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**FORMAL MODELING CONSIDERATIONS FOR
INDEPENDENT CLAUSE WITH IMPLICIT AND
VACANT SUBJECT IN SOME GERMANIC LANGUAGES**

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There have been considered independent clauses with implicit and vacant subject, which refer to narrative and interrogative sentences with ascertained subject, as well as to interrogative sentences with non-ascertained subject. The languages particularly involved are English, Dutch and Swedish. The consideration is restricted by affirmative sentences. Within the binomiality idea a formal modeling is undertaken to explain the syntactical nature of the formal particle in a subject. Main and secondary substantive/verbal sentence parts are assumed to consist of two parts — space/time specifier or proto-specifier and substantive/verbal semifinitive. The formal particle in a subject is associated with strong or super-strong space specifier. In independent interrogative sentence, as well as in dependent interrogative and narrative one, the fixing of principal substantive semifinitive is postulated to start with super-strong specifier. In independent narrative sentence the fixing of principal substantive semifinitive is postulated to start with weak specifier. It is proposed, that in independent/dependent clauses the use of the formal particle is stipulated by possible opposition of fixing verbal semifinitive against the pressure of outer space, as well as by informativity of interrogative (narrative)/conjunctive element. For dependent clauses it is also established, that the formal particle in Danish can fill the vacant substantive semifinitive and terminate its being vacant; Swedish uses for this, instead of the formal particle, an adverbial-substantive unit. Filling the vacant substantive semifinitive makes the main sentence parts complete and dependent clause becomes more similar to independent one. It confirms the statement of the binomiality idea, that narrative and interrogative dependent clause is syntactically «inbetween» narrative independent clause and interrogative independent clause. Still, the use of vacant or explicit substantive semifinitive can be stipulated, like

in Danish, by the informativity of the conjunctive element. In case of a high informativity of the conjunctive element the substantive semifinitive may remain vacant.

Keywords: linguistic modeling, syntax of Germanic languages, independent and dependent clauses, null-subject, binomiality idea, semifinitive.

Rather traditionally the linguists, engaged in German syntax, use the notion of zero subject. However, in a detailed consideration it becomes evident, that one should distinguish between two different subtypes. One subtype, the implicit subject, is in correlation with the explicit subject and always occupies the proper position. Another subtype is neither explicit nor implicit and retains its position vacant; that is why we speak about the vacant subject [Shumkov, 2019].

Independent clauses with implicit subject refer to the case of narrative and interrogative sentences, where subject is ascertained despite its being implicit; interrogative sentences can start with narrative or interrogative element, which can be word or word combination. An example for this case can be *There is asked for extension number.* or *(Why) is there asked for extension number?* because subject in these sentences is not explicit (compare with the sentences *It is asked for extension number.* or *(Why) is it asked for extension number?*).

Independent clauses with vacant subject refer to the case of interrogative sentences, where subject is not ascertained and being sought for by means of compulsory interrogative element. An example for this case can be *Who is asked?* or *Which books lie on the table?*, because subject in these sentences is not yet found. In the second sentence, of course, it is known, that we are seeking for books, but still it cannot be established for sure, which books they will be.

Rather artificial sentences, but, nevertheless, grammatically allowable, may also occur — *Who is there asked?*, *Which books do there lie on the table?*

In this article we will profoundly demonstrate, that the constructions *Why is there asked* and *Who is there asked* have different subjects.

In other Germanic languages, more or less relevant to English, we see similar situation. The considered English sentences can be translated in a structural correspondence.

In Dutch, which is more related to English, there may exist sentences like *Er wordt gevraagd om uitbreidingsnummer.* or *Waarom wordt (er)*

gevraagd om uitbreidingsnummer? or *Wordt er gevraagd om uitbreidingsnummer?* (compare also with the sentences *Het wordt gevraagd om uitbreidingsnummer.* or *Waarom wordt het gevraagd om uitbreidingsnummer?*, where the subject is explicit) as well as *Wie wordt gevraagd?*, *Welke boeken liggen op de tafel?*

Dutch grammar also allows sentences, which, in comparison with corresponding English clauses, look less artificially. So, we can meet sentences *Wie wordt er gevraagd?*, *Welke boeken liggen er op de tafel?*

