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DYNAMICITY AND INDIRECT CAUSATION
IN THE DOMAIN OF PSYCH EVENTUALITIES:
A NOTE ON THE ASPECTUAL PROPERTIES
OF NON-AGENTIVE IMPERFECTIVE OBJECT
EXPERIENCER VERBS IN POLISH

Abstract. The aim of this paper is to demonstrate that imperfective Object Experiencer verbs with non-agentive subjects need not be viewed as stative, as traditionally assumed. Dynamicity is attributed to the presence of an external Causer and the incremental character of the eventuality. The presence of the external argument is borne out by the availability of the eventive passive. Crucially, this external Causer argument is associated with eventive construal and requires a resultative component. There is no temporal co-extensiveness between the Causer and the Experiencer, because the Causer implies an event that precedes and leads up to the onset of a state in the Experiencer participant. The absence of control and volitionality in the Causer participant facilitates the Experiencer's entering a psych state. The presence of the dynamic subevent preceding the onset of the state is corroborated by the availability of adverbs of time/change and incremental modifiers. The presence of the resultative component in the event structure is detected with the *begin*-statements, which require the change-of-state to start, and the availability of the habitual interpretation in the present tense, which implies the attainment of the result state.

Keywords: psych verbs; Causer; causation; dynamicity; aspectuality; Polish

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DYNAMICZNOŚĆ I POŚREDNIA SPRAWCZOŚĆ
W OBREMBIE ZDARZEŃ PSYCHICZNYCH –
KILKA UWAG O ASPEKTUALNOŚCI
NIEDOKONANYCH CZASOWNIKÓW PSYCHOLOGICZNYCH
W JĘZYKU POLSKIM

Abstrakt. Celem artykułu jest wykazanie, że niedokonane czasowniki psychologiczne z nosicielem stanu (experiencer) w funkcji dopełnienia i nieagentywnym podmiotem nie muszą być postrzegane jako statyczne. Dynamiczność możliwa jest dzięki obecności zewnętrznej przyczyny o charakterze zdarzeniowym, wyrażonej jako argument zewnętrzny w funkcji podmiotu oraz wynika ze stopniowego charakteru sytuacji. Możliwość tworzenia strony biernej czynnościowej potwierdza obecność argumentu zewnętrznego. Argument ten ma charakter przyczynowo-zdarzeniowy i dodatkowo wymaga obecności zmiany stanu w strukturze sytuacyjnej. Nie ma jednoczesowości pomiędzy wystąpieniem przyczyny i wystąpieniem stanu psychicznego, ponieważ przyczyną/sprawcą jest wydarzenie, które poprzedza i prowadzi do stanu psychicznego nosiciela. Brak kontroli i wolicjonalności w czynniku powodującym ułatwia wejście doświadczającego w stan psychiczny. Obecność dynamicznego podzdarzenia poprzedzającego początek stanu w sytuacji denotowanej przez wyrażenie predykatywne wynika z możliwości modyfikacji przez przysłówki czasu/zmiany i modyfikatory przyrostowe, zaś obecność składnika rezultatywnego ujawnia się w konstrukcjach z czasownikiem aspektowym *zaczynać* oraz w dostępności interpretacji iteratywnej w czasie teraźniejszym.

Słowa kluczowe: czasowniki psychologiczne; sprawca/czynnik powodujący; kauzacja; dynamiczność; aspektualność; język polski

Psych verbs occupy a special position among verbal predicates and defy a simple classification on account of the fact that they involve internally caused and internally manifested states of the Experiencer participant. The aim of this paper is to identify and elaborate on an understudied area within the domain of Polish psych verbs, namely non-agentive causative Object Experiencer verbs (OE verbs) in the imperfective. Since they are imperfective, it is tacitly assumed that they fall in with the stative psych verb category. We shall adduce empirical evidence testifying to their dynamic character and argue that they can be viewed as events of gradual scalar change. The paper is organized as follows.

Section 2 provides a thumbnail sketch of general theoretical and empirical issues raised in connection with psych verbs. In Section 3, we delimit the scope of our interest (imperfective OE verbs in Polish) and give the gist of our proposal. Our arguments in favour of their dynamic causative interpretation are set out in Sections 4–6 and relate to the availability of the eventive passive and various adverbial modifiers, as well as the interpretation in the present tense. Our findings and conclusions are summarized in Section 7.

1. THE STATIVE–DYNAMIC DISTINCTION IN THE DOMAIN OF PSYCH VERBS

The thematic features and aspectual versatility of psych verbs have generated a robust literature. Two main classes of psych verbs are generally identified: Subject Experiencer (SE) verbs such as *love*, *hate* or *admire*, which are uniformly stative predicates (see Grimshaw, 1990; Pustejovsky, 1991; Pesetsky, 1995; Landau, 2010), and Object Experiencer (OE) verbs, which are aspectually heterogeneous in that there are OE verbs which are invariably stative such as *fear*, *worry* or *interest* and OE verbs which can alternate between stative and dynamic interpretations such as *frighten*, *annoy* or *amuse* (Grimshaw, 1990; van Voorst, 1995; Arad, 1998, 1999).¹ In addition to a stative psychological interpretation, which is observed in other OE predicates, the verbs falling into the polysemous category exhibit a dynamic agentive reading. Arad (1998, 1999) demonstrates that in fact three possible interpretations are available of these OE verbs depending on the combination of two dynamicity factors: the identity of the subject (i.e. whether it is an Agent or an involuntary Causer) and whether there is a change of state (CS) in the Experiencer.

