

# The Structure of *v*-Heads and the Status of the Initiator Role\*

James Lavine

*Abstract:* This paper examines whether the nature of causation is significant for syntactic processes. While recent work treats all external arguments the same way (Ramchand 2008; Bruening 2013; and Legate 2014), I argue that this identical treatment of Initiators is empirically inadequate for a series of Transitive Impersonal constructions. In particular, I show that non-volitional causers are not arguments of Voice, the highest verbal functional projection, but rather identify a lower, independent Cause head and, as such, may appear in the absence of Voice. The conclusions presented here have important consequences for a theory of *v*-heads and their role in licensing accusative.

## 1. Introduction

It is widely held that there are functional projections within the verb phrase that are responsible for projecting the external theta role, assigning accusative to the thematic object, and carrying information regarding event structure, specifically, causative semantics. The purpose of this paper is to broaden the empirical basis of theorizing in this functional domain on the basis of data from passive and passive-like constructions in Ukrainian and Icelandic, recently discussed in Legate 2014, and Transitive Impersonal constructions in Russian and Lithuanian. The goal is to further elucidate the features and functions of VoiceP/*v*P, the head taken to introduce the external argument, but now regularly treated as comprising at least two distinct heads with their own functions. Pylkkänen (2008), for example, distinguishes a higher VoiceP as the projection that introduces the external argument from a lower *v*, which introduces causative semantics (see also Bowers 2002; Folli and Harley 2005; Alexiadou, Anagnostopoulou, and Schäfer 2006, 2015; Schäfer 2008; and Legate 2014).<sup>1</sup>

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\* I gratefully acknowledge Len Babby and Julie Legate for general discussion of this material. All errors in interpretation and analysis remain my own.

<sup>1</sup> We do not concern ourselves here with verbalizing head *v*, which does not introduce argument DPs in its specifier.

Legate (2014) proposes a coarse-grained Initiator “macro-role” in her analysis of non-canonical voice constructions (see also Ramchand 2008 and Bruening 2013). I argue below for a finer-grained treatment of causers based on Legate’s own discussion of accusative survival in Ukrainian and Icelandic passives. I show that non-volitional causers are not external arguments and, as such, are not licensed by features of Voice. It follows that Voice cannot be the source of accusative in non-agentive transitive constructions. Further evidence for distinguishing non-volitional causers from the more general Initiator role comes from constructions in Russian and Lithuanian that arguably show causative semantics in the absence of an external argument.

Drawing on a variety of transitive non-volitional causer constructions (Transitive Impersonals) in which accusative appears on the thematic object in the absence of a higher nominative Agent, I show that non-volitional causers involved in these constructions operate in the absence of Voice.<sup>2</sup> I take the appearance of accusative case in the absence of Voice to indicate that the features voice and cause function independently in these languages, in the form of two discrete *v*-heads (Pylkkänen 2008), both of which probe accusative. This investigation of the appearance of accusative in the absence of a higher nominative argument extends earlier collaborative work (Lavine and Franks 2008), in which we dubbed the phenomenon “Accusative-First Syntax”.<sup>3</sup>

In Section 2, I introduce a range of constructions that are causative semantically, but lack the Voice projection. I show that the Natural Force causer fails to occur as an argument of Voice, thereby providing initial evidence for differentiating Agents and non-volitional causers. Section 3 is devoted to the question of accusative survival in Ukrainian and Icelandic passive and passive-like constructions. Here I expose certain weaknesses of Legate’s (2014) treatment of Voice as the source of accusative, particularly in light of Transitive Impersonals. In Section 4 I extend the analysis to “pain verbs” in Russian and Lithuanian. Here I show that VP-internal non-volitional causers do not always find an (appropriate) interpretation when merged in the specifier of the higher Voice projection, thereby providing evidence from a new empirical domain against the identical treatment of causers and other Initiators.

## 2. Causative Constructions without Voice

Below I survey constructions that have been treated in the recent literature as causative, in the absence of an Agent-introducing Voice projection.

<sup>2</sup> Alexiadou, Anagnostopoulou, and Schäfer 2006, 2015 reach a similar conclusion regarding the independent operation of Voice and Cause heads on the basis of an entirely different set of data, some of which is presented in Section 2.1.

<sup>3</sup> See Lavine and Babby 2019 for a more recent account based on similar data.

## 2.1. Anticausatives and Internally-Caused Verbs

It has been observed that the causative relation can occur without corresponding Voice even in anticausatives and internally-caused verbs. Alexiadou, Anagnostopoulou, and Schäfer 2006, 2015 and Schäfer 2008 argue that anticausatives, such as English (1a) and German (1b), are causative since they license causer PPs that indicate the presence of a Cause head. Such PPs are introduced by English *from* and German *durch* (while *by/von*, which introduce Agents, and *with/mit*, which introduce Instruments, are ungrammatical with anticausatives). So (1a–b) are causative, but not agentive.

(1) Anticausatives

a. The window cracked from the pressure.

b. German

Die Vase zerbrach durch ein Erdbeben.  
 the<sub>NOM</sub> vase broke through an earthquake

‘The vase broke from an earthquake.’

[Kallulli 2007; Alexiadou, Anagnostopoulou, and Schäfer 2015]

Alexiadou, Anagnostopoulou, and Schäfer (2015) provide further evidence for dissociating the causative relation from the Agent in their analysis of an oblique causer construction in German, illustrated in (2) (see also Schäfer 2008, 2012):

(2) German: Oblique Causer

Dem Mann ist die Vase zerbrochen.  
 the<sub>DAT</sub> man is the<sub>NOM</sub> vase broken

‘The man unintentionally caused the vase to break.’

Here, an oblique DP (marked dative), when added to an anticausative, is interpreted as the unintentional causer of the change-of-state event (see Alexiadou, Anagnostopoulou, and Schäfer 2015: 44–51 for details). Note, however, that neither *ein Erdbeben* ‘an earthquake’ (1b) nor *dem Mann* ‘the man<sub>DAT</sub>’ (2) are arguments of anticausative ‘break’, in contrast to the non-volitional causers surveyed in Section 2.2.<sup>4</sup>

<sup>4</sup> I assume that it is the presence of a causer *argument*, overt or null, that activates Cause as an accusative probe. This assumption is based in part on the examples from Russian, Ukrainian, and Icelandic in Sections 2.2 and 3, which I analyze as two-place and caused, in contrast to the one-place predicates surveyed here (see Lavine 2010, 2011, 2013, and Lavine and Babby 2019 for much additional discussion).