In Swedish, which is less related to English, there may exist sentences like *Där/det är frågat om anknytningsnummer.* (*Där/det frågas om anknytningsnummer.*) or (*Varför är där/det frågat om anknytningsnummer?*) (*(Varför) frågas där/det om anknytningsnummer?*) as well as *Vem är frågad* (or *Vem frågas?*), *Vilka böcker ligger på bordet?*

Swedish grammar also allows sentences, which, in comparison with corresponding English and Dutch clauses, look rather artificially and occur extremely seldom — *Vem är där/det frågad* (or *Vem frågas där/det?*), *Vilka böcker ligger där/det på bordet?*

The above mentioned examples were thoroughly discussed with and approved by at least 60 native speakers of English, Dutch and Swedish (in equal proportions and independent on the social status, gender and age). The use of Swedish *där* was mostly accepted as a dialectal phenomenon.

The provision of implicit and vacant subject with a formal particle, which has no lexical meaning, causes many questions of grammatical and semantic nature [Finch, 2000]. The expletives can be dependent on the type of the predicate, what complicates the consideration of the relationships between the main parts of the sentence. In the most abstract models the absence of lexical meaning is not taken as a serious lack — originally the consideration of language starts with syntactic structures and then comes to mental ones [Chomsky, 2006]. Only cognitive grammar tries to find a common base for language and meaning, but the ways it uses are far from approaches, usual in natural sciences [Kravchenko, 1996; Jackendoff, 2003; Kolesov, 2004]. Up till now there is no radical explanation, why words exist, and are organized, and sometimes lose their lexical meanings. Specifically, formal particles are rather intricate in Scandinavian languages [Tsimmerling, 2002]. We will try to explain the structure of implicit / vacant subject, which may also include a formal particle, in a very new way.

This way is based on a formal logical modeling of syntactic phenomena [Shumkov, 2017].

In 1993 at St. Petersburg Electrotechnical University the so-called binomiality idea was stated, according to which any verbal or substantive part of the sentence comprises, explicitly or implicitly, two pieces — specifier (proto-specifier) and semifinitive. The idea is globally relevant to the idea of modal compound predicate having semifinitive (bare infinitive) as principal semantic center [Plotkin, 1989], but covers not only verbal sphere, but also substantive one. So, one says about modal compound subject, where principal semantic center is a semifinitive as well, but of substantive nature. The formal particles *it* and *there* are considered to be modal particles. Within the binomiality idea the notion of semifinitive has the term base, given by V. Y. Plotkin, but denoting modal particles is based on a new term — specifier (in case of main parts of the sentence) and proto-specifier (in case of secondary parts of the sentence). Moreover for the first time in syntax there has been proclaimed, that the main parts of sentence are formed dependently on the type of the sentence. The details of this idea were profoundly considered in [Ulianitckaia, Shumkov, 2018].

Because of the common concept of semifinitive the categories of verbal aspect and substantive determination are considered within the binomiality idea as united. Different sizes of the semifinitive cavities stipulate verbal aspects and substantive determinations. If the cavity of verbal or substantive semifinitive is large (strong semifinitives), the verbal unit is imperfect and substantive unit is definite. If the cavity of verbal or substantive semifinitive is small (super-weak semifinitives), the verbal unit is perfect and substantive unit is indefinite. There is also a cavity between large and small sizes (weak semifinitives) [Shumkov, 2014]. Super-weak semifinitive is fixed in super-strong specifier; weak semifinitive — in strong one. Strong semifinitive is fixed in weak specifier; this specifier can also fix weak or super-weak semifinitive.

Both subject and predicate may therefore be composed in 5 constructions:

1. super-weak semifinitive in super-strong specifier;
2. weak semifinitive in strong specifier;
3. strong semifinitive in weak specifier;
4. weak semifinitive in weak specifier;
5. super-weak semifinitive in weak specifier.

