

ERRATA in “Lambda-calculus and Combinators in the 20th Century”

F. Cardone, felice@di.unito.it
J. Roger Hindley, j.r.hindley@swansea.ac.uk

Chapter 13 (pp. 723–817) in
“**Handbook of the History of Logic, Volume 5:
Logic from Russell to Church**”,
edited by Dov M. Gabbay and John Woods,
published 2009 by Elsevier B.V., Amsterdam.

January 30, 2010

For information leading to some of these corrections, the authors thank *Garrel Pottinger, Adrian Rezus, Bill Tait* and *Christian Thiel*.

- P.726, lines 3–4. Replace “However, none of these authors gave formal definitions of substitution and conversion, which are characteristic of CL and λ proper. These did not appear ...” by “However, none of these authors showed the interplay between reduction, substitution and conversion explicitly by means of a formal theory, as is done in CL and λ . The latter theories did not appear ...”.
- P.727, footnote 3 (about the date of Schönfinkel’s birth). Add “The date 4-9-1889 comes from his entry in the records of the registration-office of the city of Göttingen for 1914.”
- P.733, footnote 19. The 2008 edition of [Hindley and Seldin, 1986] does not treat Curry’s paradox.
- P.737, footnote 25. Add “But note that Henkin’s definition of general model needs modifying, otherwise his completeness theorem does not work; see Andrews *General models and extensionality*, J. Symbolic Logic 37 (1972), pp. 395–397.”
- P.738, footnote 27. To “[Hindley and Seldin 1986, Def. A1.3]”, add “(Def. A2.5 in the 2008 edition)”.
- P.757, lines 1–2. “ $\mathcal{A} \times (\cdot)$ ” should be “ $(\cdot) \times \mathcal{A}$ ” in two places.
- P.763, last line but one. “proposition” should be “propositions”.
- P.764. Below the four displayed equations, add “(Here X is not free in A, B).”.
- P.766, last line. “..” should be “.”.
- P.768, §8.3. In line 8, after “gave no procedure” should be added “(i.e. no explicit procedure of normalisation in the style of reduction in λ and CL)”.
- In line 11, “The first proof to contain a procedure” should be “The first proof (at least, for a Natural Deduction analogue of GLC) to contain such a procedure”.
- In line 15, “solved Takeuti’s problem” should be “proved a Natural Deduction analogue of Takeuti’s conjecture”.
- P.769. Below the displayed equations for $\sigma \times \tau$, $\sigma + \tau$, add “(Here t is not free in σ, τ).”.
- P.772. Replace the last sentence of §8.3 by “Proofs of SN for deductions and WN for terms were included in [Seldin, 1987 §§4.3, 4.4] and [Seldin, 1997, §3]; a proof of SN for terms was given by Pottinger in *Strong normalization for terms of the theory of constructions* (Technical Report TR 11-7, 1987, Odyssey Research Associates, Ithaca, N.Y., U.S.A.), but not published.”

P.773, 4th paragraph. Add a footnote: “Sallé’s ω was not related to the ω -notation in [Dezani, 1975] mentioned earlier.”.

P.802, [Hindley and Seldin, 1986]. Add “Also 2nd edition 2008, title *Lambda-calculus and Combinators, an Introduction*. ”.

P.803, [Hindley, 2008]. Change “M. h. newman” to “M. H. Newman” and add “Vol. 18 (2), pp. 229–238.”.

P.807, [Łukasiewicz, 1939]. Change “ä” to “Ä”.

P.814, [Seldin, 2008]. Change “2008” to “2009” and add “Chapter 14”.