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**COGNITIVE-QUANTITATIVE PARAMETRIZATION
OF ENGLISH ‘DETACHED NONFINITE/NONVERBAL
WITH EXPLICIT SUBJECT’-CONSTRUCTIONS’**

**КОГНІТИВНО-КВАНТИТАТИВНА ПАРАМЕТРИЗАЦІЯ
АНГЛІЙСЬКИХ ‘ВІДОКРЕМЛЕНИХ
НЕФІНІТНИХ/НЕДІЄСЛІВНИХ З ЕКСПЛІЦИТНИМ
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This study focuses on English nonfinite/nonverbal syntactic patterns with an explicit subject, illustrated by examples such as [[_{NP}*the color*] [_{XP}*draining from her cheeks*]]; [[_{AUG}*with*] [_{NP}*thick spectacles*] [_{XP}*perched at the very end of his nose*]]; [[_{AUG}*without*] [_{NP}*insects*] [_{XP}*crawling in my hair and vermin nibbling my toes*]]; [[_{AUG}*despite*] [_{NP}*oil being*] [_{XP}*the lifeblood*]]

of industrial (modern) society]]; [[_{AUG}*what with*] [_{NP}*her mother*] [_{XP}*being immaculate too*]]. The paper provides a new cognitive-quantitative interpretation of these syntactic patterns through the prism of *cognitive-quantitative construction grammar* (CQCGr). This innovative research framework triangulates theoretical underpinnings and research methodology of cognitive linguistic approaches [1; 3] and quantitative corpus studies [2; 4], offering a holistic approach to investigate the cognitive foundations, linguistic properties, usage patterns, and distribution of *linguistic constructions* of different degrees of schematicity and abstraction within natural language corpora.

According to CQCGr, the syntactic patterns under study acquire the status of *constructions* – complex semiotic units, noncompositional cognitively motivated pairings of specific form with definite conceptual meaning/ communicative function, nominated as “*detached nonfinite/nonverbal with explicit subject*’-constructions” (*DNF/NVES-constructions*). The given nomination encompasses the essential and distinctive linguistic features of the given syntactic patterns, optimizing their cognitive-quantitative operationalization and parametrization.

Regarding structural complexity, the *DNF/NVES-constructions* represent a class of syntagmatically and semantically complex *clause-level constructions* that license detached nonfinite/nonverbal clauses with explicitly expressed subjects. The argument-predicate structure of the *DNF/NVES-constructions* minimally consists of a predicate expressed by a nonfinite/nonverbal phrase (XP) and a subject (the external argument of the nonfinite/nonverbal predicate) represented by a (pro)nominal phrase (NP). The *DNF/NVES-constructions* constitute partially schematic *constructions*, structurally represented by a set of fixed lexically unspecified slots [_{Subj}_{NP}] and [_{Pred}_{NF/NV}], with an open option for an augmentor {Aug/ØAug} expressed by a limited number of units {AUG: *with, without, what with, but, and*}. The *DNF/NVES-constructions* establish a constructional network where individual *constructions* are projected as nodes with different degrees of schematicity, lexical specification, and productivity.

The nodes of the network of the *DNF/NVES-constructions* are subjected to *multiparametric profiling*, assuming a correspondence between the *construction* and its *multiparametric linguistic profile*. Multiparametric profiling is performed utilizing the procedure of *corpus-driven linguistic quantitative parameterization* of their ‘form – meaning/ function’ properties. The inventory of formal and semantic parameters of the *DNF/NVES-constructions* is determined by their linguistic and constructional nature as complex clause level *constructions* and includes the parameters sufficient for objective assessing their linguistic behavior in present-day English.

Multiparametric linguistic profiles include 13 parameters of the form (representing morphosyntactic, relational, referential, syntactic-functional, positional, and distributional properties of the *DNF/NVES-constructions*) and 3 parameters of the meaning/ function (characterizing collostructional-colexeme, and conceptual-semantic properties)).