Even internally-caused verbs (Levin and Rappaport Hovav 1995) have been argued to show causation (see Rappaport Hovav 2014). The example in (3a) shows that internally-caused *blossom* cannot occur with an Agent or Instrument. But the occurrence of *blossom* with a Natural Force subject in (3b) is significantly improved. An additional example with a Natural Force subject is given in (3c). That the Natural Force subject *early summer heat* is not functioning as an Agent (i.e., is not introduced by Voice) is demonstrated by the inability of *blossom* to passivize (3d).

(3) Internally-Caused Verbs

- a. \*The farmer/\*the new fertilizer blossomed the fruit trees.
- b. Early summer heat blossomed fruit trees across the valley.
- c. Salt air rusted the chain-link fences. [Rappaport Hovav 2014]
- d. \*The fruit trees were blossomed by the early summer heat.

Alexiadou, Anagnostopoulou, and Schäfer (2015) show in (4) that internally-caused verbs can likewise occur with causer PPs.

(4) Internally-Caused Verbs: German

Der Baumstamm verrottete durch die Feuchtigkeit.  
 the<sub>NOM</sub> tree trunk rotted through the humidity

'The tree trunk rotted from humidity.'

[Alexiadou, Anagnostopoulou, and Schäfer 2015: 36]

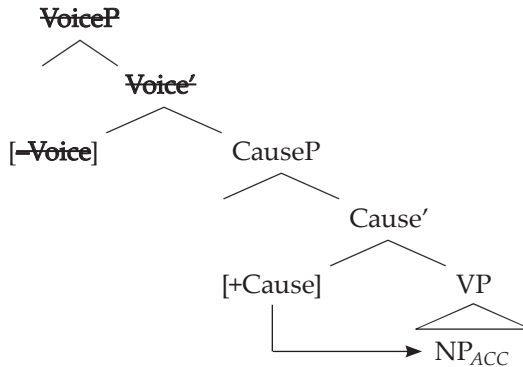
Internally-caused verbs are “pure” unaccusatives; as such, they lack the Voice layer. The discussion in this section provides initial support for the idea that not all Initiators target the same head in the functional domain dominating VP.

## 2.2. Transitive Impersonals

Additional evidence against the all-inclusive Initiator role comes from Transitive Impersonals—a series of constructions in which accusative appears in the absence of an Agent or any nominative argument (Babby 1994, 2010; Markman 2004; Lavine 2010, 2016; Lavine and Babby 2019). In certain languages, the mere presence of a causative subevent (sometimes indicated by an overt oblique causer) is sufficient to license accusative, even in the absence of Voice or a genuine external argument. I assume, as is now standard, that the Agent is not part of the lexical entry of verbal roots (Kratzer’s 1996 theory of Voice). An Agent may or may not be projected by a Voice head, depending on the

compatibility of an Agent with the eventuality described.<sup>5</sup> If an Agent is not projected, as in the case of the Transitive Impersonals below, Voice is inactive and absent in the syntax altogether (indicated in (5) by strikethrough).

(5) Split-*vP*



In the event that Voice is non-argument-projecting, accusative appears, so long as the event is caused. Voice in (5) is “unbundled” in Pylkkänen’s terms (see also Bowers 2002; Folli and Harley 2005; Alexiadou, Anagnostopoulou, and Schäfer 2006; Kallulli 2007; and Harley 2013).<sup>6</sup> In the case of lexically causative verbs in Russian, Cause is active as an accusative probe, regardless of the setting for Voice. In Russian (6a) below, Cause is activated by the presence of oblique *meteoritom* ‘meteor<sub>INST</sub>’, in (6b) by the PP *ot vzryva meteorita* ‘from the explosion of the meteor’, and in (6c) by oblique *solncem* ‘sun<sub>INST</sub>’, each of which is construed as initiating an out-of-human-control event.<sup>7</sup>

<sup>5</sup> On Kratzer’s (1996) theory of Voice, not all external arguments are necessarily Agents. The theta role of the external argument is instead determined by the Aktionsart of the VP (e.g., accomplishment, activity, state ...) with which Voice combines. For example, if the VP is stative, the external argument is interpreted as the holder of the state. It follows that the interpretation of the external theta role for Kratzer is not limited to Initiator, nor does Kratzer’s theory of Voice necessarily require that all Initiators be realized as subjects in Spec,VoiceP (see Kratzer 1996: 122–23).

<sup>6</sup> Pylkkänen (2008) proposes the “Voice-Bundling Parameter”, whereby non-Voice-bundling languages, which represent Voice and Cause on two discrete syntactic heads, as in (5), are distinguished from Voice-bundling languages, like English, in which “the causative relation and the external  $\theta$ -role are ‘packaged’ ... into one syntactic head” (Pylkkänen 2008: 100).

<sup>7</sup> Compare the ungrammatical English sentence in (i) (on the expletive interpretation for *it*) with grammatical (6a) in Russian:

(i) \*It blew out the window panes due to the meteor.

## (6) Russian: Transitive Impersonal (cf. (1))

- a. Vsem, komu [meteoritom stekla vybilo],  
 all<sub>DAT</sub> who<sub>DAT</sub> meteor<sub>INST</sub> window panes<sub>ACC</sub> knocked-out<sub>IMPERS</sub>  
 sečas novye steklopakety besplatno postavjat.  
 now new panes for free they will install  
 ‘Now they will install new panes for everyone whose windows  
 blew out due to the meteor.’ [Delovoy24.com; accessed 5 May 2016]
- b. Ot vzryva meteorita v Čeljabinske vybilo  
 from explosion of meteor in Chelyabinsk knocked-out<sub>IMPERS</sub>  
 stekla.  
 window panes<sub>ACC</sub>  
 ‘Window panes blew out due to the burst of a meteor in  
 Chelyabinsk.’ [Komsomol’skaya Pravda, 15 February 2013]
- c. Ledyšku rastopilo solncem.  
 Icicle<sub>ACC</sub> melted<sub>IMPERS</sub> sun<sub>INST</sub>  
 ‘The icicle melted due to the sun.’

