SJA-Verbs in Russian: Phonology, Morphology, or Syntax?

Uwe Junghanns (Universität Leipzig)

slavlips@rzaix340.rz.uni-leipzig.de

1. Introduction

The present paper is concerned with a class of verbs in Russian that is distinguished by an element that appears to be attached to the verb. For expository purposes I will refer to this element as α .

(1) $V-\alpha$

 α has two phonological realizations depending on whether it is preceded by a consonant or a vowel.

(2) Surface realizations of α :

(a) V-sja: /[V]...consonant]__

(b) V-s': /[v...vowel]

Note that participles do not obey (2b). Cf. Isačenko (1983, 408).

Grammatical tradition as well as lexicography treat α as morphology. This view poses a serious problem – if α is morphology, then it is "misplaced" morphology. I will show below that α affects the structural accusative. As an "unaccusativizing" affix it should precede affixes that are correlated with structurally higher functional categories, but it does not. α is always the last element in the word form. Cf.:

- (3) (a) myt'sja wash-inf- α
 - (b) moetsja / mojus'wash-pres 3p sg-α / wash-pres 1p sg-α
 - (c) mylsja / mylas'wash-past sg masc-α / wash-past sg fem-α
 - (d) mojuščajasja wash-part pres active nom fem sg -α
 - (e) mojtes' wash-imp 2p pl- α

It turns out that α , taken as morphology, violates the *Mirror Principle*. This is shown in (4).

| (4) | (a) | [AgrsP ··· | [TP ··· | [AgrOP ··· | [VP | | clause structure ¹ |
|-----|-----|------------|---------|------------|------------------|---|-------------------------------------|
| | (b) | V | AgrO | T | Agr _S | | reversed order of heads |
| | (c) | my- | | l | а | α | word structure of mylas' (cf. (3c)) |
| | | | | | | | |

Traditional grammar has created a special label for α calling it a postfix. However, this does not answer the question of why α appears where it does.

¹ Irrelevant details are omitted here. For the explicit structure of the Russian clause see Junghanns (1995).

In recent research various proposals have been put forward concerning α . The solutions proposed can be divided into three groups: (i) phonological, (ii) morphological, and (iii) syntactic analyses. Schoorlemmer (1993) treats α as the phonological spell-out of the marked value of a functional category. Zimmermann (1995) sticks to the tradition and considers α a bound morpheme ("reflexive postfix"). Babby (1975) suggests that the syntax introduces α .

In this paper I will suggest an analysis that treats the verb and α as syntactic atoms, although α has morphological properties as well. If one can find evidence that α is not pure morphology, then the lexicon could be freed from the huge burden of redundant entries for verbs that can be regularly correlated with homonymous verbs that display only one difference – they lack α . The worth of pursuing such an aim can be seen from the fact that, e.g., the reverse dictionary of Russian (Bielfeldt (1958)) contains about 7,500 SJA-verbs – one tenth of the total number of lexical entries – the majority of which could be simply disregarded by lexicographers.

This paper will be organized as follows: Section 2 presents a cross-Slavic survey of reflexive verbs. It also describes the basic properties of Russian SJA-verbs. In section 3 I introduce the analysis of Russian SJA as a verbal clitic. Section 4 deals with the semantics of SJA. In section 5 I sketch out the format of lexical entries for verbs. Section 6 concludes the paper.

2. Data

2.1. Survey of Slavic languages

(5) illustrates α – Russian SJA and its counterparts – in the modern Slavic languages. The one sentence given means 'The boy is washing himself.' Reflexivity, however, is not the only meaning α can convey. See below.

(5) α in the various Slavic languages²

South Slavic

- (a) Момчето се мие. (Momčeto se mie.)
- (b) Детето се мие. (Deteto se mie.)
- (c) Дечак се пере. (Dečak se pere.)
- (d) Dečko se pere.
- (e) Fant se umiva.
- (f) Хлапец ше умива. (Hlapec še umiva.)

| Bulgarian | se |
|----------------------------------|----|
| Macedonian | se |
| Serbian | se |
| Croatian | se |
| Slovene | se |
| (Vojvodinian) Rusyn ³ | še |

West Slavic

- (g) Chlapec se myje.
- (h) Chlapec sa umýva.
- (i) Hólc so myje.
- (k) Golack se myjo:
- (1) Chłopiec się myje.

| Czech | se |
|---------------|-----|
| Slovak | sa |
| Upper Sorbian | so |
| Lower Sorbian | se |
| Polish | się |

I would like to thank Natalja Börner, Dorothee Fehrmann, Silvana Gabauer, Wojciech Głowacki, Lily Grozeva, Tatjana Kolosnjaji-Prescher, Petar Legović, Olga Mišeska Tomić, Catherine Rudin, Shanna Schütt, Elisabeth Seitz, Jana Šołćina, Andreas Späth, Dragi Stefanija, Slavica Stevanović and Dana Zbíralová for their help with the examples.

