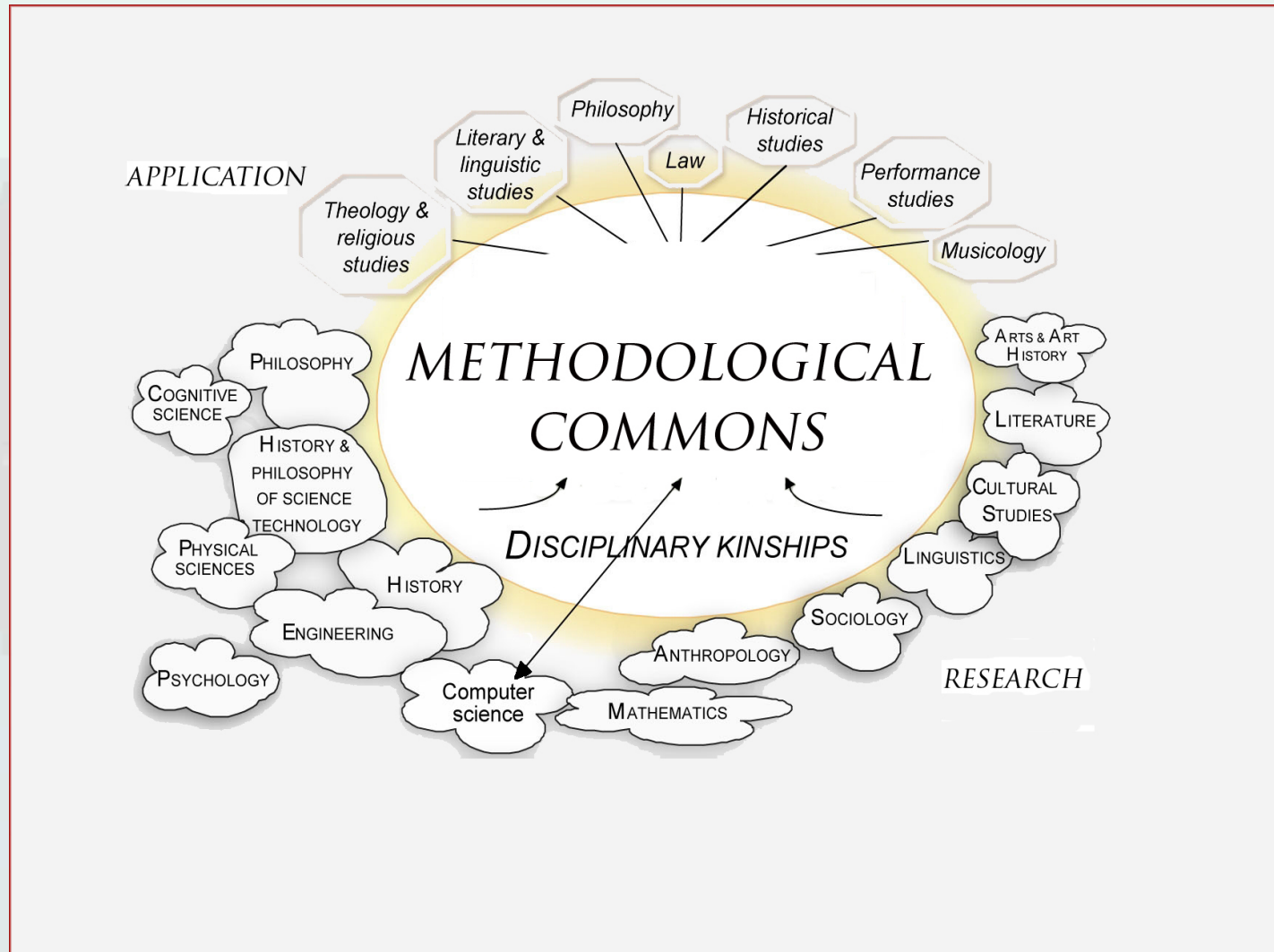
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1. Polemical keynote
2. My starting point
3. Current arguments
4. Why interdisciplinary research is so very hard to get right
5. “Exploring Disciplines”

1. Polemical keynotes

- Like disciplines themselves, interdisciplinary research is *not a thing but a way of acting*;
- Because disciplines are *distinct epistemic cultures*, doing it properly means mastering the cultural history of each relevant field and its normal discourse;
- Such mastery is an *asymptotic goal*: improving to attempt but impossible to achieve;
- Teaching its beginnings to our students is a *paedagogical imperative*.

2. My starting point



2. My starting point

It takes a good deal of maturity to see that every field of knowledge is the centre of all knowledge, and that it doesn't matter so much what you learn when you learn it in a structure that can expand into other structures.

Northrop Frye, *On Education* (1988): 10

Where once we thought a discipline – history, say, or politics, or even economics – was at the centre of things by having a blinkered view of humanity, now we realise that we are all on the edge of things in a great ring of viewers.

