Ivona Kučerová (kucerov@mcmaster.ca)

Case independence and split ergativity:
towards a unified account of Case assignment

The objective:

- Coon and Preminger (2011) and Kučerová (2011) argued that case assignment is sensitive to the size of the syntactic structure

- Coon and Preminger, following Coon (2010), concentrated on the Ergative/Absolutive (ERG/ABS) case systems, more precisely, on the syntactic source of split ergativity

- Kučerová investigated emergence of Accusative assignment in syntactic environments lacking an external argument and NOMinative case

- Goal I: review the arguments

- Goal II: try to see whether the proposals could be unified

The proposal in nutshell:

- the actual case assignment reflects which heads are strong phase heads and as such constitute Spell-out domains in the given syntactic structure

- there can be at most one active Case feature per Spell-out domain (cf. Alexiadou and Anagnostopoulou 2001)

- Case-assignment splits are predicted not to be restricted to ERG/ABS systems but should be in principle available in NOM/ACC systems as well

1 Accusative as independent Case

1.1 The background

- Accusative case (ACC) is often analyzed as a *dependent Case*

- where being dependent means

  - being dependent on another argument (Burzio, 1986), more precisely, a θ-role.
    or
  - being dependent on a chain assigning Nominative case (NOM) to another argument (Marantz, 1991), more precisely, unmarked, i.e. non-lexically governed, case.

- in both approaches, ACC is a result of a grammatical *competition*

- Minimalist program (Chomsky, 2001, 2005, 2008): abstract Case assigned by functional heads

- ACC assigned by $v*$[1]

- whether or not $v*$ assigns ACC depends on whether or not $v*$ is a strong phase[2]

- even though MP doesn't seem to employ a competition view of ACC as a dependent case, in its core it is a look-ahead system

- the dependency on another argument is not explicitly declared but it is inherent to the system

- the dependency view clearly spelled-out, for example, in Sigurðsson (2006, 2011)

The goal:

- suggest an alternative in terms of structure-dependency, independent of another argument receiving a θ-role or another case being assigned to a chain based on data from Slavic (Polish, Ukrainian and Northern Russian)

1.2   The empirical puzzle: Accusative without Nominative

- the so called *-no/-to construction* in Polish, Ukrainian and North Russian dialects (henceforth NT) resembles on the surface the canonical passive:

    – no overt external argument

    – the surface form of the main verb is identical to the passive participle form[3]

    – here I concentrate on Ukrainian

(1)   *Ukrainian*

    a. Žinky   buly   vbyty
        woman.NOM.F.PL was.F.PL. killed.F.PL.
        '(The) women were killed.'   *canonical passive*

    b. Žinok   bulo   vbyto
        woman.ACC.F.PL were.N.SG. killed.N.SG.
        '(The) women were killed.'   NT

- even though the construction superficially resembles the canonical passive, it differs from it in several important respects

---

[1]What exactly assigns ACC is subject to a continuous debate. For example, according to Lavine and Freidin (2002) ACC is assigned by ϕ-features on v. For many authors, ACC is related to telicity or aspect. Concretely, ACC is assigned by a telic v head (Babko-Malaya, 2003; Borer, 1994, 2005; van Hout, 2000, 2004; Kiparsky, 1998; Kratzer, 2004; Pereltsvaig, 2000; Ramchand, 1997; Richardson, 2007; Svenonius, 2002, among others).

[2]But see Legate (2003) for an alternate view.

[3]Except for the inflectional ending as we'll see later.

1.2.1 Accusative without an external argument

- the internal argument (IA) in NT is realized as <u>ACC</u> instead of NOM in a violation of Burzio's generalization:

(2) a. Žinok   bulo   vbyto
         woman.ACC.F.PL were.N.SG. killed.N.SG.
         '(The) women were killed.'   ✓ACC
     b. *Žinky   bulo   vbyto
         woman.NOM.F.PL were.N.SG. killed.N.SG.

