

Chapter 5

Unaccusativity in Polish

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ABSTRACT. The paper shows that in Polish, which has not yet been studied from the perspective of unaccusativity, the group of intransitive verbs is non-homogenous. One type reveals intransitive verbs the sole arguments of which are object-like, and another verbs whose sole arguments are 'real' subjects. Thus, we demonstrate that the Unaccusative Hypothesis, dating back to Perlmutter (1978), holds in Polish as well. This objective is achieved by discovering relevant syntactic diagnostics.

Introduction

Perlmutter (1978) proposed that the class of intransitive verbs is non-homogenous, and it is composed of two subclasses - unaccusative and unergative verbs. His theory, which came to be known as the Unaccusative Hypothesis, claims that sole arguments of unaccusative verbs reveal patient-like properties, whereas those of unergative verbs are agents. This property arises from the fact that the two have different underlying syntactic configurations, as schematized in (1).

1. (a) Unergative verbs: NP[VPV]
(b) Unaccusative verbs: —[VPV NP]

The aim of this paper is to show that the phenomenon of unaccusativity is also present in Polish. By analysing various constructions we will demonstrate that the behaviour of Polish intransitive verbs is not uniform, and calls for the recognition of two types of these verbs: unaccusative and unergative. The type of unaccusative verbs can be further subdivided into those

that are derived from their transitive counterparts, and those that are inherently unaccusative, not related to transitive verbs. It will be shown that all unaccusative verbs can be characterized as being compatible only with constructions sensitive to internal arguments. Unergative verbs, on the other hand, will be shown to have a sole external argument, and to be licensed only by constructions requiring such an argument.

The fact that many unaccusatives arise from their transitive counterparts in the process of the causative alternation will prove that they have a sole internal argument, the external cause argument being reduced. The resultative construction (sec. 2), being sensitive to internal arguments, will be shown to allow unaccusatives, at the same time excluding unergatives. The middle construction (sec. 3) will prove itself not to be a viable test for unaccusativity in Polish, since it excludes intransitive verbs altogether. However, its impersonal counterpart (i.e. impersonal reflexive construction), normally allowing all intransitive verbs, will be shown to exclude unaccusatives when used with a purpose clause. Datives (sec. 4) will be used as another test distinguishing between the two types of Polish intransitive verbs. Possessive datives, being sensitive to internal arguments, appear only with unaccusatives. Reflexive datives, on the other hand, allow only unergatives, since they are sensitive to external arguments. Finally, Polish unergatives will be shown to possess a potential ability to assign structural Case which is realized by their appearance with cognate objects. Unaccusatives do not have this property, which is a direct outcome of their underlying syntactic configuration.

1 The Causative Alternation

It is a widely known fact that many unaccusative verbs are derived from their transitive counterparts in the process of the causative alternation. The same seems to happen in Polish (2a)-(3a). Many Polish unaccusative verbs are derived from their transitive variants by the process of "detransitivization", in which one of the arguments of the CAUSE predicate (the causing subevent) is reduced via lexical binding (I will mark diacritics with preceding double-quotes ").

2. (a) *Tomek zamkn" a" l okno.
'Tom closed the window.'
- (b) Okno zamkn" e" lo si" e.
the window closed REFL
3. (a) *Kot zbi" l szklank" e.
'The cat broke the glass.'

- (b) Szklanka zbi"la si"e.
the glass broke REFL

Unergative verbs, on the other hand, do not have transitive alternates (4b)-(5b), which is due to the fact that they are inherently monadic predicates. Levin and Rappaport (1996) characterize these verbs as "internally caused eventualities," in which some property inherent to the argument of the verb is responsible for bringing the eventuality about, and thus there is no need for an external cause.