6. For indicating subject or predicate we will use letters «s» and «p» correspondingly.

As it was said above, the binomiality idea proclaims, that the main parts of sentence are formed according to the type of the sentence. Let us limit ourselves by affirmative sentences. In narrative sentences of independent clause the specifiers of the substantive and verbal semifinitives are firstly weak, secondly — strong, and thirdly — super-strong. In narrative and interrogative sentences of dependent clause the specifier of the substantive semifinitive is firstly super-strong, secondly — strong and thirdly — weak, and the specifier of the verbal semifinitive is firstly weak, secondly — strong, and thirdly — super-strong. In interrogative sentences of independent clause the specifiers of the verbal and substantive semifinitives are firstly super-strong, secondly — strong and thirdly — weak. The freedom of these three steps allows us to support weak and super-weak semifinitives and to express the grammatical meanings of modality and emphasis.

Predicate and subject reveal time and space elements. In the case of super-strong and strong specifiers the time and space elements coincide with them. If the case of weak specifiers these are inflected semifinitive membranes, which become time and space elements. For example, in the sentence *Can he read books?* the time element is *can* and the space element is *he*; in the sentence *It is useful to read books* the time element is *is* and the space element is *it*; in the sentence *Does he read books?* the time element is *does* and the space element is *he*; in the sentence *There is a girl in the room* the time element is *is* and the space element is *there*. It can be easily seen, that time element can coincide with predicate and space element can coincide with subject. For example, in the sentence *He reads books* the time element is *reads*; in the sentence *A girl is in the room* the space element is *a girl*.

Time and space elements are arranged depending on the sentence type as well. For independent clause in narrative sentences the space element precedes the time element; in interrogative sentences the time element precedes the space element. For dependent clause in both narrative and interrogative sentences the space element precedes the time element.

If we look attentively at the construction of the specifiers, we discover, that the time specifiers may exist either in the present or in the past,

and there is no tense, when present and past are together. The space specifiers exist both in the up-side and in the down-side, and in fact there is no difference in sides at all (otherwise we should have a grammatical dependence on, let us say, left- or right-side, what is not observed in the language). So, the time specifier is divided into two planes and the space specifier not. It metaphysically means that the pressure of a time specifier is two times less, than the pressure of a space specifier [Ulianitckaia, Shumkov, 2018].

The pressure of specifiers influences the semifinitives, what actually explains the amazing connection between expletive and predicate. The influence of time pressure on substantive semifinitives is negligible, whereas the influence of space pressure on verbal semifinitive is significant. Under increasing the space pressure the relief of the verbal semifinitive membrane becomes more flat, and the lexical meaning dims. In case the subject is built on the weak space specifier the use of all possible verbal semifinitives is allowed. In case the subject is built on the strong space specifier one may use less active semifinitives (many of them resemble semantically with the semifinitives of the verbal unit *be*), but still all passive semifinitives. In case the subject is built on the super-strong space specifier it is only possible to use the semifinitives of the verbal unit *be* with adjective or adjective-like unit.

Let us consider the sets of English, Dutch and Swedish specifiers in details.

In English there are the following specifiers — for time: super-strong, strong, weak; for space: super-strong, strong, weak.

In Dutch and Swedish there are the following specifiers — for time: super-strong, weak; for space: super-strong, strong, weak.

So, the main parts of the sentence in English, Dutch and Swedish are formed according to a general scheme, but reveal a difference. To demonstrate this general scheme we are brave enough to propose invented (artificial) examples but insist on their having been checked by means of «restricted search procedure», available within Google browser. The combination most often searched for was «formal particle + copula + participle II». Of course sometimes the usage frequency of the constructions proposed is dramatically low, and maybe they are used mistakenly, but even having been registered once, they attract our attention. Here we are supported by the fact that the constructions with formal particles are generally not so widely used and it helps in registering them.

Narrative sentences with **implicit** subject.

When forming predicate we move from weak time specifier to super-strong one and do not take into account their pressure on the fixing substantive semifinitive. The only thing we should pay attention to is that all fixing verbal semifinitives may be strong or super-weak; additionally for English, if a semifinitive does not begin with *be / have*, or is not *be / (sometimes) have*, it may be weak. If predicate needs no modal meaning, super-strong time specifier is not used. When forming subject we move from weak space specifier to super-strong one and take into account their pressure on the fixing verbal semifinitive. We see the aforementioned in the following constructions:

English:

'O' is spoken about him.* (3s or 4s; 3v or 5v)

About him 'O' is spoken.* (3s or 4s; 3v or 5v)

There is spoken O about him. (2s; 3v or 5v)

(compare It' is spoken about him. (3s; 3v or 5v)).