The examples in (6a–c) raise several questions for the argument presented here against the all-inclusive Initiator. Note first that the non-volitional causer can actually be realized in two different ways: either as a VP-internal, obliquely-marked argument, as in the Transitive Impersonals in (6), or as the nominative subject of a “Derived Transitive”.<sup>8</sup> Note the examples in (7):

## (7) Russian

## a. Transitive Impersonal

- Ego sbilo s nog motociklom.  
 him<sub>ACC</sub> knocked down<sub>IMPERS</sub> from legs motorcycle<sub>INST</sub>  
 ‘He was knocked off his legs by (due to) a motorcycle.’

<sup>8</sup> Non-volitional causers are not arguments of Voice (see Alexiadou, Anagnostopoulou, and Schäfer 2015 for extensive discussion). In the case of the Derived Transitive, the non-volitional causer appears in Spec,CauseP—that is, at the edge of the *v*P domain, from where it is visible to the higher nominative probe in T. I refer to the construction as a “derived” transitive because I assume that the non-volitional causer originates in the same VP-internal position in both constructions. In the case of the Transitive Impersonal, the non-volitional causer remains in its VP-internal position from where it is too deeply embedded to be probed nominative by Tense (due to the active Cause head; cf. the Phase Impenetrability Condition of Chomsky 2001).

## (7) b. Derived Transitive

Ego sbil s nog motocikl.  
 him<sub>ACC</sub> knocked down<sub>M.SG</sub> from legs motorcycle<sub>NOM.M.SG</sub>  
 ‘A motorcycle knocked him off his legs.’

The question is whether the two alternates, as in the case of the passive alternation, are truth-conditionally equivalent. If so, this would support a treatment in terms of an undifferentiated Initiator. On the other hand, if the two alternates have different, sometimes subtle, meanings, and therefore are appropriate in different discourse contexts, as I will suggest, then the kind of causation in each construction must be further differentiated, relative to the syntactic position in which the causer occurs. To be sure, this question has received scant attention in the literature. The most authoritative treatment I am aware of dates back to Mel’čuk 1974. He suggests that while the Transitive Impersonal (7a) is used to assert that the event is not under the control of a volitional causer, the Derived Transitive (7b) is unmarked for human control: it neither asserts nor denies it.<sup>9</sup> In (8), the event described involves human beings, but the dynamics of the enormous crowd they are in has gone out of (human) control.

## (8) Russian: Transitive Impersonal

(Tolpa byla ogromna.) Postepenno ee prilivami i otlivami  
 (the crowd was immense) gradually its flows<sub>INST</sub> and ebbs<sub>INST</sub>  
 menja prižalo k stene.  
 me<sub>ACC</sub> pressed<sub>IMPERSONAL</sub> to wall  
 ‘The crowd was immense. Its ebb and flow gradually pinned me to  
 the wall.’ [V. Sysoev, *Xodite tixo, govorite tixo*]

In contrast, where human control is asserted, as in the example in (9) from Mel’čuk (1974: 358), only the Derived Transitive is appropriate, because it is clear from the context that the source of causation (‘a strong blow’) was intentional. The Transitive Impersonal, given in parentheses, is reported by Mel’čuk as ungrammatical on this reading.<sup>10</sup>

<sup>9</sup> I thank Len Babby for valuable discussion of Mel’čuk 1974. The analysis surrounding examples (7–9) borrows from Lavine and Babby 2019.

<sup>10</sup> Ksenia Zanon (p.c.) suggests a stronger context for the Derived Transitive:

(i) (Mašu atakoval razbojnik.) Ee sbil s nog sil’nyj  
 (A thief attacked Masha.) her<sub>ACC</sub> knocked-down<sub>M.SG</sub> from legs strong  
 udar.  
 blow<sub>NOM.M.SG</sub>

## (9) Russian: Derived Transitive

(Soldaty brosilis' na Ivana) i srazu že sil'nyj  
 (soldiers hurled themselves at Ivan) and immediately strong  
 udar ego sbil s nog (\*sil'nym  
 blow<sub>NOM.M.SG</sub> him<sub>ACC</sub> knocked down<sub>M.SG</sub> from legs strong  
 udarom ego sbilo s nog).  
 blow<sub>INST</sub> him<sub>ACC</sub> knocked down<sub>IMPERS</sub> from legs  
 'Soldiers hurled themselves at Ivan and a great blow immediately  
 knocked him off his feet.'

To summarize, in the case of the Derived Transitive, the causer DP is nominative in Spec,CauseP. (The causer is high enough to be probed nominative by Tense but is not an argument of Voice.) The Derived Transitive is used when the event is under human control, as in (9), or when there is no need to assert that the event is not under human control, as in (7b). In the case of the Transitive Impersonal, the causer appears VP-internally, where it bears oblique marking. The Transitive Impersonal is used to denote that the event is outside of human control, as in (7a) and (8). Note that such differences in the interpretation of the causer cannot be articulated in a framework that admits only a single, undifferentiated Initiator.

It is crucial to note the special semantics associated with the oblique-marked non-volitional causer. This point is underscored in (10), in which an Agent, an argument of Voice in (10a), receives virtually no interpretation as a non-volitional causer in the Transitive Impersonal in (10b). Even though in both (10a–b) the Initiator is the same entity, the interpretation of this entity ('a hunter') varies relative to its syntactic position.

The Agent must appear as an argument of Voice; only non-volitional causers are compatible with the VP-internal position (with oblique marking).

## (10) Russian

## a. Agentive Transitive

Oxotnik ubil olenja.  
 hunter<sub>NOM.M.SG</sub> killed<sub>M.SG</sub> deer<sub>ACC</sub>  
 'A hunter killed a deer.'

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'A thief attacked Masha. A great blow knocked her off her feet.'