- (1) a. *John deliberately frightened Mary with a fake snake to test her fear response.*
- b. *The noise frightened me to death.*
- c. *Mental illness is not well understood: it frightens people and all too often it carries a stigma.*

In (1a) the verb takes an (intentional) Agent, whose presence is confirmed by the possibility of agent-oriented modification and implicit purpose clause, and causes a change of state in the Experiencer, thus triggering the *agentive* reading. However, when the non-Experiencer argument is an involuntary Cause or Stimulus triggering a change of state in the Experiencer the verb expresses

¹ The astounding flexibility of psych verbs has instigated conflicting analyses. In some studies, OE verbs are analyzed as telic predicates, specifically, as achievements (Pustejovsky, 1991; van Voorst, 1992), or as accomplishments (Grimshaw, 1990; Tenny, 1994; Landau, 2010). Filip (1996) questioned their telic character, whereas Arad (1998) pointed to stative causation, an idea which was then taken up by Rothmayr (2009) and Alexiadou and Iordăchioaia (2014) among others. We believe that such alternations between telic/atelic and stative/dynamic interpretations coupled with a variety of argument realization patterns can best be handled in a syntax-driven approach to argument structure and event structure as envisaged in Alexiadou et al. (2015). In this paper, however, we choose to concentrate on empirical issues and do not consider their theoretical ramifications.

an *eventive/causative* reading (1b). Here the verb is dynamic by virtue of the presence of the CS component, thus showing that dynamicity need not be linked to the action of an intentional Agent. Finally, an OE verb can be stative, in which case there is neither Agent nor change of state in the Experiencer (1c).

Arad (1998, p. 15) argues that in stative uses a Stimulus ‘by itself’ triggers the perception of a mental state and forms an integral part of the event of mental state, i.e. there is temporal co-extensiveness between the obligatory presence of the Stimulus and the presence of the mental state. Crucially, there is no change of state. On dynamic interpretations, there is a change of state and the Agent/Causer is a truly external argument because it is not part of the temporal path of the event, i.e. it only causes the CS event and the new state holds independently. In her view both stative and non-stative interpretations involve causation (confirmed by causative morphology in Finnish, Hebrew, Japanese), where stative causation is understood as merely triggering a state and active causation as causing a CS.²

Marín and MacNally (2011) further contributed to the discussion on psych eventualities by replacing the notion of change of state or telicity with that of an *onset* of a state lacking the preceding change component. Thus, the intransitive, *se*-marked counterparts of OE verbs in Spanish are inchoative states devoid of dynamic properties. Once we adopt the view that psych events are not telic *per se*, it becomes necessary to lay bare the differences between psych verbs and *bona fide* bi-eventive change-of-state structures. Polysemous psych verbs show a cluster of puzzling properties. On agentive uses, they cannot be viewed as composed of the causing subevent culminating in a necessary result state. The onset of a state may but need not be triggered by the purposeful action of an Agent.³ However, there is a strong(er) implication of the onset of a state with Causer subjects. The implication of entering a psych state correlates with the absence of control and volitionality, a situation which is reminiscent of the cases of defeasible causation in accomplishment predicates with animate Agents (Martin & Schäfer, 2014; Martin, 2020).⁴ This can be attributed to the fact that despite being transitive, psych-eventualities seem to primarily involve the Ex-

² The concept of stative causation is also envisaged in Pylkkänen (2000), Kratzer (2000), and Dowty (1979).

³ Van Voorst (1992) demonstrates that the onset of a psychological state should be handled separately from an agentive activity. Despite the intentional actions of a volitional Agent, the onset of a state ultimately rests with the Experiencer participant (his mental disposition).

⁴ There is now extensive research on the phenomenon of the mere implication of a result state in accomplishment predicates if they take an animate Agent subject and the entailment of the result state if the referent of the subject is a Causer.

pericer participant. The onset of a psych state (the moment when the participant starts to perceive the state) is internally manifested and ultimately is internally caused even though there may be concomitant external causation (either agentive or non-agentive). In stative OE verbs, apart from absence of volition and control on the part of the Stimulus, there must be temporal co-extensiveness between the Stimulus and the Experiencer. The presence of a volitional Agent in the structure opens the possibility of a non-psych interpretation and implies that there is no temporal co-extensiveness of the two subevents. Structures with non-agentive Causers, which are the focus of our attention, are intermediate in that the referent of the subject lacks control or volition characterizing the structures with an Agent but unlike in stative structures they lack co-temporality of the two subparts, i.e. the causing eventuality and the experiencing/perception state (Cançado et al., 2024).

2. THE PSYCH VERB CATEGORY IN POLISH

2.1 IDENTIFYING A LACUNA IN RESEARCH

A comprehensive overview of psych eventualities in Polish is offered by Biały (2005) and more recently by Willim (2020, 2021). Here we will narrow down the scope of interest to the OE class. It has been customary, following Biały (2005, p. 75), to recognize the contrast between stative and non-stative verbs, which is established by applying a battery of diagnostic tests, which include compatibility with temporal and counting adverbials, availability of the imperative mood and interpretation in the present tense. Some representative examples from both classes are provided in (2):

- | | | |
|-----|----------------------|---|
| (2) | Stative
OE verbs | <i>martwić</i> ‘to worry’, <i>przygnębiać</i> ‘to depress’, <i>interesować</i> ‘to interest’, <i>fascynować</i> ‘fascinate’, <i>smucić</i> ‘to sadden’, <i>cieszyć</i> ‘to please’, <i>brzydzić</i> ‘nauseate’, <i>niepokoić</i> ‘bother’ |
| | Eventive
OE verbs | <i>irytować</i> ‘to irritate’, <i>straszyć</i> ‘to scare’, <i>obrazić</i> ‘to insult’, <i>oczarować</i> ‘to spellbind’, <i>rozbawić</i> ‘to amuse’, <i>rozgniewać</i> ‘to annoy’, <i>rozczarować</i> ‘disappoint’ |

