

Jozef Gruska

Correction to: "On star height hierarchies of context-free languages"

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Correction to:

## On Star Height Hierarchies of Context-free Languages

JOZEF GRUSKA

The following changes should be made in order to correct and to simplify the paper [1].

In Section 3 "Depth" should be replaced by "Cycl" and the second part of the second sentence should read: "...  $A_1, \dots, A_n$  such that for  $1 \leq i < n$  ( $i = n$ ) there are words  $u_i, v_i(u_n, v_n)$  such that  $A_i \rightarrow u_i A_{i+1} v_i$  ( $A_n \rightarrow u_n A_1 v_n$ ) is in  $P$ ."

Section 4 should be omitted.

In Section 6 the end of the second paragraph: "The inspection ... it follows." should be replaced by the following text:

"The same was shown in [7] for substitution expressions. A detailed inspection of these constructions reveals immediately that  $\text{Cycl}(L) \leq \text{sh}_s(L) \leq \text{sh}_c(L) \leq \text{Var}(L)$  for each CFL  $L$ .

It is easy to verify that in [4] Theorem 4.2 and its proof remain correct if the word "Depth" is replaced by "Cycl". After these modifications Theorem 4.2 says that for each integer  $n$  there is a CFL  $L_n \subset \{a, b\}^*$  such that  $\text{Cycl}(L_n) = \text{Var}(L_n)$ . From that and from the preceding inequality the following theorem follows immediately. (From that it also follows that the following theorem remains correct if "sh<sub>c</sub>" is replaced by "sh<sub>s</sub>". Similarly the theorem 5 and its proof and Corollary 6 remain correct if "sh<sub>c</sub>" is replaced by "sh<sub>s</sub>".)"

Once these changes are done, the results of Section 4 are included in the results of Section 6.

[1] J. Gruska: On star height hierarchies of context-free languages. *Kybernetika* 9 (1973), 4, 231—236.