4. (a) Tomek mowi"l wczoraj o wakacjach.
'Tom spoke about holidays yesterday.'
- (b) *Anna mowi"la Tomka wczoraj o wakacjach.
'Ann spoke Tom about holidays yesterday.'
5. (a) Wilk zawy"l.
'The wolf howled.'
- (b) *My"sliwy zawy"l wilka.
'The hunter howled the wolf.'

Alternating unaccusative verbs (i.e. those that take part in the causative alternation) can be characterized as inherently externally caused verbs of change of state. It appears that all Polish externally caused verbs have a transitive causative use, but not all of them have an intransitive use in which the external cause is not overtly realized, as illustrated in (6)-(7). It seems that if a verb requires a volitional and agentive external cause, this argument cannot be reduced.

6. (a) Maria/*N"o"z/*B"lyskawica pokroi"la chleb.
'Mary/The knife/The lightning cut the bread.'
- (b) *Chleb pokroi"l si"e.
bread cut REFL
7. (a) Piotrek/*P"edzel/*Wiatr pomalowa"l "lawke.
'Peter/The brush/The wind painted the bench.'
- (b) *"Lawka pomalowa"la si"e.
bench painted REFL

It has been suggested in a number of studies (eg. Smith 1970, Reinhart 1996, Levin and Rappaport 1996) that causative alternation has a constraint of its own; namely, only certain types of external causes may be reduced. Reinhart (1996) introduced a Constraint on lexical role-reduction which states that

a thematic role specified as ”+mental state” cannot be reduced. On her account, ”+mental state” implies volition, intention and entails animacy, which are the main characteristics of ”AGENT” roles (for further discussion see Reinhart 1996).

As we can notice, in all of the Polish examples the process of detransitivization is morphologically marked by the reflexive morphology (the non-referential clitic ’si”e’). Cinque (1988), and Reinhart (1996) propose that reflexive morphology signifies that one of the arguments is missing; in the case of the causative alternation it being the external cause. Kanski (1986) notices that ’si”e’, in its derivational non-reflexive function (the function it plays with derived unaccusative verbs), co-occurs only with transitive verbs which are strictly subcategorized for direct object NPs. Thus, it is compatible with alternating unaccusative verbs, which have a transitive counterpart, and does not appear with unergative verbs, which are inherently intransitive (for an extensive discussion on ’si”e’ see Kanski 1986). The causative analysis, however, does not cover all unaccusative verbs, since there remain verbs which show unaccusative behaviour (eg. take possessive datives in Polish, see (22)) and cannot be classified as verbs of change of state. As rightly observed by Levin and Rappaport (1996) all these verbs belong to the class of verbs of existence and appearance.

2 The Resultative Construction

Because of its Direct Object Restriction (DOR), the resultative construction was postulated by Simpson (1983) to be a valid unaccusative diagnostic. DOR states that a resultative phrase may be predicated of the direct object, but not of a subject, as illustrated in (8).

8. (a) Tomek po-malowa”l drzwi na zielono. (transitive)
 ’Tom painted the door green.’
- (b) Pod”loga zosta”la po-zamiatana. (passive)
 ’The floor has been swept clean.’
- (c) Rzeka za-marz”la. (unaccusative)
 ’The river froze solid.’
- (d) L”od od-taja”l (*l”od/si”e). (unaccusative)
 ’The ice thawed the ice/itself.’
- (e) Ewa do-dzwoni”la *(si”e) do matki. (unergative)
 Eve do-phoned REFL to mother
 ’Eve got through on the phone to her mother.’
- (f) Ewa wyp”laka”la *(swoje oczy) za Tomkiem. (unergative)
 ’Eve cried her eyes out for Tom.’

Polish transitive, passive, and unaccusative verbs can appear with the resultative construction. Unergative verbs cannot, unless supported by a "fake object" (either a reflexive pronoun 'si"e' (8e) or a non-subcategorized NP (8f)). Unaccusatives, however, do not allow fake objects (8d). This fact can be explained along the lines of Burzio's generalization. If a verb does not mark an external argument (eg. unaccusative verbs) it does not assign accusative Case, and hence cannot take any objects. The postulated reason of why the resultative construction allows unaccusative verbs relies on the fact that their sole argument is a D-structure internal argument, which satisfies DOR. Unergative verbs, on the other hand, have only an external argument, and in order to comply with DOR they have to introduce a fake object.

