Zero subjects in active and passive sentences

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Abstract

The paper discusses syntactic constructions with a zero subject, with focus on data from 3 languages – Russian, Ukrainian and Modern Icelandic. Zero subjects are defined in the paper according to the MTT tradition as symbolic objects with an empty signifier and non-empty signified. Zero subject lexemes have role-and-reference semantics of their own and their meaning is not equivalent to the meaning of any non-zero signs in the same language. Zero subjects share some syntactic properties with overt sentence elements taking the subject position in the same language, notably they act as agreement controllers on the verb and can be case-marked in languages where overt grammatical subjects are case-marked and control verbal agreement. The working hypothesis raised in the present paper is that zero subjects in Russian, Ukrainian and Icelandic are always specified as non-referential Agents \{ + Agent, - referential \} while the specification of zero subjects as ‘+Human’ or ‘- Human’ as well as their agreement morphology (singular, plural form) can vary across languages.

Keywords

Syntax, agreement, control, case, zero lexemes, subjects, semantic roles, argument structure

1 Zero subjects in standard active and passive structures

1.1 Active sentences

1.1.1 Zero generic subjects of verbal sentences

The paper discusses syntactic constructions with a zero subject, with focus on data from 3 languages – Russian, Ukrainian and Modern Icelandic. Zero subjects are defined in the paper according to the MTT tradition (Mel’čuk 1995) as symbolic objects with an empty signifier (i.e. empty string of phonemes - Ǿ) and non-empty signified. Zero subject lexemes have role-and-reference semantics of their own and their meaning is not equivalent to the meaning of any non-zero signs in the same language. At the same time, zero subjects share some syntactic properties with overt (i.e. non-zero) sentence elements taking the subject position in the same language, notably they act as agreement controllers on the verb and can be case-marked in languages where overt grammatical subjects are case-marked and control agreement features of the verb (Zimmerling 2009). The working hypothesis raised in the present paper is that
zero subjects, at least in Russian, Ukrainian and Icelandic, are always specified as non-referent Agents [ [+ Agent, - referential] while the specifications of zero subject as ‘+Human’ or ‘- Human’ as well as its agreement morphology (singular, plural form) vary across languages.

In Russian, Ukrainian and Modern Icelandic, zero subjects have generic semantics and are non-referential Agents i.e. typically have a feature matrix [ - Agent; - Referential]. I am adopting the version of the event structure analysis where the notion of Agent of a transitive process is generalized both for events with an uncontrolled process/activity caused by a non-Human factor, cf. Russ. Ulič-u_Acc.Sg.F zasypal-o_Prt.3.Sg.N peskom_Instr.Sg. ‘The street got covered with sand’ <due to the impact of a natural force> and for events denoting activities which may be caused and controlled by human beings, cf. Russ. Ulič-u_Acc.Sg.F nazlo žitelyam1 naročno2 zasypal-i_Prt.3.Sg.N peskom_Instr.Sg ‘The street has been intentionally2 covered by sand <by some people acting with a malicious intent> to spite of the street’s residents’. The data of Russian, Ukrainian and Icelandic zero subject constructions seem to support the broad definition of Agent as a semantic role, since zero Agents specified as [+ Human; - referential] and {-Human; - referential} have similar syntactic properties. In Russian and in Ukrainian active sentences with non-referential Agents specified as [+Human] are marked by the use of the 3rd person plural, cf. Ulič-u_Acc.Sg.F zasypal-i_Prt.3.Sg.N peskom_Instr.Sg. In Russian linguistics this sentence pattern is called ‘indefinite-personal constructions’ (Russ. ‘neopredelenno-ličnye predloženiya’). In a framework where zero subjects are not recognized, this is either a descriptive tag or backing of a hypothesis that Russian sentences in the 3rd person plural signaling a generic meaning do not project a position of an overt subject marked by the nominative case. In the MTT tradition, Russian ‘neopredelenno-ličnye predloženiya’ are analyzed as zero subject constructions i.e. as structures projecting a subject position filled by a zero sentence element. Mel’čuk (1995) in his seminal work on zero lexemes identifies the generic subject of Russian sentences with the verbal form 3rd personal as a zero lexeme O_People with the role-and-reference features [ + Human, - referential]. Zimmerling (2007) interprets the element O_People in Russian as a 3rd person zero pronoun in the nominative case, plural with a role-and-reference characteristics of an generic Agent: the complete array of features for this element is { + Agent, + Human, - referential, 3rd person, + plural, + nominative case}.

