Case and Events in Ukrainian Experiencer Predicates

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Verbs that assert a psychological state (psych verbs) exhibit an apparent linking irregularity: the non-Experiencer argument can appear in two different structural positions, each associated with a different eventuality and case possibilities. This paper sets out to demonstrate that these two positions constitute different sites of generation (Arad 1998; McGinnis 2000; Folli & Harley 2007), rather than being associated by movement (Belletti & Rizzi 1988). A larger claim advanced here is that the role of the non-Experiencer argument is determined by a syntactic regularity, and need not, as a result, be stated in the lexicon for each individual case.

The lexical entry for a psych verb asserts a mental state and its Experiencer, as well as a second argument that systematically alternates between a Theme/Stimulus reading (for states) and a Causer reading (for events). Given this flexibility in the realization of the non-Experiencer argument, psych verbs provide a good testing ground for investigating a related claim that theta-role assignment must, in some cases, be treated as “constructional, in the sense that it is effected in a syntactic configuration” (Hale & Keyser 1993; see also Arad 1998, McGinnis 2000, Borer 2005, Folli & Harley 2007, a.o.).

1. Transitive Impersonals are Incompatible with Psych Verbs

1.1 Ukrainian Transitive Impersonals  
We first turn to a Transitive Impersonal construction in Ukrainian that will serve us shortly as a diagnostic for the structure of psych verbs. A Transitive Impersonal is a structure in which accusative occurs in the absence of an external argument. The participial predicate occurs in non-agreeing form by default: there is no nominative argument with which it can agree.

* I gratefully acknowledge Svitlana Antonyuk-Yudina for assistance with the Ukrainian data. This paper extends ideas initially developed in Lavine & Franks 2008 and Lavine, in press. All errors in interpretation remain my own.
(1) Xatu bulo spaleno blyskavkoju.
    houseACC was burned-down[∗-AGR] lightningINST
    ‘The house was burned down by a strike of lightning.’

(2) Skljanyj stil bulo rozbyto ihraškoju.
    glass tableACC was shattered[∗-AGR] toyINST
    ‘The glass table was shattered by the toy.’

The examples in (1–2) are “unaccusative causatives” (Pylkkänen 2008). They assert a causing event without projecting an external Causer argument, as in (3). This means that \( \nu\text{-CAUSE} \) does not project a specifier. Causation is identified, instead, by an internal argument with causative semantics.¹ The \( \nu \)-head, as in standard accounts, remains the accusative probe. In other words, for accusative valuation, it is sufficient for \( \nu \) to be causative, regardless of its (external-) argument projecting property.

\[ \text{(3)} \]
\[ \begin{array}{c}
\text{TP} \\
T \quad \nu\text{-CAUSEP} \\
\quad \nu\text{-CAUSE} \quad \text{VP} \\
\quad \text{ACC} \\
\end{array} \]

Note that absent the VP-internal Causers in (1–2), the Transitive Impersonal fails—accusative is not valued (\( \nu\text{-CAUSE} \) fails to be identified). Consider the monadic unaccusatives in (4–5a). These inchoatives assert no causative sub-event, just a change of state.

(4) *Xatu zhoreno.
    cottageACC burned-down[∗-AGR]

¹ Consider the role of an internal argument in the identification of \( \nu\text{-CAUSE} \) akin to Borer’s (2005) notion of “range assignment” to a feature of a functional head, which is otherwise an open value. For example, a definite DP object assigns range to the [quantity] feature of Borer’s Asp head. In the absence of a quantity DP, the Asp node is ill-formed and the telic interpretation associated with it is unavailable. \( \nu\text{-CAUSE} \) is similarly ill-formed (and the associated causative interpretation is unavailable) in the absence of an internal argument with causative semantics.
   balloon_{ACC} burst_{[-AGR]}
   [Intended: ‘the balloon burst.’]

b. Kulju rozirvano cvjaxom.
   balloon_{ACC} pierced_{[-AGR]} nail_{INST}
   ‘The balloon was pierced by a nail.’

Dyadic rozirvati ‘pierce’ in (5b) is embedded felicitously under v-CAUSE (now with expected accusative on the Theme) due to the presence of a second internal argument with the right semantics, here instrumental cvjaxom ‘by a nail’.