## (10) b. Transitive Impersonal

#Olenja sbilo oxotnikom.  
 deer<sub>ACC</sub> knocked down<sub>IMPERS</sub> hunter<sub>INST</sub>

[Intended: 'A deer was knocked down due to a hunter.']

The only available interpretation for (10b) is that a hunter knocked the deer down in an out-of-human-control event, e.g., a hunter fell out of a tree and landed on a deer, thereby bringing the deer to the ground. To reiterate, each syntactic position determines its own interpretive possibilities for causers.

In light of this discussion of the Transitive Impersonal in Russian, we now consider a similar construction in Ukrainian in (11a–d). As in the case with the Russian Transitive Impersonal, in the Ukrainian construction, accusative appears in the absence of a higher Agent, and a non-volitional causer appears, most typically Natural Force, in the instrumental (the Natural Force causer is covert in (11d)). The predicate in the Ukrainian construction appears with impersonal passive-participial morphology and, thus, is either passive or the non-passive Ukrainian correlate of the Russian Transitive Impersonal (see Lavine 2005, 2013, 2017 for a more detailed account of the Ukrainian *-no/-to* construction).

## (11) Ukrainian Impersonal Construction

a. Derevo bulo vypaleno soncem.  
 wood<sub>ACC</sub> was burned<sub>IMPERS</sub> sun<sub>INST</sub>

'The wood warped due to the sun.' [Lavine 2013]

b. Joho oslipleno blyskavkoju.  
 him<sub>ACC</sub> blinded<sub>IMPERS</sub> lightning<sub>INST</sub>

'He was blinded due to the lightning.' [Lavine and Franks 2008: 244]

c. Bereh rozmyto tečijeju.  
 shore<sub>ACC</sub> washed away<sub>IMPERS</sub> current<sub>INST</sub>

'The shore was washed away due to the current.' [Parxomenko 1956: 315]

d. Rozbyto kryhu i vahu vody pryjmajut' berehy.  
 broke<sub>IMPERS</sub> ice<sub>ACC</sub> and weight of water take banks

'The ice broke and the banks are bearing the weight of the water.'  
 [Shevelov 1963: 141]

In assessing the status of the Ukrainian construction in (11), it must be determined whether the instrumental-marked Natural Force causers are licensed by Voice, as *by*-phrases of a passive, or instead, if they mark out-of-human-

control events as VP-internal non-volitional causers, as in the Russian Transitive Impersonal. If the latter, then the examples in (11) are not to be construed as passive. The Ukrainian Academy Grammar states that the impersonal (*-no/-to*) construction patterns more naturally with non-agentive natural phenomena and uncontrolled “non-actors” than with canonical agentive *by*-phrases (Bilodid 1972: 251), a fact that raises doubt about the status of this construction as (necessarily) passive. The problem that any analysis of this construction faces is the underspecified nature of the instrumental marking in (11a–c), since instrumental in Ukrainian marks both agentive *by*-phrases and non-volitional causers. It is therefore useful to consult the cognate expressions in neighboring (and closely-related) Polish, where these two functions are morphologically distinct. In Polish the passive *by*-phrase appears in the PP *przez* ‘through’ + accusative, whereas Natural Force causers may appear either in the PP *przez* + accusative or as a bare instrumental. Genuine passive Agents in Polish cannot appear as a bare instrumental (cf. (12a–b)).

(12) Polish: Canonical Passive

- a. W 2010 r. drzewo zostało spalone  
 in 2010 year tree(wood)<sub>NOM.N.SG</sub> became<sub>N.SG</sub> burned<sub>PASS.N.SG</sub>  
 przez wandalı.  
 through vandals<sub>ACC</sub>  
 ‘In 2010 the tree was burned down by vandals.’
- b. W 2010 r. drzewo zostało spalone  
 in 2010 year tree(wood)<sub>NOM.N.SG</sub> became<sub>N.SG</sub> burned<sub>PASS.N.SG</sub>  
 \*wandalami.  
 vandals<sub>INST</sub>

Examples of the Polish Natural Force Causer construction are given in (13).<sup>11</sup>

(13) Polish: Natural Force Passive

- a. Jego lewe ucho było spalone słońcem.  
 his left ear<sub>NOM.N.SG</sub> was<sub>N.SG</sub> burned<sub>PASS.N.SG</sub> sun<sub>INST</sub>  
 ‘His left ear was burned by the sun/was sunburned.’

<sup>11</sup> I thank Bożena Rozwadowska and Bożena Cetnarowska for assistance with the Polish data. All errors in the interpretation of these data are my own.

- (13) b. Drzewo zostało uderzone przez piorun  
 tree<sub>NOM.N.SG</sub> became<sub>N.SG</sub> struck<sub>PASS.N.SG</sub> through lightning<sub>ACC</sub>  
 / piorunem.  
 lightning<sub>INST</sub>  
 ‘The tree got struck by lightning.’
- c. Dom został obalony przez  
 house<sub>NOM.M.SG</sub> became<sub>M.SG</sub> knocked down<sub>PASS.M.SG</sub> through  
 wiatr / wiatrem.  
 wind<sub>ACC</sub> wind<sub>INST</sub>  
 ‘The house was knocked over by the wind.’ [Swan 2002: 314]

In Polish, for Natural Force causers only, both marking strategies on the Initiator are possible, which I take to indicate two distinct structures, only one of which is related to Voice (*przez* + accusative). In other words, Natural Force causers in Polish, unlike genuine Agents, are only optionally treated as linked to Voice. Instrumental marking is not available in the *by*-phrase position adjoined to Voice, as evidenced by ungrammatical (12b). Instead, instrumental is assigned VP-internally, as in the Russian Transitive Impersonal, as another realization of the predicate’s causer argument.<sup>12</sup>