                                                                             *NOM

- under negation, the ACC morphology is obligatorily converted to GEN, the usual pattern for <u>structural ACC</u> in these languages thus providing evidence that the ACC is a structural not a lexically-governed case:

(3) a. Žinku   bulo vbyto.
         woman.ACC killed
         'A woman was killed.'   ✓POS+ACC
     b. *Žinku   nie bulo   vbyto.
         woman.ACC not killed
         'A woman was not killed.'   *NEG+ACC
     c. Žinky   bulo vbyto.
         woman.GEN not   killed
         'A woman was not killed.'   ✓NEG+GEN

- Lavine (2010a,b), following Markman (2004) for Russian impersonal passives, argues that NT does not violate Burzio's Generalization because it contains a covert causative structure, hence a covert causer which functions as an external argument receiving Nominative Case/Agent θ-role

- this conclusion cannot be correct because if we apply standard syntactic tests targeting an external-argument position, the tests consistently prove a presence of a hidden argument in Russian but <u>fail to detect any external argument</u> in Ukrainian[4]

- unless stated otherwise the following data are from Kit (in preparation):

(4) *Anaphors unbound in Ukrainian* NT:
     a. *Zakryto   sebe u fabryci
         locked.NT REFL in factory
         'They locked themselves in the factory'
     b. *Hvalyno   svoja vlasna bat'kivshtynu.
         praised.NT REFL own   fatherland.F.SG.ACC
         'They praised their own fatherland'

---

[4]Polish is different in this respect. Even though the results of the standard tests are not always clear because of various confounds, an external argument can be detected at least in a subset of Polish NT. For differences between Polish and Ukrainian see Sobin (1985); Maling (1993); Lavine (2000); Maling and Sigurjónsdóttir (2002); Maling (2006); Kit (in preparation).

(5)   *Anaphors bound in Russian impersonal passives:*

       Milicionerov ranilo puljami prinadlezacimi drug drugu
       Militiamen.ACC wounded.IMP bullets.INSTR belonging each other.RECIP
       'Militiamen were wounded by bullets belonging to each other' (Lavine and Freidin, 2002)[p. 280]

(6)   *Agentive and non-agentive by-phrases possible in Ukrainian* NT

    a. Ivana obrabovano nymy.
       John.ACC robbed.NT them.INSTR
       'John was robbed by them.'   ✓ *agentive by-phrase*
    b. Lysta bulo otrymano Ivanom
       letter.ACC AUX receive.NT Ivan.INSTR
       'The letter was received by Ivan'   ✓ *non-agentive by-phrase*

(7)   *Only non-Agentive by-phrases possible in Russian impersonal passives:*

    a. *Vanju udarilo Dimoj
       Vanja.ACC hit.IMP Dima.INSTR
       'Vanja got hit by Dima'   *agentive by-phrase*
    b. Vanju udarilo molnieg
       Vanja.ACC hit.IMP lightning.INSTR
       'Vanja got hit by lightning'   ✓ *non-agentive by-phrase*
       (Markman, 2004)[p. 426]

(8)   *No subject control in Ukrainian* NT*:*

    a. *Ivana obrabovano po pijanomu
       John.ACC robbed.NT while drunk
       'They robbed John while (they were) drunk'
    b. *Povernuvšys' dodomu, hroši bulo znajdeno.
       returning home money was found.NT
       'Having returned home, the money was found'
       (Lavine, 2000)[p. 90, (5b)]

(9)   *No control of infinitival PRO in Ukrainian* NT*:*

       *U misti počato [PRO budovaty novu cerkvu]
       in city begun.NT build.INF new church.ACC
       'They began to build a new church in the city'
       (Lavine, 2005)[p.12, (17c)]

(10)   *No modals in Ukrainian* NT *(but possible in impersonal passives*

    a. *Nemovlja musyno buty znajdeno u kosyku likarjamy
       Baby.ACC must.N.SG. be.INF found.NT in basket doctors.INSTR
       Intended: 'The baby must have been found in a basket by doctors'.   *NT
    b. Nemovlja musylo buty znajdeno u kosyku likarjamy
       Baby.ACC must.IMP be.INF found.NT in basket doctors.INSTR
       'The baby must have been found in a basket by doctors'.   ✓ *impersonal passive*

(11)   *Modals possible in Russian impersonal passives:*

> Soldata   moglo   ranyt'   pulej
> Solidier.ACC could.IMP wound.INF bullet.INSTR
> 'A soldier could have beeen wounded by a bullet'

Interim summary:

- no Nominative case

- no external argument

- yet, the internal argument surfaces with Accusative case

1.2.2 Further properties of NT

No agreement with T

- the finite auxiliary and the NT participle <u>does not agree</u> with IA

- the attested agreement is N.SG, i.e., the default verb agreement[5]

(12)   a.   Žinku   bulo   vbyto.
             woman.F.S.ACC was.N.SG. killed.N.SG.
             'A woman was killed.'   ✓DEFAULT
         b.   *Žinku   bula   vbyta.
             woman.F.S.ACC was.F.SG. killed.F.SG.