In line with Arad (1998), Biały (2005) bases his differentiation on temporal dependence. In the stative OE predicates, causation and the emotional state are viewed as contemporaneous and can be co-identified and represented by a single

event variable, whereas in the non-stative predicates, the two sub-parts are viewed as temporally independent. Some psych verbs can be construed as inherently stative (e.g. *martwić* ‘worry’), others as inherently eventive, i.e. denoting the onset of the state (e.g. *rozgniewać* ‘anger’, *przestraszyć* ‘frighten’), yet others show a three way ambiguity, as illustrated in (1) for English (e.g. *denerwować* ‘annoy’, *upokarzać* ‘humiliate’). The purpose of this paper is to look into the aspectual flexibility of imperfective OE verbs in Polish. Extensive research has so far been conducted on the properties of perfective psych eventualities. They are mostly analyzed as dynamic inceptive eventualities, as illustrated in (3). They are distinct from accomplishments which denote a process with a natural culmination (see Rozwadowska, 2003, 2012, 2020) and can in fact be regarded as their mirror image in that they are left boundary phenomena denoting the onset of the state. However, more recently Willim (2020) has demonstrated conclusively that they can also be viewed as events of gradual scalar change, i.e. telic degree achievements (4).⁵

- (3) *Historia starożytna zafascynowała Tomka.*
 history ancient fascinate.PST.PFV Tom.ACC
 ‘Ancient history started to fascinate Tom.’

- (4) *W ciągu dwóch dekad zachód stopniowo
 in duration two.GEN decades.GEN West.NOM gradually
 zniechęcił się do Pakistanu.*
 dishearten.PST.PFV se to Pakistan

‘The West has gradually become disheartened towards Pakistan over the course of (the last) two decades/Western countries have gradually become disheartened towards Pakistan over the course of (the last) two decades.’

Putting aside, for the moment, the semantic differentiation in the perfective, the generally accepted position is that if the subject is agentive regardless of whether the verb is perfective or imperfective, we are dealing with a dynamic eventuality. The + perfective marking is necessary for an eventive interpretation if the subject is inanimate, non-volitional and non-personal (Rozwadowska & Bondaruk, 2019; Bondaruk, 2020, pp. 144–147; Willim, 2020; Bondaruk & Rozwadowska, 2024).

Let us illustrate the problem. If a verb takes an (intentional) Agent, whose presence is confirmed by the possibility of agent-oriented modification with *celowo*

⁵ Example (3) comes from Rozwadowska (2012, p. 542) and example (4) from Willim (2020, p. 221).

‘deliberately/on purpose’ (5) or implicit purpose clause (6), then the *agentive* reading can be triggered. The attainment of the change of state is not a necessary prerequisite for a dynamic construal.

- (5) *Nauczyciel celowo denerwował^{IPFV} studenta.*
 ‘The teacher annoyed the student on purpose.’
- (6) *Nauczyciel celowo denerwował^{IPFV} studenta, żeby zmusić go do popełnienia błędu.*
 ‘The teacher deliberately annoyed the student to force him to make a mistake.’

However, when the non-Experiencer argument is an involuntary Cause or Stimulus, for the interpretation to count as *eventive/causative* there must be a change of state in the Experiencer. In these cases, the animacy of the subject is irrelevant since animacy does not imply agentivity. Here there must be a CS but it does not come about as a result of action of an intentional Agent.

- (7) a. *Nauczyciel niechcący zdenerwował^{IPFV} studenta.*
 ‘The teacher unintentionally upset the student.’
- b. *Zachowanie nauczyciela zdenerwowało^{PFV} studenta.*
 ‘The teacher’s behaviour upset the student.’

Currently available analyses seem to suggest that if there is no change of state signalled by the perfective marking on the verb, the eventuality is stative.

- (8) a. *Nauczyciel nieumyślnie denerwował^{IPFV} studenta.*
 ‘The teacher was unintentionally getting on the student’s nerves.’
- b. *Zachowanie nauczyciela denerwowało^{IPFV} studenta.*
 ‘The teacher’s behavior annoyed the student.’

Following the line of reasoning of Landau (2010), who insists that there should be a change of state for a predicate with a non-volitional Causer to count as eventive, Bondaruk and Rozwadowska (2024) speak of stative (imperfective) and eventive (perfective) OE verbs in Polish. They fully adhere to the correlations introduced in Biały (2005), namely non-punctuality/stativity vs. punctuality/non-stativity. Our contention is that non-punctuality (indicated by the imperfective aspect) can in fact correlate with non-stativity in the absence of an Agent.

2.2 THE OUTLINE OF THE PROPOSAL AND THE SCOPE OF THE ANALYSIS

The semantics of imperfective OE verbs is generally skirted around, the perfective formations being given the pride of place (Rozwadowska, 2012; Rozwadowska & Bondaruk, 2019; Bondaruk & Rozwadowska, 2024; Willim, 2016, 2020, 2021). Willim (2021, p. 46) notes in passing that the stative/eventive distinction in imperfective OE verbs could be approached in terms of the individual- vs. stage- level distinction (Dowty, 1979; Kratzer, 1995) and/or the Kimian- vs. Davidsonian-state contrast (Maienborn, 2007; Rothmayr, 2009), and yet the idea of a dynamic construal of imperfective OE verbs has not so far been given any serious thought. The central research question is whether imperfective psych verbs can be coerced into dynamic interpretations if there is no direct or indirect implication of a volitional Agent and if this is indeed the case what the granularity of that eventuality is. It is also of interest to us what exactly is the aspectuality of the imperfective verb in the agentive use. In the course of our discussion we will argue that non-stative imperfective psych verbs denote dynamic, durative and atelic situation types. With causative subjects only one interpretation is available, namely that of an incremental activity. They are events of gradual scalar change (degree achievements with an open scale). With agentive subjects two interpretations are available. They are either incremental atelic eventualities (as with causative subjects)⁶ or they are homogenous activities, an observation so far having gone unnoticed. Importantly, on either reading there is no entailment of a natural or necessary terminus. There is merely a potential bound marked by the onset of a state in the Experiencer, which is manifest in the perfective.