Classifying Rusyn is not without problem. Today the language is spoken, e.g., in Poland, Slovakia, the former Yugoslavia, and the Ukraine. The genetic link to Ukrainian suggests that Rusyn should be regarded as an East Slavic language. Because of the P2 status of še in Rusyn (see below) I group it with South Slavic rather than East Slavic.

East Slavic

- (m) Мальчик моется. (Mal'čik moetsja.)
- (n) Хлопчик умивається. (Xlopčyk umyvajet'sja.)
- (o) Хлопчык мыецца. (Xlopčyk myecca.)⁴

| Russian | sja |
|------------|-----|
| Ukrainian | sja |
| Belarusian | sja |

At first glance it appears that α is only in the South and West Slavic languages a syntactic atom ("free morpheme"). α in Russian, Ukrainian, and Belarusian seems to be incorporated into the verb which is reflected by spelling the verb and α in one word. Taking this seriously would mean that there is a substantial difference between the East Slavic subgroup of the Balto-Slavic branch and the other subgroups. However, the freedom of α in the South and West Slavic subgroups could be taken as a clue of how to analyze it generally. This can be taken as a first bit of evidence that SJA in Russian need not necessarily be considered a bound morpheme.

The various Slavic languages differ with respect to the placement of α . Consider (6)–(20):⁵

(6) Bulgarian

- (a) Момчето се мие. (Momčeto se mie.) 'The boy is washing himself.'
- (b) Момчето сега се мие. (Momčeto sega se mie.) 'The boy is washing himself now.'
- (c) Мие се. (Mie se.) 'He is washing himself.'
- \rightarrow α is a verbal proclitic. If there is no phonological host to the left of α the verb must raise as in (6c).

(7) Macedonian

- (a) Детето се мие. (Deteto se mie.) 'The boy is washing himself.'
- (b) Детето сега се мие. (Deteto sega se mie.) 'The boy is washing himself now.'
- (c) Таа се гледаше во огледалото. (Taa se gledaše vo ogledaloto.) 'She was looking at herself in the mirror.'
- (d) Овај пат не се погледаа напоречки. (Ovaj pat ne se pogledaa naporečki.) 'This time they didn't look at each other askance.'
- (e) Ќе се убијам! (Ќе se ubijam!) 'I'll kill myself!'
- (f) Се готвеше ручек. (Se gotveše ruček.) 'Dinner was being prepared.'
- \rightarrow α is a verbal proclitic. Macedonian α is unique in that it needs no phonological host to its left (7f).

(8) Serbian

- (a) Дечак се пере. (Dečak se pere.) 'The boy is washing himself.'
- (b) Дечак се темељно пере. (Dečak se temeljno pere.) 'The boy is washing himself thoroughly.'
- \rightarrow α is a P2 clitic.

(9) Croatian

- (a) Dečko se pere. 'The boy is washing himself.'
- (b) Dečko se temeljito pere. 'The boy is washing himself thoroughly.'
- \rightarrow α is a P2 clitic.

In Belarusian sja fuses with the third person singular present tense ending to give -cca.

Abstracting away from more complicated details I will presuppose a rough distinction between clitics that are hosted by the verb (verbal clitics) and second-position clitics (P2 clitics).