Polish resultative constructions are realized by means of verb prefixation. As we can notice, all the verbs in (8) are prefixed verbs. In English the situation is different and resultatives may be realized by means of APs like in the sentence 'She painted the door green.' Levin and Rappaport (1996) analyse resultatives as belonging to the accomplishment eventuality type, where the resultative construction is treated as a lexically complex accomplishment in which the activity is lexically specified by the verb and the result state by the resultative XP. We may conclude on this basis that in languages like English the result state is lexically specified as a particle of the verb, whereas in languages like Polish it is realized by a prefix attached to the verb. This is further supported by the fact that prefixes in Polish do not solely denote perfectivity, since most perfective verbs in Polish have imperfective counterparts, as illustrated by the prefix 'wy-' in (9).

9. wy-trze" c (perfective)/wy-ciera" c (imperfective)
'to wipe clean'

2.1 Verbs of Motion

Resultative phrases in Polish can be predicated of a direct object, but not of a subject (DOR). In accordance with this principle, as we have seen above, resultatives are allowed by unaccusative verbs, but not unergative verbs. However verbs of motion in Polish reveal different behaviour. When a verb of motion is used in a directed motion sense (i.e. with a directional PP), it seems to allow an agent-like argument without a mediation of a fake object (10a). When it is used in the manner of motion sense it behaves as all other unergatives, requiring a fake object (10b, 10c).

10. (a) Maria w-bieg"la do sklepu.
'Mary ran into the shop.'

- (b) Wczoraj Piotr na-chodził si"e.
yesterday Peter na-walked REFL
- (c) Piotr z-chodził swoje buty.
Peter z-walked his shoes

The same phenomenon has been noticed by Rosen (1984) in Italian. She shows that Italian verbs of manner of motion on an activity reading behave like unergative verbs in that they choose the auxiliary 'have', an auxiliary associated with unergative reading, whereas verbs of directed motion select the unaccusative auxiliary 'be'. Zaenen (1993) also shows that the same is true for Dutch verbs of motion.

The examples in (10) suggest that Polish verbs of directed motion and of manner of motion should also be treated differently. When prefixed verbs of directed motion behave like unaccusatives not requiring a fake object, their argument being an object. Verbs of manner of motion, on the other hand, behave like unergatives requiring the introduction of a fake object in order to satisfy DOR.

3 Middle Construction

3.1 Pre-syntactic Account of Middle Formation

Middle formation(MF) is a construction in which the logical object argument appears in the syntactic subject position: the logical subject, on the other hand, is an implicit argument and is not present syntactically. On the account of Ackema and Schoorlemmer (1994), MF is a pre-syntactic transformation (no NP movement) of the type schematized in (11).

11. MF: Actor=Arbitrary (ARB)

They postulate that being external is not a property of any individual designated argument, but complete Lexical Conceptual Structures and their corresponding a-structures are marked for projecting an external argument [+ext]. They further claim that the [+ext] property cannot be erased during a derivation, so if in MF the "Actor" argument is assigned ARB and cannot project, the next highest argument in the hierarchy (Actor-Patient-Agent-Theme-Goal) will project as the external argument. In the case when there is no argument left, an Actor being assigned ARB, an element that is not a bona fide argument becomes the subject in MF, as in the case of Dutch impersonal and adjunct middles (for further discussion on MF in Dutch see Ackema and Schoorlemmer 1994). To sum up, MF should be possible with

any verb with an Actor (eg. unergative verbs), whether or not there is a Patient.

