ERRATUM TO "THE TOPOLOGICAL COMPLEMENTATION THEOREM À LA ZORN"

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There is a gap in the proof of [1]. In the notation of that paper if $M$ is open in $M' = M \cup \{q\}$ and $p \in B_s(a)$ for some $a \in X$, then $p \in B_s(a) = B_s(a)$, but $B_s(p) = B_s(p) \cup \{q\} \not\subseteq B_s(a)$ so $B_s(p)$ is not well defined. Consequently, we cannot conclude that $M = Y$. Strengthening the hypothesis by assuming, in addition, that for each member $(A, s) \in \mathcal{A}$, $A$ contains a (fixed) maximal $T_0$ subspace would eliminate the problem. This would yield the result of Gaifman (Steiner) that if every $T_0$ topology has a (principal) complement, then every topology has a (principal) complement.

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REFERENCES


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