1.2 Psych Verbs Do Not Form Transitive Impersonals
Assuming that causativization, as described here, is a sufficient condition for accusative, why is it that the non-Experiencer arguments in (1–2), blyskavkoju ‘lightning:INST’ and ihraškoju ‘toy:INST’, fail to identify the necessary causative sub-event (v-CAUSE) in the case of psych predicates, as in (6–7), which are coerced here into Transitive Impersonal syntax?

(6) *Ivana bulo zdyvovano blyskavkoju.
   Ivan_{ACC} was surprised_{[-AGR]} lightning_{INST}
   [Intended: ‘Ivan was surprised by/at the lightning.’]

(7) *Ivana bulo vtišeno ihraškoju.
   Ivan_{ACC} was consoled_{[-AGR]} toy_{INST}
   [Intended: ‘Ivan was consoled by the toy.’]

The examples in (6–7) are problematic for the causative theory of accusative since these internal Natural Force/Instrumental arguments can be shown to be causative elsewhere, as in the finite transitives in (8–9):

(8) Blyskavka zdyvuvala Ivana.
   lightning_{NOM,F:SG} surprised_{F:SG} Ivan_{ACC}
   ‘The lightning surprised Ivan.’

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2 See Tsedryk 2004 for related discussion.
(9) Ihraška vtišyla Ivana.
    toy\textsubscript{NOM,SG} consoled\textsubscript{F,SG} Ivan\textsubscript{ACC}
    ‘The toy consoled Ivan.’

A crucial point (discussed in some detail in section 2) is that the non-Experiencer argument systematically receives a Theme (Stimulus)—but crucially not causative—reading, when merged VP-externally. A causer, a non-volitional initiator of an event (such as a natural force), is to be distinguished on this account from a Theme/ Stimulus, which cannot set an event in motion—the Theme/ Stimulus is interpreted as inert, in this sense, for building the event (see Ramchand 2008). This is why (6–7) are ungrammatical, on the present account. Recall that the Transitive Impersonal in causative; without a Causer argument, \textit{v-CAUSE} is not identified (there is no internal argument with the appropriate causative semantics), so the accusative marking on the Experiencer has no source. For example, hypothetical \textit{zdvyvano} ‘surprised:[–AGR]’ in (6) is a causative without a Causer. This is the source of its ungrammaticality. Meanwhile, \textit{blyskavka} ‘lightning:NOM’ and \textit{ihraška} ‘toy:NOM’ in (8–9) do function as Causers or Initiators of the surprising and consoling events. That is, the two sets of sentences, (6–7) and (8–9), display two different sets of theta roles (Experiencer-Theme vs. Causer-Experiencer). Accusative arises only in the case of the causative sub-event entailed by the latter theta grid.

Compare (8–9) with their stative participial variants in (10–11), in which VP-internal \textit{blyskavkoju} ‘lightning:INST’ and \textit{ihraškoju} ‘toy:INST’ are interpreted as Theme arguments, rather than Causers, and accusative is correspondingly not deployed:

(10) Ivan buv zdvyvanyj blyskavkoju vsju nič /
    Ivan\textsubscript{NOM,M,SG} was surprised\textsubscript{M,SG} lightning\textsubscript{INST} all night\textsubscript{ACC}
    * za dvi hodyny.
    in \{two hours\}\textsubscript{ACC}
    ‘Ivan was surprised at the lightning (all night/*in two hours).’

(11) Ivan buv vtišenyj ihraškoju dva tyžni /
    Ivan\textsubscript{NOM,M,SG} was consoled\textsubscript{M,SG} toy\textsubscript{INST} \{two weeks\}\textsubscript{ACC}
    * za misjac’.
    in \{month\}\textsubscript{ACC}
    ‘Ivan was consoled by the toy (for two weeks/*in a month).’
That (10–11) are states is indicated by Vendler’s for x time test (‘all night’, ‘for two weeks’), which distinguishes states (and activities) from achievements and accomplishments (which are compatible with in x time modification). For our purposes, note that the stative reading patterns with the VP-internal expression of the non-Experiencer argument.