The constructions 'O' is spoken about him.* and About him 'O' is spoken.* are extremely improbable.

In [Kulikova, U'yanitskaya, Shumkov, 2019] it was noted, that fundamental changes within the main couple are possible; so, the construction There is spoken O about him. can be substituted by the construction There is speaking about him. Here the lexical meaning of the predicate is given to the subject, which terminates its being implicit and becomes explicit. It means, that semantic centers may move within main couple and even leave its limits, what we will demonstrate later on.

Dutch:

'O' wordt gesproken over hem.* (3s or 4s; 3v or 5v)

Over hem wordt 'O' gesproken. (3s or 4s; 3v or 5v)

Er wordt O over hem gesproken. or

Over hem wordt er O gesproken. (2s; 3v or 5v)

(compare 'Het' wordt over hem gesproken.* or

Over hem wordt 'het' gesproken.* (3s; 3v or 5v)).

The construction 'O' wordt gesproken over hem.* is extremely improbable, while the constructions 'Het' wordt over hem gesproken.* and Over hem wordt 'het' gesproken.* are rather improbable.

Swedish:

'O' är sagt om honom.* ('O' sägs om honom.*) (3s or 4s; 3v or 5v)

Om honom är 'O' sagt.* (Om honom sägs 'O'.) (3s or 4s; 3v or 5v)

Där/det är 0 sagt om honom.* (Där/det sägs 0 om honom.) or
Om honom är där/det sagt 0.* (Om honom sägs där/det 0.) (2s; 3v or 5v)
(compare 'Det' är 0 sagt om honom. ('Det' sägs om honom) or
Om honom är 'det' sagt. (Om honom sägs 'det'.) (3s; 3v or 5v)).

The constructions '0' är sagt om honom.* ('0' sägs om honom.*) as well as Om honom är '0' sagt.* are extremely improbable, while the constructions Där/det är 0 sagt om honom.* and Om honom är där/det sagt 0.* are rather improbable.

Interrogative sentences with **implicit** subject.

When forming predicate we move from super-strong time specifier to weak one and do not take into account their pressure on the fixing substantive semifinitive. The only thing we should pay attention to is that all fixing verbal semifinitives may be strong or super-weak; additionally for English, if a semifinitive does not begin with *be / have*, or is not *be /* (sometimes) *have*, it may be weak. If predicate needs no modal meaning, super-strong time specifier is not used. When forming subject we move from super-strong space specifier to weak one and take into account their pressure on the fixing verbal semifinitive. We see the aforementioned in the following constructions:

English:

(Why) is there spoken 0 about him? (3v or 5v; 2s)
(compare (Why) is 'it' spoken about him? (3v or 5v; 3s))
Why is '0' spoken about him?* (3v or 5v; 3s or 4s)
Is '0' spoken about him?* (3v or 5v; 3s or 4s)

The constructions Is '0' spoken about him?* and (Why) is '0' spoken about him?* are extremely improbable.

Dutch:

(Waarom wordt er 0 gesproken over hem?
(Waarom wordt er 0 over hem gesproken?) (3v or 5v; 2s)
(compare (Waarom wordt 'het' gesproken over hem?*
(Waarom wordt 'het' over hem gesproken?*) (3v or 5v; 3s))
Waarom wordt '0' gesproken over hem?
(Waarom wordt '0' over hem gesproken?) (3v or 5v; 3s or 4s)
Wordt '0' gesproken over hem?*
(Wordt '0' over hem gesproken?*) (3v or 5v; 3s or 4s)

The constructions Wordt '0' gesproken over hem?* (Wordt '0' over hem gesproken?*) are extremely improbable while constructions (Waarom

om) wordt 'het' gesproken over hem?* ((Waarom) wordt 'het' over hem gesproken?*) are rather improbable.

