

List of Errata for ATTAPL Chapter on Typed Operational Reasoning

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Proof of Lemma 7.5.7 (page 265): On line 1 of page 265, replace

“For any frame stack S, \dots we deduce that $\emptyset \vdash S[\sigma(t)] =_{\text{ctx}} S[\sigma(t')] : \sigma(T)$ ”

by

“For any frame stack S satisfying $\emptyset \vdash S : \sigma(T) \multimap T'$ for some T', \dots we deduce that $\emptyset \vdash S[\sigma(t)] =_{\text{ctx}} S[\sigma(t')] : T'$ ”.

[Thanks to Chris Casinghino.]

Corollary 7.5.8(v) (page 265): Replace “where $\Gamma \vdash \tau : \forall X.T$ ” by “where $\Gamma, X \vdash \tau : T$ with $X \notin \text{ftv}(\Gamma)$ ”.

[Thanks to Benjamin Pierce.]

Lemma 7.6.8 (pages 268, 269): In the statement of the **Equivalence-respecting** property, the type of t' and t'_1 should be T' , not T . Similarly, in the statement of the **Admissibility** property, the types in F' should be T'_1 and T'_2 rather than T_1 and T_2 .

[Thanks to Derek Dreyer.]

Proof of 7.6.13 (page 272,273): On page 272, replace

“For the reverse inclusion it suffices to prove \dots we use the following simple property”

by

“For the reverse inclusion we use the following simple property”

(so the incorrect inclusion (7.21) disappears); and on page 273, line 6, replace

“thus we have proved the inclusion in (7.21), as required.”

by

“thus we have proved the inclusion $\text{fun}(r_1, (r_2)^{st})^{stv} \subseteq \text{fun}(r_1, (r_2)^{st})$, as required.”

[Thanks to Benjamin Pierce.]

Proof of 7.6.15 (page 274): Replace “idempotent” by “inflationary”.

[Thanks to Benjamin Pierce.]

Section 7.8 Notes (page 288): Delete “*contextual equivalence!vs. bisimilarity*” from the beginning of the third paragraph.

[Thanks to Geoff Washburn.]

Solution notes for Exercise 7.6.18 (page 511): Replace

“By definition of F_{n+1} and Corollary 7.5.8 we have $\emptyset \vdash f_{n+1} v_1 =_{\text{ctx}} [f \mapsto F_n][x \mapsto v_1]t$; and similarly $\emptyset \vdash F'_{n+1} v'_1 =_{\text{ctx}} [f \mapsto F'_n][x \mapsto v'_1]t'$.”

by

“By definition of F_{n+1} and Corollary 7.5.8 we have $\emptyset \vdash f_{n+1} v_1 =_{\text{ciu}} [f \mapsto F_n][x \mapsto v_1]t$; and similarly $\emptyset \vdash F'_{n+1} v'_1 =_{\text{ciu}} [f \mapsto F'_n][x \mapsto v'_1]t'$.”

[Thanks to Benjamin Pierce.]