CORRIGENDUM TO “NUMBER SYSTEMS WITH SIMPLICITY HIERARCHIES: A GENERALIZATION OF CONWAY’S THEORY OF SURREAL NUMBERS”

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An ordered class \((A, <)\) is said to have cofinal (resp. coinitial) character \(\alpha\) if \(\alpha\) is the least ordinal \(\leq On\) such that there is a cofinal (resp. coinitial) subclass of \((A, <)\) that is isomorphic to \(\alpha\) (resp. \(*\alpha = \text{the inverse of } \alpha\)). While having no impact on the proofs of the paper’s other results, statement (iii) of Theorem 4 of [1, p. 1237] contains a minor error: it fails to mention that “\((A, <) \text{ has cofinal character } On \text{ and coinitial character } On\)” Except for obvious additions, the published proof remains the same and the corrected statement of the theorem reads:

**Theorem 4.** For a lexicographically ordered binary tree \((A, <, <_{s})\) the following are equivalent:

(i) \((A, <_{s})\) is full;
(ii) \((A, <, <_{s})\) is complete;
(iii) \((A, <)\) has cofinal character \(On\) and coinitial character \(On\), and the intersection of every nested sequence \(I_{\alpha}(0 \leq \alpha < \beta \in On)\) of nonempty convex subclasses of \((A, <, <_{s})\) is nonempty (and, hence, by Theorem 1, contains a simplest member.)

Without the addendum, (iii) would merely imply that \((A, <)\) is a convex subclass of a lexicographically ordered full binary tree.

REFERENCES


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