Notably, prefixation is the hallmark of perfective psych verbs showing the inceptive/ingressive/inchoative reading (as in *zafascynować* ‘fascinate.PFV’ in (3) above), whereas the verbs denoting an incremental change towards a maximum point on a property scale (such as *zniechęcić* ‘dishearten.PFV’ in (4) above) bear the perfective marking at the right edge. The prefix *z-*, which can be observed in *zniechęcić* ‘dishearten.PFV’, plays a role in verbalizing the prefix + root combination *nie-chęć* ‘aversion’ – *z-niechęć-i-ć*, but it is not involved in expressing the perfective–imperfective contrast as the prefix *za-* in *zafascynować* ‘fascinate.PFV’. Here the aspectual contrast rests with the theme vowel, which additionally verbalizes the root in tandem with the prefix *z-* (Malicka-Kleparska, 2015). The prefix can be associated with the ‘cause to be in the state’ interpretation.

⁶ Biały (2005) looks on them as Agent-Patient verbs with incremental structure (cf. Rozwadowska, 2012 though). Willim (2021) notes that as such “they typically denote temporally extended events with a process part controlled by an Agent leading up to a result state and are associated with a multi-valued scale” (p. 47). We claim that they are incremental but atelic.

If a psych eventuality is internally caused (inchoative state) and there is temporal co-extensiveness between the Stimulus and the state, it is a stative eventuality. Stative eventualities entail that the Experiencer object in transitive structures autoactivates the state at the very thought of the Stimulus by virtue of its inherent properties, e.g. *Praca fascynuje Marię* ‘Work fascinates Mary’. In such inherently stative verbs, the stative (imperfective)–dynamic (perfective) contrast is reduced to the state vs. onset of the state reading (*fascynować* – *zafascynować*) (cf. (3) above). We leave out such cases from the scope of our discussion, since our attention is directed at those psych roots which are pliable enough to be interpreted dynamically in the imperfective. In other words, we are interested in verbs in column (9b) which can alternate between stative and dynamic interpretations.

(9)

	a. Stative	b. Dynamic
Causation	Internal causation	External causation/(Agentive)
Aspectual class	state	degree achievement/ (degree achievement or activity)
	<i>martwić</i> ‘worry’	<i>nudzić, zanudzać</i> ‘bore, make bored’
	<i>przygnębiać</i> ‘depress’	<i>zawstydząć</i> ‘shame’
	<i>cieszyć</i> ‘be happy with’	<i>pocieszać</i> ‘console’
	<i>smucić, zasmucać</i> ‘be sad, sadden’	<i>zasmucać</i> ‘sadden, make sad’
	<i>bawić</i> ‘be amused at, amuse’	<i>rozbawiać</i> ‘amuse’
	<i>złościć</i> ‘annoy, anger’	<i>rozzłościć</i> ‘annoy, anger’
	<i>fascynować</i> ‘fascinate’	<i>rozczarowywać</i> ‘disappoint’
	<i>interesować</i> ‘interest’	<i>rozweselać</i> ‘make happy, cheer up’
		<i>podniecać</i> ‘excite, arouse’
		<i>uspokajać</i> ‘calm, pacify’
		<i>zadziwiać</i> ‘amaze’
		<i>upokarzać</i> ‘humble, humiliate’
		<i>niepokoić</i> ‘worry, disturb’
		<i>denerwować</i> ‘annoy’
		<i>zadręczać</i> ‘torment’
		<i>irytować</i> ‘irritate’
		<i>drażnić</i> ‘annoy’

wzburzać ‘anger’
onieśmielać ‘intimidate’
odstraszać ‘deter’
szokować ‘shock’
stresować ‘stress’

We argue that for the verbal structure to be interpreted dynamically there must be an Agent (regardless of the granularity of an eventuality) or a Causer if the eventuality denotes an incremental process. Let us elaborate on the activity and degree achievement interpretations of imperfective OE verbs in Polish.

The proposed alternations fall in with the stative-dynamic coercion paths proposed for other stative verbs. Stative verbs can be coerced into an activity or into an achievement which has an inchoative meaning of entering a state (Walková, 2013). A state is a homogenous situation type involving lack of volition. In line with Comrie (1976, p. 49), it is often assumed that dynamicity subsumes two dimensions: Agent-control and/or change (of state). The coercion of a state can be achieved by affecting either of these dimensions.

States are inherently involuntary, so the introduction of a volitional Agent subject in the structure is conducive to dynamicity. The Agent provides the necessary input of energy for the situation to count as dynamic and to be interpreted as a homogenous activity, as in (10).

- (10) *Lekarze celowo zniechęcają nas do soli i tłuszczu.*
 ‘Doctors deliberately dissuade us from eating salt and fat.’
 (Doctors act in such a way as to induce aversion to salt and fat in their patients.)

Here we are dealing with a state–activity alternation, i.e. the psych root occurs in a syntactic frame characteristic of manner verbs.