- (10) Slovene
 - (a) Fant se umiva. 'The boy is washing himself.'
 - (b) Fant se temeljito umiva. 'The boy is washing himself thoroughly.'
- \rightarrow α is a P2 clitic.
- (11) (Vojvodinian) Rusyn
 - (a) Хлапец ше умива. (Hlapec še umiva.) 'The boy is washing himself.'
 - (b) Њешка ше хлапец умива детаљно. (Nješka še hlapec umiva detaljno.) 'Today the boy is washing himself thoroughly.'
- \rightarrow α is a P2 clitic.
- (12) Czech
 - (a) Chlapec se myje. 'The boy is washing himself.'
 - (b) Chlapec se důkladně myje. 'The boy is washing himself thoroughly.'
- \rightarrow α is a P2 clitic.
- (13) Slovak
 - (a) Chlapec sa umýva. 'The boy is washing himself.'
 - (b) Chlapec sa dôkladnie umýva. 'The boy is washing himself thoroughly.'
- \rightarrow α is a P2 clitic.
- (14) Upper Sorbian
 - (a) Hólc so myje. 'The boy is washing himself.'
 - (b) Hólc so porjadnje myje. 'The boy is washing himself properly.'
- \rightarrow α is a P2 clitic.
- (15) Lower Sorbian
 - (a) Golack se myjo. 'The boy is washing himself.'
 - (b) Golack se porědnje myjo. 'The boy is washing himself properly.'
- \rightarrow α is a P2 clitic.
- (16) Polish
 - (a) Chłopiec się myje. / Chłopiec myje się. 'The boy is washing himself.'
 - (b) Chłopiec **się** dokładnie myje. / Chłopiec myje **się** dokładnie. 'The boy is washing himself thoroughly.'
- \rightarrow α is a P2 clitic. In some cases the verb seems to have raised to the position of the clitic.
- (17) Russian
 - (a) Мальчик моется. (Mal'čik moetsja.) 'The boy is washing himself.'
 - (b) Мальчик тщательно моется. (Mal'čik tščatel'no moetsja.) 'The boy is washing himself thoroughly.'
- (18) (a) * Мальчик ся тщательно моет. (* Mal'čik sja tščatel'no moet.) boy-nom α thoroughly wash-pres 3p sg
 - (b) * Мальчик тщательно ся моет. (* Mal'čik tščatel'no **sja** moet.) boy-nom thoroughly α wash-pres 3p sg
- \rightarrow In Russian, α has to appear immediately after the verb. If α is not regarded as pure morphology, then it is a verbal enclitic.

- (19) Ukrainian
 - (a) Хлопчик умивається. (Xlopčyk umyvajet'sja.) 'The boy is washing himself.'
 - (b) Хлопчик щодня умивається. (Xlopčyk ščodnja umyvajet'sja.) 'The boy washes himself daily.'
- \rightarrow If α is not regarded as pure morphology, then it is a verbal enclitic.
- (20) Belarusian
 - (a) Хлопчык мыецца. (Xlopčyk myecca.) 'The boy is washing himself.'
 - (b) Хлопчык чыста мыецца. (Xlopčyk čysta myecca.) 'The boy is washing himself thoroughly.'
- \rightarrow If α is not regarded as pure morphology, then it is a verbal enclitic.

We can conclude:

- α is a verbal clitic in Bulgarian and Macedonian. It is proclitic in both cases.
- α is a P2 clitic in Serbian, Croatian, Slovene, Rusyn, Czech, Slovak, Upper and Lower Sorbian, and Polish.
- It is possible to regard α in the three East Slavic languages Russian, Ukrainian, Belarusian as verbal enclitic.

Some Slavic languages allow not only an element α that is mutually exclusive with an accusative object but also a clitic that excludes the presence of a dative object. Such a language is Czech. Cf.:

- (21) Chlapec [V [V myje] [Dp svou sestru]]. boy-nom wash-pres 3p sg his-acc sister-acc 'The boy is washing his sister.'
- (22) Accusative clitic in Czech:
 - (a) Chlapec se [ν myje]. boy-nom α wash-pres 3p sg 'The boy is washing himself.'
 - * Chlapec se [V' [V myje] [DP svou sestru]]. boy-nom α wash-pres 3p sg his-acc sister-acc
- (23) Dative clitic in Czech:
 - (a) Chlapec si [V' [V myje] [DP obličej]].
 boy si wash-pres 3p sg face-acc 'The boy is washing his face.'
 - (b) Chlapec [v myje] [Dp své sestře] [Dp obličej]. boy wash-pres 3p sg his-dat sister-dat face-acc 'The boy is washing his sister's face.'
 - (c) * Chlapec si [v myje] [Dp své sestře] [Dp obličej]. boy si wash-pres 3p sg his-dat sister-dat face-acc

Of course, the lexicon need not contain a special entry for the verb taking a dative clitic. Neither is it necessary to assume that the lexicon lists both the verb without the accusative clitic α and the verb with α .

