

CREATION OF ANALYSIS ALGORITHM AND PROGRAM

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Abstract. *This article deals with the syntactic analysis of Uzbek texts based on rules and the identification of sentence fragments by software. Syntactic analysis is important because it is widely used in language structure and rule-based theories of translation.*

Keywords: *syntactic, syntactic analysis, clauses, possessive, participle, complement, case, determiner.*

Introduction. An algorithm is a procedure used for solving a problem or performing a computation. Algorithms act as an exact list of instructions that conduct specified actions step by step in either hardware- or software-based routines. Algorithms are widely used throughout all areas of IT. In mathematics, computer programming and computer science, an algorithm usually refers to a small procedure that solves a recurrent problem. Algorithms are also used as specifications for performing data processing and play a major role in automated systems. An algorithm could be used for sorting sets of numbers or for more complicated tasks, such as recommending user content on social media. Algorithms typically start with initial input and instructions that describe a specific computation. When the computation is executed, the process produces an output. Traditionally, syntactic analysis refers to the division of a sentence into parts (primary and secondary parts). In recent years, as in all levels of linguistics, attention has been paid to the content (semantics) of syntactic level phenomena, and substantive Syntactic (semantic Syntactic) is emerging as an independent direction. In particular, it was a great event for the theoretical Syntax of the Uzbek language to turn to the method of system-structural analysis related to this phenomenon, to deal with issues such as the content, content-form disproportion (semantic-syntactic asymmetry) of the syntactic structure of the language, as well as the paradigmatics and syntagmatics of syntactic devices. Has revealed a number of other aspects of scientific research. One of them is the issue of learning to analyze texts based on rules.

Despite the fact that there are a lot of opinions and comments about fragments of speech and their failure to meet the requirements in the linguistic literature, so far no concrete proposal based on purely linguistic rules has been put on the agenda. In our opinion, the realization of this is directly related to the full scientific justification of speech linguistics. In other words, a sentence is a speech unit, and therefore it is difficult to solve the problems of its syntactic analysis without speech.

It is known that in the study of the syntactic layer of each language system, sentences are structurally classified according to their communicative direction and content. But the words in the sentence are interconnected, and each of them performs a grammatical function in the sentence. In the analysis of the structure of the sentence, the parts of the sentence are considered a syntactic category. These categories show the interaction of the elements in the sentence, the nature of this relationship, how the sentence is grammatically divided into parts, the role of the word in the sentence. Each sentence is expressed using certain objective content and substantive material, that is, words. The substantive side of the sentence is its syntactic structure. The elements that make

up the syntactic structure are called differently in linguistics, i.e. "sentence fragments", "syntaxeme", "syntactic form".

Methods and models. In all languages, the construction of sentences is based on certain rules. These rules are different in each language. The rules of sentence formation of languages that are related in terms of origin, similar in structure and some lexic-grammatical features are also similar. Including, the construction of sentences in Uzbek will be similar to that of the languages of the Turkic language family. Now we will consider some rules for determining the Uzbek participles.

Rule 1. A verb becomes a participle if a tense and person number suffix is added.

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| Example-1: “Men maktabga boraman ” (I will go to school) |
| Analysis: bor+a+man "bor" is a verb (fe’l so’z turkimi) "a" is time (zamon) "man" is a personal number (shaxs son) |