1.3 Summary of Core Data and Proposal
To summarize thus far, the eventuality (event vs. state) of the predicate is determined by the position in which the non-Experiencer argument appears. The eventive interpretation (with accusative on the Experiencer) is only possible with a VP-external Causer, as in (12b); the stative interpretation patterns with a VP-internal Theme, as in (12c).

(12) Summary: Morphosyntax and Eventuality
(a) Transitive Impersonal—Eventive
   *Ivana bulo vtišeno ihraškoju. [repeated from (7)]
   [Intended: ‘Ivan was consoled by the toy.’]
(b) Finite Transitive—Eventive
   Ihraška vtišyla Ivana. [repeated from (9)]
   ‘The toy consoled Ivan.’
(c) Agreeing Participial—Stative
   Ivan buv vtišenyj ihraškoju. [repeated from (11)]
   ‘Ivan was consoled by the toy.’

There are two elements of the analysis that have been largely assumed up to this point: (i) the role of the non-Experiencer argument (Theme vs. Causer) is determined by its site of generation; and (ii) causation is a sufficient condition for accusative valuation. We turn now to this first point, the so-called “constructional” (or configurational) account of theta-role assignment, and take up the role of causation in accusative valuation in section 2.

It is reasonable to question whether the Causer is base-generated VP-externally or originates in the VP-internal position and appears VP-

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1 By contrast, in x time modification, e.g. za hodynu ‘in an hour’, appears normally in eventive (9), giving ‘the toy consoled Ivan in an hour’, though such modification is pragmatically odd for the instantaneous event depicted in (8).
externally due to movement (cf. “Psych Movement” in Belletti & Rizzi 1988). Note first that the movement account is problematic on locality grounds, since it requires moving the Theme over a higher Experiencer argument (presumably for case). On the account advanced here, in which the non-Experiencer argument is taken to be realizable either as a Theme or Causer, based on syntactic position, the movement account has the undesirable consequence of effecting a change in the theta role—Theme-to-Causer—in the course of a derivation.

If eventive and stative psych predicates contain different sets of theta roles, two different sets of entailments should hold of them. Pesetsky (1995: 56–60) points out that the non-Experiencer argument of stative psych verbs denotes the stimulus of the psychological state, while the non-Experiencer argument of eventive psych verbs denotes its cause. On Pesetsky’s account, the stative in (12c) asserts that the toy is the “Target” (our Theme) of Ivan’s consolation (he is consoled when he perceives the toy). This does not have to be the case in eventive (12b), in which the toy caused Ivan’s consolation (the change in his emotional state), but might not be its Target (see also Baker 1997: 76–79; and Levin & Rappaport Hovav 2005: 14–15). Imagine, for (12b), that the toy is defective. It might very well cause the change in Ivan’s emotional state, but not be the Target of his consolation (which, instead, we might imagine to be the happy childhood that the toy evokes).

Pesetsky’s own examples are given in modified form in (13):

(13) a. Bill was distressed by/at/about the article in the Times. [Target]
   b. The article in the Times distressed Bill. [Causer]

In (13a), it is the mere thought of the article in the Times that evokes Bill’s state of distress. In (13b), while the article in the Times causes Bill’s distress, it is not necessarily its Target. Bill, in fact, might be quite pleased that the article was printed, though distressed by its subject matter (e.g., the economy). In short, the fact that we can imagine two different sets of truth conditions for (12b–c) and (13a–b) argues strongly in favor of an account that admits two different sets of theta roles in these nearly synonymous sentences.
2. Some Structural Aspects of Verbal Meaning

We turn now to a consideration of how meaning is built up in the case of psych predicates. The discussion to follow is guided by the following two leading ideas: (i) a psych verb can combine with an eventive or stative \( v \) (Arad 1998); and (ii) eventive \( v \) can bundle its argument-projecting property (VOICE) and its transitivity property (CAUSE) in one \( v \) head (as in English) or can appear unbundled (Pylkkänen’s 2008 “voice-bundling parameter”). According to Pylkkänen (90), “[an unbundled] causative asserts the existence of a causing event without relating any participant to it” (in its specifier).