2.2. Russian SJA-verbs

A convincing analysis of Russian SJA-verbs has to cover all the varieties of meaning that such a construction can convey. Although reflexivity comes to the mind first, it is by far not the only meaning one finds with SJA-verbs. This is illustrated in (24)–(28).⁶ Note that all the examples constitute cases of regular correlations between verbs taking two arguments and

For an exhaustive list see Isačenko (41982, 456ff.). It seems worthwhile comparing similar possibilities of semantic diversification for reflexive constructions in other Slavic and non-Slavic languages (e.g. Serbian, Swedish). This is outside the scope of this paper.

verbs with a single argument. Whereas in the latter case there is no α in the structure, in the former case we find SIA.

(24) Reflexivization

- (a) Ivan moet syna. Ivan-nom wash-pres 3p sg son-acc 'Ivan is washing his son.'
- (b) Ivan moetsja. Ivan-nom wash-pres 3p sg-α 'Ivan is washing himself.'

other verbs: odevat'sja ('to dress'), pričesyvat'sja ('to comb one's hair'), pudrit'sja ('to powder oneself'), zastrelit'sja ('to shoot oneself')

(25) Reciprocalization

- (a) Anton obnimaet Ninu. Anton-nom embrace-pres 3p sg Nina-acc 'Anton is embracing Nina.'
- (b) Anton i Nina obnimajutsja. Anton and Nina-nom embrace-pres $3p pl-\alpha$ 'Anton and Nina are embracing.'

other verbs: celovat'sja ('to kiss'), vstrečat'sja ('to meet')

(26) Passivizing effect

- (a) Plotniki strojat dom. carpenters-nom build-pres 3p pl house-acc 'The carpenters are building a / the house.'
- (b) Dom stroitsja (plotnikami). house-nom build-3p sg-α 'The house is being built (by (the) carpenters).'

other verbs: čitat'sja ('to be read'), rekomendovat'sja ('to be recommended')

(27) Detransitivizing effect

- (a) Otec rugaet Sergeja. father-nom scold-pres 3p sg Sergej-acc 'The father is scolding Sergej.'
- (b) Otec rugaetsja. father-nom scold-3p sg- α 'The father is scolding.'

other verbs: podpisyvat'sja ('to sign'), kusat'sja ('to bite'), razbirat'sja ('to know one's way around sth.')

(28) Unaccusative interpretation (Middle, Inchoative)

- (a) Dmitrij otkryl dver'. Dmitrij-nom open-past sg masc door-acc 'Dmitrij opened the door.'
- (b) *Dver' otkrylas'*. door-fem sg nom open-past sg fem-α 'The door opened.'

other verbs: načat'sja ('to start'), ostanovit'sja ('to stop')

What happens in all these cases is that the argument structure of the verb undergoes a change when α co-occurs with the verb. This, of course, is a lexical rather than a syntactic property.

2.3. α and Case

One of the effects Russian α has is that it prevents the assignment of structural accusative.⁷ Cf.:

Vinogradov's (1947) statement about "ustranenie perexodnosti" (detransitivization) reflects the fact that structural accusative is excluded. Only one of the verb's arguments can be realized in syntax. The internal argument either is blocked or receives the nominative of the blocked external argument. Therefore "ustranenie perexodnosti" covers different phenomena.

- (29) (a) Anton zastrelil Ninu. Anton-nom shoot-past sg masc Nina-acc 'Anton shot Nina.'
 - (b) Anton zastrelilsja. Anton-nom shoot-past sg masc- α 'Anton shot himself.'
 - (c) * Anton zastrelilsja Ninu. Anton-nom shoot-past sg masc-α Nina-acc

There are few exceptions. Fowler (1993), citing Miloslavskij (1981, 76-77) – mentions four SJA-verbs that allegedly take an accusative object.

(30) SJA-verbs taking an accusative object (cf. Fowler (1993)) bojat'sja ('be afraid of'), osteregat'sja ('beware of'), opasat'sja ('beware of'), slušat'sja ('obey')

The four verbs take a genitive complement in Standard Russian, though. Those speakers who allow an accusative complement with the SJA-verb can be assumed to reanalyze the complex 'verb + α ' (the verb and the enclitic) as a V⁰-category, thus enriching the lexicon by a new verb. This I will call relexicalization.⁸ There may be more relexicalized verbs than the four mentioned above. However, the vast majority of the 7,500 SJA-verbs exlude an accusative object. So the exceptions are irrelevant for the syntactic treatment of SJA proposed below.

However, α is not to be mixed up with another type of "reflexive" that does not block the assignment of accusative case by the verb. We find it, e.g., in Polish. The construction is impersonal. α is associated with Agrs. It absorbs the external argument of the verb.