Let us now return to the Ukrainian construction in (11). We have already observed the symmetry of the Ukrainian construction with the patently non-passive Russian Transitive Impersonal: accusative licensing on the thematic object in the presence of an oblique-marked non-volitional causer. Now recall the data in (12–13) from Polish, which indicate that the instrumental Natural Force does not occur in a position related to Voice. Assuming that Passive is a property of Voice (and not Cause), we see preliminary evidence for a non-passive analysis of the Ukrainian construction (with a Natural Force causer). The strong hypothesis is to treat the Ukrainian construction in (11) as a Transitive Impersonal, passive in form only. Crucially, it follows that if non-volitional causers are not licensed by features of Voice, then Voice cannot be the source of accusative in these non-agentive transitive constructions (contra Legate 2014; see Section 3). Note further that Polish provides counter-evidence to the undifferentiated Initiator theory. Agentive *by*-phrases receive only one morphological realization: the *przez* + accusative PP. In the event that the Polish passive is initiated by a Natural Force, the causer is only optionally

<sup>12</sup> The predicate ‘burn’, for example, allows external causation, but the precise nature of its causer is not lexically specified. Unlike ‘assassinate’, for example, which occurs only with an Agent causer, ‘burn’ occurs equally felicitously with an Agent or Natural Force. I assume that the argument structure stipulates the verb only as potentially externally caused; the syntax determines the nature of the causer as a function of the position in which it is merged.

realized by the *przez*-phrase; bare instrumental marking on the causer is also possible. We might suspect the same differentiation of Initiators in Ukrainian, which is obscured by the instrumental marking of both functions.

We now compare the Ukrainian facts with the Icelandic New Impersonal Construction (NIC), which is likewise passive in form and has been variously described as passive (Eythórsson 2008; Jónsson 2009; Sigurðsson 2011) or as an innovative active (Maling and Sigurjónsdóttir 2002; Maling 2006).<sup>13</sup> Regardless of the status of the NIC, we might conjecture that it arose as a reflex of the syntax described for the Transitive Impersonal (namely, the unbundled *vP* in (5)). This is because the thematic object bears accusative case, even in combination with passive-participial morphology, precisely as in the Ukrainian construction. Examples are given in (14).<sup>14</sup>

(14) Icelandic NIC

- a. Það var skoðað bílinn.  
*it*<sub>EXPL</sub> was inspected<sub>PASS.DFLT</sub> car.the<sub>ACC</sub>  
 ‘The car was inspected.’ [Jónsson 2009: 294]
- b. Það var lesið minningargreinina.  
*it*<sub>EXPL</sub> was read<sub>PASS.DFLT</sub> obituary.the<sub>ACC</sub>  
 ‘The obituary was read.’ [Jónsson 2009: 297]

But note that unlike the Ukrainian construction, the NIC fails in Icelandic with a Natural Force causer, as in (15).

(15) Icelandic: NIC

- a. Það var bjargað uppskerunni.  
*it*<sub>EXPL</sub> was saved<sub>PASS.DFLT</sub> crop.the<sub>DAT</sub>  
 ‘The crop was saved (\*by the sun; rain).’ [Jónsson 2009: 287]
- b. \*Það var rekið bátinn á land af vindinum.  
*it*<sub>EXPL</sub> was driven<sub>PASS.DFLT</sub> boat.the<sub>ACC</sub> to land by wind.the  
 [Intended: ‘The boat was driven ashore by the wind’]  
 [H. Sigurðsson, p.c.]

<sup>13</sup> I thank Tolli Eythórsson, Jóhannes Gísli Jónsson, and Halldór Sigurðsson for assistance with the Icelandic data.

<sup>14</sup> The New Impersonal Construction is considered substandard; it is predominantly used among adolescents outside of “Inner Reykjavík” (Maling and Sigurjónsdóttir 2002).

Thus, we observe again that certain passive-formation possibilities hinge on the kind of causation involved. This would be unexpected if the Natural Force causer were just one instantiation of an all-inclusive Initiator licensed by Voice.

To summarize, in Section 2.1 we surveyed evidence for the occurrence of a Cause head in constructions that are standardly assumed to lack Voice. The analysis presented in Section 2.2 of the Ukrainian Impersonal construction builds on this observation. The fact that the Ukrainian construction occurs more naturally with Natural Force causers than with agents, as reported in the Ukrainian Academy Grammar (Bilodid 1972), would be unexpected under a passive analysis. The possibility for distinct morphological marking of agentive *by*-phrases and Natural Force causers in the cognate Polish construction further suggests that the instrumental syncretism for these two functions in Ukrainian obscures their underlying syntax. The New Impersonal Construction in Icelandic, also a Transitive Impersonal, likewise demonstrates a licensing requirement on the kind of Initiator involved. In this arguably passive construction the reading is necessarily agentive. Since Natural Force causers cannot initiate the event described by the NIC, it follows that such Natural Force causers do not appear as arguments of Voice.

### 3. Accusative Survival in the Ukrainian and Icelandic Passive: Legate 2014

Recall that According to Legate 2104, the Initiator, positioned in Spec,VoiceP, is the role assigned to any expression that sets an event in motion (Agent, Instrument, and Natural Force); that is, she treats all causers as syntactically identical. In Section 3.1 I examine genuinely passive examples of the Ukrainian impersonal construction, together with its Icelandic counterpart, discussed above, and take up the question of accusative survival under passivization. Here, I expose certain weaknesses of Legate's treatment of Voice as the source of accusative. To preview the argument, if Voice is the source of accusative, how would we treat the appearance of accusative in those Ukrainian passive-like structures that do not project Voice? Or, alternatively, if all Initiators are arguments of Voice, as Legate assumes, how are we to account for the incompatibility of the Icelandic NIC with Natural Force causers? In Section 3.2 I elaborate a theory in which accusative in these cases, and others, is sensitive to causation (Cause), rather than Voice.

#### 3.1. Legate's Object Passive and Voice

Legate's "grammatical object passive" refers to constructions in which a verb bearing passive morphology occurs with a thematic object bearing accusative

case.<sup>15</sup> Legate (2014: 86–90) offers the Icelandic New Impersonal Construction as one example of the Object Passive. She compares the Icelandic canonical passive, given here in (16a), with its Object Passive counterpart in (16b):

(16) Icelandic

a. Canonical Passive

Strákurinn var laminn.  
 boy.the<sub>NOM.M.SG</sub> was beaten<sub>PASS.M.SG</sub>  
 ‘The boy was beaten.’

b. Object Passive

það var lamið strákinn.  
 it<sub>EXPL</sub> was beaten<sub>PASS.DFLT</sub> boy.the<sub>ACC</sub>  
 ‘The boy was beaten.’