2.1 Transitive Impersonal (Eventive)

The Transitive Impersonal in (14), repeated from (1), is an unaccusative causative. Unbundled \( v\text{-CAUSE} \) is non-argument projecting (no specifier), but remains an accusative probe. This particular variety of \( v \), the functional equivalent of a \( v \)-head that hosts an overt causative morpheme, is identified in Transitive Impersonals by an internal argument with causative semantics. The structure in (15) provides one possible implementation for teasing apart the causative property of \( v \) (its transitive property) from its argument-introducing property, the latter absent in unaccusative causatives.

(14) Xatu bulo spaleno blyskavkoju.
    house\text{acc} was burned-down[-AGR] lightning\text{inst}
    ‘The house was burned down by a strike of lightning.’

(15) \[
\begin{array}{c}
\text{TP} \\
\text{T} \\
\text{v-CAUSEP} \\
\text{v-CAUSE} \\
\text{VP} \\
\text{ACC}
\end{array}
\]

4 See the discussion of Japanese adversative causatives and unaccusative causatives in Pylkkänen 2008; see also Bowers 2002 and Markman 2004 for much related discussion.
In (14) both VP-internal arguments receive case by completion of the vP phase (blyškavka ‘lightning:INST’ receives its theta role and inherent case from V). The result is that there is no nominative argument with which finite T can agree. It appears, as a consequence, in default non-agreeing form (-no/-to). Under this account, /-no/-to/ itself need not be lexically stipulated—it falls out naturally from the syntax.

Observe that we can now more sharply identify the incompatibility of psych verbs with the Transitive Impersonal: (i) the Theme/Stimulus argument has the wrong semantics for v-CAUSE; and (ii) a Causer, when present, receives its theta role in a specifier position (of v), while unbundled v-CAUSE is non-argument projecting. As a result, it contains no thematic specifier position. 

2.2 Finite Transitive Psych Verb (Eventive)
An Object Experiencer psych verb, such as (16), repeated from (9), is causative when embedded in a bundled v (that is, a variety of v containing both the transitivity property—i.e., the ability to value accusative—and the argument-introducing property). Crucially, the non-Experiencer argument is systematically interpreted as a Causer, rather than Theme, when generated in Spec,vP. The Causer is subsequently valued nominative by finite, agreeing T. The Experiencer is valued accusative by transitive v. Causative psych verbs have normal transitive syntax, which includes short verb movement, in order for lexical V to pick up the abstract causative morphology in v (as indicated in (17), but assumed to be the case elsewhere, as well).

(16) Ihraška vtišyla Ivana.
   toy NOM,FSG consoled FSG Ivan ACC
   ‘The toy consoled Ivan.’

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5 The possibility remains that a specifier position of v-CAUSE is built up in the course of the derivation as an escape hatch for wh-movement, topicalization, etc.
Note that if the Causer were generated below the Experiencer (as in Pesetsky 1995: 206–210), Transitive Impersonal psych verbs, such as (6–7), would be falsely predicted to occur, since the Causer, as an internal argument, would now be in a position to identify the v-CAUSE head. It is precisely the “height” associated with the Causer interpretation on the present account that correctly predicts the non-occurrence of psych verbs as Transitive Impersonals.

2.3 Agreeing Participial Psych Verb (Stative)
The non-Experiencer argument is systematically interpreted as a Theme when it occurs as complement to V, as in (18), repeated from (11), where it receives inherent case, and the predicate, now without a causative sub-event, is interpreted as stative. Recall that in the case of non-psych, dyadic unaccusatives (e.g., the Transitive Impersonal), V’s oblique complement is construed as causative, thus licensing the presence of the accusative probe, v-CAUSE; an argument in the same position in the case of stative psych verbs receives a Theme/Stimulus reading, rendering a hypothetical v-CAUSE in such constructions ill-formed.

Stative participial v in (19) is not accusative probing. The Experiencer moves, as indicated, from Spec,VP to a position in which it can be valued nominative by finite, agreeing T. (Recall that participial v is accusative-probing only in the v-CAUSE variety.)

