

Appendix

Table 1

Example of generative grammar by Chomsky

Σ :	#Sentence#
F :	1. $Sentence \rightarrow NP + VP$
	2. $VP \rightarrow Verb + NP$
	3. $NP \rightarrow \begin{cases} NP_{sin} \\ NP_{pl} \end{cases}$
	4. $NP_{sin} \rightarrow T + N$
	5. $NP_{pl} \rightarrow T + N + S$
	6. $T \rightarrow the$
	7. $N \rightarrow man, ball, \dots$
	8. $Verb \rightarrow Aux + V$
	9. $V \rightarrow hit, take, walk, read, \dots$
	10. $Aux \rightarrow (M)(have + en)(be + ing)$
	11. $M \rightarrow will, can, may, shall, must$

Table 2

Rules of reverse grammar – part of determining of parts-of-speech

1. Change all determinants in the sentence to **T**.
2. From **T** go to first potential **noun** (I check it in the dictionary). Change that noun to **N**.
3. Change all words between **T** and **N** to **A**.
4. Change every unambiguous word to its part of speech. For example 'man' – **N**
5. Change all **pronouns** to **Pro**.
Starting with pronouns ('he', 'she', 'it', 'that', 'this') that stand next to a **verb** in present tense always with the suffix '-s' (from the morphological point of view also the suffix '-es' can occur, e.g. smashes), look to the right and seek an already assigned **verb (V)** or a word that could be transformed into a **verb** using analogical elimination of '-e' and '-es' suffixes. If you find it, end the search (the case of past, future and other tenses), or, if appropriate change it into **V**.
Go to the right from **pronouns** 'I', 'you', 'we', 'they', 'these', 'those', that are next to a verb in present tense without the '-s' suffix and change the first word that could be in plural, into **N**.
Also look for a **noun** connected with the **possessive pronouns** 'my', 'your', 'his', 'her', 'its', 'our', 'their'. If you find it, consider it as a **noun** and all the words between this word and the **possessive pronoun** as **adjectives**.
6. Find potential plural. If you can not unambiguously decide if it is **verb** or **noun**, look for **verb**. If you find it change that potential plural to **N** else **V**.
7. All forms similar to plural change to **N**.
8. Change word with suffix '-ing' and '-ed' to **V**.
9. Change possible **verbs** with suffix '-s' and '-es' to **V** (that is because of cases where possessive pronoun or 'your' or 'their' does not tell us anything about quantity).
10. Change all irregular **verbs** to **V** (for example 'saw').
11. Change possible **modal verb** (but only if there is **verb** after it) with **Aux**. This is not a real rule but if you have obeyed this procedure then all other cases are successfully determined (so this rule affects only one last case).
12. Change all possible **nouns** to **N**.

