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Deriving Morphologically Irregular Passive Potential Adjectives in Polish

Abstract

In Polish, passive potential adjectives are productively formed by means of attaching the suffix *-alny* to transitive verbs (Szymanek 2010). They have been shown to project the external argument of their verbs, as well as being able to co-occur with agentive *przez*-phrases and instrumental phrases (Bloch-Trojnar 2019). Hence, under a syntactic approach to word formation such as Distributed Morphology, they are derived via outer affixation, with their structure containing the vP and VoiceP heads.[1] A small subset of Polish passive potential adjectives are derived with affixes other than *-alny*. These include *czytelny* 'legible, readable, understandable', *strawny* 'digestible' and *zrozumiały* 'understandable, comprehensible'. In this paper, it is demonstrated that while these adjectives behave similarly to *-alny* adjectives in terms of licensing Voice-related modifiers, they are excluded from a wide range of verbal contexts available to regularly derived passive potential adjectives. As such, *czytelny*, *strawny* and *zrozumiały* offer evidence for the claim that the layer that introduces event implications is distinct from the verbal head that triggers spell-out. Specifically, adjectives such as *czytelny*, *strawny* and *zrozumiały* can be argued to contain the little *v* head, but not the cyclic vP projection, which is in line with the architecture of grammar as proposed by Embick (2010).

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[1] The following abbreviations are used in the paper: ACC — accusative case; aP — adjective phrase; ASP — aspect; AspP — aspect phrase; DAT — dative case; DM — Distributed Morphology; GEN — genitive case; IMP — impersonal; INF — infinitive; INST — instrumental case; LOC — locative case; ModP — modal phrase; NOM — nominative case; nP — noun phrase; REFL — reflexive; SG — singular; vP — verb phrase; VoiceP — voice phrase. The glosses and translations in the examples from the works cited in the References have been altered in accordance with the conventions adopted here. All links provided here were last accessed on March 14, 2023.

Abstrakt

Artykuł poświęcony jest morfoskładni przymiotników pasywno-potencjalnych w języku polskim z punktu widzenia ich regularności morfologicznej. W rozumieniu składniowych podejść do słowotwórstwa, takich jak morfologia rozproszona, przymiotniki te są dewerbalne (ich struktura wewnętrzna zawiera projekcje vP i VoiceP), jako że mogą występować z frazami świadczącymi o obecności argumentu zewnętrznego. Zdecydowana większość przymiotników pasywno-potencjalnych jest regularnie tworzona poprzez dodanie końcówki *-alny* do czasowników przechodnich. Jest wśród nich natomiast mała grupa tworzona przez dodanie innych końcówek, takich jak *-elny* (*czytelny*) *-ny* (*strawny*) czy *-ały* (*zrozumiały*). Końcówki te są determinowane rdzeniowo, tzn. w strukturze wewnętrznej muszą się znajdować w bliskim położeniu rdzenia, a nie powyżej projekcji fazowych, takich jak vP. Artykuł wykazuje, iż chociaż przymiotniki potencjalne derywowane za pomocą końcówek innych niż *-alny* posiadają w swojej strukturze argument zewnętrzny, mają one mniejszą zdolność dziedziczenia cech syntaktycznych od ich czasowników. Jest to zatem dodatkowy argument na to, że ich struktura wewnętrzna zawiera jedynie warstwę określaną w artykule jako „little *v*", bez projekcji vP. Model morfologii rozproszonej opiera się na twierdzeniu, że projekcja vP spełnia dwie funkcje: wprowadza elementy struktury zdarzenia oraz nadaje rdzeniowi kategorię czasownikową. Przymiotniki takie jak *czytelny*, *strawny* czy *zrozumiały* są dowodem na to, że za funkcje te odpowiedzialne są dwie odrębne warstwy składniowe.

1. Introduction[2]

A considerable amount of research in the morphosyntactic literature has revolved around the question of the extent to which deverbal words inherit the syntactic features of their derivational bases, with particular attention being paid to adjectival passives (Anagnostopoulou 2003; Embick 2003, 2004; Alexiadou et al. 2014, 2015; Bruening 2014) and nominalizations (Alexiadou 2001; Harley 2005, 2009; Alexiadou and Schäfer 2010; Borer 2012, 2013; Iordăchioaia 2020a, 2020b). Recently, there has also been an increasing focus on other deverbal constructs, such as passive potential adjectives, with Oltra-Massuet's (2013) approach considered one of the most significant accounts. Oltra-Massuet's approach subsequently served as the basis for a number of

studies into passive potential adjectives, including Bloch-Trojnar's (2019) analysis of passive potential adjectives in Polish.

The aim of this paper is to expand on the analysis put forward by Bloch-Trojnar (2019) and examine the morphological irregularities in passive potential adjectives in Polish. Specifically, the paper will offer an analysis of the adjectives *czytelny* 'legible, readable, understandable', *strawny* 'digestible' and *zrozumiały* 'understandable, comprehensible', which, unlike other passive potential adjectives in Polish (which feature the suffix *-alny*, e.g. *wykrywalny* 'detectable', *policzalny* 'countable', *osiągalny* 'achievable'), are derived using the irregular suffixes *-elny*, *-ny* and *-ały*. respectively. The paper will attempt to answer the question of whether the syntax and semantics of *czytelny*, *strawny* and *zrozumiały* differs from the syntactico-semantic behaviour of regularly derived passive potential adjectives and if so, what implications for the architecture of grammar these differences carry.

The study is couched within the Distributed Morphology model (Halle and Marantz 1993; Harley and Noyer 1999; Embick 2010; Alexiadou et al. 2015 – henceforth DM). The DM theory is centred on three main principles: firstly, DM is an all-syntactic model of word formation, which implies the lack of a separate grammatical component responsible for the formation of words; secondly, DM posits what is known as late insertion, which refers to the hypothesis that a syntactic structure is assembled prior to being filled with phonological content; thirdly, DM is a root-based approach, assuming that not only complex, but also simple words are decomposed into roots, which become spelled out as words upon entering a syntactic structure.

DM assumes that deverbal words are syntactically produced by means of attaching the derivational affix above the vP head, which syntactically categorizes the root as a verb, with the suffix introduced by the participle-producing Asp (Embick 2003). This is illustrated below with the participle *committed*:

(1)

```
                Asp
             ╱       ╲
          -ed         vP
                    ╱     ╲
                   v       √COMMIT
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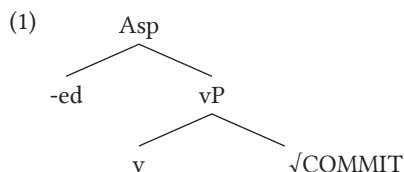
More importantly, the reason why *committed* is a deverbal participle is not because it is based on the lexical verb *commit* but because it behaves verbally (that is, eventively) in terms of its external syntax. For example, *committed* can be preceded by the adverb *recently*, which modifies the event denoted by the verb.

(2)   Recently committed funds.

Committed can also be used idiomatically with the meaning 'dedicated'. This variant cannot be preceded by *recently* and as such does not describe a state resulting from a prior event. Hence, *committed* as used in (3) is a word derived directly from the root, without the vP being involved, as shown by the structure in (4).