                                                                  *AGREEMENT

Restrictions on Tense interpretation

- the auxiliary in the Ukrainian NT is optional

- if there is no overt auxiliary, the NT *must* be interpreted as <u>Past</u> (Nedashkivska Adams, 1998):

(13)   Žinky   vbyto.
         woman.ACC.F.SG killed.N.SG.
         'A woman was/(*is)/(*will be) killed.'

- the Tense interpretation remains restricted even with the auxiliary being present in the structure

- the Tense interpretation must be <u>either Past or Future</u>; Present is always excluded

(14)   a.   Presidenta   bulo vbyto
             president.ACC was killed
             'The president was killed.'   ✓*Past*

---

[5]By default agreement I mean the agreement attested with weather predicates.

b. Presidenta　　　*jest　vbyto
　　president.ACC is　　killed
　　Intended: 'A/The president is killed.'　　　　　　　　　　　*Present

c. Presidenta　　　bude　vbyto
　　president.ACC will-be killed
　　'The president will be killed.'　　　　　　　　　　　　　✓Future

- this is puzzling because even though tense-less languages, i.e., languages that have no overt tense marking, often enforce the Past tense interpretation (Bohnemeyer and Swift, 2004; Jóhannsdóttir and Matthewson, 2008)[6], the restriction on the Present tense is unexpected

- the Present tense is excluded with Slavic perfective verbs but NT may be formed both by Perfective and Imperfective verbs

- passives cross-linguistically do not display any such restriction

Information structure distinct from passives

- NT IA tends to be interpreted as <u>focus</u>, while the passive IA tends to be interpreted as given

Existing proposals:

- Sobin (1985); Borsley (1988); Maling (1993); Billings and Maling (1995); Nedashkivska Adams (1998); Lavine (2000, 2005, 2010a); Maling and Sigurjónsdóttir (2002); Blevins (2003); Danylenko (2006); Kibort (2008), among others

- these accounts don't address the Tense restrictions, information structure restrictions and some of them incorrectly predict a covert external argument

1.3　NT is *have*-Perfect

- in Kučerová (2011) I argued that NT should be analyzed as <u>*have*-Perfect</u>

- dialectology and descriptive linguistics (Kuz'mina and Nemčenko, 1971; Maslov, 1984; Trubinskij, 1988; Kuz'mina, 1993; Leinonen, 2002; Danylenko, 2006): the syntactic distribution of NT resembles the West-European *habere* Perfect

- the analysis was supported by several observations:

Semantics:

- if the Perfect interpretation is enforced by the context, canonical passive is excluded – only NT is possible:

(15)　　*Ukrainian*

---

[6]Even though the range of aspectual and other tense-related interpretations may still be restricted, see, for example, Fitzpatrick (2006).

    a. *Anna je shtaslyva vid   koly jij syn   zabranij
         Anna is happy   since then her son.NOM taken-away.PP
         Intended: 'Anna has been happy since her son has been sent away.'   *c. passive*

    b. Anna je shtaslyva vid   koly jij syna   zabrano.
         Anna is happy   since then her son.ACC taken-away.NT
         'Anna has been happy since her son has been sent away.'   NT

Syntax

- while the structure of canonical passives in Ukrainian is biclausal (or at least may contain two independent aspectual projections and two independent negation projections), the sentential structure of NT is distinctly mono-clausal:[7]

(16)   *Two independent aspectual projections impossible in* NT*:*

    a. Žinky   by**va**ly   **v**byty.
         woman.NOM.F.PL. was.HAB.F.PL killed.PF.F.PL.
         '(The) women used to be killed.'   *canonical passive*

    b. *Žinok   by**va**lo   **v**byto.
         woman.ACC.F.PL was.HAB.N.SG. killed.PF.N.SG.
         Intended: 'Women used to get killed.'   NT

(17)   *Two independent negations impossible in* NT*:*

    a. Žinky   ne buly   ne vbyty.
         woman.NOM.F.PL not was.F.PL. not killed.PF.F.PL.
         'It wasn't the case that the women weren't killed.'   *canonical passive*

    b. *Žinok   ne bulo   ne vbyto.
         woman.ACC.F.PL not was.N.SG. not killed.PF.N.SG.
         Intended: 'It was't the case women were killed.'   NT

