PROCEEDINGS OF THE
AMERICAN MATHEMATICAL SOCIETY
Volume 115, Number 3, July 1992

ERRATA TO "NORMS OF HANKEL OPERATORS ON A BIDISC"

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(Communicated by Paul S. Muhly)

The proof of Theorem 1 in [3] is true only for $r = 0$ and $r = -\infty$. For if $r \neq 0$ or $r \neq -\infty$ then $\{\bigcup_{j=-\infty}^{\infty} Z^j H^2\}$ is not a subspace. Since $K_0^2 = w\mathbf{H}_0^2 \oplus z(\mathbf{H}_{-\infty}^2 \ominus H^2)$, if $g \in K_0^2$ then $g = g_0 \oplus g_{-\infty}$ when $g_0 \in w\mathbf{H}_0^2$ and $g_{-\infty} \in z(\mathbf{H}_{-\infty}^2 \ominus H^2)$. Hence $(\phi f, \overline{g}) = (\phi f, \overline{g}_0) + (\phi f, \overline{g}_{-\infty})$ for $f \in H^2$. This was suggested by the proof of Corollary 3 in [1]. Thus by Theorem 1 for $r = 0$ and $r = -\infty$ in [3] and by that $H^2 \times w\mathbf{H}_0^2 \subset w\mathbf{H}_0^1$ and $H^2 \times z\mathbf{H}_{-\infty}^2 \subset z\mathbf{H}_{-\infty}^1$, the following is true clearly.

Theorem 1′. *If $\phi \in L^\infty$ and $s(\phi) = \|\phi + \mathbf{H}_0^\infty\| + \|\phi + \mathbf{H}_{-\infty}^\infty\|$, then $s(\phi)/2 \leq \|H_\phi\| \leq s(\phi)$.*

Professor K. Takahashi pointed out to me privately that $\|H_\phi\| = \sqrt{2}$ and $\|\phi + H^\infty\| \geq 2$ when $\phi = \overline{z} + \overline{w}$. Hence in Theorem 1′ we cannot replace the sum of norms to its maximum. For $\|\phi + \mathbf{H}_r^\infty\| \leq 1$ when $r = 0$ or $r = -\infty$. Moreover, Theorem 2 in [3] cannot be true by the example above. In fact, the proof of Lemma 2 in [3] contains an error because Q is not bounded in K_0^1. Q is the bounded operator from K_0^q to $w\mathbf{H}_r^q$ when $1 < q < \infty$. This can be easily shown using [2, p. 140]. Thus the proof of Lemma 2 still shows that if $\phi \in \overline{W\mathbf{H}_r^\infty}$, then $\|\phi + \mathbf{H}_r^\infty\| \geq c_p \|\phi + H^p\|$ for $2 \leq p < \infty$ and $c_p = \|Q\|_q^{-1}$ where $1/p + 1/q = 1$. Then the correct result of Theorem 2 is as follows: For $r = 0$ or $-\infty$, if $\phi \in \overline{W\mathbf{H}_r^\infty}$ then for $2 \leq p < \infty$, $\|\phi + H^\infty\| \geq \|H_\phi\| \geq c_p \|\phi + H^p\|$. In Theorems 1′ and 2, we can choose $\|H_\phi\|_e$ instead of $\|H_\phi\|$, but we must abandon Corollary 1 and (1) and (3) of Corollary 3 in [2].

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Received by the editors September 14, 1990.
1980 *Mathematics Subject Classification* (1985 *Revision*). Primary 47A30, 47B35; Secondary 46J15, 42B30.