[Legate 2014: 86–87]

Legate likewise treats the Ukrainian impersonal construction as an Object Passive. I argued above that the Ukrainian construction with a Natural Force causer is not passive, but rather a Transitive Impersonal—a dyadic unaccusative, in which Voice is non-argument-projecting. However, as Legate correctly observes, the Ukrainian impersonal does occur as an agentive passive, as in the examples in (17a–c). Note crucially that the instrumental *by*-phrase in these examples is clearly agentive. Unlike the Ukrainian Transitive Impersonal construction in (11), in (17) we have no reason to doubt that the Initiator is licensed by Voice. Note that the instrumental *by*-phrases in (17) would occur in the Polish passive as *przez* + accusative only; never as bare instrumental phrases.

(17) Ukrainian: Transitive Impersonal Passive

- a. Tabir bulo zajnjato amerykans'kym vijs'kom.  
 camp<sub>ACC</sub> was occupied<sub>PASS.IMPERS</sub> American troops<sub>INST</sub>  
 ‘The camp was occupied by American troops.’ [Lavine 2013: 188]
- b. Bat'ka bude vbyto dit'my.  
 father<sub>ACC</sub> will be killed<sub>PASS.IMPERS</sub> children<sub>INST</sub>  
 ‘Father will be killed by his children.’ [Lavine 2013: 188]

<sup>15</sup> I'll use the shortened term “Object Passive” for convenience.

- (17) c. Pid čas okupaciji, školu bulo spaleno  
 during occupation school<sub>ACC</sub> was burned down<sub>PASS.IMPERS</sub>  
 fašystamy  
 fascists<sub>INST</sub>  
 ‘During the occupation, the school was burned down by the  
 fascists.’

[adapted from: [http://moshny.edukit.ck.ua/informaciya\\_pro\\_zaklad/istoriya/](http://moshny.edukit.ck.ua/informaciya_pro_zaklad/istoriya/); accessed 28 March 2017]

The question for Legate is how accusative survives passivization. Legate’s analysis proceeds as follows. In the case of canonical passives, in which the thematic object is assigned nominative, she posits a bundle of  $\phi$ -features on Voice, which “restrict” (rather than saturate) the external argument, giving the semantics of existential closure.<sup>16</sup> In Icelandic and Ukrainian (16–17), the same restrictive  $\phi$ -features associated with Voice now appear in Spec,VoiceP as an XP ( $\phi$ P), with the effect of establishing the right configuration for accusative assignment under Burzio’s Generalization: the XP, a silent pronoun comprising a bundle of  $\phi$ -features, “counts” as a thematic subject, activating Voice’s accusative-assignment property, just as in the active voice (Legate 2014: 90–98). Leaving aside the stipulative nature of the  $\phi$ -head vs.  $\phi$ P parameter, Legate’s analysis falsely predicts that the same account for accusative survival in the Ukrainian impersonal construction in (11), involving a Natural Force causer, should extend to the Icelandic and Ukrainian passives in (16–17), so long as the Natural Force causer is just one instantiation of the all-inclusive Initiator, restricted by the presence of the  $\phi$ P she posits in Spec,VoiceP (Legate 2014: 94). In (15) we see instead that the Icelandic NIC fails with a Natural Force causer. Natural Force, it follows, is not licensed by (Legate’s) Voice. This suggests that the source of accusative in the Icelandic NIC, as well as in the Ukrainian impersonal in (11), which also arguably does not involve Voice, might have to do, instead, with the lower Cause head. This causative theory of accusative extends naturally to the Russian Transitive Impersonal and the accusative-preserving passives in Icelandic and Ukrainian. We review evidence for the role of Cause in accusative licensing in the next section.

To review, Legate crucially assumes that an undifferentiated Initiator, positioned in Spec,VoiceP, is the role assigned to any expression that sets an event in motion (i.e., Agent, Instrument, Natural Force). On this view, Legate treats the Ukrainian Natural Force causer construction in (11) as an Object

<sup>16</sup> Restrict is a non-saturating mode of semantic composition. See Chung and Ladusaw 2004 for details.

Passive, on a par with the agentive passives in Ukrainian (17). Alternatively, if non-volitional causers are not generated in SpecVoiceP, the appearance of accusative in these constructions remains unexplained in Legate's theory. Plus, on the undifferentiated Initiator approach, we would expect Natural Force causers to be compatible with the Icelandic NIC, another Object Passive, contrary to fact. I suggest, instead, that Natural Force causers, in general, do not participate in the Object Passive. In Icelandic, the NIC with Natural Force causers is simply ungrammatical. In the case of Ukrainian, I have provided evidence that the passive-like Natural Force causer construction is, in point of fact, not passive at all, but rather a Transitive Impersonal (a dyadic unaccusative, whose instrumental-marked argument is not related to Voice, but rather assigned VP-internally).<sup>17</sup>

### 3.2. Cause as an Accusative Probe

On the analysis advanced here, accusative assignment in the Ukrainian impersonal construction is not due to Burzio's Generalization (contra Legate 2014: 95) but rather is related to Cause, as I argue is the case for Transitive Impersonals more generally. First, note that if accusative assignment in the Ukrainian impersonal construction is linked to the introduction of a causative subevent, we would expect it to fail, as it does, in non-causative environments, such as the monadic unaccusative in (18) and the stative in (19).<sup>18</sup> The examples in (18–19) show that while Voice need not be active in the Ukrainian construction, Cause must be.

(18) Ukrainian Impersonal Construction: Monadic Unaccusative

\*Kulju bulo trisnuto.  
 balloon<sub>ACC</sub> was burst<sub>PASS.IMPERS</sub>  
 [Intended: 'The balloon burst.']

(19) Ukrainian Impersonal Construction: Stative

\*Značennja slova zoseredženo v koreni.  
 meaning<sub>ACC</sub> of word concentrated<sub>PASS.IMPERS</sub> in root  
 [Intended: 'The meaning of the word is concentrated in its root.']