(3)   a (*recently) committed doctor

(4)   aP

      -ed   √COMMIT
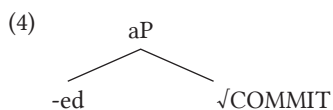
DM accounts of deverbal structures typically assume that they contain a single vP head, which assigns a verbal category to the root, acts as the locus of eventivity and projects the verb internal argument.[3] In this study, I will challenge this claim and argue, drawing on the approach by Embick (2010), that the verbal domain does not consist of a single vP layer, but is composed of two heads, labelled (little) *v* and vP, with the former functioning as the eventivizing and argument-introducing domain and the latter serving as the phase head. It will be shown that *czytelny, strawny* and *zrozumiały,* unlike regularly derived passive potential adjectives, are formed by the merging of their suffixes above the little *v* but below the vP head (in other words, it will be argued that *czytelny, strawny* and *zrozumiały* do not project the full verbal structure).[4]

The organization of the paper is as follows: Section 2 provides a background on passive potential adjectives in Polish. Section 3 outlines the architecture of grammar proposed by Embick (2010), and subsequently the analysis of the adjectives *czytelny, strawny* and *zrozumiały* examines the impact of their syntax and semantics on the structure of the verbal domain as proposed by DM. In Section 4, I discuss the idiosyncratic variants of *czytelny, strawny* and *zrozumiały,* and compare their morphosyntax with other idiomatic passive potential adjectives. The paper is concluded in Section 5.

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[3] See Harley (2009), according to whom the projecting of internal arguments falls into the domain of roots.

[4] To illustrate the behaviour of the relevant adjectives, this paper uses linguistic examples that are either directly quoted from online resources (this mostly applies to longer examples) or modelled after data that can be found therein. A few sentences have also been constructed for the purpose of this paper, and these have been verified as correct by two L1 speakers of Polish. The ungrammaticality of the sentences marked as such has likewise been independently confirmed by two L1 speakers of Polish.

2. Passive potential adjectives in Polish

In Polish, passive potential adjectives are formed by the attachment of the suffix *-alny* to transitive verbs.[5]

	verb	adjective
(5) a.	*wykryć* 'detect'	*wykrywalny* 'detectable'
b.	*przewidzieć* 'predict'	*przewidywalny* 'predictable'
c.	*rozwiązać* 'solve'	*rozwiązywalny* 'solvable'
d.	*ścierać* 'erase'	*ścieralny* 'erasable'
e.	*weryfikować* 'verify'	*weryfikowalny* 'verifiable'
f.	*wykonać* 'do, perform'	*wykonalny* 'doable'

The approaches proposed by Oltra-Massuet (2013) and Bloch-Trojnar (2019) draw on the similarity between passive potential adjectives and verbal passives, assuming the presence of the passive component in the structure of the former.[6] As reported by Bloch-Trojnar (2019), *-alny* adjectives must project the external argument since they have the capacity to license agentive *przez-*phrases (the Polish counterpart of English *by*-phrases), instrumental phrases and the adverb *łatwo* 'easily' (or its antonym *trudno* 'with difficulty').[7] Examples of this are listed in (6–8) after Bloch-Trojnar (2019: 63–65); the representation of *-alny* adjectives as construed by Bloch-Trojnar (2019: 74) is shown in (9).

(6) a. *propagowanie związków innych niż akceptowalnych przez Kościół katolicki*
'the promotion of relationships other than those acceptable by the Catholic Church'

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[5] Bloch-Trojnar (2019) notes that the majority of passive potential adjectives in Polish are derived from imperfective variants of verbs (often marked with the affix *-yw-*), with adjectives based on perfective verbs (e.g. *wykonalny*) rarely attested. Nevertheless, this fact will have no bearing on the present analysis.

[6] As is well-known, only verbs that undergo passivization can serve as bases for the formation of passive potential adjectives. Accordingly, *-alny* suffixation fails when passivization is also impossible, as is the case with the verb *zabić* 'kill' when the noun *czas* 'time' is its internal theme argument.

(i) a. *Czasu nie można zabić chodząc w kółko.*
'You cannot kill time by walking around.'
b. **Czas nie może być zabity chodząc w kółko.*
'Time cannot be killed by walking around.'
c. **Czas nie jest zabijalny chodząc w kółko.*
'Time is not killable by walking around.'

(cf. *Sposobem wykluczenia jest zatem sprowadzanie kogoś do pozycji homo sacer dosłownie, jako kogoś zabijalnego.* https://www.academia.edu/27104055/_Animalia_sacra_i_ich_ludzie).
'The method of exclusion, therefore, is to literally reduce someone to the position of homo sacer, to someone who can be killed.')

[7] Adverbs are normally used in front of passive potential adjectives to modify them (*Ta choroba jest łatwo wykrywalna* 'this disease is easily detectable'vs. **?Ta choroba jest wykrywalna łatwo*).

   b. *Ta partia jest reformowalna, ale przez ludzi na dole.*
      'This party can be reformed but by the grass roots.'
   c. *Nie wszystko w nas jest wytłumaczalne przez lekarzy, biologów, fizyków.*
      'Not everything in us is explicable by doctors, biologists, physicists.'

(7) a. *Piszesz o dowodach obserwowalnych gołym okiem.*
       'You write about evidence observable with the naked eye.'
    b. *Samolot trudno wykrywalny przez radar powinien być 'gładki' i krzywoliniowy.*
       'An aircraft that is barely detectable by radar should be aerodynamic and curvi-
       linear.'
    c. *Nie wszystkie konflikty są rozwiązywalne za pomocą instrumentów politycznych.*
       'Not all conflicts can be solved with the aid of political instruments.'

(8) a. *Brak jest praktycznych, łatwo stosowalnych metod badania i oceny wysiłku.*
       'There are no practical and easily implementable methods of investigating or
       assessing strain.'
    b. *łatwo zmywalne tapety/tatuaże*
       'easily washable wallpaper/tattoos'
    c. *Posiadają auto trudno zbywalne.*
       'They possess a car that is difficult to sell.'

(9)
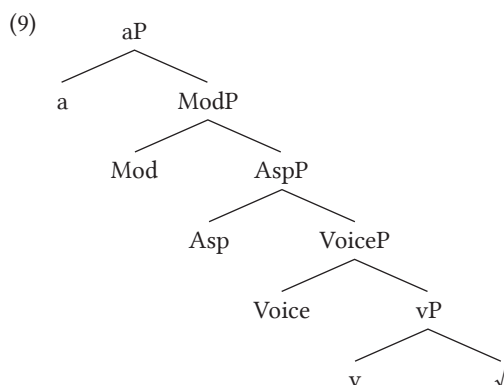
The above representation is largely based on the structure that Oltra-Mas-
suet (2013: 18) proposes for high *-ble* adjectives, with the difference that the
verb's external argument is introduced by the dedicated projection VoiceP
(Kratzer 1996). The structure also contains AspP, which "creates a resultant
state out of a prior event" and ModP, whose function is to "create a modal-
ized resultant state" Oltra-Massuet (2013: 18).[8] The representation is headed
by aP, which syntactically categorizes the structure as an adjective.[9]

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[8] As noted by Fábregas (2016), passive potential adjectives do not imply that a prior event
has taken place, which calls into question the presence of AspP in their structure. I will fur-
ther assume (also along the lines of Fábregas 2016) that modality is a morphosyntactic feature
associated with the *-alny* suffix.
