A Correction to the Paper "On Expandability of Models of Peano Arithmetic. I" *Studia Logica* 35 (1976), pp. 409-419.

The remark on p. 417 on the proof of non-expandability of an extension generated by $\{b: b \leq a\}$ to a model of $A_2^- \cup I_1^+$ is incorrect. This fact cannot be proved by taking a code for $\{b: b \leq a\}$ and reducing the whole problem to the case of a simple extension and, of course J. Barwise and J. Schlipf did not do it so (cf. their paper "On recursively saturated models of arithmetic" which has been published in the meantime in "Model theory and algebra. A memorial tribute to Abraham Robinson", ed. by D. H. Saracino and V. B. Weispfenning, Springer Verlag, LNM 498, pp. 42-55).

To prove that the extension generated by $\{b: b \leq a\}$ is not expandable to a model of $A_2^- \cup I_1^+$ we show that it is not recursively saturated. Indeed, take the type

$$\Phi(z, x) = \{(y_1)_{\leq x} \dots (y_n)_{\leq x} [q(z, y_1, \dots, y_n) \rightarrow \\ \rightarrow (\exists u)_{\leq z} q(u, y_1, \dots, y_n)]: q \in L(P), n \in \omega\}.$$

This type is of course recursive and omitted in the discussed model (when the value of x is a). To show that it is finitely realized let us suppose, on the contrary that every element of our model is definable from a fixed set of formulas and parameters $\leq a$. But this violates the axiom of replacement (saying that the image of a bounded set by a definable function is bounded) which is provable in P .

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