<sup>17</sup> Recall that the oblique marking on the causer argument indicates its VP-internal status. When the same non-volitional causer merges high, in a position sufficiently local to Tense, it appears in the nominative (as in the Derived Transitive, discussed in Section 2.2).

<sup>18</sup> The examples in (18–19) arguably lack a Voice head altogether and would therefore likewise be predicted to be ungrammatical on Legate's approach (see Legate 2014: 94–95).



The example in (18) is anticausative. I assume there is no Voice or active Cause head in anticausatives (cf. Ramchand 2008, where the anticausative contains a process head, with no initiator head).<sup>19</sup> The stative in (19) is also ungrammatical due to the absence of Cause: there is no Natural Force, for example, that concentrates the meaning of a word in its root. Note that the stative NIC in Icelandic is likewise ruled out, as illustrated in (20), for the same reason: regardless of the setting for Voice and how we characterize its external argument (e.g., as a Holder), statives are not caused.

(20) Icelandic NIC: Stative

- ??Það var samt alltaf átt marga hesta.  
 there<sub>EXPL</sub> was still always owned<sub>PASS.DFLT</sub> many horses<sub>ACC</sub>  
 [Intended: 'Many horses were still owned.'] [Jónsson 2009: 302]

That the Russian Transitive Impersonal is two-place and caused is demonstrated by its incompatibility with *by itself* modification. According to Alexiadou, Anagnostopoulou, and Schäfer 2015: 34–36, *by itself* modification denies the presence of a causer. It asserts that the Theme underwent a change of state with no external force (see also Schäfer 2008: 297–99). Thus, the examples in (21a–b) are ungrammatical with *by itself* modification precisely because the Transitive Impersonal asserts external causation.

(21) Russian: Transitive Impersonal

- a. Zemletrjasenim povredilo plotinu (\*samu po sebe).  
 earthquake<sub>INST</sub> damaged<sub>IMPERS</sub> dam<sub>ACC</sub> by self  
 'A dam was damaged due to an earthquake.' [T. Solomatina, *Otojti v storonu*, RNC]
- b. Reku zamorozilo (\*samu po sebe).  
 river<sub>ACC</sub> froze<sub>IMPERS</sub> by self  
 'The river froze over.'

We see in (21b) that the Russian Transitive Impersonal occurs frequently without a stated causer, superficially resembling an anticausative. It is the presence of accusative on the thematic object that indicates that the predicate is two-place and that its unstated argument is interpreted as a causer. Compare the Icelandic Fate Accusative in (22a–b), where the causer is never expressed

<sup>19</sup> Recall from Section 2.1 that even anticausatives contain a Cause head. I suggested that the Cause head only functions as an accusative probe if its presence is licensed by a causer argument. The verb *trisnuty* 'burst' in (18) is one-place; it contains no causer argument.

overtly, but necessarily understood as Natural Force (Ottósson 1988; see also Zaenen and Maling 1984; Sigurðsson 2006, 2011; and Schäfer 2008):<sup>20</sup>

(22) Icelandic: Fate Accusative

- a. Strompinn blés af húsinu.  
chimney.the<sub>ACC</sub> blew off house.the  
'The chimney blew off the house.' [Zaenen and Maling 1984: 145]
- b. Bátinn fyllti á augabragði.  
boat.the<sub>ACC</sub> filled in flash  
'The boat swamped immediately.' [Sigurðsson 2006: 20]

The Fate Accusative in Icelandic is another version of the Transitive Impersonal construction: a two-place predicate in which accusative is assigned to the thematic object in the absence of an Agent subject (or Voice projection). Note that the reading in (22) is not anticausative, as shown in (23), in which accusative on the sole argument is ungrammatical with anticausative morphology (-st):

(23) Icelandic

- Báturinn (\*bátinn) fylli-st.  
boat.the<sub>NOM</sub> / \*<sub>ACC</sub> filled<sub>ANTICAUS</sub>  
'The boat filled up.' [Sigurðsson 2011: 203]

The Fate Accusative also resists *by itself* modification:

(24) Icelandic: Fate Accusative

- Strompinn blés af húsinu (\*af sjálfumsér).  
chimney.the<sub>ACC</sub> blew off house of self  
[Intended: 'The chimney blew off the house (on its own)'] [Schäfer 2008: 298]

If *by itself* modification denies the presence of a causer, then its incompatibility with the Transitive Impersonal and Fate Accusative is correctly predicted if these constructions are indeed necessarily causative.

For such cases of "independent" accusative, it is standardly assumed that there must be something extra in the structure, beyond what is posited for the anticausative. This extra component in the structure is the independent Cause head, identified as an active accusative probe by non-volitional causers. And

<sup>20</sup> Ottósson (1988: 148) notes for the Fate construction that "these verbs are marked for accusative ... only when the agent side argument is [construed as] natural force."

if non-volitional causers are not licensed by features of Voice, then it follows that Voice cannot be the source of accusative in non-agentive transitive constructions.<sup>21</sup>

#### 4. Extension: Impersonal Pain Verbs

Additional evidence against Legate's macro-Initiator role comes from the restricted distribution of causers in Russian and Lithuanian Transitive Impersonal "pain verbs". In (25a) the source of pain is expressed by the PP *ot* 'from' + *goloda* 'hunger<sub>GEN</sub>'. Now note in (25b) that if we merge the causer *golod* 'hunger' high, in a position in which it receives nominative, the idiosyncratic "pain" reading is lost and the sentence is pragmatically odd:

(25) Russian

a. *Život krutilo ot goloda.*  
 stomach<sub>ACC</sub> turned<sub>DFLT</sub> from hunger<sub>GEN</sub>  
 'My stomach churned from hunger.'

b. \**Golod krutil život.*  
 hunger<sub>NOM.M.SG</sub> turned<sub>M.SG</sub> stomach<sub>ACC</sub>

[Google: (25a)–607; (25b)–3]

In Lithuanian (26), higher merger of the causer *ryški šviesa* 'intense light' is impossible (26b), suggesting the absence of a VoiceP in this construction altogether.<sup>22</sup>

(26) Lithuanian

a. *Nuo ryškios šviesos jam skaudėjo akis.*  
 from intense light him<sub>DAT</sub> hurt<sub>DFLT</sub> eyes<sub>ACC</sub>  
 'His eyes hurt from the intense light.'

b. \**Ryški šviesa jam skaudėjo akis*  
 intense light<sub>NOM</sub> him<sub>DAT</sub> hurt<sub>3.SG/PL</sub> eyes<sub>ACC</sub> [Lavine 2016:119]

<sup>21</sup> Recall that Legate (2014: 90–92) posits a null pronoun subject in SpecVoiceP of the Object Passive. Schäfer (2008: 291–302) likewise posits a covert "weather" pronoun for the Fate Accusative in Icelandic. One advantage of the analysis developed here is that it is free of such covert subjects.