[9] In this paper, following Kallas (1999) and Szymanek (2010), I will treat the suffix *-alny*
as a single vocabulary item. Laskowski (1975: 135–136) argues that *-alny* is an "intermorphic

3. Polish passive potential adjectives in the architecture of grammar

3.1. Deriving morphologically irregular words in DM

According to Embick (2010), whose approach I follow in this paper, v(P), a(P) and n(P) are phase heads that trigger the spell-out of other syntactic nodes within their domain. Crucial to this approach is the assumption that when attached post-spell out, phase heads must themselves be spelled out by regular morphology – on the other hand, root-attached phase heads are not subject to any restrictions as regards their phonological exponents. Embick's illustration of this constraint are the words *marrying* and *marriage*. The former is derived by the regular *-ing* suffix producing deverbal gerunds; the latter is formed by the attachment of the irregular *-age* suffix directly to the root.

(10)
```
        nP
       /  \
    -ing    vP
           /  \
          v    √MARRY
```

(11)
```
        nP
       /  \
    -age    √MARRY
```
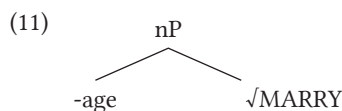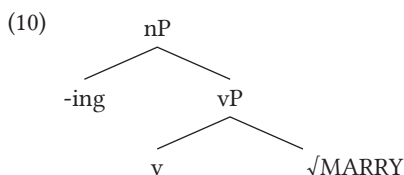
The above generalization satisfactorily accounts for deverbal structures that feature both regular and irregular morphology and where the suffix is a spell-out of a non-cyclic head, such as adjectival passives (where the passivizing exponent spells out the PASS head; cf. Alexiadou et al. 2014), as their structure can viably be argued to contain the vP layer. However, this understanding of the verbal domain is impossible to reconcile with the notion that vP is also the sole locus of event implications due to the existence of complex words that do behave eventively despite being derived by root-determined affixation. For example, event *-ation* nominals in English (e.g. *destruction, collection, implementation*) are known for their eventive syntax despite being derived using a root-determined affix (*the destruction of the city by the fire; the collection of data by researchers; the implementation of the reform by the government*). In fact, Embick (2010: 45) lists *destruction* as a noun that must be root-derived. Nevertheless, the architecture of the word formation outlined in (10) does not rule out the possibility of functional, non-cyclic heads being embedded between the roots and phase layers. As will be shown

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extension" of the suffix *-ny*, from which adjectives derive in Polish. Bloch-Trojnar (2019) goes so far as to say that *-alny* is decomposed into the morphemes *-a-, -l-, -n-* and *-y*, spelling out the AspP, ModP, VoiceP and aP heads, respectively.

with *czytelny*, *strawny* and *zrozumiały*, it is necessary to postulate that such a non-phase event head is projected in the structure of these adjectives.

3.2. The external syntax of *czytelny, strawny* and *zrozumiały*

In general, passive potential adjectives in Polish are not problematic with regard to the architecture of grammar outlined above because the great majority of them are derived using the regular suffix *-alny*. However, the adjectives *czytelny* 'legible, readable', *strawny* 'digestible' and *zrozumiały* 'understandable, comprehensible' are notable exceptions to this regularity.[10] In syntactic terms, these adjectives behave in a manner typical of other *-alny* adjectives with respect to the licensing of modifiers that point to the agentive character of the adjective, such as *przez*-phrases,[11] instrumental phrases and dispositional adverbs such as *łatwo* 'easily'.[12]

(12) a. *Tablice informacyjne muszą być łatwo czytelne przez każdą*
       boards information must be easily readable by every
       zainteresowaną osobę.[13]
       interested.GEN person.GEN
       'Information boards must be easily readable by any interested person.'[14]

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[10] The suffixes *-elny*, *-ny* and *-ały* may appear to be phonologically conditioned allomorphs, but other verbs with a similar phonological make-up do take the regular affix *-alny*.

(i) *chwytać* 'grasp' – *chwytalny* 'that can be grasped' (cf. *chwytelny)
    naprawi(a)ć 'fix' – *uprawialny* 'cultivable' (cf. *naprawny)
    widzieć 'see' – *widzialny* 'visible' (cf. *widziały)

The verbs *chwytać*, *naprawiać* or *widzieć* terminate in a similar sequence of sounds as *czytać*, *trawić* and *rozumieć*, respectively; at the same time, they are regular as far as the derivation of passive potential adjectives is concerned. Nevertheless, it is to be noted that the infinitives of Polish unaccusative verbs commonly end in *-eć* and they derive *-ały* adjectives, e.g. *śniedzieć* 'tarnish' – *zaśniedziały* 'tarnished'; *oniemieć* 'be struck dumb' – *oniemiały* 'struck dumb'.

[11] While *czytelny*, *strawny* and *zrozumiały* accept *przez*-phrases, they are increasingly used with the preposition *dla* 'for', rather than *przez* 'by'. This, however, is typical of passive potential adjectives in general, especially those lexicalized to a greater degree. The English adjective *doable*, for example, occurs with the preposition *for* 46 times in the Corpus of Contemporary American English (COCA, cf. Davies 2008) as opposed to the 16 times that it is found with the agentive *by*. In a similar fashion, the Polish adjective *osiągalny* 'achievable' is typically used with *dla* 'for', and not *przez* 'by'. In the National Corpus of Polish (NKJP – Przepiórkowski et al. 2012), the combination *osiągalny dla* occurs 97 times. By contrast, *osiągalny przez* returns 43 instances (this includes the masculine, feminine and neuter variants of the adjective).

[12] While *easily* is not a standard agent-adverbial adverb like *carefully* or *deliberately*, it is the only adverb that can be used to diagnose the agentive nature of passive potential adjectives, as the other two cannot be used with them (Oltra-Massuet 2013).

[13] Example modelled after a sentence found at: https://silesiafilm-bip.slaskie.pl/cms/deklaracja-dostepnosci.

[14] Example modelled after a sentence found at: https://pkk.info.pl/viewtopic.php?t=3173.

    Tekst tej wielkości nie jest czytelny bez lupy.
    text this size not is readable without magnifying glass.GEN
    'A text of this size is not readable without a magnifying glass.'

   b. *Pasza powinna być łatwo strawna przez zwierzęta.*[15]
    Fodder should be easily digestible by animals.GEN
    'Fodder should be digested easily by animals.'
    Celuloza nie jest strawna bez odpowiednich enzymów.
    cellulose not is digestible without right.GEN enzymes.GEN
    'Cellulose is not digestible without the right enzymes.'