- (31) Polish "reflexive" constructions (cf. Růžička (1986), Müller (1988))
 - (a) Książka się drukuje. book-nom α print-pres 3p sg 'The book is being printed.'

się : Agr_O

(b) Książkę się drukuje. book-acc się print-pres 3p sg 'They are printing the book.' się: Agrs

- (32) (a) Książka się drukowała.
 - book-nom sg fem α print-past sg fem 'The book was being printed.'
 - (b) Książkę się drukowało.
 book-acc sg fem się print-past impersonal 'They were printing the book.'

We find similar phenomena with the personal and impersonal participial passive. In Ukrainian e.g. a verb with passive morphology may or may not show personal agreement. In the former case, the verb is a true passive form not allowing the assignment of accusative case. In the latter case, the verb is interpreted as an impersonal form that does not block accusative assignment.

- (33) Ukrainian "passive" constructions (cf. Sobin (1985), Růžička (1986), Billings (1993))
 - (a) Церква була збудована в 1640 році. (Červka bula zbudovana v 1640 roci.) church-nom sg fem aux-past sg fem build-pass sg fem 'The church was built in 1640.'
 - (b) Церкву було збудовано в 1640 році. (Cerkvu bulo zbudovano v 1640 roci.) church-acc sg fem aux-past impersonal build-pass impersonal 'They built the church in 1640.'

For Russian the claim can be upheld that α and structural accusative are in complementary distribution.

Note that this is just the same as putting idioms in the lexicon – they also consist of syntactic atoms.

3. Syntax: What you see is what you've got

3.1. More considerations supporting the syntactic treatment of α in Russian

Diachrony provides an argument in favour of a syntactic treatment of Russian α . α derives from the clitic form of the accusative singular reflexive pronoun. Compare the following paradigm:

(34) The Old Church Slavonic reflexive (cf. Trunte (31992, 35)):

| nom sg | gen sg | dat sg | acc sg | instr sg | loc sg |
|--------|----------------|--------------------------|--------------------------|-------------------|-----------------|
| _ | cese (sebe) | севѣ си (sebě si) | cebe cm (sebe sę) | собож (sobojǫ) | cests (sebě) |
| | | l . | | | |

α (SJA)

For the historical origin of Russian α see also Klenin (1975).

Isačenko (1983, 407) points out that Old Church Slavonic α usually is an enclitic.

(35) о себѣ во землѣ плодитъ см (o sebě bo zemlě ploditъ sę) (Mar., Mk 4:28); (Isačenko (1983, 407))

'because the earth by itself brings forth fruit'

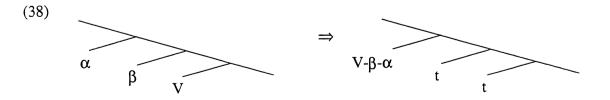
However, up until the 17th century East Slavic, and later Old Russian, α can also precede the verb and – in postposition – be separated from the verb by another enclitic element.

- (36) а кто ся [v осталъ] в городъ (a kto sja [v ostalъ] v gorodě) (Hyp 1185); (Isačenko (1983, 407)) 'who stayed in the town'
- (37) древле же повели [v отрешти] ми са иже сжтъ въ домоу моемь (drevle že poveli [v otrešti] mi sę iže sǫtъ vъ domu moemь) (L 9:61); (Isačenko (1983, 407)) 'but first let me take my leave from the ones who are in my house'

In the 17th century – Isačenko writes – α loses its independence. It can no longer precede the verb and it cannot be separated from the verb by another clitic. It seems that only for the older stages of Russian is it appropriate to analyze α as a clitic. But is that really true?

The first observation – that α can no longer precede the verb – can be paraphrased by saying that at that time α has become a true enclitic. What about the other observation?

 α would be separated from its verbal host only if there was some enclitic element β generated lower in the tree than α . This is illustrated in (38):



Modern Russian does not have any clitics of the β -type. So there is no way to prove that α can be separated from the verb. If syntax requires α and the verb to go together, the output yielded looks the same as the wordform 'V+ α ' assumed by traditional grammar. Therefore, it is

legitimate to suggest the alternative analysis of Modern Russian α as a clitic. This would yield the most natural explanation for the position of α in the word form. The verb enters syntax from the lexicon as a full-fledged word form. An element that is added to this form comes after any possible ending. This is what we find with Russian α . As verbal enclitic α follows the verb's inflectional ending. There is no violation of the *Mirror Principle* because α is not morphology proper.