1.1.2 Transitive impersonals

Russian sentences with a verbal form in the 3rd person singular denoting uncontrolled processes and lacking overt nominative subjects are traditionally called impersonals and analyzed as structures that do not project any subject position. This kind of analysis is standard for the Russian linguistic tradition and adopted in some versions of generative syntax, cf. Babby (2002) who straightforwardly treats all Russian and Ukrainian impersonals as subjectless. A special focus of interest has been made on transitive impersonals like Russ. Ulič-u_Acc.Sg.F zasypal-o_Prt.3.Sg.N peskom_Instr.Sg. since such constructions falsify a postulate of Chomsky’s grammar, known as Burzio’s generalization and wrongly predicting that only verbs with a nominative subject assign accusative case to their objects, cf. Reuland (2000). Although the validity of Burzio’s generalization has been challenged and there are obvious empiric counterexamples to it, cf. the discussion in Woolford (2003), a number of attempts have been made in the recent years in order to justify the existence of transitive impersonals and save the initial assumptions of Chomsky’s syntax. Sigurðsson (2011) proposed an ‘accusative-of-fate-theory’: if an Icelandic sentence is about uncontrolled events, the predicate becomes defective (in phrase-structural terms, gets a defective vP) and does not
project a subject element (called ‘internal argument’ in Chomsky’s Minimalist Program) but still can assign structural accusative case to its object. Likewise, Svenonius (2002) and Richardson (2007) stipulate that Icelandic and Russian transitive verbs only license transitive impersonal constructions in certain contexts presumably linked with telic readings and projecting a special layer of vP, called Aspect Phrase. The main drawback of such theories is that they treat transitive impersonals as a deviation from the principles of Universal Grammar and claim that transitive impersonals are only possible in certain deviating contexts. In addition, the authors of such theories are prone to stipulating such ad hoc constructions as ‘accusative-of-fate’, ‘accusative of nausea’, ‘accusative of diarrhea’ etc which is not an economic solution.\footnote{For the criticism of Svenonius’s and Richardson’s ‘Aspectual theory’ from the positions of Minimalist syntax, see Lavine (2012).} MTT offers a simple and elegant solution. Mel’čuk (1995) identifies the generic subject of Russian transitive impersonals with the verbal form 3rd singular as a zero lexeme \( \emptyset \) Elements with the role-and-reference features \{ - Human, - referential\}. Zimmerling (2007) interprets the element \( \emptyset \) Elements in Russian as a 3rd person zero pronoun in the nominative case, singular with a role-and-reference characteristics of a generic Agent: the complete array of features for this element is \{ + Agent, - Human, - referential, 3rd person, - plural, + nominative case\}. A similar analysis in phrase-structural terms has been proposed by Lavine & Freidin (2002) who however do not acknowledge syntactic zeroes as grammatical subjects.

1.1.3 An MTT approach to zero subjects in a typological perspective

Mel’čuk’s (1995) analysis of zero subjects in Russian can with slight modifications be used for Ukrainian, Icelandic and other European languages with similar morphosyntactic conditions and nominative case marking on the grammatical subject. In these languages, most verbs licensing transitive impersonals also license structures with an overt nominative subject, cf. Russ. zasypat’ ‘to cover’, ‘to charge’, pronesti ‘to carry’ or ‘to have diarrhea’, Icel. reka ‘to drive’. Zimmerling (2007) argues that Old Slavic and Germanic languages had generic zero subjects with other roles than Agent but Modern Icelandic and Ukrainian zero generic subjects are always Agents. All three languages have transitive impersonals with verbs assigning accusative case. Icelandic also licenses zero subjects with verbs assigning structural dative case to their object, cf. (1). Impersonal verbal structures like (1) are active and denote uncontrolled processes while impersonal structures with non-agreeing participle II and a copula in 3rd person singular are passives and denote results/activities controlled by a human Agent, cf. the contrast of (1) and (2).