<sup>22</sup> The inability of the causer argument to appear in subject position suggests the absence of a VoiceP on Legate's (2014) account only, where all Initiators are arguments of Voice. On the present account, it is the Derived Transitive that cannot be formed. The causer interpretation for *ryški šviesa* 'intense light' is possible only in a VP-internal PP.

Still other verbs in Lithuanian, like *pykinti* ‘nauseate’, occur only in a non-agentive context. As a result, they permit an alternation between the Transitive Impersonal and the Derived Transitive, but with no agentive counterpart. That is, the causer, even when merged high (and licensed as nominative), cannot be interpreted as an Agent, as illustrated in (27a–c).<sup>23</sup> The degraded passive in (27c) indicates that *tas kvapas* ‘that smell<sub>NOM</sub>’, even when merged high enough to be probed nominative by Tense, is still not interpreted as an argument of Voice (note that the passive *by*-phrase in Lithuanian is expressed by the bare genitive).<sup>24</sup>

(27) Lithuanian

a. Transitive Impersonal

Nuo tabako kvapo mane pykina.  
 from tobacco smell me<sub>ACC</sub> sickens<sub>DFLT</sub>  
 ‘I am nauseated from the smell of tobacco.’

b. Derived Transitive

Tas kvapas mane pykina.  
 that smell<sub>NOM.SG</sub> me<sub>ACC</sub> sickens<sub>DFLT</sub>  
 ‘That smell nauseates me.’ [adapted from Holvoet and Nau 2014: 31]

c. Passive (of the Derived Transitive)

??Aš buvau supykintas to kvapo.  
 I<sub>NOM</sub> was nauseated<sub>PASS.M.SG</sub> that smell<sub>GEN</sub>  
 [Intended: ‘I was nauseated by that smell.’] [Milena Šereikaitė, p.c.]

That is, some non-volitional causer constructions have no active transitive counterpart. In the case of other non-volitional causer constructions that do have an active counterpart, the Initiator resists passivization, suggesting that it is not an argument of Voice. These examples of “pain verbs” provide further evidence from a new empirical domain against the identical treatment of causers and other Initiators. The degraded status of (25b), (26b), and (27c)

<sup>23</sup> Compare Lithuanian *pykinti* and Russian *tošnit’*. Both verbs mean ‘to nauseate’, but while *pykinti* freely occurs with or without a syntactic subject, *tošnit’* is lexically specified to occur only impersonally: it does not c-select for an external subject position (Babby 2009: 39–44).

<sup>24</sup> I thank Axel Holvoet, Rolandas Mikulskas, and Milena Šereikaitė for discussion of the examples in (27).

would be unexpected on an analysis in which any and all causers are necessarily arguments of Voice.

## 5. Conclusion

I have argued here that the non-volitional causer is an independent category, not an argument of Voice. While the coarse-grained Initiator role is useful for broad generalizations, e.g., whether or not an event is externally caused, it makes false predictions concerning the range of phenomena surveyed here. Compare the non-volitional causer in the Russian Transitive Impersonal construction, typically marked instrumental, with the Ukrainian impersonal construction, which also appears with an instrumental-marked non-volitional causer. The causer in the Ukrainian construction is analyzed by Legate (2014) as a passive *by*-phrase, and thereby linked to Voice, but the same analysis fails to extend to the Russian construction with active verbal morphology. I have argued here that both constructions are causative, in the absence of Voice. The fact that the Transitive Impersonal appears with an oblique-marked causer indicates that its source of causation is too low to be probed nominative by Tense. In other words, it is VP-internal.

To be sure, the Ukrainian construction is difficult to analyze due to the underspecified nature of the instrumental marking: instrumental is used in the language to mark both a passive *by*-phrase and a non-volitional causer. I have provided evidence suggesting a non-passive analysis for the Ukrainian construction when its causer is Natural Force. The strongest piece of evidence comes from the cognate expression in neighboring Polish, which distinguishes the functions of passive *by*-phrase and non-volitional causer morphologically. The instrumental in the Polish construction occurs only with Natural Forces; genuine Agents are ungrammatical in the instrumental. Now recall the source for accusative in this construction. Legate posits a quasi-thematic subject—a covert pronoun comprising a bundle of  $\phi$ -features—in Spec,VoiceP, with the effect of activating Voice's accusative-assignment property in accordance with Burzio's Generalization. It is therefore crucial to Legate's account that the Natural Force argument in the Ukrainian construction be linked with Voice (as its adjunct *by*-phrase).

I propose an alternative to those theories of "independent" accusative that rely on Burzio's Generalization and the stipulation of covert, quasi-thematic subjects. The theory outlined here, where Cause serves as an accusative probe, offers considerably more empirical reach. The Ukrainian impersonal construction appears with accusative on its thematic object, regardless of whether it is passive or non-passive; the same holds for the Icelandic New Impersonal Construction. And the analysis extends naturally to the Russian Transitive Impersonal and Icelandic Fate constructions. The analysis presented here treats non-volitional causers, like Natural Force, as a category distinct from

Voice. I have provided a range of evidence that converges precisely on this finer-grained treatment of causers. To this end, new evidence was adduced from “pain verbs” in Russian and Lithuanian, which show that non-volitional causer constructions either have no active transitive counterpart (no Voice) or a transitive counterpart that resists passivization (no active Voice)—both options unexpected on a theory which treats all Initiators as arguments of Voice.

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Bucknell University  
jlavine@bucknell.edu