Towards an Interconnected History of Semantics

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Why “interconnected”? 

- Split in styles—very different, developed in different places?
- Contrasting: good for technical consideration
- Interactions and influences interesting
- Work in progress…
Mervyn Pragnell’s “kirk”

- Throughout ‘60s
- Burstall met Pragnell in Foyle’s bookshop in London
- Pragnell’s group met in Birkbeck College
- Present: Burstall …
Mervyn Pragnell’s “kirk”

- … Landin, Milner, Iliffe, Coulouris
- Somewhat mystical readings
- Influence especially on PJL, RMB
Strachey’s consulting business

- 1960–1964
- London, consulting on (e.g.) Orion autocode
- CPL during this period
Strachey’s consulting business

- Employed Landin, temporarily also Burstall
- Early ideas for denotational semantics formed
Formal Language Description Languages

- Held in September 1964 in Baden-bei-Wien
- IFIP TC2 organised, IBM sponsored, largely Zemanek
- Vienna Lab, Strachey, McCarthy, van Wijngaarden, Čulík, Landin, Elgot, Caracciolo di Forino, Böhm…
- Very influential! But fairly well-known
MTOC at YTH

- 27–30 November 1967
- Not very well known!
- Burstall, Floyd, Jones, King, Manna, McCarthy, Paterson
- Schemas from Paterson
- Structural induction from Burstall
IFIP WG 2.2 meetings

- Roughly one or two per year, starting September 1967
- Meetings of people interested in formal semantics: Strachey, Hoare, McCarthy, Vienna, Scott, van Wijngaarden
- Influences… and also arguments
IFIP WG 2.2 meetings

- Important meeting 21st–25th April 1969 in Vienna
- Hoare presented axiomatic method
- Hoare: “difficult things are difficult to describe”
- Scott “found Strachey’s approach the most sympathetic”
Vienna switch

- Had produced operational (VDL) description of PL/I in 1966, 68, 69
- Not terribly well received!
ULD III v III
Vienna switch

- Jones heard Strachey lecture
- Bekič been with PJL in London
- Bekič, Lucas, Walk at WG 2.2
- Denotational approach adopted!
Copenhagen Winter School

- January 22nd–February 2nd 1979
- Bjørner unifying jump approaches
- Stoy: Exits “out of the woodwork”
- Burstall back to semantics
- Plotkin moving away from power domains
Conclusions

- Interactions not always influential!
- Nevertheless, importance of context
- Can highlight overlooked figures, e.g. Burstall
- Thesis preview
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