1. Icel. Bátu-num\( \text{Dat.Pl.Det} \emptyset \) hvolf-di\( \text{Prt.3Sg} \) *viljandi\( \text{PartI} \)
   ‘The boats capsized *on purpose’.

2. Icel. Bátu-num\( \text{Dat.Pl.Det} \emptyset \) var\( \text{Prt3Sg} \) hvolf-tp\( \text{PartII.Sg.N} \) *viljandi\( \text{PartI} \)
   ‘The boats have been turned down on purpose’.

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\( \emptyset \) Elements with the role-
and-reference features \{- Human, - referential\}.

\footnote{For the criticism of Svenonius’s and Richardson’s ‘Aspectual theory’ from the positions of Minimalist syntax, see Lavine (2012).}
It is apriori unclear whether (1) and (2) have one and the same kind of zero subject or two different ones. In this paper we opt for the first analysis and postulate only one type of generic subjects invariably associated with the 3rd person singular and having the features {+ Agent, - referential}. The specification ‘± Human’ depends on the voice – in active sentences only [- Human] subjects are possible, in passive sentences – only {+ Human}. Note that Icelandic lacks ‘neopredelenno-ličnye predloženiya’ of the Russian type. Modern Icelandic does not have zero subjects associated with the 3rd person plural, while generic human subject is normally expressed by an overt indefinite pronoun maðr ‘one’\(^2\) in the Nominative case, singular. I conclude that the 3rd person form in Icelandic is linked both with generic non-human Agents, cf. (1) above, and with generic human Agents, cf. (2).

Standard Icelandic does not favour impersonal passives from transitive and ditransitive verbs (i.e. verbs like give taking both an accusative and a non-accusative object), though colloquial Icelandic reportedly has these constructions, cf. (Sigurðsson 2011). On the contrary, transitive impersonal passives from accusative verbs are grammatical in standard Ukrainian, cf. (3) which is a structure with a zero copular ‘Be’ in the presence indicative\(^3\).

3. Ukr. Oficeriv\(^{\text{Acc.Pl}}\) Ø\(^{\text{3Sg}}\) zalyaka-n-opart.3Sg.N Ø\(^{\text{3Sg}}\) zaturka-n-opart.3Sg.N, Ø\(^{\text{3Sg}}\)

zaklbova-n-opart.3Sg.N, usiNom.PI robl’at’\(^{\text{Prs.3Pl}}\) use i vodnočas ne robl’at’\(^{\text{Prs.3Pl}}\) ničogo.

‘The officers are bullied, scared and cowed, all of them do everything and at the same time do nothing’.

The main puzzle with Ukrainian data is that Ukrainian also has active ‘neopredelenno-ličnye’ constructions of the Russian type, with the verb in 3rd person plural, cf. (4).

4. Ukr. Oficeriv\(^{\text{Acc.Pl}}\) Ø\(^{\text{3Pl}}\) zalyaka-l-iprt.3Pl Ø\(^{\text{3Pl}}\) zaturka-l-iprt.3Pl, Ø\(^{\text{3Sg}}\) zaklbova-l-ipart.3Sg.N.

‘The officers are bullied, scared and cowed’.

The active (3) and passive (4) construction with a generic zero Agent seem to be synonymic in Ukrainian and to signal the same value {+ Agent, + Human, - referential}. Therefore, in spite of the fact that Ukrainian, unlike Icelandic, has generic zero Agents associated both with 3rd person singular and 3rd person plural, the singular/plural distinction is of less importance for this language than for Russian. Russian which lacks impersonal transitive passives from accusatives verbs has an unambiguous mapping of role semantics {± Human Agent} and agreement features of zero subject (3rd person singular/plural).

\(^2\) This pronoun is a grammaticalized form of the noun ‘man’ in the nominative case, singular, indefinite form. Remarkably, Old Icelandic had a half-grammaticalized form of the same noun – menn in the nominative case, plural, indefinite form. The O.Icel. menn is an overt counterpart of the Modern Russian Ø\(^{\text{3Pl}}\).