   c. *Ta metoda zapisu jest łatwo zrozumiała przez wszystkich.*[16]
    this method writing.GEN is easily understandable by everyone
    'This writing method is easily understood by everyone.'
    Ta funkcja nie jest zrozumiała bez instrukcji.[17]
    this function not is understandable without user's manual.GEN
    'This function cannot be understood without the user's manual.'

When applied to the standard diagnostics, the adjectives *czytelny*, *strawny* and *zrozumiały* appear to be fully morphosyntactically deverbal and as such are expected to contain phase vP in their structures.[18] This, however, is at odds with the assumption that phase heads that are not in a local relationship with the root can only be spelled out by regular affixation. The irregular morphology of *czytelny*, *strawny* and *zrozumiały* thus poses a certain problem with regard to the architecture of grammar as proposed by Embick (2010). Nevertheless, the language data in (13–15) suggests that the adjectives in question differ from other passive potential adjectives in terms of the syntactic features that they can inherit from their verbs.

(13) a. *Tego nie da się czytać.*
    this.GEN not let.3SG REFL read.INF
    'This is not suitable to read.'
    *To nie jest czytelne.
    this not is readable
    'This is not suitable to read.'

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[15] Example from: https://www.agroins.com.pl/blog/jakie-kryteria-okreslaja-jakosc-paszy-dla-zwierzat-hodowlanych

[16] Example modelled after a sentence found at: https://ikfpwsz.pl.tl/materia%26%23322%3By-do-nauki-1-.--biomechanika-_-opracowanie-1.htm

[17] Example modelled after a sentence found at: https://www.empik.com/casio-kalkulator-naukowy-fx-991ex-casio,p1124709990,szkolne-i-papiernicze-p

[18] Apart from the syntactic eventivity, there is also a strictly morphological argument in favour of a verbal head being part of the structure of *strawny* and *zrozumiały*, namely that they contain the perfectivizing *s-* and *z-* prefixes, respectively. This prefix can be argued to be the spell-out of a result head, which must be locally bound to a verbal layer.

b. *Książkę   tę   można   czytać   z   dużą   ciekawością.*
   book.GEN this.GEN can.IMP read.INF with   great   interest
   'This book can be read with great interest.'
   **Ta   książka   jest   czytelna   z   dużą   ciekawością.*
   this book   is   readable with   great   interest
   'This book can be read with great interest.'

c. *Tego tekstu   nie można   przeczytać   nawet   lupą.*
   this   text.GEN not can.IMP read.INF.PERF   even   magnifying glass.INST
   'This text cannot be read even with a magnifying glass.'
   **Ten   tekst nie jest czytelny nawet lupą.*
   this   text   not is   readable even   magnifying glass.INST
   'This text is not readable even with the magnifying glass.'

d. *Ten tekst można   czytać   studentom.*
   this   text   can.IMP read.INF students.DAT
   'This text can be read to students.'
   **Ten   tekst jest   czytelny studentom.*
   this   text is   readable students.DAT
   'This text is not readable to students.'

e. *Tej   książki   nie da   się   czytać   chronologicznie.*
   this   book.GEN not let.3SG REFL   read.INF chronologically
   'This book cannot be read chronologically.'
   **Ta   książka nie jest czytelna chronologicznie.*
   this   book   is   not readable chronologically
   'This book is not readable chronologically.'

f. *czytanie (z)   dłoni*
   reading   (from)   palms.GEN
   'palm reading'
   **Te   dłonie są   nieczytelne.*
   these palms   are   unreadable
   'One cannot read these palms.'

The examples in (13) illustrate some of the constraints on the external syntax of *czytelny*. (13a) shows that the adjective cannot be used in environments where it is implied that being unreadable is a result of the content of the text (e.g. a lurid description of a crime), and not its form (e.g. poor handwriting). (13b) demonstrates that *czytelny* cannot co-occur with PP manner adverbials such as *z ciekawością* 'with interest'. In (13c) we can see that *czytelny* cannot be employed with instrumental phrases, if the instrument is not introduced by a prepositional phrase (in other words, there is no functional layer in the structure of *czytelny* that could assign the instrumental case on its own). (13d) shows that *czytelny* cannot take recipient arguments; (13e) demonstrates that *czytelny* cannot be applied with non-manner adverbs and (13f) shows that *czytelny* cannot be used with arguments such as *dłoń* 'palm', which forces the 'fortune-tell' interpretation of the verb.

The data in (14) show contexts in which *strawny* cannot be used.

(14) a. *Węglowodany   są   trawione z   dużą szybkością.*
carbohydrates are digested with great speed.INST
'Carbohydrates are digested very quickly.'
*Węglowodany są   strawne z   dużą szybkością.
carbohydrates are digestible with   great   speed.INST
'Carbohydrates are digestible very quickly.'

   b. *Celuloza nie może być strawiona w żołądku   człowieka.*
cellulose not can   be   digested   in stomach.LOC human.GEN
'Cellulose cannot be digested in the human stomach.'
*Celuloza nie jest strawna   w żołądku   człowieka.
cellulose not is   digestible in stomach.LOC human.GEN
'Cellulose cannot is not digestible in the human stomach.'

   c. *Te   cukry nie są   trawione przez enzymy   człowieka,*
these sugars not are digested by   enzymes.ACC human.GEN
'These sugars are not digested by human enzymes.'
*Te   cukry nie są   strawne przez enzymy   człowieka.
these sugars not are digesible by   enzymes.ACC human.GEN
'These sugars are not digestible by human enzymes.'

   d. *Te   białka   są   trawione trypsyną.*
these proteins are digested tripsin.INST
'These proteins are digested by tripsin.'
*Te   białka   są   strawne   trypsyną.
these proteins are digestible tripsin.INST
'These proteins are digestible by tripsin.'

   e. *Tych białek   nie można   strawić   na   krótsze   łańcuchy.*
these proteins.GEN not can.IMP digest.INF into shorter.ACC chains.ACC
'These proteins cannot be digested into shorter chains.'
*Te   białka   nie są   strawne   na   krótsze   łańcuchy.
these proteins not are digestible into shorter.ACC chains.ACC
'These proteins are not digestible into shorter chains.'

   f. *Ten fakt może być niemożliwy do strawienia.*
this fact may be   impossible   to digestion.GEN
'This fact may be impossible to digest'.
*Ten fakt może być niestrawny.
'This fact may be   indigestible.'
'This fact may be indigestible.'

In (14a), we can see that *strawny* cannot be used with PP manner adverbs such as *z dużą szybkością* 'quickly'. (14b–c) show that *strawny* does not license locative modifiers and inanimate external arguments.[19] (14d) reveals that the adjective cannot be employed with instruments not accompanied

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[19] *Strawny* is occasionally found with inanimate agents that are an integral part of humans, e.g. *łatwo strawne przez żołądek węglowodany* 'carbohydrates easily digested in the stomach'.

by prepositions. (14e) illustrates that *strawny* cannot license certain PPs that are free to occur with its base verb and (14f) shows that *strawny* is not derived from *trawić* 'digest' when it is used with the meaning of 'realize and accept'.