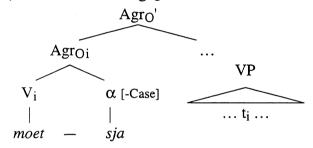
(39) Properties of Modern Russian SJA:

- (a) SJA is a clitic. Therefore, it needs a host.
- (b) SJA is a verbal clitic. Therefore, only the verb can host it.
- (c) SJA is an enclitic. Therefore, the verb must left-adjoin to it.
- (d) SJA is the only clitic of its kind. Therefore, it cannot be separated from the verb.

3.2. Analyzing α as verbal clitic

Diachrony tells us that α is the clitic accusative reflexive. Synchronic facts make it clear that the occurrence of α excludes the assignment of the structural accusative. Therefore, I suggest to base-generate Modern Russian α under Agr_O. In other words, Modern Russian α correlates with an Agr_O-node whose Case feature is negatively specified. The verb raises to Agr_O to act as host for α . This is to say: What we see in the surface is what we've got in syntax. This is illustrated in (40).

(40) Russian SJA as Agro-clitic:



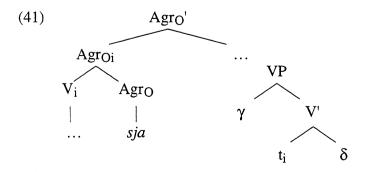
This is in line with similar suggestions for Bulgarian, Serbian/Croatian, etc. Russian has a clitic accusative reflexive and, thus, looks just the same as the other Slavic languages.

If α is analyzed as enclitic, then we have an instance of obligatory overt verb movement in Russian. The Russian verb moves if (i) a clitic needs a host (sja, li) or if (ii) the information structure of the clause requires it to leave its base position. Cf. Junghanns/Zybatow (1995).

3.3. Evidence for overt verb raising

The first piece of evidence has already been mentioned: Overt verb raising most naturally explains the placement of α after any inflectional affix. Cf. (4c).

More evidence comes from word-order facts. Consider (41):



In the case of reflexivization, reciprocalization, or detransitivization the only argument of the verb is generated in the position of γ in (41). If the verb raises to Agr_O, then one should find contexts where the verb naturally precedes the element generated in γ (that is, the surface subject). This is indeed borne out by the facts. Cf. (42)–(44):

- (42) Včera zastrelilsja [VP kakoj-to oficer t]. yesterday shoot-past sg masc-α indef pronoun-nom officer-nom 'Yesterday, an officer shot himself.'
- (43) Na ulicax obnimalis' [VP neznakomye drug drugu ljudi t]. on streets embrace-past pl-α unknown to each other people 'In the streets strangers embraced.'
- (44) Po rasporjaženiju direktora podpisalsja [VP zamestitel' t]. in-accordance-with order-dat director-gen sign-past sg masc-α deputy-nom 'In accordance with the director's order the deputy signed.'

These cases are clear evidence for overt verb raising.

With passivization and unaccusative interpretation the only argument of the verb is generated in the position of δ in (41). The verb raises to Agr_O to host the clitic. As δ is a postverbal position, the fact that in the surface the verb precedes the element base-generated in δ is not an argument for verb movement to have occurred. Cf. (45), (46).

- (45) Tam stroitsja [VP t gidroèlektrostancija]. there build-pres 3p sg-α hydroelectric power station-nom 'A hydroelectric powerstation is being built there.'
- (46) $Vnezapno\ otkrylas'$ [VP t dver'] suddenly open-past sg fem- α door-fem sg nom 'Suddenly the door opened.'

4. Some remarks on the Semantic Form (SF) of expressions containing SJA-verbs

The following remarks are but a sketch of the processes to be considered. What we find with α is that it usually absorbs one argument of the verb:⁹

- reflexivization: absorption of the internal argument
- reciprocalization: absorption of the internal argument
- passivization: absorption of the external argument
- detransitivization: absorption of the internal argument
- unaccusative interpretation: absorption of the external argument

If we stick to the principle "one form, one meaning", then the semantics of α is rather poor. It takes a predicate expression and provides an instance for one of the predicate's arguments. Therefore, this argument gets absorbed.

(47) The Semantic Form (SF) of α : $\lambda P [P z]$

Note that P in (47) ranges over predicates of varying adicity. One-place, two-place, three-place etc. predicates qualify as instances for P.