3.2 MF vs. Impersonal Reflexive Construction

It appears that Polish MF does not allow any type of intransitive verbs, neither unergatives with cognate objects (12a, 12b) nor unaccusatives (12c). This goes along with the "Affectedness constraint on MF" (Anderson 1977, Jaeggli 1986), which states that the promoted argument in a middle must be "affected" by the action expressed by the verb. All the arguments in (12) are clearly non-affected.

12. (a) *Walc ta"nczy si"e przyjemnie.
walc-Nom dances pleasantly
- (b) *Maratony biegaja si"e ci"e"zko.
marathons-Nom run-Pl. difficult
- (c) *Upadek upada si"e "latwo.
fall falls easily

Although Polish intransitives do not allow "standard MF", where there is subject-verb agreement, and the element appearing in the surface subject position is always in nominative Case; they allow impersonal constructions (13), which seem to be similar to Ackema and Schoorlemmer's (1994) impersonal middles in Dutch. However, as we will see below Polish impersonal reflexive constructions and middles differ in far too many respects to be treated as an outcome of the same process.

13. (a) Walca ta"nczy si"e przyjemnie.
waltz-Acc dances-Imp pleasantly
- (b) Maratony biega si"e cie"zko.
marathons-Acc run-Imp difficult
- (c) W zimie upada si"e "latwo.
in winter falls-Imp easily

Polish "impersonal middles" can be distinguished from "standard middles" by the impersonal form of the verb (3rd person singular neuter ending plus a non-referential reflexive clitic 'sie') and the lack of subject-verb agreement. Polish impersonal reflexive construction (14c), unlike MF (14b), is not sensitive to the Affectedness constraint, thus even non-affected arguments can be promoted by it.

14. (a) Tomek czyta ksi" a" zki dla dzieci.
'Tom reads books for children.'
- (b) *Ksi" a" zki dla dzieci czytaja si" e przyjemnie.
books-Nom for children read pleasantly
- (c) Ksi" a" zki dla dzieci czyta si" e przyjemnie.
books-Acc for children read-Imp pleasantly

Another feature distinguishing Polish impersonal constructions from middles is the licensing of agentive adverbs and purpose clauses. Impersonal reflexive constructions allow agentive adverbs and purpose clauses (15), whereas middles do not (16). This suggests that the external argument in Polish impersonal reflexive constructions is syntactically active, in the way that it has control over the action, as opposed to that of standard middles.

15. (a) "Lawki maluje si" e celowo.
benches paint-Imp on purpose
- (b) "Lawki maluje si" e aby "ladnie wyglada" ly.
benches paint-Imp to look nice
16. (a) *"Lawki maluj" a si" e celowo.
'Benches paint on purpose.'
- (b) *"Lawki maluj" a si" e aby "ladnie wyglada" ly.
'Benches paint to make them look nice.'

Although Polish impersonal reflexive constructions allow both unaccusative and unergative verbs, the situation changes in the presence of a purpose clause. Impersonal constructions derived from unergative verbs are compatible with purpose clauses (17), whereas those derived from unaccusative verbs are not (18).

17. (a) Biega si" e aby utrzyma" c form" e.
'One runs to keep fit.'
- (b) Pracuje si" e aby zarobi" c pieni" adze.
'One works to earn money.'
18. (a) *Umiera si" e aby zaskoczy" c przyjaci" o" l.
'One dies to surprise friends.'
- (b) *Tonie si" e w morzu dla zabawy.
'One drowns in the sea for fun.'

It has already been established that in impersonal constructions, as opposed to middles, the Agent remains active. However, for an Agent argument to be

active it must be present in an a-structure of a verb in the first place. Compatibility of purpose clauses with unergative verbs proves that these verbs have an external argument (Agent). Unaccusative verbs, on the other hand, do not license purpose clauses, since they possess a sole internal argument (Patient), which cannot play agentive control over the action.