Morphology

- the NT ending is a participle ending but the canonical passive inflects as a deverbal adjective (Sobin, 1985; Lavine, 2000; Danylenko, 2006)

- the canonical passive neuter singular ending would be *-e*, not the attested *-o*

Some immediate consequences:

- *have*-Perfect participle never agrees with the subject (Kayne, 1993; Iatridou et al., 2001, among others)

- there is no information structure requirement on the IA as in passives

---

[7]In English, the canonical passive differs from the so-called adjectival passive (Wasow, 1977). This doesn't seem to be the case for Polish, Ukrainian and Czech. To my knowledge, the most extensive discussion of the properties of these passives can be found in Veselovská and Karlík (2004).

- if we follow von Stechow (to appear) in that Perfect is relative time but the denotation of *have* adds additional aspect-like component[8,9], we get an immediate explanation of the Present tense restriction:

- the denotation of Perfect is identical to the denotation of simple Past, then the denotation of *have* adds a requirement on subinterval property $\sim$ "extended now" (McCoard 1978)

(18)   Paslawska and von Stechow (2003, p. 322, (40))
        POST = $\lambda P \lambda t \exists e . \tau(e) < t$ & P(e)   ("**Perfect**")

(19)   XN-Perfect
        $[\![has]\!] = \lambda t . \lambda P_{it}$. $(\exists t')[t$ is a final subinterval of t' & P(t')]

                                                        (von Stechow, to appear)

- Iatridou et al. (2001): while with the *be*-Perfect the semantics of Perfect can be solely located within the participles, this is not the case for *have*-Perfect

- in *have*-Perfect languages the participles are less contentful than the participles of *be*-Perfect languages

- since the denotation of the *have* component of *have* is XN, it is incompatible with the proper episodic "now" of the Present Tense

- consequently, *have*-Perfect is compatible with the Past and Future interpretation but there is no Present

- furthermore, since the denotation of POST is identical to the denotation of the Past tense, unless the time of the event is overtly shifted to the future, Past arises as the default interpretation

Why *be* if *have*?

- if this is really *have*-Perfect, how come there is no auxiliary *have*?

- the distribution of *be* and *have* in Slavic dialects: the more to the east we go, the less of *have* we find

- even though Polish has possessive *have*, already in Polish the syntactic distribution of *have* is very much restricted

- Ukrainian is in between, in Russian *have* is gone

- Consequence: since *have* cannot be used to mark Tense, Tense may stay morphologically unexpressed

---

[8]Perfect is thus semantically distinct from morphological Perfective and Imperfective.

[9]According to Iatridou et al. (2001) anteriority is not part of the meaning of the Perfect participle. Instead, anteriority follows from independent properties of the perfect time span, namely, from the fact that the eventuality always precedes the right boundary of the span. As far as I can tell, either of the proposals makes the same predictions for the issues at hand.

- if the Tense feature is morphologically realized, it must be realized as *be* because *be* is the default morphological realization of the Tense feature (see, for example, Bjorkman 2011)[10]

Alternative: Defective T

- could the ACC assignment on IA be related to the fact that the *have*-Participle does not agree with the subject?

- alternatively, could the ACC case assignment arise because T is in some sense defective (Lavine and Freidin, 2002)?

- not likely

- suggestive evidence comes from North Russian dialects

- these dialects have the same type of NT as Ukrainian and Polish[11]

- crucially, in addition they have a version of the construction in which the argument is in NOM

- yet the verb fails to agree with the NOM argument:

(20)   *North Russian* (Danylenko, 2006, p. 255–256, (18), originally from Kuz'mina 1993, 135–137):
    a.   (u njego) syn   (bylo)   otpravleno
        at him   son.NOM.SG.M. be.N.SG.AUX.PRET. send-away.N.SG.PPP
        'His son has been sent away (by him).'
    b.   (u njego) parnja   (bylo)   uvedeno
        at him   fellow.ACC.SG.M. be.N.SG.AUX.PRET. take-away.N.SG.PPP
        'The guy has been taken away (by him).'

- crucially, only NT with ACC is compatible with the Perfect interpretation (Zhanna Glushan, p.c.):

(21)   a. *Vot uže   tre goda kak u nego syn   v amerku uvezeno.
         here already three years how by him son.NOM to America taken   away
    b. Vot uže   tre goda kak u nego syna   v amerku uvezeno.
         here already three years how by him son.ACC=GEN to america taken   away
      'It has been three years since his son has been taken away to America.'