The form of the *DNF/NVES-constructions* is operationalized in several parameters that determine the proximity/remoteness of the *constructions* within the network and reflect its the synchronic variability and internal functional dynamics. The operationalized parameters possess different determining potential, and the linguistic profiles of the *DNF/NVES-constructions* exhibit a certain degree of proximity/remoteness in the network, allowing for their categorization based on the degree of linguistic homogeneity: 1) high degree (*dt-despite-SubjPred_{NF/NV-cxn}*, *dt-without-SubjPred_{NF/NV-cxn}*, *dt-what-with-SubjPred_{NF/NV-cxn}*); 2) medium degree (*dt-øaug-SubjPred_{NF/NV-cxn}* та *dt-with-SubjPred_{NF/NV-cxn}*); 3) low degree (subgroups *dt-with-SubjPred_{NF/NV-cxn}* and *dt-despite-SubjPred_{NF/NV-cxn}*, *dt-without-SubjPred_{NF/NV-cxn}*, *dt-what-with-SubjPred_{NF/NV-cxn}*; *dt-øaug-SubjPred_{NF/NV-cxn}* and *dt-despite-SubjPred_{NF/NV-cxn}*, *dt-without-SubjPred_{NF/NV-cxn}*, *dt-what-with-SubjPred_{NF/NV-cxn}*).

The *DNF/NVES-constructions* in the nonfinite and nonverbal predicate specifications are characterized by different *potential productivity*. The *constructions* in the nonfinite predicate specification exhibit significantly higher potential productivity coefficients than those in nonverbal specification. Among the nonfinite *DNF/NVES-constructions*, the highest potential productivity rates are demonstrated by the *constructions* with *PI*-predicates. Among the nonverbal predicates, *AdjP*-predicates display the highest potential productivity. At the same time, the recorded general coefficients of medium and low levels of potential productivity indicate constructional restrictions on the semantic types of lexemes that can fill the constructional predicate slot and a high level of idiomatization of some types of *DNF/NVES-constructions*.

The multiplicity of meanings of the *DNF/NVES-constructions* is conditioned by the semantics of their predicates. The semantic classes of predicates are associated with individual meanings of *constructions*. The linguo-quantitative parameterization of the semantic properties of the *DNF/NVES-constructions* is carried out through a frame-semantic analysis of highly-attracted tokens-fillers of the constructional slots [Pred] and [Subj]. The configuration of the frame elements is determined by the lexical and grammatical semantics of the predicate, and the inventory and content of semantic frames outline the specifics of the constraints imposed by a particular *construction* on the semantics of lexemes capable of filling the core slots.

Semantic properties associated with specific *constructions* are modeled using three types of semantic frames: *lexical frames*, *construction frames*, and *construct frames*. Changes in the configuration of the lexical frame occur under the influence of the construction frame. The construct frame results from the conceptual integration of a particular lexical frame with the frame of the corresponding construction, which selects elements from both frames to form a new frame that exists only for a specific construct.

The increasing productivity and expansion of the 'form–meaning/function' properties of the *DNF/NVES-constructions* are influenced by the processes of *grammaticalization*, *constructionalization* and *idiomatization*. During the process of grammaticalization, the augmentor 'with' has undergone a change in its syntactic role. Originally, it functioned as a prepositional unit introducing adverbial meanings related to the manner of action and accompanying circumstances. However, it has now become a semantically empty syntactic marker of the *with*-augmented type of the *DNF/NVES-constructions*, indicating the syntactic status of the *construction* without changes in its inherent meaning, usage or form. This process is part of grammatical constructionalization, which arises from diachronic changes in the form and meaning of the *with*-augmented *construction*. This shift had a particular impact on other augmented *constructions*. Due to grammaticalization, the augmenters *without*, *despite*, and *what_with* also acquire the status of syntactic markers of the *DNF/NVES-constructions*, introducing the *constructions* with specific adverbial meanings: *without* – reason, condition, time; *despite* – concession; *what_with* – reasons. The idiomatization of certain types of the *DNF/NVES-constructions* facilitates the cognitive processing of such structures and their identification in speech.

Individual differences in the quantitative realization of specific parameters (parameter factors or factor values) of a particular *DNF/NVES-construction* is attributed to *intra-constructional variability*. On the other hand, the quantitative differences in the realization of values of factors within one parameter across different nodes are determined by *inter-constructional variability*. Given the preservation of the linguistic features of form and meaning inherent in all *constructions* of the network, individual *constructions* show idiosyncratic differences in the realization of certain values of factors, which provides evidence of the dynamics of the constructional network of the *DNF/NVES-constructions* in present-day English.

The data of the conducted cognitive-quantitative allows for the modeling the prototypical linguistic features of the form and meaning/ function of the *DNF/NVES-constructions* within the operationalized parameters, revealed in a *multiparametric protomodel* of the frequency-hierarchical format.

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