Table 3

Rules of reverse grammar – part of tree generation

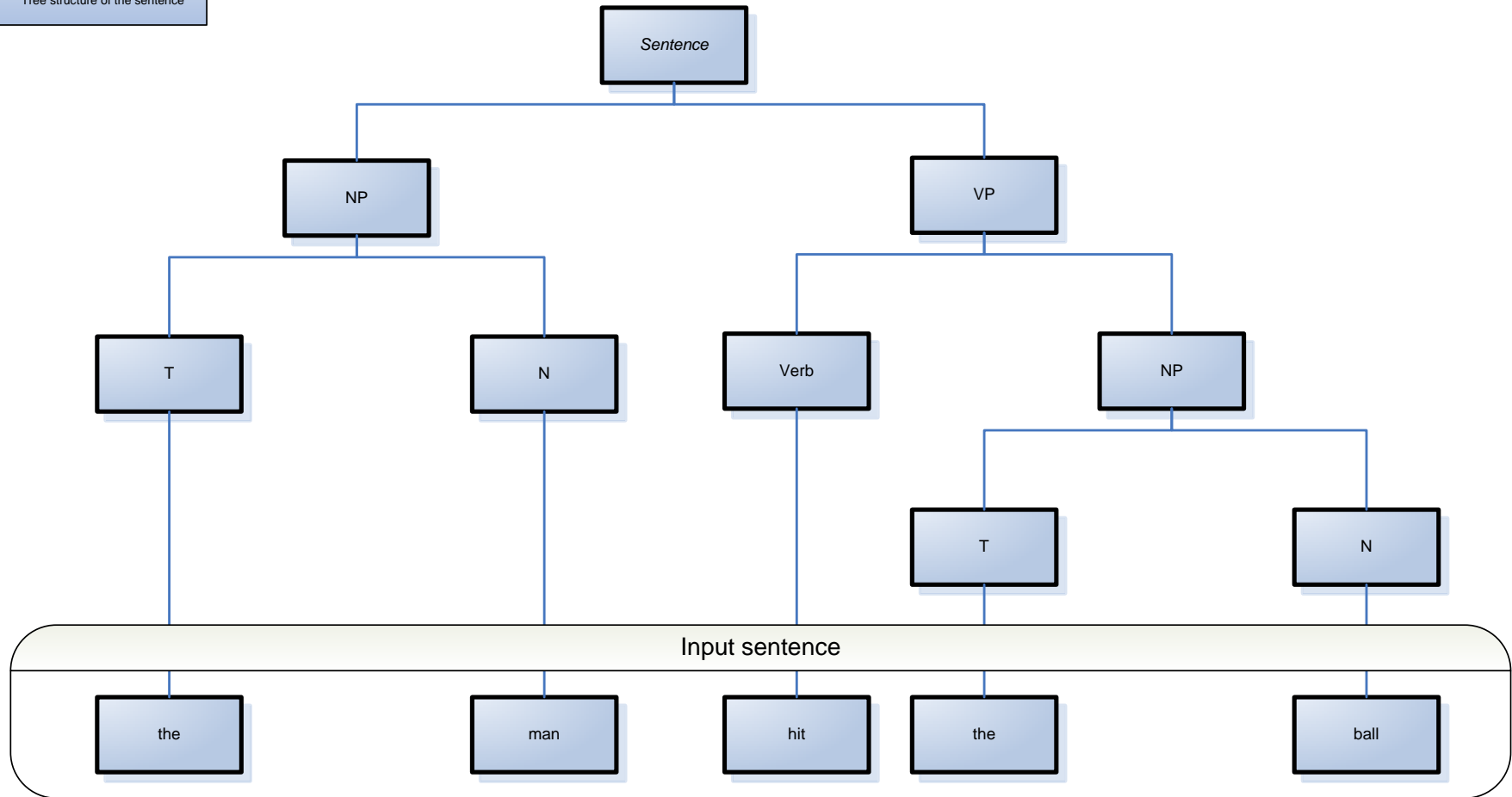
1.	(M) (have+En) (be+Ing) (be+En) > Aux	
2.	Aux+V > Verb	have been reading >> have+En+be+Ing+read >> Aux+V
3.	N > NP	
4.	NP+NP > NP	car garage
5.	A+NP > NP	beautiful car
6.	T+NP > NP	a car
7.	Prt+NP > PP	to the car
8.	NP+PP > NP	room in a flat >> room+Prt+NP >> room+PP
9.	Pro+NP > NP	my car
10.	Pro > NP	you
11.	En+V > Verb	saw – past simple
12.	V > Verb	walk – present simple
13.	Verb+Adv > Verb	go slowly
14.	Verb+NP > VP	see him >> see+Pro >> see+NP
15.	Verb+PP > VP	go to the bar
16.	NP+VP > Sentence	

Table 4

Used abbreviations and symbols

Abbreviation	English equivalent	Slovak translation
A	Adjective	Prídavné meno
Adv	Adverb	Príslovka
Aux	Auxiliary verb	Pomocné sloveso
Det / T	Determiner	Člen
M	Modal verb	Modálne sloveso
N	Noun	Podstatné meno
NP	Noun phrase	Časť s podstatným menom
PP	Preposition phrase	Príslovkové určenie miesta
Pro	Pronoun	Zámeno
Prt	Preposition	Predložka
V	Verb	Sloveso
VP	Verb phrase	Prísudková časť
>	Change	Premena

Picture 1
Tree structure of the sentence



Picture 1. Application of binary tree to sentence structure