Finally, (15) shows the restrictions on the use of *zrozumiały*.

(15) a. *Sztukę   współczesną   można zrozumieć   tylko intelektem.*
       art.ACC contemporary.ACC can.IMP understand.INF only intelect.INST
       'Contemporary art can only be understood through the use of the intellect.'
       **Sztuka współczesna   jest zrozumiała   tylko intelektem.*
       art   contemporary is   understandable only intelect.INST
       'Contemporary art is understandable through the use of the intellect.'

     b. *Tę konstrukcję   gramatyczną   można spokojnie zrozumieć.*
        this construction.ACC grammatical.ACC can.IMP with ease understand.INF
        'This grammatical construction can be understood with ease.'
        **Ta konstrukcja   gramatyczna jest spokojnie zrozumiała.*
        this construction grammatical is   with ease understandable
        'This grammatical construction is easily digestible.'

     c. *To, czy   stary dom   będzie wymagał całkowitej lub częściowej*
        this whether old   house will   require   full   or partial
        wymiany   dachu, można   zrozumieć   po jego   stanie.
        replacement roof   can.IMP understand.INF by its.LOC condition.LOC
        'Whether an old house will need a complete or partial roof replacement is understandable by its condition.'
        **To, czy   stary dom   będzie wymagał całkowitej lub częściowej*
        this whether old   house will   require   full   or partial
        wymiany   dachu, jest zrozumiałe   po jego   stanie.
        replacement roof   is   understandable by its.LOC condition.LOC
        'Whether an old house will need a complete or partial roof replacement can be judged by its condition.'

     d. *Czy   da   się   zrozumieć, co   czuli ludzie, wyruszający*
        whether let.3SG REFL understand what felt   people setting off
        na koniec znanego im   świata?
        to end   known   them world
        'Is it possible to understand what people felt when they set off to the end of the known world?'
        **Czy   jest zrozumiałe,   co   czuli ludzie wyruszający*
        whether is   understandable what felt   people setting off
        na koniec znanego im   świata?
        to end   known   them world
        'Is it understandable what people felt when they set off to the end of the known world?'

     e. *Niektórych zagadnień nie da   się   zrozumieć   w sali lekcyjnej.*
        some topics.GEN   not let.3SG REFL understand.INF in the classroom
        'It is impossible to understand some topics in the classroom.'

> **Niektóre zagadnienia nie są zrozumiałe w sali lekcyjnej.*
> some   topics   not are   understandable in the classroom
> 'Some topics are not understandable in the classroom.'

f. *Czy   psy   można zrozumieć?*
   whether dogs.ACC can   understand?
   'Can dogs by understood?'
   **Czy   psy   mogą być   zrozumiałe?*
   whether dogs.NOM can   be-INF   understandable?
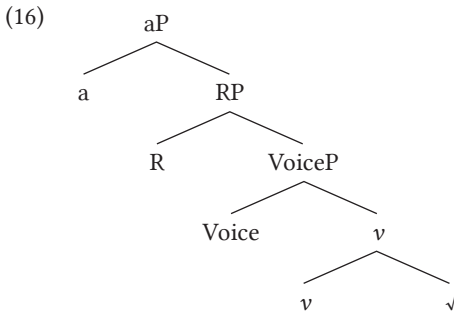   'Are dogs understandable?'

The second sentence in (15a) shows that *zrozumiały*, like *czytelny* and *strawny* cannot be used with 'bare instruments'. (15b) demonstrates that the adjective, unlike its verb, cannot appear with the adverb *spokojnie* 'with ease'. In (15c) we can see that *zrozumiały* cannot be employed with phrases with the preposition *po* 'by' that describe the way in which a result is achieved. The ungrammaticality of (15d) results from the fact that *zrozumiały*, at least in some contexts,[20] cannot license *co*-clauses (*what*-clauses). In (15e) we see that *zrozumiały* cannot occur with locations and (15f) shows that the derivation of *zrozumiały* is impossible if the implied meaning of *zrozumieć* is 'understand the behaviour of', unless the word *zachowanie* 'behaviour' is actually used (*Czy zachowanie psów może być zrozumiałe?* 'Can dogs' behaviour be understood?').

3.3. The internal structure of *czytelny, strawny* and *zrozumiały*

The syntactico-semantic restrictions on the use of *czytelny, strawny* and *zrozumiały* offer evidence in favour of the hypothesis that that the verbal domain is not composed of a single vP layer, but is split into a little *v* head, which introduces basic event implications, and the cyclic v(P) head, which spells out the verb. Specifically, certain elements of syntactic structure are introduced at the vP level, and these cannot be accessed by complex words derived by the attachment of the affix below the vP, as is the case with *czytelny, strawny* and *zrozumiały*. Likewise, some verbal meanings of the root are fixed at the vP level and as such are not available to words derived below this cyclic head. Thus, owing to the constraints illustrated in (13)–(15), it is possible to conceptualize the structure of *czytelny, strawny* and *zrozumiały* as one in which the adjectivizing suffix attaches above the little *v* head but does not include the cyclic vP projection, with the aP being the only head that actually categorizes the root and triggers spell-out. In other words, while the adjectives *czytelny, strawny* and *zrozumiały* are (at least to

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[20] *Co*-phrases appear possible with *zrozumiały* when, for example, the adjective is accompanied by a *dla*-phrase (*for*-phrase), introducing the implied agent, e.g. *Dla wszystkich było zrozumiałe co należy robić* 'It was clear to everyone what to do.'

a certain extent) morphosyntactically eventive, they are not morphosyntactically deverbal – they are derived independently of the related verbs.

(16)

```
                aP
              /    \
             a      RP
                  /    \
                 R      VoiceP
                       /      \
                    Voice       v
                              /    \
                             v      √
```

In the representation above, the root is first merged with the little *v*. The structure also contains the VoiceP projection, which is motivated by the ability of the adjectives under discussion to appear with Voice-related modifiers (under this analysis, VoiceP belongs to the domain of the little *v*). The RP (result phrase) node, introducing the perfectivizing *z-* prefix (which creates the resultative interpretation of the verb),[21] is merged above Voice (the RP layer is absent in the structure of *czytelny*, which is not equipped with the perfective prefix). The structure is headed by aP, which assigns the adjectival category to the root.

The function of the little *v* in the representation in (16) is to eventivize (though not verbalize) the root. The little *v* head was originally proposed by Chomsky (1995) as the locus of the external argument. Linguists adopting DM have also occasionally referred to the phase vP head as "little v". However, my understanding of little *v* differs from that of both Chomsky and DM researchers in that I believe that *v* can be present in both deverbal and non-deverbal structures, as indeed evidenced by the adjectives discussed in this paper. In addition, it needs to be pointed out that *v* should be viewed as a head that introduces a domain that is a continuum of eventive characteristics, rather than a syntactic layer that allows a word to have a fixed range of features. Out of the three adjectives discussed in this paper, *zrozumiały* can be argued to have the richest event structure. For example, *zrozumiały* is more likely to accept aspectual modifiers, which are not licensed by *czytelny* or *strawny* (*Przekaz musi być zrozumiały w ciągu 2–3 sekund* 'The message must be understandable in 2–3 seconds';[22] **Ta książka nie jest czytelna dłużej*

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[21] This is not be confused with Ramchand's (2008) ResP projection, the presence of which is conditioned upon the verb's ability to license prepositions referring to the final results of events.