\(^3\) For the reasons of space I do not gloss the zero copula ‘be’ in Russian and Ukrainian examples.
2 Zero subjects in non-standard structures

According to the hypothesis of Zimmerling (2012), Russian has oblique subjects marked with dative case at least in two types of constructions – with an infinitive (emu eto ne osilit’ ‘he cannot manage that’) and nominal non-agreeing predicative (emu bylo xolodno ‘he was cold’). The verification or falsification of this theory is beyond the scope of this paper. Anyway, it is obvious that even if the oblique subject hypothesis is wrong these two dative constructions cannot be explained in terms of Mel’čuk’s zero subjects 0_{People} and 0_{Elements} since these predicates lack an Agent argument and the core argument of dative-predicative structures like emu bylo xolodno is Experiencer, not Patient4. Therefore it is important to check whether 0_{People} and 0_{Elements} (in our notation - 0^{3Pl} and 0^{3Sg}) combine with the tentative dative subjects. We did not find any instances of a combination 0^{3Pl} + subject-like dative element but the combination 0^{3Sg} + subject-like dative element was found in two relatively rare and obscure Russian constructions.

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4 One can certainly postulate for Russ. emu bylo xolodno and similar sentences in Ukrainian and Icelandic a zero subject with the role of Stimulus (0_{Stimulus}) but this solution does not have any advantages over for the Oblique subject hypothesis or Babby’s (2002) analysis of such sentences as subjectless.
2.1 Ditransitive active impersonals in Russian

Ditransitive impersonals of the first type are active constructions with $\varnothing^{3Sg}$, an overt Patient argument in the Accusative case, specified as $\{\text{- Human}\}$ and an overt Experiencer/External Possessor argument in the Dative case, specified as $\{\text{+ Human}\}$, cf. (5) and (6). Traditional grammar explains such sentences as subjectless since the verbal form does not have any overt controller and stands in 3rd person plural, neutrum$^5$: an alternative is to analyze the dative element specified as $\{\text{+ Human}\}$ as subject. However, the main predicate is a verb, not a nominal predicative, and the accusative argument can be easily interpreted as Patient. Therefore, we have reasons to postulate a zero Agent subject $\varnothing^{3Sg}$ ($\varnothing$Elements in Mel’čuk’s original notation).

5. Russ. $\text{Emu}_{3Sg,\text{Dat,M}}^{\{\text{+ Human}\}} \text{nogu}_{\text{Acc,Sg,F}}^{\{\text{- Human}\}} \varnothing^{3Sg} \text{sve-l-op}_{\text{Prt,3Sg,N-Refl}}$.

‘He got a cramp in his leg’.

6. Russ. $\text{Emu}_{3Sg,\text{Dat,M}}^{\{\text{+ Human}\}} \text{pam’at’}_{\text{Acc,Sg,F}}^{\{\text{- Human}\}} \varnothing^{3Sg} \text{otšib-l-op}_{\text{Prt,3Sg,N-Refl}}$.

‘He had a lapse of memory.’

The semantic role of the dative argument in (5) and (6) is ambiguous between the values ‘Recipient’ and ‘Possessor’. Anyway, from a formal viewpoint, this element is an indirect object of an impersonal verb so the oblique subject hypothesis does not make sense here.

2.2 Ditransitive middle impersonals in Russian

Ditransitive impersonals of the second type are middle constructions where the verb has a reflexive marker – s’ya/ -s’. Russian verbs on – s’ya/ -s’ derived from ditransitives (cf. pokazat’ ‘to show something to someone’) and taking dative elements specified as $\{\text{+ Human}\}$ are of course common but only few verbs on – s’ya/ -s’ reconstruct the initial event structure described by the non-reflexive ditransitive. For instance, Russ. nasYpat’ ‘to fill something with something’, ‘to pile up’ underlies the reflexive verb ‘nasYpat’sa’ ‘to be scattered over’ that occasionally retains the dative valency, cf. (7), while Russ. pokazat’ ‘to show something to someone’ does not bring about the same effect: in the pair pokazat’ ‘show’ $\rightarrow$ pokazat’ $\text{sa1}$ ‘seem$^6$, ‘think’ the reflexive verb does not describe any situation ‘X thought that Z’ derived from the situation ‘X showed Z to Y’, cf. (8a-b). In other words, the role of Experiencer is not inherited by any Russian reflexive verb taking a dative argument even if the correlative nonreflexive verb takes a dative argument too. On the contrary, the role of Recipient marginally can be inherited from a correlative non-reflexive verb, see (7).