Swedish:

(Varför) är där/det sagt 0 om honom? ((Varför) sägs där/det 0 om honom?)
(3v or 5v; 2s)

Varför är '0' sagt om honom?* (Varför sägs '0' om honom?) (3v or 5v; 3s or 4s)

Är '0' sagt om honom?* (Sägs '0' om honom?*) (3v or 5v; 3s or 4s)

The constructions Är '0' sagt om honom?* (Sägs '0' om honom?*) and Varför är '0' sagt om honom?* are extremely improbable.

As we consider English, Dutch and Swedish constructions, built on weak space specifier and starting with interrogative element, we will see an interesting correlation:

Why is '0' spoken about him?*

Waarom wordt '0' over hem gesproken?

Varför är '0' sagt om honom?* (Varför sägs '0' om honom?)

Even the element is not interrogative (in the case of a narrative sentence), the correlation is the same:

About him '0' is spoken.*

Over hem wordt '0' gesproken.

Om honom är '0' sagt.* (Om honom sägs '0'.)

In this case the implicit semifinitive is supposed to be strong because the sentence starts with an element, interrogative or narrative, bearing an information (3s).

When English, Dutch and Swedish constructions, built on weak space specifier, start directly with space and time (time and space) elements, they are extremely improbable up to the total impossibility. In this case, as we suppose, the implicit semifinitive is weak as having no informative support from interrogative or narrative element (4s).

For English and Dutch sentences it is also important to take into account the following correlation — in English constructions (explicit) strong semifinitive is fixed in weak space specifier, while in Dutch constructions (implicit) weak semifinitive is fixed in strong space specifier

(the balance between semifinitive and specifier remains, actually, the same):

'It' is spoken about him. (3s) — *Er wordt 0 over hem gesproken.* (2s)

In Swedish strong and super-strong space specifiers may have the same image *det*, and we can face a curious situation:

'Det' sägs om honom. (3s) — *Det sägs 0 om honom.* (2s)

In Danish it is eliminated by using strong space specifier *der* preferably for the case of implicit semifinitive [Christensen, Christensen, 2019]:

'Der' siges om ham. (3s) — *Der siges 0 om ham.* (2s)

It is also important to note, that if a sentence includes a narrative element, indicating a space feature, weak zero semifinitive is used to be fixed in strong space specifier *der*:

Der er 0 langt til America. (2s)

Der er 0 varmt i huset. (2s)

Probably, strong non-zero semifinitive endures indicating space feature not willingly; nevertheless there may exist the following constructions, which are rather improbable:

*'Det' er langt til America.** (3s)

*'Det' er varmt i huset.** (3s)

The use of implicit subject in English and Swedish can be broader, than in English, and there appear constructions, which are rather improbable:

*There is said 0 many words about him.**

*Där/det är sagt 0 många ord om honom.**

(compare *'It' is said many words about him.** and

*'Det' är sagt många ord om honom.**)

Transforming these constructions into sentences with another explicit subject will lead to the following consequences:

There are said many words about him.

Där/det är sagda många ord om honom.

(mostly, however, a frame construction is used:

Där/det är många ord sagda om honom.)

Here it is clearly demonstrated that semantic centers can leave the limits of the main couple if we complicate it by modifying one or both of its constituents.

Interrogative sentences with **vacant** subject.

When forming predicate we move from super-strong time specifier to weak one and do not take into account their pressure on the fixing substantive semifinitive. The only thing we should pay attention to is that all fixing verbal semifinitives may be strong or super-weak; additionally for English, if a semifinitive does not begin with *be / have*, or is not *be / (sometimes) have*, it may be weak. If predicate needs no modal meaning, super-strong time specifier is not used. When forming subject we move from super-strong space specifier to weak one and take into account their pressure on the fixing verbal semifinitive. Of course we should not expect that the vacant fixing substantive semifinitive will obligatory become super-weak in the reciprocal sentence, since main infinitive units, in contrast to all other main substantive units (nouns, pronouns etc.), are not specially sought for. It could be however expected, that the vacant fixing substantive semifinitive will become weak, if the sought main substantive unit is a noun, striving to indefiniteness. Then this semifinitive will be fixed in the strong specifier. We see the aforementioned in the following constructions:

English:

*Which girls do there speak \emptyset about him?** (2v; 2s)

*Who does there speak \emptyset about him?** (2v; 2s)

*Which words are there spoken \emptyset ?** (3v or 5v; 2s)