However, the presence of an external Causer, in our view, opens the possibility of a dynamic interpretation, thus giving rise to a complex event consisting of a causer event and the psych state (Martin, 2020, but cf. Cançado et al., 2024). For Cançado et al. (2024) all psych verbs with Causer subjects are causative inchoative states, i.e. stage level predicates, which are stative. OE verbs describe a complex stage-level state in which a stimulus state activates (in a causative relation) a mental state in an Experiencer. This is in line with Pytkäinen (2000) who notes that causative verbs can be stative when the causally related situations are both perceived as states (a complex state with a stage-level interpretation

decomposable into two substates). However, she also envisages the existence of dynamic causative structures if the Causer can be reinterpreted dynamically. Even Cançado et al. (2024) note that when states are externally caused, the causing eventuality can be reinterpreted as preceding the mental state and causing its beginning. They entail that the referent of their Experiencer object in transitive structures is on its way to enter the state. In effect, we can conclude that imperfective psych verbs can be ambiguous between a causative inchoative state (11a) and a causative inchoative event (11b), e.g.

- (11) a. *Nieprzyjemne zapachy w trwały sposób zniechęcają nas do danych miejsc.*
 ‘Unpleasant odors cause us to feel permanent aversion towards certain places.’
 b. *Narastające trudności powoli zniechęcają Marię.*
 ‘Accumulating difficulties are slowly beginning to dishearten Maria.’

We will pursue this line of reasoning and argue that there are dynamic eventualities in which a causer event activates a mental state in the Experiencer. As a result, we have a complex eventuality decomposable into a causative subevent and a substate. In our case, one of the causally related situations is (or strongly implicates the existence of) a larger dynamic event that the DP Causer stands for. Since there is no Agent in the structure, dynamicity can be attributed to the eventive construal of the Causer DP and the non-homogenous granularity of the situation type.

Dynamicity is linked to the lack of homogeneity and follows from change or motion. It presupposes duration and internal development. These requirements are satisfied by degree achievements (Dowty, 1979, p. 88), which are vague predicates that express some change of state but lack an inherent endpoint in their semantic structure. The endpoint of a scalar degree predicate is relative to some standard of comparison or is determined contextually (Hay et al., 1999). In psych verbs the temporal progress of the event is correlated with an intensity scale in the Experiencer, e.g.

- (12) *Wałęsa – z każdym dniem wkurza mnie coraz bardziej ... i traci resztki swojego autorytetu.*
 ‘Wałęsa is pissing me off more and more every day ... and he’s losing what’s left of his authority.’

In what follows we shall adduce corpus-based evidence (mostly from the National Corpus of the Polish Language (NKJP); Przepiórkowski et al., 2012) in favour of the dynamic character of a class of Polish psych verbs which correspond to causative inchoative states in other languages. We shall argue that imperfective OE verbs lacking volitional Agents pass certain dynamicity tests. The examples cited throughout will exclude the intentional involvement of an Agent. Whenever personal nouns appear in subject position, the context rules out their control of the eventuality. The evidence relates to the availability of verbal passives, adverbial modification, and interpretation in the present tense.

3. VERBAL PASSIVE

The passive voice in Polish is formed by combining the auxiliary verb *być/bywać* ‘to be’ or *zostać/zostawać* ‘to become’ with the passive participle, ending in *-n(y)*, *-on(y)* or *-t(y)* (Nagórko, 1996, p. 92). Perfective verbs have eventive passive and state-resultative passive, whereas only the eventive construction is available for imperfective verbs. The distinction carries over to the domain of eventive psych verbs, as illustrated in (13) for the verb *upokorzyć*^{PFV} – *upokarzać*^{IPFV} ‘humiliate’:

(13) Eventive passive

- a. *Jeśli ktoś **był upokarzany** i gnębiony, to aby funkcjonować musi to oddawać.*
 ‘If someone was being humiliated and oppressed, in order to function properly he must give it back.’
- b. *Butny faraon **został upokorzony**, a jego okrucieństwa wobec ludu izraelskiego nie uszły kary boskiej.*
 ‘The arrogant Pharaoh had been humiliated, and his cruelties against the people of Israel did not escape divine punishment.’

Stative passive

- c. *Nie szczędziłaś swego życia, gdy naród nasz **był upokorzony**, ale przeciwstawiłaś się naszej zagładzie.*
 ‘You did not spare your life when our nation was humiliated, but you opposed our annihilation.’

The distinction between eventive and stative passive is interpretative and categorical. The *być* + imperfective participle (13a) and *zostać* + perfective participle (13b) show an actional interpretation, whereas *być* + perfective participle (13c) shows the state reading (Zabrocki, 1981). The participle in (13a–b) is verbal, whereas in (13c) adjectival (Bondaruk & Rozwadowska, 2018).

The availability of verbal passive is an important diagnostic of the dynamic character of the verb. On the eventive and agentive interpretation OEs can form *zostać*-passive (Bondaruk et al., 2017a), whereas stative OEs in Polish such as *martwić* ‘worry’, *przygnębić* ‘depress’ do not form *zostać*-passive or eventive passives in general, because they lack the external argument (EA) (Bondaruk et al., 2017b). Passive morphology absorbs the external theta-role and verbs lacking it will not passivize. Passivisation is possible with dynamic perfective psych verbs such as *zaniepokoić* ‘worry’. The availability of the verbal passive testifies to the presence of the external argument. If it is an Agent, it is licensed in the *przez*-phrase, and if it is a Causer, it features in the instrumental case. In their most recent proposal, Bondaruk and Rozwadowska (2024, p. 22) provide examples of OE verbs featuring in *zostać*-passives with an agentive (14a) and causative interpretation (14b–c). They assume that both are licensed in the same structural position (i.e. the specifier of VoiceP) because Causer DPs may sometimes alternate with a *przez*-phrase (14c).