7. Russ. $\text{Mne}_{1Sg,\text{Dat}}^{\{\text{+ Human}\}} \text{daže} v \text{karman}_{\text{Prep,Acc}}^{\varnothing^{3Sg}} \text{nasypa-lo-s’}_{\text{Prt,3Sg,N-Refl}}$.

$^5$ In the past tense.

$^6$ Russian also has a homonymous verb pokazat’$\text{sa2}$ ‘appear’ which is derived from kazat’$\text{sa}$ ‘seem’, ‘think’ by prefixation.
‘I got it <the snow> even in my pocket. <due to some uncontrolled process>.’

8. Russ. a. Kat’yaNom.Sg.F pokaza-l-aPrt.3.Sg.F VaneDat.Sg kniguAcc.Sg;
   ‘Kate showed a book to John.’

b. VaneDat.Sg.M. pokaza-lo-s’Prt.3.Sg.F ěto KatyaNom.Sg.F nedovol’naAdj.Pred.Sg.F.
   ‘John thought that Kate is displeased.’

Verbs like navalit’sa in the meaning ‘to be loaded’, ‘to be piled up’, also nabīt’sa ‘to be filled up’, nali’t’sa in the meaning ‘to be filled with liquor’ behave in the same way as nasypat’sa ‘to be filled’ ‘to be scattered over’. All these verbs in the specified meanings describe uncontrolled processes, cf. (9).

9. Russ. a. Mne1Sg.Dat {+ Human} ☐ nali-lo-s’Prt.3Sg.REFI V rukavPrep.Acc.
   ‘I got the liquor poured in my sleeve <not because of any intentional activity of any X>.’

b. KatyaNom.Sg.F nali-l-apart.3Sg.F mne1Sg.F. zidkost’Acc.Sg.F V rukavPrep.Acc.
   ‘Kate poured a liquor in my sleeve.’

I conclude that Russian sentences like (7) and (9a) show a zero generic subject in 3rd person singular, neutrum with the value { - Human Agent} while (8b) does not have a zero subject.

The role of Recipient marked by the dative case is inherited from the underlying non-reflexive verbs, almost in the same way as in the Icelandic pair of examples (1) vs (2) the dative marking on the object is retained in passive. An interesting characteristics of Russian examples (7) and (9) is that their form (reflexive/middle marking on the verb) does not correspond to their semantics which is close to passive. We have an event structure with three arguments – Agent (X), Recipient (Y) and Patient (Z). On the one hand, in the reconstructed sentence with the corresponding non-reflexive active verb nalit ‘to pour’ X nali Y-u Z v rukav ‘X poured some liquor Z in Y’s sleeve’ the overt Agent (X) can only be intentional so (9) does not look as a canonic passive. On the other hand, in the derived structure (9a) the zero Agent (☐) stands not only for the Agent but also for the Patient in (9b). Therefore, despite (9b) is not a direct source of (9a), (9a) is a kind of semi-passive or mediopassive construction where the zero argument ☐ stands for two arguments in the active structure and the verb is morphologically marked as middle.

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7 In the context where the author heard a native speaker utter (7) she referred to the effect of a sudden blizzard.

8 It is plausible that (8b) has a sentential subject, with the complement clause filling in the subject position.
Active structure with a non-reflexive verb & Derived structure with a reflexive verb \\
X (Agent) – Nominative case & X (___) - 3Sg
Nominative case
Y (Recipient) – Dative case & Y (Recipient) – Dative case
Z (Patient) – Accusative case & X (___) - 3Sg
Nominative case

Table 3: Ditransitive middle impersonals in Russian

3 Summary

All three languages have zero subject constructions with zero lexemes specified for role-and-reference features and acting as agreement controllers in structures traditionally analyzed as subjectless, notably – in verbal transitive impersonals licensed by verbs of different classes – accusative, dative and ditransitive verbs and in passive and middle constructions. An MTT-based approach to the problem of zero subjects helped to reveal non-trivial cross-linguistic similarities between different types of non-standard passive and middle constructions with participles and reflexive verbs. An oblique subject analysis does not make much sense in constructions projecting an Agent argument.

Acknowledgements

The paper is written with financial support of the Russian Foundation for the Humanities, project RFH 11-04-00282.

Bibliography


Title of the article