[22] The licensing of aspectual modifiers is however highly degraded when *zrozumiały* is prefixed with the negating *nie-* (??*Mechanika kwantowa jest niezrozumiała w ciągu 3 miesięcy* 'Quantum mechanics is incomprehensible in 3 months'(cf. *Mechaniki kwantowej nie da się*

niż przez godzinę 'This book is not readable for more than an hour' (cf. *Tej książki nie da się czytać dłużej niż przez godzinę* 'This book cannot be read for more than an hour)'; **Sery żółte są strawne w ciągu 6–8 godzin* 'Hard cheeses are digestible in 6–8 hours' (cf. *Sery żółte są trawione w ciągu 6–8 godzin* 'Hard cheeses are digested in 6–8 hours')).

By contrast to *czytelny*, *strawny* and *zrozumiały*, regular *-alny* adjectives can be argued to contain the phase vP layer in their structure on the grounds that their syntax is not restricted in the same way, as illustrated in (17).

(17) a. *To jest nieoglądalne.*[23]
'This is unwatchable.'

   b. *Dzień pracy bez konieczności ładowania smartfona powinien być spokojnie osiągalny.*[24]
'A working day without having to recharge your smartphone should be easily achievable.'

   c. *Darmowy dostęp do internetu bezprzewodowego to jest wyzwanie, które jest osiągalne w ciągu pięciu najbliższych lat.*[25]
'Free access to wireless Internet is a challenge that is achievable within the next five years.'

   d. *Nauka w innym kraju pozwala zdobyć umiejętności nieosiągalne w polskiej szkole.*[26]
'Studying in another country allows one to gain skills unattainable in a Polish school.'

   e. *Autentyczność co do daty powstania tekstu jest dla specjalistów wykrywalna z samego tekstu.* [NKJP]
'The authenticity of the text's date of origin is detectable by specialists from the text itself.'

   f. *Brzęczka jest wykrywalna po charakterystycznym, mechanicznym śpiewie.*[27]
'The Savi's Warbler is detectable by its characteristic, mechanical singing.'

   g. *długopis wykrywalny detektorem metalu.*[28]
'a pen detectable with a metal detector.'

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zrozumieć w ciągu 3 miesięcy 'Quantum mechanics cannot be understood in 3 months')). The example *Przekaz musi być zrozumiały w ciągu 2–3 sekund* is modelled after a sentence found at https://brandingmonitor.pl/jak-skutecznie-wykorzystac-reklame-zewnetrzna-poradnik-dla-marketerow

[23] Example from: https://cdn.ug.edu.pl/87347/odrobina-pokrzepienia-6-sezon-queer-eye/

[24] Example from: https://www.gsmmaniak.pl/859144/wiko-view-2-pro-cena-opinia/

[25] Example from: https://biznes.wprost.pl/gospodarka/197320/pawlak-obiecuje-darmowy-internet-bezprzewodowy.html

[26] Example from: https://perspektywy.pl/portal/index.php?option=com_content&view=article&id=7591:edufestival-ucz-sie-i-studiuj-za-granica&catid=24&Itemid=119

[27] Example from: https://www.encyklopedialesna.pl/haslo/brzeczka/

[28] Example from: https://atakto.pl/dlugopis-wykrywalny-detektorem-metalu-niebieski-p0519

    h. *Poznanie istoty bytu jednostkowego (w sposób przekazywalny innym pod-miotom poznającym) jest niemożliwe.*[29]
       'It is impossible to know the essence of an individual's being (in a way that can be communicated to other cognizing entities)'.

    i. *Zarówno poszczególne wyrazy, jak i zwłaszcza zdania są rozkładalne na mniej-sze cząstki.*[30]
       'Both individual words and especially sentences can be broken down into smaller particles.'

    j. *Mógłbym powiedzieć, że to przewidywalne co się wydarzy, a jednak ciągle mnie coś zaskakiwało.*[31]
       'I could say it was predictable what was going to happen, and yet something always surprised me.'

    k. *Zasady tego systemu sformułowane w zasadach każdej wielkiej organizacji go-spodarczej... są precyzyjne i łatwo przetłumaczalne na motywacje w skali całej organizacji i jej członów składowych.*[32]
       'The principles of this system formulated in the rules of every large economic organization ... are precise and easily translatable into motivations on the level of the entire organization and its components.'

In (17a) *nieoglądalny* 'unwatchable' is used in a context similar to that in (13a). In (17b) *osiągalny* 'achievable' is able to license the adverb *spokojnie* 'with ease'; (17c–d) further demonstrate the ability of *osiągalny* to appear with spatio-temporal modifiers. (17e) is a case of *wykrywalny* 'detectable' being used with a PP manner adverbial. In (17f) we can see that *wykry-walny* can also be used with a *po* 'by'-phrase, while (17g) shows its ability to license instruments, without the need to combine them with prepositions. (17h) shows that *przekazywalny* 'communicable' accepts recipient arguments. In (17i), *rozkładalny* 'breakable' co-occurs with a prepositional phrase headed by *na* 'into'; in (17j) we can see that *przewidywalny* 'predict-able' (high meaning) can be used with *co*-clauses without any restrictions. Finally, (17k) shows that *przetłumaczalny* can access the 'convert' meaning of *tłumaczyć* 'translate', in addition to its core meaning (*Ten wiersz jest łatwo przetłumaczalny na angielski* 'This poem is easily translatable into English'). All of this leads to the conclusion that the ability of *-alny* adjectives to pro-ject the full vP stems not only from their regular morphology but also from the fact that they inherit more syntactic features from their verbs.

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[29] Example from: G. Besler (1999). Przedmiot metafizyki Mieczysława A. Krąpca a przed-miot metafizyki Petera F. Strawsona. *Roczniki Filozoficzne* XLVI–XLVII, p. 205.

[30] Example from: http://www.tkj.uw.edu.pl/art/co-warto-wiedziec-o-istocie-mowienia

[31] Example from: https://lubimyczytac.pl/ksiazka/5018408/zamek-z-platkow-roz

[32] Example from: M. Orzechowski (1975). Z metodologii krytyki współczesnego kapitaliz-mu. *Nowe drogi*, pp. 29–30.

4. The idiosyncratic variants of *czytelny, strawny* and *zrozumiały*

The adjectives *czytelny*, *strawny* and *zrozumiały* can also be used with the meanings of 'clear, easy to notice' (e.g. signals), 'easy to process' (e.g. information) and 'reasonable or expected' (e.g. behaviour), respectively. It can be argued that in this case these adjectives are derived from verbs, rather than roots, as the verbs *czytać, trawić* and *rozumieć* can also have those meanings – in other words, the idiosyncratic variants of *czytelny, strawny* and *zrozumiały* are not root-derived in the sense of Marantz (1997) and Arad (2003, 2007), since it can be understood that they inherit their meanings from the eventivized root (that is, a root merged with the vP if the standard architecture is assumed). When used idiosyncratically, however, *czytelny, strawny* and *zrozumiały* do not license *przez*-phrases (*czytelny* and *strawny* retain the ability to occur with *łatwo* 'easily').

