ERRATUM TO “INJECTIVE FACTORIZATION OF HOLOMORPHIC MAPPINGS”

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The proof of [2, Theorem 4], part (a) $\Rightarrow$ (b), is not correct because the function q_i is not a seminorm.

Instead, we may follow the scheme of [1, Theorem 1], part 4 $\Rightarrow$ (5). Indeed, let $K_i \subset E_i^*$ be the image by A_i^* (the adjoint of A_i) of the unit ball of the dual space $\mathcal{L}^{k-1}(E_1, \dots, E_k; F)^*$. Let

$$L_i := \bigcap_{j=1}^{\infty} (j^{k-1} K_i \cup j^{-1} B_{E_i^*}).$$

Denote by ${}^{\circ}L_i$ the polar of L_i in E_i . As in [1], it can be shown that, for $x_i \in {}^{\circ}L_i$ ($1 \leq i \leq k$), we have $\|A(x_1, \dots, x_k)\| \leq 1$.

If q_i is the gauge of ${}^{\circ}L_i$, let Y_i be the completion of $(E_i / \ker(q_i), q_i)$, and define $T_i : E_i \rightarrow Y_i$ by $T_i x := x + \ker(q_i)$. Then

$$\begin{aligned} \|A(x_1, \dots, x_k)\| &\leq q_1(x_1) \cdot \dots \cdot q_k(x_k) \\ &= \|T_1 x_1\| \cdot \dots \cdot \|T_k x_k\|. \end{aligned}$$

On the other hand, we have

$$\begin{aligned} \|T_i x\| &= q_i(x) \\ &= \sup\{|\langle \phi, x \rangle| : \phi \in L_i\} \\ &\leq \sup \left\{ |\langle \phi, x \rangle| : \phi \in \bigcap_{j=1}^{\infty} (j^{k-1} K_i + j^{-1} B_{E_i^*}) \right\} \\ &\leq \inf \{ j^{k-1} \|A_i x\| + j^{-1} \|x\| : j \in \mathbf{N} \}. \end{aligned}$$

Therefore, by Lemma 1, $T_i \in \mathcal{U}$ for $1 \leq i \leq k$.

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