It might be the case that α does not always absorb an argument of the verb. If this is true, then z in (47) must be put in parentheses, indicating the optional absence of z in the SF of α . The foregoing consideration may be relevant for the treatment of verbs like *belet*' ('to become / be perceived as white') which form a complex with α without any obvious change in their argument structure. This was pointed out to me by Maaike Schoorlemmer. Cf. Vinogradov's (1947/21972) group 12 of verbs conveying the meaning of passive expression of an external property ("značenie passivnogo obnaruženija vnešnego priznaka", p. 499). The issue needs further investigation.

As becomes clear from (47), α has the SF of an affix. This is what makes α oscillate between a syntactic element and morphology. Although it is inserted into syntax separately from the verb, it still must be applied to the SF of the verb in the lexicon. What does this application look like? The necessary semantic operation is Functional Composition. Cf. Zimmermann (1988).

(48)
$$P(Q) = \lambda x_n ... \lambda x_1 [P(Q(x_n)...(x_1))]$$
 (Zimmermann (1988, 163))

When the SF of α is amalgamated with the SF of the verb, one of the verb's arguments gets blocked. With passivization and unaccusative interpretation it is the external argument that is absorbed:

(49)
$$\lambda P [P z] (\lambda y \lambda x \lambda e [e INST [x ... y]])$$

$$\equiv \lambda y [\lambda P [P z] (\lambda y \lambda x \lambda e [e INST [x ... y]] (y))]$$

$$\equiv \lambda y [\lambda P [P z] (\lambda x \lambda e [e INST [x ... y]])]$$

$$\equiv \lambda y [\lambda x \lambda e [e INST [x ... y]] z]$$

$$\equiv \lambda y \lambda e [e INST [z ... y]]$$

Therefore, the verb can project a VP that contains an internal argument only.

(50) Blocking of the external argument:

| Passivization | Unaccusative interpretation | | |
|---------------------------------|---------------------------------|--|--|
| VP | VP | | |
| e V' | e V' | | |
| V dom | V dver' | | |
| stroit | otkryla | | |
| Tam stroitsja dom. | Vnezapno otkrylas' dver'. | | |
| 'A house is being built there.' | 'Suddenly the door opened.' | | |
| λε [e INST [z BUILD [A HOUSE]]] | λε [e INST [z OPEN [THE DOOR]]] | | |

With reflexivization, reciprocalization, and detransitivization it is the internal argument that is absorbed:

(51)
$$\lambda P [P z] (\lambda y \lambda x \lambda e [e INST [x ... y]])$$

$$\equiv [\lambda y \lambda x \lambda e [e INST [x ... y]] z]$$

$$\equiv \lambda x \lambda e [e INST [x ... z]]$$

Therefore, the verb can project a VP that contains an external argument only.

(52) Blocking of the internal argument:

| Reflexivization | Reciprocalization | Detransitivization |
|--------------------------------|--------------------------------|-------------------------------|
| VP | VP | VP |
| mal'čik V' | oni V' | Anton V' |
| moet e | obnimali e | rugaet e |
| Mal'čik moetsja. | Oni obnimalis'. | Anton rugaetsja. |
| 'The boy is washing himself.' | 'They embraced.' | 'Anton is scolding.' |
| λε [e INST [[THE BOY] WASH z]] | λe [e INST [[THEY] EMBRACE z]] | λe [e INST [[ANTON] SCOLD z]] |

z remains a parameter that has to be interpreted in Conceptual Structure. A set of conceptual rules applies to yield the necessary interpretations.

- passivization: z =an arbitrary agent
- unaccusative interpretation: $z = \text{an arbitrary agent or force}^{10}$
- reflexivization: z =coreferential with the agent
- reciprocalization: z =coreferential with the agent
- detransitivization: z = arbitrary

At this point, it seems mysterious what determines the absorption of the relevant argument. There is no problem on the part of the speaker. S/he intends to talk about a specific situation. An appropriate thematic role must be assigned to the argument that gets projected into syntax. The other role potentially assigned by the verb must be suppressed.

For the hearer, it may become quite difficult to get the interpretation the speaker has in mind. If the only semantic function α has is absorbing one of the verb's arguments (cf. (47)), then one would expect that there are cases where a sentence with a SJA-verb can have different meanings. An oscillation of meaning may occur due to two reasons: (i) There is no one-to-one relationship between the absorption of either the external or internal argument and the semantic subtype under which the predicate can be subsumed. (ii) The hearer may have a choice as to which of the arguments to block and, therefore, s/he interprets the expression this or that way.

ad (i): Unaccusative and passive SJA-verbs have similar SFs. In both cases it is the external argument that gets blocked (cf. (49), (50)). There should occur sentences whose meaning oscillates between the unaccusative interpretation and passive. Exactly this situation is described by Vinogradov (1947/21972, 497) who cites Šaxmatov.