4 Possessive and Reflexive Datives

Borer and Grodzinsky (1986) claim that possessive and reflexive datives can distinguish between internal and external arguments. They argue that the former are sensitive to internal, while the latter to external arguments. Although their discussion is based on Hebrew, we will make use of their findings in order to see if the two types of datives can be used as a test of unaccusativity in Polish as well.

4.1 Datives and Arguments

Since possessive and reflexive datives are also found in Polish, it would be interesting to see if their behaviour is consistent with Borer and Grodzinsky's claim about their Hebrew counterparts. In order to do that, let us first look at the transitive 'kupowa'c' (buy).

19. (a) Tomek kupi"l sobie"l ksi" a" zk" e.
'Tom bought himself a book.'
- (b) Tomek kupi"l mi ksi" a" zk" e.
'Tom bought me a book.'

As expected, having an external and an internal argument, it allows both a reflexive dative 'sobie' (19a) and a possessive dative 'mi' (19b). Furthermore, the reflexive dative 'sobie' is clearly coindexed with the external argument, whereas the possessive dative 'mi' modifies the internal argument.

Passive verbs are believed to be verbs which have their external argument missing, thus, if our prediction is correct, they should allow possessive datives but not reflexive datives. (20) shows that it is indeed so.

20. (a) Ksi" a" zka zоста"la mi kupiona
book was to me bought
- (b) *Ksi" a" zka zоста"la sobie kupiona.
book was to itself bought

4.2 Possessive Datives and Unaccusative Verbs

To carry our argument further, possessive datives, being sensitive to internal arguments, should be compatible with unaccusative, but not with unergative verbs. Reflexive datives, on the other hand, should be compatible with unergative, but not with unaccusative verbs. Polish alternating unaccusative verbs in (21), as expected, allow possessive but not reflexive datives.

21. (a) *Stłukł mi/*sobie si* e wazon.
broke to me/to itself vase
(b) *Przypalił mi/*sobie si* e mleko.
burned to me/to itself milk

Let us see if the same applies to other types of unaccusative verbs. In (22) we get 'pojawic si e' (appear) and 'zostac' (remain), which do not belong to the class of alternating unaccusative verbs (i.e. do not have transitive counterparts), and are classified as verbs of existence and appearance. Like the alternating unaccusative verbs above, they appear with possessive datives but not with reflexive datives.

22. (a) *Na ekranie pojawił mi/*sobie si* e obraz.
on screen appeared to me/to itself picture
(b) *Zostały mi/*sobie w portfelu dwa z*łote.
remained to me/to themselves in wallet two zloties

Unergative verbs are compatible with reflexive datives, but not with possessive datives, as illustrated in (23), which consequently proves that they have a single external argument.

23. (a) *Tomek sobie/*mi* biegnie.
Tom to himself/to me is running
(b) *Maria sobie/*mi* pracuje.
Mary to herself/to me is working
(c) *Kasia sobie/*mi* skacze.
Kate to herself/to me is jumping

5 Cognate Objects

It has already been mentioned that unergative verbs can take arguments that seem to be their internal arguments. This, for example, happens whenever

an unergative verb is used in the resultative construction, where it has to take a fake object in order to satisfy DOR. Now we are going to analyse this property of unergative verbs with respect to cognate objects. We will see that the ability of taking cognate objects, or any objects for that matter, distinguishes unergatives from unaccusatives.

5.1 External Arguments and Structural Case Marking

According to Burzio's Generalization (1986), unergative verbs, by marking an external argument, have the potential ability to assign structural (accusative) Case. This ability of unergative verbs is realized by their appearance with cognate objects. Unaccusative verbs, on the other hand, do not allow any objects. Keyser and Roeper (1984) observe that unergative verbs allow a transitive variant, with the object position occupied by a derivative nominal (cognate object), as in the equivalent Polish example (24). Unaccusatives do not occur in such constructions, as illustrated in (25).

