MBB Undergraduate Workshop:
Attention in Philosophy, Psychology, and the Neurosciences:
Historical Origins and Present Concerns
The Significance of Attention

“Probably the most dangerous thing about college education, at least in my own case, is that it enables my tendency to over-intellectualize stuff, to get lost in abstract arguments inside my head instead of simply paying attention to what's going on right in front of me. Paying attention to what's going on inside me. As I'm sure you guys know by now, it is extremely difficult to stay alert and attentive instead of getting hypnotized by the constant monologue inside your own head. [...] ["Learning how to think"] means being conscious and aware enough to choose what you pay attention to and to choose how you construct meaning from experience.”

(David Foster Wallace, in his 2005 commencement speech to the graduating class at Kenyon College, my emphasis)
"In postindustrial societies, attention has become a more valuable currency than the kind you store in bank accounts. [...] the problems for businesspeople lie on both sides of the attention equation: how to get and hold the attention of consumers, stockholders, potential employees, and the like, and how to parcel out their own attention in the face of overwhelming options [...] Understanding and managing attention is now the single most important determinate of business success."

(Davenport and Beck, The Attention Economy, p. 3, my emphasis)
The Significance of Attention

Attention gets studied in psychology and neuroscience labs.

A lot!

Guiding Question(s) No. 1

• What are the forms of significance of attention in our day-to-day lives?

• In what ways, if at all, does or should the scientific investigation of attention inform the significance we attribute to it?
The Nature of Attention

“Every one knows what attention is. It is the taking possession by the mind, in clear and vivid form, of one out of what seem several simultaneously possible objects or trains of thought. Focalization, concentration, of consciousness are of its essence [...] (p. 403-404)

“Each of us literally chooses, by his ways of attending to things, what sort of a universe he shall appear to himself to inhabit. (p. 424) ” (James (1890/198)

➔ Attention is an important element of our day-to-day conscious experiencing, and our ordinary talk of the mind, of how we ordinarily explain and predict behavior (“folk-psychology”)
The Nature of Attention

“Fifty years ago psychologists thought of attention as ‘the focalization of consciousness’ or ‘the increased clearness of a particular idea’. But these and other definitions in terms of mental faculties or subjective experience proved sterile for empirical research and ended in a series of inconclusive controversies.” (Treisman, 1964, p. 12)

→ Attention now gets studied within the information processing paradigm in psychology.
Guiding Question(s) No. 2

• What is the connection between our ordinary talk about and experience of attention and the way attention is treated in psychology and neuroscience?

• Are there important tensions between them or are they more or less continuous?
“[I]n the second half of the nineteenth century, attention becomes a fundamentally new object within the modernization of subjectivity. In most cases before the nineteenth century, it had a local importance [...] Even when attention was an object of philosophical reflection, it was a marginal, at best secondary problem within explanations of mind and consciousness [...] what is crucial is the unmistakable historical discontinuity between the problem of attention in the second half of the nineteenth century and its place in European thought in previous centuries.”

Jonathan Crary, Suspensions of Perception, p. 17-19
The Scientific History of Attention

“What I mean by the ‘discovery’ of attention is the explicit formulation of the problem: the recognition of its separate status and fundamental importance; the realization that the doctrine of attention is the nerve of the whole psychological system, and that as men judge of it, so they shall be judged before the general tribunal of psychology.”

E.B. Titchener, Lectures on the elementary psychology of feeling and attention, 1908
The Scientific History of Attention

“One can see emerging from psychological research in the area of attention a cumulative development of theoretical concepts that rely on principles, some over 100 years old, that are now elaborated in ways that were essentially unavailable to earlier researchers (Posner 1982, p. 168)

M.I. Posner, Cumulative Development of Attentional Theory, American Psychologist, 1982
Guiding Question(s) No. 3

• How did attention become so central in psychology?

• What, if any, are important discontinuities in the way attention is studied and conceived?

• In what ways, if at all, do the paradigms and assumptions of early psychologists still guide research today?
Today

• Three Talks: each about 30 min + 25 min discussion.
  • Gary Hatfield: The Focus of Attention: Past and Present Theories
  • Takeo Watanabe: The Role of Attention in Plasticity
  • Jeremy Wolfe: When Chickens Dance outside the Spotlight: Why Attention Really Matters
Today

This is a workshop.

Get involved!

Ask!

Talk!

Have Fun!