(18) a. *Główne elementy wizerunku firmy   powinny być*
        main   elements image.GEN company.GEN should   be
        łatwo   czytelne   dla otoczenia/*przez otoczenie.[33]
        easily readable   for the environment/*by the environment
        'The main elements of the company's image should be easily perceivable for everyone around.'
        (cf. *sygnały łatwe do odczytania przez obserwatorów* 'signals that can easily be read by observers')

   b. *Choć moja propozycja jest oparta na dość specyficznej matematyce, postaram się przedstawić ją w sposób strawny dla osób/*przez osoby, które tej matematyki mogą nie znać.*[34]
        'Although my proposal is based on quite specific mathematics, I will try to present it in a digestible way for people who may not be familiar with this field of mathematics.'

   c. *Decyzja kierownictwa   firmy   była*
        Decision management.GEN company.GEN was
        bardzo/*łatwo zrozumiała   dla/*przez pracowników.
        very/*easily   understandable for/*by   employees
        (cf. *Decyzja kierownictwa firmy była w pełni zrozumiana przez pracowników*
        'The decision of the company's management was fully understood by the employees.')

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[33] Example modelled after a sentence found at: https://bazhum.muzhp.pl/media//files/ Problemy_Zarzadzania_Finansow_i_Marketingu/Problemy_Zarzadzania_Finansow_i_Marketingu-r2012-t24/Problemy_Zarzadzania_Finansow_i_Marketingu-r2012-t24-s7/Problemy_ Zarzadzania_Finansow_i_Marketingu-r2012-t24-s7.pdf

[34] Example from: http://pti.krakow.pl/3253/

The suffix *-alny* can also derive adjectives with unpredictable meanings, such as *namacalny* 'tangible', *przewidywalny* 'predictable' or *niereformowalny* 'irreformable', while *-ny* is present in *wymierny* 'measurable'. Their external syntax appears to correspond to that of the idiosyncratic variants of *czytelny*, *strawny* and *zrozumiały*, with the exception of *przewidywalny*, which is not attested with *łatwo* 'easily'.

(19) a. *Łatwo namacalny problem systemu elektorskiego to ten, że kandydat, który uzyskuje mniej głosów w wyborach ostatecznych, zostaje prezydentem.*[35]
'An easily perceptible problem with the electoral system is that the candidate who gets fewer votes in the final election becomes president.'

b. *Ta   strategia   jest   bardzo/*łatwo   przewidywalna   dla/*przez przeciwnika*
this strategy   is   very/*easily   predictable   for/*by the opponent

c. *Ten   człowiek   jest   niereformowalny   (*przez nikogo).*
this man   is   incorrigible   (*by anyone).

d. *Osiągnięcia w dziedzinie modernizacji oraz stopa wzrostu gospodarczego są łatwo wymierne (*przez ekspertów).*[36]
'Achievements in modernization and the rate of economic growth are easily measurable by experts.'

Namacalny and *wymierny* seem to be better candidates for root derivation because they do not have corresponding verbs. The root √MAC cannot give rise to the verb meaning 'perceive' and the perfective verb *wymierzyć* can only take an internal argument such as *długość* 'length' (as in *wymierzyć długość czegoś* 'measure the length of something') and is not used to mean 'measure, e.g. effects' (*Takie efekty nie mogą być wymierzone przez ekspertów*: 'Such effects cannot be measured by experts').[37] Nevertheless, *namacalny* and *wymierny* can occasionally license *łatwo* (although they more readily accept the adverb *bardzo* 'very'), in addition to being formed with the perfectivizers *na-* and *wy-* respectively. Conceptualizing the structure of *przewidywalny* and *niereformowalny* presents a greater problem since the only trace of the eventive layer in their structures is the verbalizing morphology (in the form of the perfectivizing prefix *prze-* and the suffix *-ow-*). Nevertheless, the low, idiosyncratic variant of *przewidywalny* behaves in a manner similar to its high, regular counterpart with respect to degree modification – while it is typically used with *bardzo* (which is possible with the high variant, e.g. *Pogoda była bardzo przewidywalna* 'The weather was very

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[35] Example from: https://www.rp.pl/polityka/art9333721-usa-jak-wybrac-prezydenta

[36] Example from: Z. Galor, B. Goryńska-Bittner, S.Kalinowski (2014). *Życie na skraju – marginesy społeczne wielkiego miasta*, p. 116.

[37] This meaning, however, can be expressed by the verb *mierzyć* (*Takie efekty łatwo zmierzyć* 'Such effects are easy to measure', which can give rise to the regular *mierzalny* (*Takie efekty są łatwo mierzalne* 'Such effects are easily measurable').

predictable'), it can license closed scale degree adverbs (*Ten film jest w pełni przewidywalny* 'This film is fully predictable' (cf. ??*Ten film jest w pełni nudny* 'This film is fully boring')). The same argument can be made for *niereformowalny* (*Ten człowiek jest w pełni niereformowalny* 'This man is totally incorrigible' (cf. ??*Ten człowiek jest w pełni uparty* 'This man is totally stubborn')). Hence, it can be postulated that the low variants of *przewidywalny* and *niereformowalny* can access the scale structure of the underlying event, which justifies the projecting of the *v*.

Adjectives such as *przewidywalny* and *niereformowalny* behave in a manner similar to a number of Greek participles, particularly the subset of *-menos* participles which can have an idiomatic reading. However, the idiomatic variants are not used with agent-related adverbials, which are available only with semantically transparent participles (Anagnostopoulou and Samioti 2014: 109).

(20) a. *trav-ig-menos   prosektika/skopima travigmenos*
         lit. 'pulled'   only lit. 'carefully/deliberately pulled'
         idiom. 'far-fetched'
   b. *stri-menos   prosektika/skopima strimenos*
         lit. 'twisted' only lit. 'carefully/deliberately twisted'
         idiom. 'crotchety'

Anagnostopoulou and Samioti conclude that it is the VoiceP that serves as the boundary for the assignment of a special meaning.[38] This prediction is borne out also by the behaviour of the idiosyncratic-*alny* adjectives.

The structure of idiomatic passive potential adjectives in Polish must include the little *v* head (which also spells out the -*ow*- affix in *niereformowalny*)[39]

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[38] Anagnostopoulou and Samioti also argue in favour of differentiating between the eventivizing and verbalizing v heads, noting further that a number of -*tos* participles (which are stative in Greek) are equipped with overt verbalizers:

(i) a. **To fagito   ine kala/prosektika magir-ef-to.*
      the food   is   well/carefully   cooked.

   b. **To fagito   ine magir-ef-to apo tin Maria.*
      the food   is   cooked   by Mary.