*What is there spoken \emptyset ?** (3v or 5v; 2s)

The construction *Which girls do there speak \emptyset about him?** is extremely improbable because of the low capability of the semifinitive *see* to withstand the pressure of the strong space specifier *there* and the high informativity of the interrogative element *which girls*. The construction *Who does there speak \emptyset about him?** is rather improbable because of the low capability of the semifinitive *speak* to withstand the pressure of the strong space specifier *there* (despite the low informativity of the interrogative element *who*). The construction *Which words are there spoken \emptyset ?** is also rather improbable because of the high informativity of the interrogative element *which words* (despite the high capability of the sem-

infinitive *be spoken* to withstand the pressure of the strong space specifier *there*).

Dutch:

*Welke meisjes spreken er \emptyset over hem?** (3v or 5v; 2s)

Wie spreekt er \emptyset over hem? (3v or 5v; 2s)

Welke worden worden er \emptyset gesproken? (3v or 5v; 2s)

Wat wordt er \emptyset gesproken? (3v or 5v; 2s)

The construction *Welke meisjes spreken er \emptyset over hem?** is rather improbable because of the high informativity of the interrogative element *welke meisjes* (despite the average capability of the semifinitive *spreken* to withstand the pressure of the strong space specifier *er* — in Dutch much more verbal semifinitives are capable of it, than in English).

Swedish:

*Vilka flickor säger där/det \emptyset om honom?** (3v or 5v; 2s)

*Vem säger där/det \emptyset om honom?** (3v or 5v; 2s)

*Vilka ord är där/det \emptyset sagda?** (*Vilka ord sägs där/det \emptyset ?*) (3v or 5v; 2s)

Vad är där/det \emptyset sagt? (*Vad sägs där/det \emptyset ?*) (3v or 5v; 2s)

The construction *Vilka flickor säger där/det \emptyset om honom?** is extremely improbable because of the low capability of the semifinitive *se* to withstand the pressure of the strong specifier *där/det* and the high informativity of the interrogative element *vilka flickor*. The construction *Vem säger där/det \emptyset om honom?** is rather improbable because of the low capability of the semifinitive *säga* to withstand the pressure of the strong space specifier *där/det* (despite the low informativity of the interrogative element *vem*). The constructions *Vilka ord är där/det \emptyset sagda?** (*Vilka ord sägs där/det \emptyset ?*) are also rather improbable because of the high informativity of the interrogative element *vilka ord* (despite the high capability of the semifinitive *vara sagt/sagt/sagda* (*sägas*) to withstand the pressure of the strong specifier *där/det*).

Still, as was said above, it is allowed for weak semifinitive to be fixed in weak specifier. Also one can expect that the vacant fixing substantive semifinitive will become strong, if the sought main substantive unit is a noun, striving to definiteness, proper noun or personal pronoun. This semifinitive will be fixed in the weak specifier. We see this in the following constructions:

English:

Which girls do Ø speak about him?! (2v; 3s or 4s)

Who does Ø speak about him?! (2v; 3s or 4s)

Which girls speak Ø about him? (3v or 4v or 5v; 3s or 4s)

Who speaks Ø about him? (3v or 4v or 5v; 3s or 4s)

Which words are Ø spoken? (3v or 5v; 3s or 4s)

What is Ø spoken? (3v or 5v; 3s or 4s)

Dutch:

Welke meisjes spreken Ø over hem? (3v or 5v; 3s or 4s)

Wie spreekt Ø over hem? (3v or 5v; 3s or 4s)

Welke worden worden Ø gesproken? (3v or 5v; 3s or 4s)

Wat wordt Ø gesproken? (3v or 5v; 3s or 4s)

Swedish:

Vilka flickor säger Ø om honom? (3v or 5v; 3s or 4s)

Vem säger Ø om honom? (3v or 5v; 3s or 4s)

Vilka ord är Ø sagda? (Vilka ord sägs Ø?) (3v or 5v; 3s or 4s)

Vad är Ø sagt? (Vad sägs Ø?) (3v or 5v; 3s or 4s)

Thus, in independent clauses the absence or presence of strong specifier can be related to the possible opposition of fixing verbal semifinitive against the pressure of outer space for not weakening the lexical meaning. If the lexical meaning of main verbal unit may not be weakened, strong specifier is not used even when the concentration balance is frustrated; if a weakening is possible — the use of strong specifier is rather mainstreaming. The absence or presence of strong specifier can also be related to the informativity of the narrative or interrogative element. These elements, narrowing the space field for main substantive unit, are definitely more informative, and strong specifier, which gets no weak semifinitive to fix, is not used. It concerns not only implicit subject, but also vacant one.