Rule 2. A participle when a personal number suffix is added to the verb

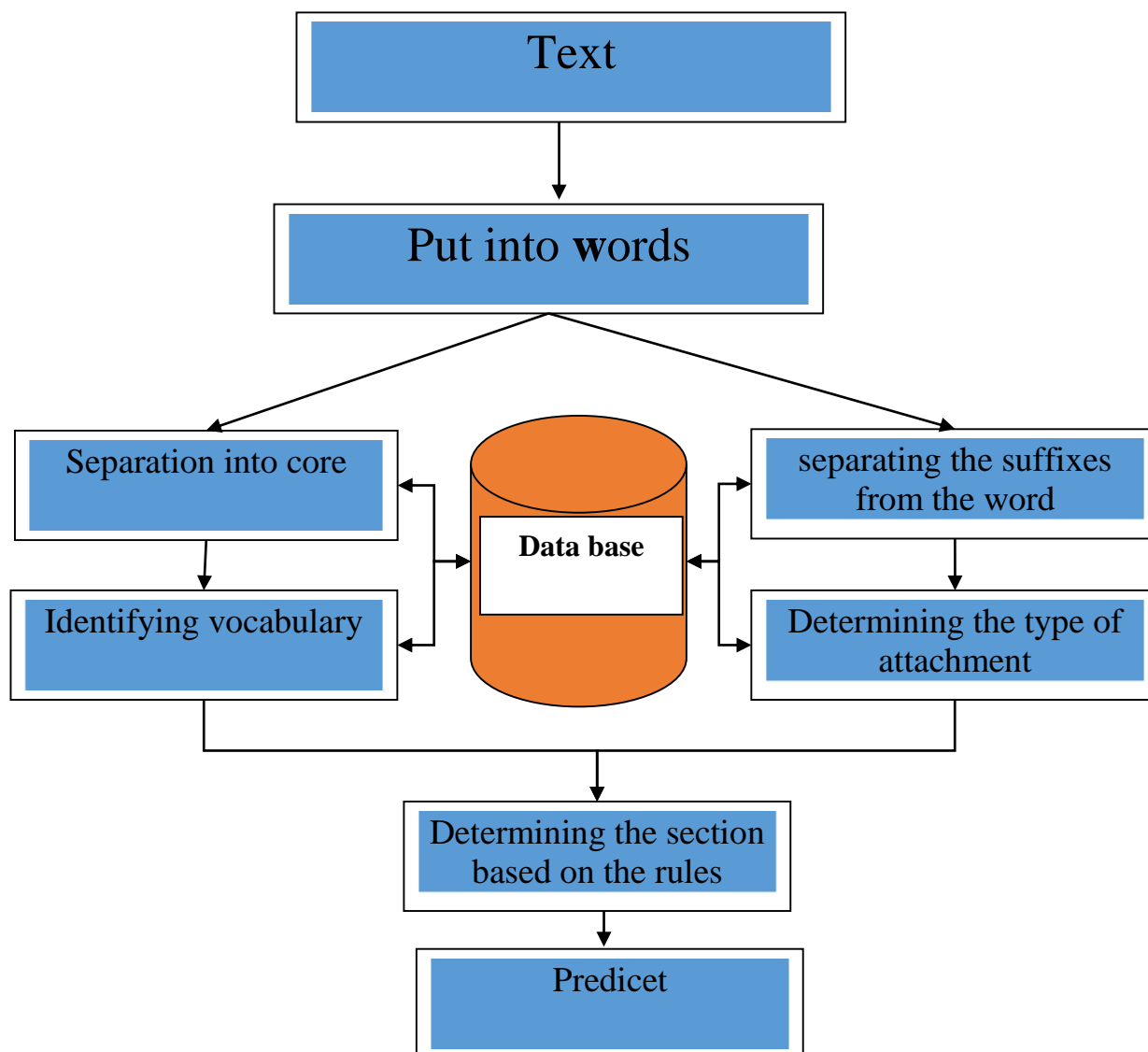
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| Example-1: “Shahzodangning yoniga borgin ” (Go to your prince) |
| Analysis: bor+gin "have" is a verb (fe’l so’z turkimi) "gin" is a personal number (shaxs son) |
| Example-2: Yaxshilikcha to’grisini aytsin (Please tell the truth) |
| Analysis: ayt+sin "ayt" is a verb (fe’l so’z turkimi) "sin" is a personal number (shaxs son) |

Rule 3. Participle if the verb formative suffix "dir" is added to word groups other than verbs

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| Example: “Toshkent chiroyli shaxar dir ” (Tashkent is a beautiful city) |
| Analysis: shaxar+dir "city" is a noun(ot) "dir" is a formative suffix(fe’l yasovchi qo’shimcha) |
| Example: Yetti tub sondir (Seven is a prime number) |
| Analysis: son+dir "son" – noun (ot) "dir" is a formative suffix (fe’l yasovchi qo’shimcha) |

Rule 4. The verb itself is participle in the sentence.

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| Example: To’g’ri so’zni ayt yolg’on so’zdan qayt (Say the right word , turn away from the false word) |
| Analysis: ayt, qayt- Verb word group (Fe’l so’z turkimi) |



Conclusion. It can be said that in the process of integration and globalization taking place at the world level, bringing the Uzbek language to the level of world languages has become one of the vital needs. The need for computer technologies, in particular, computer linguistics (CL), is increasing even more in the implementation of this big, responsible, very important goal. Because it is computer linguistics that creates the necessary opportunity for bringing the Uzbek language to the world level, for the Uzbek language to become one of the world languages, and for the improvement of its learning and teaching.

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