(18) Ivan NOM.M.SG was consoled M.SG by the toy INST
    Ivan buv vtišenyj ihraškoju.

‘Ivan was consoled by the toy.’
The example in (18) is an adjectival (and not verbal) passive: (i) there is no operation on an external argument; (ii) it cannot be modified by a purpose clause (... *ščob vin moščav ‘so that he would be quiet’); and (iii) it does not contain a genuine by-phrase. Note that while inherent instrumental on ihraškoju ‘toy’ is homophonous with the instrumental by-phrase in the language, it is not related to the same theta role. Indeed, it is crucial, on the present account, to establish two different arguments (Causer in (16) and Theme in (18)) related to two different positions. So ‘toy:INST’ in (18) is not a “demoted” Causer, but rather a basic (underived) Theme/Stimulus. Compare Polish, where the verbal passive by-phrase and the Theme of the adjectival passive are not homophonous (See Babby & Brecht 1975 for an early formulation of these facts for Russian). The ungrammatical example in (20a) shows that psych verbs do not passivize. The passive by-phrase in Polish consists of przez ‘through’ + accusative. The instrumental expression in (20b) indicates the familiar Theme/Stimulus relation, expected on this analysis.

(20) Polish

a. Verbal Passive

*Jan został zmartwiony przez złą wiadomość.
Jan$_{nom}$ AUX upset by bad news$_{ACC}$
[Intended: ‘Jan was saddened by the bad news.’]

b. Adjectival (Stative) Passive

Jan był zmartwiony złą wiadomością.
Jan$_{nom}$ AUX upset bad news$_{INST}$
‘Jan was upset at the bad news.’
To summarize, psych verbs present one area of variation in argument realization that is tied to the “flavor” or feature composition of \( v \). When complement to \( V \), the non-Experiencer instrumental argument is a basic (underived) Theme, embedded under a stative \( v \). The non-Experiencer argument is construed as a Causer when in the specifier position of the “complete” variety of \( v \), in which both the transitivity and argument projecting properties are “bundled” in a single head. Patterns of case, agreement, and eventuality type follow, which would otherwise require redundant listing in the lexicon.

3. The Syntax–Lexical Semantics Interface

A central concern of this paper is to establish how much information about a psych verb must be contained in its lexical entry. Psych verbs, under any account, must minimally assert a mental state and the Experiencer of this state. But how the Experiencer comes to be related to this state, that is, the role assigned to the non-Experiencer argument, is, by hypothesis, left to the syntax. Note, in this regard, two competing theories of the Syntax–Lexical Semantics interface. On the account advanced here, often dubbed “(neo-)constructionist,” the syntax plays an augmented role in determining argument realization. On the lexicalist (“projectionist”) view, which states that the lexical semantics of a verb fully determines the syntactic realization of its arguments, the kind of variability we have seen in the argument realization of psych verbs would require a lexical rule dictating two different mapping patterns for each verb (see, e.g., Levin & Rappaport Hovav 1995; and, most recently, Babby 2009). It has been argued here that the apparent flexibility in the interpretation of the non-Experiencer argument reduces to whether or not \( v \) is eventive (causative and argument projecting) or stative. In this way, we predict that each psych root has potentially two different syntactic realizations, a causative and stative one, constrained only by the core meaning of the root itself. On the lexicalist account, the existence of multiple verb classes for psych roots would have to be specified pre-syntactically, thereby ignoring this syntactic regularity.

3.1 Alternations in Psych Argument Realization Elsewhere: Finnish

Psych verbs in Finnish also exhibit the familiar alternation between eventive and stative readings, with similar consequences for the deploy-
ment of accusative. Although all Object Experiencer verbs in Finnish appear with causative morphology, there is a morphological distinction between stative and eventive causatives that is reflected in the overt content of \( v \).

The subject of the stative causative psych verb in (21) is interpreted as the Theme/Stimulus, rather than its Causer. It contains a causative head that is non-argument introducing and non-accusative probing. The stative interpretation is indicated by the partitive marking on the object Experiencer (all stative verbs in Finnish appear with partitive case on the direct object).