Formal modeling consideration for independent clause with implicit or vacant subject in the considered Germanic languages leads us to the conclusion, that the provision of implicit or vacant subject with a formal particle, having no lexical meaning — i.e. the fixation of implicit or vacant weak substantive semifinitive in strong space specifier is stipulated by two factors: the capability of the fixing verbal semifinitive to oppose against the pressure of the outer space and the informativity of the narrative or interrogative element.

Due to all of this in Scandinavian languages we face a difficult situation in dependent clause, where vacant substantive semifinitive can lose its being vacant for making the main couple complete. The fixation of vacant or explicit substantive semifinitive in weak space specifier is then sometimes stipulated only by one factor — the informativity of the conjunctive element. Implicit substantive semifinitive never loses its being implicit, because the main couple is complete from the very origin and needs no alterations.

In Swedish we see and hear the difference in using different words for subjects with vacant substantive semifinitive:

*Jag vet, vad ∅' sägs.** (3s or 4s; 3v or 5v)

Jag vet, vad där/det sägs ∅. (2s; 3v or 5v)

Jag vet, vad som' sägs. (3s; 3v or 5v)

The construction *Jag vet, vad ∅' sägs.** is extremely improbable because the vacant substantive semifinitive is striving to make the main couple complete either by fixing in strong space specifier *där/det* or by being filled with *som*, a unit of adverbial-substantive nature [Hultman, 2008]. In both cases the balance between semifinitive and specifier remains, actually, the same.

Increasing the informativity of conjunctive element does not change the situation:

*Jag vet, vilka ord ∅' sägs.** (3s or 4s; 3v or 5v)

Jag vet, vilka ord där/det sägs ∅. (2s; 3v or 5v)

Jag vet, vilka ord som' sägs. (3s; 3v or 5v)

In Danish for subjects with vacant substantive semifinitive only one and the same word is used and we see and hear no difference:

*Jeg ved, hvad ∅' siges.** (3s or 4s; 3v or 5v)

Jeg ved, hvad der siges ∅. (2s; 3v or 5v)

Jeg ved, hvad der' siges. (3s; 3v or 5v)

The construction *Jeg ved, hvad ∅' siges.** is extremely improbable because the vacant substantive semifinitive is striving to make the main couple complete either by fixing in strong space specifier *der* or by being filled with *der*, a unit of adverbial-substantive nature [Jacobsen, Skyum-Nielsen, 2010]. In both cases the balance between semifinitive and specifier remains, actually, the same.

However, if the informativity of conjunctive element increases, we might have the following situation:

Jeg ved, hvilke ord 'ø' siges. (3s or 4s; 3v or 5v)

Jeg ved, hvilke ord der siges ø. (2s; 3v or 5v)

Jeg ved, hvilke ord 'der' siges. (3s; 3v or 5v)

It is not excluded, that the balances in subjects are more definite:

*Jeg ved, hvad 'ø' siges.** (4s) — *Jeg ved, hvilke ord 'ø' siges.* (3s)

Making the main couple complete allows a sentence of dependent clause to be more similar to a sentence of independent clause. It confirms the statement of the binomiality idea that narrative and interrogative dependent clause is syntactically «in-between» narrative independent clause and interrogative independent clause.

For subjects with implicit substantive semifinitive we have the following situation:

Swedish:

Jag vet, hur '0' sägs om honom. (3s or 4s; 3v or 5v)

Jag vet, hur där/det sägs 0 om honom. (2s; 3v or 5v)

(compare *Jag vet, hur 'det' sägs om honom.* (3s; 3v or 5v))

Danish:

Jeg ved, hvordan '0' siges om ham. (3s or 4s; 3v or 5v)

Jeg ved, hvordan der siges 0 om ham. (2s; 3v or 5v)

(compare *Jeg ved, hvordan 'det' siges om ham.* (3s; 3v or 5v))

It is interesting to note, that even in case of explicit substantive semifinitives the units, on which they are built, continue marking the vacant or implicit essence:

Swedish:

*Jag vet, vilka ord 'ø' sägs.** — *Jag vet, vilka ord där/det sägs ø.* —

Jag vet, vilka ord 'som' sägs.