(53) Poezd ostanavlivaetsja (signalom streločnika / opytnoj rukoj mašinista / po trebovaniju passažirov).

train-nom stop-pres 3p sg- α (signal-instr pointsman-gen / experienced-instr hand-instr engin driver-gen / on request passengers-gen)

Sentence (53) receives either the passive interpretation ("stradatel'nyj zalog") or the unaccusative interpretation ("sredne-vozvratnyj zalog"), depending on whether the hearer thinks of an underlying agent or not.

ad (ii): Whereas passivizing results in the absorption of the external argument, reflexivization affects the internal argument, which gets blocked by inserting the "dummy" z for the variable y (cf. (51), (52)). A sentence as (54) is, by default, interpreted as a reflexive expression.

(54) On odevaetsja.

he-nom dress-pres 3p sg- α 'He is dressing.'

If Zimmermann's assumption is correct, the causative part of an unaccusative SJA-verb has to be removed by some semantic operation after the SFs of α and the verb have been amalgamated. In Conceptual Structure the agent or force still can be interpreted, at least in some cases.

According to Zimmermann (1988) the causer is absent in the SF of some verbs. This would explain why unaccusative SJA-verbs cannot co-occur with a non-canonically realized agent phrase (in Russian, a noun phrase with instrumental case). The passive interpretation is excluded here.

⁽i) Mašina ostanovilas' (* milicionerom).
car-nom fem sg stop-past sg fem (* policeman-instr)
'The car stopped (* was stopped by a / the policeman).'

However, the context may exclude the default interpretation. If the subject refers to a person that is not able or willing to perform intentional actions of the relevant type, then the sentence must receive a different interpretation. Cf.:

(55) Rebenok odevaetsja (njan'koj).
 child-nom dress-pres 3p sg-α (nanny-instr)
 'The child is dressing.' / 'The child is being dressed (by the nanny).'11

It should be clear by now that the meaning of *odevaetsja* cannot possibly be fully specified in the lexicon.

The two kinds of oscillation in meaning discussed in this section are an argument for assuming a rather poor lexical semantics for α .

5. On lexical entries

Treating α as a syntactic atom makes it possible to free the lexicon of a large number of superfluous entries. In order to reach this result, one has to show that the meaning of the verbs with and without α are basically the same. There are cases where this seems to be next to impossible. In order to solve this problem, I will make the following tentative assumptions: (i) Lexical entries have annotations. (ii) The verbs that can co-occur with α are of two types. For type A it suffices to annotate the verb with the feature [+SJA] (= combines with sja). Verbs of type B require an alternative SF in addition to the feature [+SJA]. The alternative SF obtains when the verb appears in the context of sja, i.e. when they are both realized in syntax.

- (56) Lexical entry of a verb of type A: myt' (to wash):
 myt'; [-N, +V]; λy λx λε [x DO e' & e' CAUSE e & [e INST [BECOME [CLEAN y]]]]
 Annotations: [+SJA]
- (57) Lexical entry of a verb of type B:12
 PF; [-N, +V]; λ... [...]
 Annotations: [+SJA]; λ... [...] / Xsja (where X is some grammatical ending)

Such a design of lexical entries allows one to reduce the lexicon even if the semantics of the verb that combines with α differs a great deal from the verb without α .

6. Final Remarks

I have suggested a syntactic treatment for the majority of SJA-verbs. The verb and α are inserted into syntax separately. Their semantics are amalgamated in the lexicon. Hence, α is an element with syntactic and semantic properties. A small number of SJA-verbs undergoes relexicalization. They incorporate α in the lexicon.

Many details remain to be filled in. The following problems will be left for future research: (i) SJA-verbs that lack a counterpart without α , (ii) the proper nature of type B verbs (differences in meaning), (iii) syntactic phenomena accompanying the attachment of α as for example the non-canonical realization of a suppressed argument, (iv) a cross-linguistic survey of the possibilities of semantic diversification with the reflexive construction.

¹¹ I am grateful to Vladimir D. Klimonov for providing this example.

A verb of type B is e.g. sobirat' ('to collect'). See Isačenko (41982, 453).

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