- (14) a. *Lokatorzy budynku zostali zaniepokojeni przez policję.*
 residents.NOM building.GEN became bothered.PERF by police
 ‘Residents of this building were bothered by the police.’
- b. *Lokatorzy budynku zostali zaniepokojeni hałasami.*
 residents.NOM building.GEN became bothered.PERF noises.INST
dochodzącymi z jednego z mieszkań.
 coming from one of flats
 ‘The residents of this building were bothered by the noises coming from one of the flats.’
- c. *Lokatorzy budynku zostali zaniepokojeni przez hałasy*
 residents.NOM building.GEN became bothered.PERF by noises
dochodzące z jednego z mieszkań.
 coming from one of flats
 ‘The residents of this building were bothered by the noises coming from one of the flats.’

The availability of eventive passive speaks in favour of recognizing the Voice projection in their structure. However, the syntax of agentive and causative structures in the passive is not identical since, the latter only optionally allow the *przez*-phrase, whereas the former never deploy the instrumental adjunct phrase for agentive EAs. The conflation of Agents and Causers accounts for the availability of eventive passive, but is not conducive to disentangling the interpretative differences between them.

Here, I would like to point to the advantages of recognizing two types of Voice as proposed by Martin (2020). Her proposal allows us to capture the analysis of Causers as external arguments and accounts for their semantic peculiarity, namely the entailment not a mere implication of the inchoative state. According to Martin (2020) there are two types of Voice, Voice_{ag} introducing Agents and Voice_c introducing Causers. Voice_{ag} introduces the external argument *x* and relates it to the event *e* introduced by the predicate it combines with, and specifies that *x* is the Agent of *e* (Kratzer, 1996). Crucially, it does not introduce any further event. In transitive structures with non-agentive subjects the external argument introduces an eventuality causing the event denoted by the VP.⁷ Causers are teleologically incapable of generating the event on their own, i.e. they must be conceived of as forming part of a larger event – they are part of a more complex chain of causation (Folli and Harley, 2008). Furthermore, as argued by Schäfer (2012), Causers unlike Agents are subject to the resultative restriction, i.e. they are thematically licensed by causative-resultative event structure. With these facts in mind, we can try to explain why Causer subjects feature as instrument DPs and sporadically as complements of *przez*-phrases. The Instrumental case on the DP that corresponds to the inanimate subject of the active sentence is an indicator of indirect causation, reduced intentionality and control, a cluster of features which is the exact opposite of *bona fide* agency. It is the spell out of the availability of a (teleologically incapable) Causer as opposed to an Agent. In psych predicates the external causation of an eventuality is not direct. The DP subject is part of a larger event which is capable of triggering a psych state in the Experiencer. This subject DP is merely a facilitator of an internally caused state which is entailed in the verbal predicate. It is impossible to exercise control over the unfolding of the psych eventuality – ultimately psych states are internally caused. DP Causer is to be viewed as an initiator/participant

⁷ In her classification of psych verbs, Pykkänen (2000) envisages the existence of inchoative nonstative verbs whose Stimulus argument must be eventive. Levin and Grafmiller (2013) observe that OE verbs of the *frighten* type “entail certain proto-agent properties of their stimuli, most importantly, causation” (p. 30). Also Pykkänen (2008, p. 93) and Levin and Rappaport-Hovav (1995, p. 84) view the Causer not so much as a participant but as a causing event.

of a chain of events that acts as an indirect Agent. The inanimate subject has no control over the actions of a mediating direct initiator (the Experiencer) who is simultaneously the undergoer/the holder of the state. Ultimately, causation rests on an internally caused event which involves one participant (the Experiencer). This causative eventuality comes about as a result of another external causing event.

Imperfective OE verbs are also found in eventive passive structures, featuring the Causer as the instrumental case marked DP, as in (15):⁸

- (15) a. *Ma już kilkanaście wygranych spraw, ale ciągle jest zaskakiwana sposobem działania PZU.*
 ‘She has already won over a dozen cases, but she is still taken by surprise by the way PZU operates.’
- b. *Ja wolę być 100 razy dziennie denerwowany prośbami o zmianę operatora, niż być skazany na jednego.*
 ‘I would rather be annoyed 100 times a day by requests to change the operator than be stuck with one.’
- c. *Od 2 tygodni inwestorzy są irytowani wypowiedziami polityków na temat wprowadzenia podatku od transakcji giełdowych.*
 ‘For 2 weeks, investors have been irritated by politicians’ statements regarding the introduction of a tax on stock exchange transactions.’
- d. *“Polska strefa” w kraju zanudzana jest od rana do wieczora propagandą proeuropejską.*
 ‘The “Polish zone” in the country is bored with pro-European propaganda from morning to evening.’
- e. *Czytelnik jest szokowany relacjami z erotycznych przygód i alkoholowych libacji.*
 ‘The reader is shocked by accounts of erotic adventures and alcoholic parties.’

There is a presupposed event that precedes the internally caused eventuality involving the onset of the state; the state can be conceived of as a potential final stage in a larger chain of causation. This means that it indirectly comes about as a result of some activity which precedes the onset of the state.

⁸ Alexiadou and Schäfer (2006) conclude that Instruments become Causers if they occur in an eventive construal.

4. ADVERBIALS

4.1 ADVERBS OF TIME AND CHANGE

Rate adverbs such as ‘quickly’ and ‘slowly’ are predicates of events and as such they cannot modify states. Rawlins (2013) calls them “adverbs of time and change” since they do not quite refer to the manner in which the action is carried out. Such modifiers add some dimension to the change implied by the sentence, e.g. by characterizing the rate at which the described action evolves, by measuring the time until change occurs, or by indicating that the change is instant or gradual. When used with psych verbs, they are conceived of as modifiers of the development phase preceding the onset of the state they refer to, i.e. they modify the speed at which the psychological event progresses, whether the Experiencer enters the state quickly or slowly. The adverb *powoli* ‘slowly’ implies development over time and is incompatible with instantaneous events unlike *szybko* ‘quickly’ which refers to high speed at which the psychological event progresses.