Jag vet, hur '0' sägs ... — *Jag vet, hur där/det sägs 0 ...* —

Jag vet, hur 'det' sägs ...

Danish:

Jeg ved, hvilke ord 'ø' siges. — *Jeg ved, hvilke ord der siges ø.* —

Jeg ved, hvilke ord 'der' siges.

Jeg ved, hvordan '0' siges... — Jeg ved, hvordan der siges 0... —

Jeg ved, hvordan 'det' siges...

The aforesaid gives us an additional evidence of existing two types of zero subject — the implicit and vacant ones. The implicit subject is built on possible implicitness of substantive unit, which is always present; the vacant subject is built on a vacancy of substantive unit, which is being sought, and, therefore, absent. In fact a subject can be explicit / implicit (in both narrative and interrogative sentences) and vacant (in interrogative sentences only).

Formal modeling consideration for independent clause should also be conducted for dependent clause, where narrative and interrogative sentences are functioning according to one general scheme. Interrogative, conjunctive or narrative element can supply substantive semifinitive with additional inner space, the portion of which is dependent on the informativity of this element. The main difference between implicit and vacant subjects in independent clause is that the membrane of implicit semifinitive is filled with implicit substantive unit, and the membrane of vacant semifinitive is empty.

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К ВОПРОСУ О ФОРМАЛЬНОЙ МОДЕЛИ НЕЗАВИСИМЫХ ПРЕДЛОЖЕНИЙ С НЕЯВНЫМ И ПУСТЫМ ПОДЛЕЖАЩИМ В ГЕРМАНСКИХ ЯЗЫКАХ

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Рассмотрены независимые предложения с неявным и пустым подлежащим, относящимися к случаю повествовательных и вопросительных конструкций с идентифицированным подлежащим, а также к случаю вопросительных конструкций с неидентифицированным подлежащим. Привлекается преимущественно материал английского, нидерландского и шведского языков, ограниченный утвердительными предложениями. В целях выявления синтаксической природы формальной частицы подлежащего применена формальная модель на основе идеи двухчастности. Субстантивные/глагольные члены предложения, главные или второстепенные, представляются состоящими из двух частей — пространственного/временного уточнителя или прауточнителя и субстантивного/глагольного semifинитива. Формальная частица подлежащего сопоставляется с сильным или сверхсильным пространственным уточнителем. Постулируется, что в независимом вопросительном, а также

в зависимом вопросительном и повествовательном предложении процесс фиксации главного субстантивного семифинитива начинается со сверхсильного уточнителя, а в независимом повествовательном предложении — со слабого уточнителя. Высказано предположение, что в независимых/зависимых предложениях использование формальной частицы обусловлено возможным противостоянием фиксирующегося глагольного семифинитива давлению внешнего пространства, а также информативностью вопросного (нарративно-го)/союзного элемента. Для зависимых предложений также установлено, что формальная частица в датском языке может заполнять пустой субстантивный семифинитив, отчего он перестает быть пустым; в этих же целях шведский язык использует вместо формальной частицы наречно-субстантивную единицу. Заполнение пустого субстантивного семифинитива делает главные члены предложения полноценными, и зависимые предложения становятся более похожими на независимые. Тем самым подтверждается тезис идеи двухчастности о том, что синтаксически повествовательное/вопросительное зависимое предложение располагается «между» повествовательным независимым и вопросительным независимым. Тем не менее использование пустого или явного субстантивного семифинитива может быть обусловлено, как в датском языке, информативностью союзного элемента. В случае высокой информативности союзного элемента субстантивный семифинитив может оставаться пустым.

Ключевые слова: лингвистическое моделирование, синтаксис германских языков, независимые и зависимые предложения, нулевое подлежащее, идея двухчастности, семифинитив.

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