24. (a) Piotr zaspiewa"l pi"ekn"a piosenk"e.
'Peter sang a beautiful song.'
- (b) Sportowcy biegaja d"lugie biegi.
'Athletes run long runs.'
25. (a) *Maria upad"la niebezpieczny upadek.
'Mary fell a dangerous fall.'
- (b) *Statek zaton"a"l zatoni"ecie.
'The ship sank a sinking.'

Keyser and Roeper (1984) argue that the incompatibility of unaccusative verbs with cognate objects is due to the fact that the object position of unaccusative verbs like 'sink' is already occupied by an indexed trace of the moved NP which plays a blocking role (26). Unergative verbs like 'run', on the other hand, have an optional unmarked object position, projected from the lexico-semantic level of representation (27).

26. The ship₁ sank t₁.
27. He danced ([NP [e]]).

5.2 Genitive of Negation

Because of the fact that it is difficult to find cognate objects that would have different derivative forms in nominative and accusative Case in Polish,

it is necessary to employ some test which would prove the structural Case assigning property of unergative verbs on independent grounds. The genitive of negation seems to be the right candidate. It has been proposed that in Polish, when in the context of a negative phrase, structural case changes into genitive. This is illustrated for the transitive verbs 'kupowa'c' (buy) and 'je's'c' (eat) in (28)-(29).

28. (a) Piotr kupi"l ksi" a" zk" e.
Peter bought book-Acc
(b) Piotr nie kupi"l ksi" a" zki.
Peter not buy book-Gen
29. (a) Tomek zjad"l jab" lko.
Tom ate apple-Acc
(b) Tomek nie zjad"l jab" lka.
Tom not eat apple-Gen

Consequently, in cases when there is no structural Case present the genitive of negation does not apply. This is illustrated by 'powiedzie'c' (tell) in (30), which takes an object in dative (inherent) Case, and passive 'zosta'c zbudowanym' (be built) in (31), which like all passives cannot assign structural case.

30. (a) Maria powiedzia"la Tomkowi.
Mary told Tom-Dat
(b) Maria nie powiedzia"la Tomkowi.
Mary didn't tell Tom-Dat
31. (a) Budynek zosta"l zbudowany.
building-Nom was built
(b) Budynek/*Budytku nie zosta"l zbudowany.
building-Nom/building-Gen was not built

Coming back to the main point of our discussion, we would expect the genitive of negation to be allowed with unergative verbs but not with unaccusative verbs. In (32)-(33) unergatives from (24) appear in negative sentences, and the cognate objects change from accusative into genitive Case.

32. (a) Piotr zaspiewa"l pi" ekn" a piosenk" e.
Peter sang beautiful song-Acc
(b) Piotr nie zaspiewa"l pi" eknej piosenki.
Peter not sang beautiful song-Gen

33. (a) Sportowcy biegają długie biegi.
athletes run long runs-Acc
(b) Sportowcy nie biegają długich biegów.
athletes not run long runs-Gen

Conclusion

In this paper it has been argued that there is considerable evidence in favour of the Unaccusative Hypothesis in Polish. The class of Polish intransitive verbs is not uniform, which is confirmed by their different behaviour with respect to various constructions. The unaccusativity of some intransitive verbs is revealed by their compatibility with the resultative construction, appearance with possessive datives, and the inability to take cognate objects (all of these are sensitive to internal arguments). Intransitive verbs classified as unergative, on the other hand, do not appear in the resultative construction (unless supported by a fake object), license reflexive datives, take cognate objects, and in impersonal constructions can take purpose clauses, which all suggest that they have a sole external argument. The selection of verbs participating in the causative alternation (i.e. alternating unaccusative verbs) suggests that most unaccusative verbs, as proposed by Levin and Rappaport (1996) LR, can be characterized semantically. Intransitive verbs singled out by this construction belong to the semantic class of externally caused verbs of change of state; all those intransitive verbs which are not of change of state and not of existence and appearance belong to the unergative type.

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