- (16) a. *Należę do ludzi, których przeciwności dość **szybko** zniechęcają.*
 ‘I am one of those people who get discouraged quite quickly when faced with adversities.’
- b. *Każda większa ulewa niszczy ich starania i **powoli** zniechęca do wszelkiej działalności.*
 ‘Each major downpour destroys their efforts and slowly discourages all activities.’
- c. *Suchy wykład **szybko** nudzi młodzież.*
 ‘A dry lecture quickly bores young people.’

Thus, it is possible to access the time interval immediately preceding the onset of a state. The time interval that goes between an arbitrary point in time and the starting point of the psych event. These adverbials often occur with the aspectual verb *zaczynać* ‘begin’ with the inchoative/inceptive interpretation. The meaning of *zaczyna mnie to powoli/szybko* ‘it is slowly/quickly beginning to’ in combination with a psych verb can be interpreted as ‘it is slowly or quickly causing me to/I am about to enter the state because of/I am slowly beginning to enter the state’:

- (17) a. *Te głupie porażki zaczynają powoli nas denerwować.*
 ‘These stupid failures are slowly starting to annoy us.’
- b. *Posłów ta sytuacja zaczęła szybko denerwować.*
 ‘The MPs quickly began to get irritated by this situation.’
- c. *Polska rzeczywistość zaczyna mnie powoli irytować.*
 ‘Polish reality is slowly starting to irritate me.’
- d. *Brak kolejnego sukcesu zaczyna mnie powoli niepokoić.*
 ‘The lack of further success is slowly starting to worry me.’
- e. *Role dobrodusznych bohaterów w wykonaniu TH zaczynają mnie powoli nudzić.*
 ‘The roles of good-natured heroes performed by TH [Tom Hanks] are slowly starting to bore me.’

According to Martin (2020) when the causative predicate has a Causer subject, the *begin*-statement requires the change-of-state to start (e.g. *The conversation started to give her an idea*), because the causative event type is tokenized by CS of the theme when the predicate is combined with a Causer external argument. On the other hand, if a causative predicate is used agentively, this entails that the activity controlled by the Agent has started because the onset of the action coincides with the onset of the causing event when the predicate is combined with an agentive external argument. The beginning of an action aimed at triggering a state need not entail that a change in theme’s referent has been initiated (e.g. *Paul started to give her an idea (but she is even not listening to him)*). The examples in (17) above show the former reading, i.e. the participant starts being annoyed, irritated, worried, bored etc.

4.2 INCREMENTAL MODIFIER *STOPNIOWO* ‘GRADUALLY’

Degree modifiers indicate that the action progresses in different stages. Piñón (2000) discusses the properties of *gradually* and *more and more*. The adverb *gradually* implies stepwise change, and is therefore incompatible with states or activities lacking an explicit scale of change.

Some states have a scale of intensity along which they are realized (*love a bit/a lot* vs. **know a bit/a lot*) and “the adverbial *more and more* asserts that the degree of the state steadily increases over time” (Piñón, 2000, p. 448). This is to say that “the result of modifying a state by *more and more* is an activity” (Piñón, 2000, p. 449) and therefore it can further be felicitously modified with

gradually, e.g. *Peter gradually loved Mary more and more (as he grew older)*. If activity verbs are provided with a scale of change, they can be modified with *gradually*, e.g. *I gradually drank more and more wine (at the party)*. Verbs with an inherent scale can be used with *gradually* without any additional modification: *The sky gradually darkened (for two hours)*. The modifier *gradually* is compatible with achievements but forces their reinterpretation into accomplishments (e.g. *gradually realize* implies *gradually come to realize*).

The general conclusion is that “it is possible for gradually to modify *what leads up to* the situation described by the VP” (Piñón, 2000, p. 452), which explains its cooccurrence with virtually all situation types with the caveat that states and activities have or are provided with a scale of change.

If the scale of change is lexically specified in the root, the verb can be directly modified by *stopniowo* ‘gradually’. We can thus assume that the verbs in (18) have dynamic incremental structure.

- (18) a. *Owe ciosy sukcesywnie dochodziły do celu i stopniowo zniechęcały do ataku.*
 ‘These blows successively reached the target and gradually discouraged the attack.’
- b. *Pozwoliłam, by słabe światło i kojący dotyk żelu stopniowo mnie uspokajały.*⁹
 ‘I allowed the dim light and the soothing touch of the gel to gradually calm me down.’
- c. *Nowy Caylus (gra planszowa) zaskakiwał mnie stopniowo. Zaczął dosyć obojętnie, a potem powoli rozwijał skrzydła.*¹⁰
 ‘The new Caylus (board game) surprised me gradually. It started out quite indifferently and then slowly spread its wings.’

If the root encodes merely a scale of intensity in its lexical meaning, it can be turned into a dynamic eventuality with the adverb of gradual change of degree *coraz bardziej* ‘more and more’. As Willim (2016) notes, the compatibility of imperfective psych predicates with *coraz bardziej* ‘more and more’ implies that the state “can be graded with respect to intensity over an interval” (p. 74). Dynamicity results from the correlation of the changes in intensity with consecutive

⁹ <http://www.mbp.cieszanow.eu/pliki/Elity%20Edenu.pdf> (retrieved July 19, 2024).