   c. **Ta fita   ine fit-ef-ta me diaforetika ergalia.*
      The plants are planted with different instruments.

However, Anagnostopoulou and Samioti do not discuss the possibility of the two v heads coexisting within a single structure. In their view, the v layer found in stative -*tos* participles such as those above cannot be a phase head because -*tos* participles can have idiomatic meanings, unrelated to the meanings of their verbs (e.g. *kolitos*, which can mean 'close friend' is derived from the same root as the verb *kolao* 'glue'(cf. Anagnostopoulou and Samioti 2014: 106)).

[39] This is necessary as *niereformowalny* is assumed to lack the vP head, but there is a reason of a more general nature for claiming that -*ow*- is spelled out by *v*. Specifically, a number of unaccusative verbs contain the suffix -*ow*- e.g. *dryf-ow-ać* 'drift', *explod-ow-ać* 'explode'.

and RP (conditioned on the presence of perfectivizing morphology), but does not contain VoiceP.

(21)

```
              aP
            /    \
          a       RP
                 /   \
                R      v
                      / \
                     v   √
```
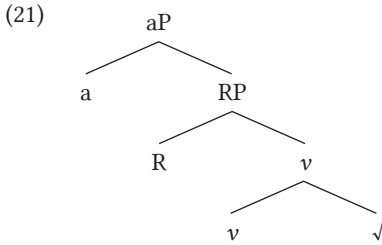
DM generally posits that the argument structure is not sourced in the core meaning of the verb but is projected independently on different levels of the syntactic representation. Nevertheless, it can be assumed that when certain roots combine with *v*, they will always give rise to semantically agentive structures, even though the agent itself is not always syntactically manifested (hence the lack of VoiceP). With adjectives such as *zrozumiały, namacalny* and *przewidywalny*, it can be postulated that it is the high degree of lexicalization, further facilitated by the idiosyncratic meaning, that is responsible for their degradedness with regard to the Voice-related modifiers. Nevertheless, the external syntax of idiomatic passive potential adjectives does involve a certain degree of eventivity, which further points to the need of treating *v* and vP as separate heads.

5. Conclusion

In this paper, I have argued that the adjectives *czytelny* 'legible, readable, understandable', *strawny* 'digestible' and *zrozumiały* 'understandable, comprehensible' provide evidence that the verbal domain is not comprised of a single layer but is decomposed into the little *v* head, which functions as the eventivizer, and vP, which is a phase projection. Owing to the syntactic and semantic restrictions on their use, *czytelny, strawny* and *zrozumiały* are derived through the attachment of the adjectivizing suffix above the little

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Since VoiceP has been shown to attach directly above the little *v*, it is at this level that the structure is interpreted as having or lacking the external argument. I follow Alexiadou et al. (2015) in assuming that there is no VoiceP in unaccusative structures.

   It can also be argued that the affix *-yw-* found in imperfective verbs also belong to the realm of *v*, as *-yw-* can be present in non-transparent *-alny* adjectives, e.g. *grywalny* 'fun to play'.

   (i) a. *Ta   gra   jest bardzo grywalna* (*przez każdego).
          This game is   very   playable   (* by everyone).

v layer, with their structure lacking the phase vP projection. The same is true for their idiosyncratic variants as well as for other *-alny/-ny* adjectives with non-transparent meanings, such as *przewidywalny* or *wymierny*. The constrained syntax of *czytelny, strawny and zrozumiały* coincides with the fact that they are derived using irregular (i.e. root-determined) suffixes.

This construal of the verbal domain makes it possible, for example, to account for the fact that in a language such as Polish event nominalizations are produced by a range of suffixes, such as *-cja* (found in words of Latin origin, e.g. *ewolucja* 'evolution', *negacja* 'negation'), *-ad(a)* (*rozkład* lit. 'breakdown', 'decline', *blokada* 'blockade') or *-aż* (*sprzedaż* 'sale', *drenaż* 'drainage'), in addition to the regular *-nie/-cie* suffixes (Rozwadowska 2000; Biały 2008; Cetnarowska 2019).[40] Nevertheless, the syntax and semantics of nominals such as *blokada* and *sprzedaż* is different from the behaviour of the regularly derived *blokowanie* or *sprzedawanie*.

(22) a. *blokada dostępu do usługi przez administratorów sieci*
'blockage of access to the service by network administrators'

    b. *zablokowanie/*blokada użytkownikom dostępu   do usługi*
blocking/*blockage   users.DAT   access.ACC to service.GEN
przez administratorów sieci
by   web administrators.ACC

(23) a. *Maria sprzedała samochód Janowi.*
'Mary sold the car to John.'

    b. *sprzedaż samochodu Janowi przez Marię*
'the sale of the car to John by Mary'

    c. *Maria sprzedała Janowi parę historyjek.*
'Mary told John a few unlikely stories (lit. Mary sold John a few stories).'

    d. *sprzedawanie/*sprzedaż historyjek   Janowi   przez Marię*
selling/*sale   unlikely stories.GEN Jan.DAT by   Mary.ACC
'the selling of unlikely stories to John by Mary'

As indicated by (22), while *blokada* can have argument structure, it cannot project a recipient argument. With *sprzedaż*, we see that it can only be used with the underlying event meaning of 'sale', but not with the meaning implied in (23d), which must in turn be composed at the level of vP. These constraints do not hold for the corresponding *-nie* nominals. Hence, it can be argued that nominals such as *blokada* or *sprzedaż* are actually derived by the attachment of the noun-producing suffix locally to the root via the little *v* head, unlike their *-nie* counterparts, which are formed by affixation above the cyclic layer.

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[40] *-Nie* and *-cie* are not allomorphs but two variants of the suffix *-ie*, with *-n-* and *-t-* (which phonologically alternates with *-c-*) serving as "Event Separators" (Jabłońska 2007).

The proposed verbal architecture can also account for cases in which an expected meaning is produced by the attachment of a prefix. Consider the verb *wystosować* 'submit, file (e.g. a complaint)'. Its derivational base is the verb *stosować* 'use, apply' and we can see that the attachment of *wy-*, shifts the meaning of the verbal base.[41] In line with DM principles, this must take place within the root domain. Therefore, *wy-* is merged above *v* and produces the relevant meaning together with the verbalizing suffix *-ow*.

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[41] This is very much along the lines of Svenonius (2004), who proposes the division of Slavic prefixes into 'lexical' and 'superlexical'. The prefix *wy-* falls in the class of lexical prefixes, which are merged below the VP and may form idiomatic structures with their verbal bases, as opposed to superlexical prefixes, attached above the VP.

Another argument in favour of merging *wy-* lower in the structure is that its attachment may shift the interpretation of the verb from intransitive to transitive, as is the case with *myśleć* 'think' (Willim 2020: 233).

(i) a. **myśleć   nową   potrawę*
         think.INF   new   dish.ACC
         Intended: 'devise a new dish.'

     b. *wymyślić/wymyślać nową   potrawę*
         wy.think.INF   new   dish.ACC
         'devise a new dish'

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