Greg Denning, *Readings/Writings* (1998): 139

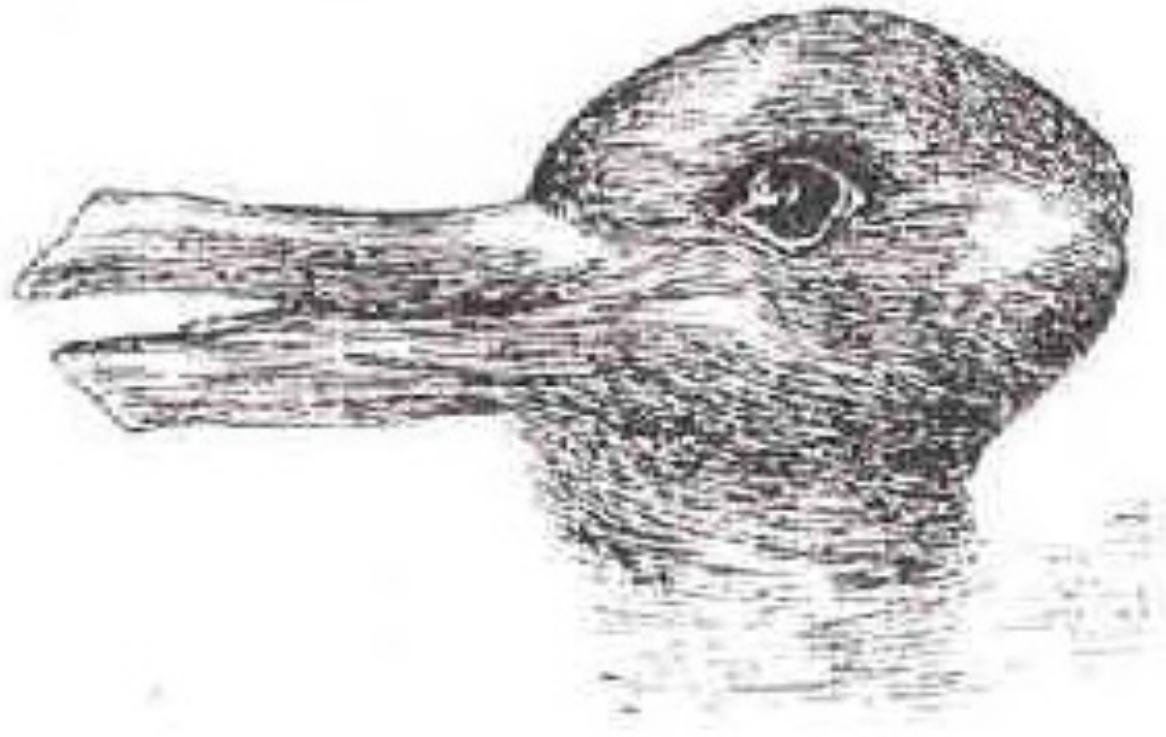
3. Current arguments & approaches

- Revolutionary (“breaking down barriers”)
- Absolutist (Fish 1989)
- Ontological (Klein 1985-present)
- Sociological (Strober 2011)
- Practical (Liu 2008; Frye 1988)

4. Why it is hard

- Fields “differ in a number of their central constitutive characteristics, of which the most general and apparent is their goals.... To say that [different fields] have different goals is to suggest that no one can practice them both at the same time. But it does not suggest that there are also great difficulties about practicing them alternately.... [I]t is... important to recognize that each switch is a personal wrench, the abandonment of one discipline for another with which it is not quite compatible. To train a student simultaneously in both would risk depriving him of any discipline at all. Nor, I think, is a compromise possible, for it presents problems of the same sort as a compromise between the duck and the rabbit of the well-known Gestalt diagram. Though most people can readily see the duck and the rabbit alternately, no amount of ocular exercise and strain will educe a duck-rabbit.”

Thomas S. Kuhn, “The Relations between the History and the Philosophy of Science” (1968), in *The Essential Tension* (1977)



Joseph Jastrow, *Fact and Fable in Psychology* (Boston, 1900): 295; see John F. Kihlstrom, "Joseph Jastrow and His Duck", socrates.berkeley.edu/~kihlstrm/JastrowDuck.htm.

4. Why it is hard

- “The dazzling array of unfamiliar knowledge on the shelves always makes me feel shy and eager at once, young again. And that sense of new worlds opening up must be part of the allure of work across disciplines. Another hope is making new kinds of knowledge.

There are hazards of course...: how to distinguish what's central from what's peripheral in this other zone; how to tap into the hinterland of controversy that lies behind the works on the shelf; how to avoid becoming merely disciples because not in control of a sufficient range of knowledge.... The converse of this is true as well: the problems preoccupying those working in another discipline may sometimes (initially, arrogantly) seem quite simple – because we are not familiar with the build up of arguments across time that has reached this moment of dilemma.

And then, crucially, there is the matter of competence.... Others have spent years acquiring the skills that the interdisciplinarian needs. Is this a raiding party? Is there time to question and to learn? How much must be taken on trust? Are we accessing others' materials but still applying the mode of analysis learnt in our native discipline, or are we seeking new methods of analysis too?

These concerns must stay with us as we work - working across disciplines is hard work - but they should not drive us away. The unfamiliar eye sees things that those familiarised do not. Moreover, disciplines are not fixed entities.”

Dame Gillian Beer, “Speech on the Challenges of Interdisciplinarity”,
www.dur.ac.uk/ias/news/annual_research_dinner/ (2006)

5. Exploring Disciplines

- A voluntary PhD-level course offered in the Spring term by the Graduate School, King's College London;
- Meets once weekly for 2 hours; lecture & discussion of assigned readings;
- For 2012, two introductory & theoretical sessions, 7 case studies (philosophy, biology, history, literary studies, computer science, cultural studies, archaeology & epigraphy), one concluding session;
- Takes an ethnographic approach to each discipline, which is regarded as a distinct “epistemic culture” (Knorr Cetina) with its own “normal discourse (Rorty); depends as much as possible on popularisations by respected practitioners.

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