¹⁰ <https://www.facebook.com/photo/?fbid=690381058241693&set=a.327050401241429> (retrieved July 19, 2024).

time intervals, i.e. advancement along the temporal scale is matched with increase along intensity scale. Note the eventive Causer subject in (19a–b) below:

- (19) a. *Jednocześnie kierownictwo sowieckie coraz bardziej niepokoił **rozwój sytuacji** w Polsce.*
 ‘At the same time, the Soviet leadership became increasingly concerned about the development of the situation in Poland.’
- b. *Mnie natomiast coraz bardziej drażni **fatalne sędziowanie turnieju**.*
 ‘I am increasingly irritated by the terrible refereeing of the tournament.’

The incremental granularity of the eventuality, i.e. the fact that the development of the event can be perceived as progressing in successive phases, is confirmed by the possibility of further modification with *stopniowo* (20a–b):

- (20) a. *Fabula **stopniowo coraz bardziej** intryguje czytelnika, a gdy akcja przenosi się do świata fantastycznego, to porywa go ze sobą.*¹¹
 ‘The plot gradually intrigues the reader more and more, and when the action moves to a fantasy world, it takes the reader with it.’
- b. *Wydawało się wtedy, że ma ona (Platforma Obywatelska) jakiś ciekawy program dla Polski, ale z upływem lat, **stopniowo, coraz bardziej** mnie rozczarowywała.*¹²
 ‘At that time, it seemed that it (Civic Platform) had some interesting program for Poland, but over the years, it gradually disappointed me more and more.’

In sum, compatibility with degree modifiers points to the ability of stative verbs to be coerced to degree achievements. Verbs show a reading which is associated with an open scale and atelicity. An imperfective psych OE verb expresses a change along a multipoint scale, the values referring to different degrees of intensity. Once again it is possible to access the time interval that spans some arbitrary point in time up to the moment preceding the onset of the state.

¹¹ <https://www.granice.pl/ksiazka/kraina-opowiesci-zaklecie-zyczen/6047740> (retrieved August 12, 2024).

¹² <https://www.frona.pl/a/jerzy-zelnik-dla-frondy-jestem-z-tymi-ktorzy-sluchaja-ludzi,84185.html> (retrieved August 12, 2024).

5. HABITUAL INTERPRETATION IN THE PRESENT TENSE

Dynamic verbs have a habitual interpretation in the present tense (Marín & MacNally, 2011, p. 16), whereas statives have a non-habitual interpretation (their meaning is generic or episodic) and so they have a non-iterative interpretation with durative adverbials (Marín & MacNally, 2005). The imperfective in Polish is used for generic, habitual and episodic actions hence the meaning can be disambiguated with the aid of adverbials. Willim (2016) observes that stative psych verbs require the adverbial ‘more and more’ to receive a progressive interpretation in contexts inducing the on-going dynamic reading and they receive non-habitual interpretation in the present tense. Therefore, in cases where imperfective psych verbs co-occur with adverbs such as *regularnie* ‘regularly’, *codziennie* ‘every day’, *ilekroć* ‘whenever’, *wielokrotnie* ‘many times’, we can assume that they denote iterated dynamic eventualities, i.e. an unspecified number of successive onsets of a state occurring within an unbounded interval. The imperfective is a ‘non-aspect’ in Polish, which reflects the inherent *Aktionsart* of the verb (Willim, 2006). Therefore, all sub-constituents of an eventuality are implied (including the CS), though not necessarily asserted, in the imperfective.¹³

In examples in (21) below with temporal ‘when/whenever’, the onset of the state is posterior to the situation described by the temporal clause, hence the relationship between them can be considered to be of a causal nature, as in Marín and McNally’s (2005) discussion of *cuando/siempre que* ‘when/whenever’ clauses.¹⁴

- (21) a. *Andrzej Wajda zaskakuje mnie, ilekroć się z nim spotykam.*
 ‘Andrzej Wajda surprises me every time I meet him.’
 b. *Czuję się punkówą. Wkurza mnie, gdy ktoś to podważa.*
 ‘I feel a punk. It pisses me off when someone questions this.’
 c. *Zaskakiwała mnie często, a czasami szokowała nagłość twoich przemian.*
 ‘I was often surprised, and sometimes shocked, by the suddenness of your changes.’

¹³ Willim (2006, p. 194) points out that an imperfective partner of a telic culminating event selects the process part in an episodic on-going context, but preserves the inherent endpoint in its semantic representation in habitual contexts and narrative present.

¹⁴ Note the translation of the sentence *Cuando lo molestas, el perro se enfada mucho*: ‘When you bother him, the dog is very angry [and the onset of anger coincides with or is after the onset of bothering].’ Thus, the more appropriate translation is ‘When you bother him, the dog gets very angry.’

CONCLUSION

Despite extensive literature on the aspectual and semantic properties of stative and dynamic OE verbs in Polish, we seem to have discovered a niche in this well-explored terrain, namely non-agentive imperfective OE verbs which are dynamic. In this paper we attempted to substantiate the claim that imperfective OE verbs with non-agentive subjects need not be viewed as stative.

Dynamicity is attributed to the presence of an external Causer and the incremental character of the eventuality. The availability of the eventive passive is conclusive evidence in favour of the presence of the external argument. However, it is our contention that this external Causer argument is associated with eventive construal and that it fulfils the resultativity requirement.

There is no temporal co-extensiveness between the Causer and the Experiencer, because the Causer implies an event that precedes and leads up to the onset of a state in the Experiencer participant. The absence of control and volitionality in the Causer participant facilitates the Experiencer's entering a psych state. The presence of an external Causer makes it possible for the causing eventuality to be reinterpreted as preceding the mental state and causing its beginning.

The presence of the dynamic subevent preceding the onset of the state is corroborated by the availability of adverbs of time/change and incremental modifiers. The presence of the resultative component in the structure is detected with the *begin*-statements, which require the change-of-state to start, and availability of the habitual interpretation in the present tense, which implies the attainment of the result state.

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