(21) Hyttyset inho-\( \text{tta-} \)-vat Mikko-a.
mosquitos\( _{\text{NOM}} \) find.disgusting\( _{\text{CAUS.3PL}} \) Mikko\( _{\text{PART}} \)
‘Mosquitos disgust Mikko’

In contrast, the eventive causative psych verb in (22) has its own, base-generated Causer. It is the subject of an argument-introducing and accusative-probing causative \( v \). Here, the causative morpheme in \( v \) combines with the inchoative marker (INC), giving rise to the eventive interpretation (see Pylkkänen 2000 for details).

(22) Jussi viha-\( \text{stu-} \)-tti Maija-n.
Jussi\( _{\text{NOM}} \) anger\( _{\text{INC.CAUSE}} \) Maija\( _{\text{ACC}} \)
‘Jussi angered Mari / caused Mari to become angry.’

It is sufficient to note for our purposes that both options for the non-Experiencer argument are available in Finnish, a stative Theme and an eventive Causer, subject to the (overt) content of \( v \).

3.2 Non-Psych Alternations

We now turn briefly to certain non-psych alternations. We examine three cases of variability in argument realization that similarly argue in favor of some augmented role for syntax in this domain.

In the example in (23), unergative run in Italian, as evidenced by the ‘have’ auxiliary, appears in an unaccusative frame, with the ‘be’ auxiliary, when telicized (‘to home’).

\( ^6 \) The examples in (21–22) and (simplified) analysis are due to Pylkkänen 2000.
(23) Variable Behavior: Unergative ~ Unaccusative (Italian)
   a. Gianni ha corso.  
      Gianni has run      [unerg]  
   b. Gianni è corso a casa  
      Gianni is run to home  [unacc]  (Borer 2005: 32)

To account for this alternation, a lexical rule would have to specify multiple verb classes for *run* or provide separate [± TELIC] entries. The difference between (23a–b), however, is not a matter of the meaning of the verb itself, but rather of the entire predicate (Borer 2005: 35), now in (23b) with the addition of a PP providing a terminal point of motion. In light of these facts, and those that follow in (24), we can assume that it is the syntax of event structure (on the present analysis, the properties of v), rather than the lexical properties of individual verbs, that determines the predicate’s interpretation. This is seen in (24), where addition of the adverb *twice* forces the projection of an eventive v, thereby coercing a reading of two single events for otherwise stative *love*.

(24) Variable Behavior: Eventuality Type
   a. Kim loved Robin.  [state]  
   b. Kim loved Robin twice last month.  [event]  (Borer 2005: 129)

Finally, note the spray–load alternation in (25a–b). As observed by Dowty (1991: 591–92), an accomplishment reading with a definite count noun direct object is replaced with an activity reading when the same verb occurs with a mass noun object.

(25) Variable Behavior: Aspectual Class
   a. John loaded the truck with hay  [accomplishment]  
   b. John loaded hay on the truck  [activity]

The question, again, is where to assign this regularity. Does the systematic variability project from the lexicon (by means of multiple lexical entries) or is it derived via differences in syntactic representation? On an analysis in which different values for event structural phenomena are associated with different syntactic structures (and the feature content of the relevant functional heads), keeping largely to Borer 2005, the lexicon is relieved of massive redundancy with no loss in empirical coverage.
4. Conclusion

Variability in the argument realization of Object Experiencer verbs is due to their potentially causative semantics. The incompatibility of psych verbs with the Transitive Impersonal construction in Ukrainian argues in favor of treating the non-Experiencer argument as a Theme when it appears VP-externally. The Causer interpretation is assigned to the non-Experiencer argument in the specifier of a standard, transitive variety of v, from which it is probed nominative by T in an agreeing, personal construction. A psych root associates two arguments with a mental state: an Experiencer and a Theme or Causer. While the lexicon states the core meaning of the verb and the presence of an Experiencer of the mental state it denotes, the interpretation of the non-Experiencer argument is left to the syntax, as a function of its site of generation and the variety of v in which the psych VP is embedded. Additional arguments were adduced for treating variable argument realization elsewhere as governed by syntactic regularity, rather than by means of more complex (and potentially redundant) lexical entries.

References