---

[10]In Bjorkman's system, there is a P feature on a higher head which intervenes between Tense features on T and V. Since the P feature can't be morphologically realized because of the lexical gap, the Tense feature can't be realized on the P head, neither on the V head. Hence it becomes stranded and stranded features are by default realized as *be*.

[11]These dialects in fact have several distinct constructions related to NT. See Kuz'mina and Nemčenko (1971) for a detailed descriptive overview.

1.4 Dependent case without dependent chain

The claim:

- there is no real dependency of ACC on NOM

- what looks like a structural (or morphological) dependency is a side-effect of phase-based syntax

- in a way, this proposal is close to the view of Case in an early GB era, i.e., the pre-Burzio formulation of Case (Chomsky, 1981; Emonds, 1985)

- Chomsky (1981, p. 182): view of Case as a marker for making categories visible to the interpretive components of the grammar

- notice that if we adopt a morphological view of Case, i.e., case as an interpretation of grammatical structures not a "visibility" marker, then Case is less likely to involve any case-internal specific dependencies beyond correlations already present in the structural relations

The intuition:

- the dependency view of ACC is based on the presence of another argument

- but maybe what really matters is not that there are two argument (chain)s but that the structure is big enough to allow for merge of two arguments

- in other words, when we find ACC in environments other than NT, the first Merge of v and VP is <u>not</u> the maximal projection of v[12]

have:

- if NT is an instance of *have*-Perfect, it should contain a *have*-related structure

- one option is to follow Kayne (1993) in that whether a language has *have* or *be* depends on head-movement properties of the language

- *have* then results from a functional head incorporation into *be*

- another option is that *have*-Perfect contains a P-feature on a higher aspectual head (Bjorkman 2011, following Demirdache and Uribe-Etxebarria 2000) which means that the vP structure is further extended by an aspectual head which is not present in *be*-Perfective

- in both of these approaches, the internal structure of vP extends beyond the first merge of v

- the obvious question is why an extension should matter

- suggestive answer: a linearization issue (for example, Richards 2003, 2006)

---

[12]I assume a version of Bare Phrase Structure with no vacuous structures.

(22)　　**Richards's Distinctness Condition on Linearization**
　　　　If the Merge of v and its complement is not followed by another extension of v within the same projection, spelling out vP would violate the Distinctness Condition on Linearization

- Consequence: vP is Spelled-out only if it can be linearized

(23)　　**Strong Phase Condition**:
　　　　vP may be a strong phase only if v undergoes more than one instance of Merge within its Spell-out domain.

How it works:

- at the point of Spell-out, IA is assigned ACC by $*v$

- alternatively, if ACC is a morphological case, ACC may be defined as the case assigned to the sole argument with the vP Spell-out domain which is governed by $V + v$ (assigned down)[13]

- after C/T is merged, NOM remains unassigned/unrealized because the IA has already been spelled-out

- the difference between the NT with and without an auxiliary is a property of T

- if there is no valued Tense feature on T, no auxiliary is inserted and the resulting interpretation is Past as the default interpretation

1.5　Interim conclusion

- ACC arises only in structures that are in some sense 'transitive'

- the relevant notion of transitivity needs to be formulated in terms of phasehood (related to structure extension) not with respect to another argument or an argument chain

- in the discussed case 'transitivity' is a result of the *have*-Perfect structure

- interestingly, the observed relation between ACC and *have*-Perfect is reminiscent of the case distribution in so called split ergative languages

- it is then plausible that the case assignment we observe in NT is cross-linguistically more prevalent than usually assumed

---

[13]This formulation is very close to Katzir's reformulation of Marantz in a response to Legate (2008)'s critique of Marantz (1991):

(i)　　　Dependent case is assigned by V+I to a uniquely merged DP in the domain of V+I.
　　　　Dependent case assigned up to subject:　　　　　　　　　　　　　　　　　　　ergative
　　　　Dependent case assigned down to object:　　　　　　　　　　　　　　　　　accusative
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　(Katzir, 2007, (148))

(ii)　　　DP_i is uniquely merged in the domain of a head x if DP_i is either a complement of x or a specifier of x but not both (Katzir, 2007, (149))

2 Ergative-to-Neutral Splits: Coon and Preminger (2011)

Split ergativity:

- splits not only appear in a consistent part of the grammar, but also follow the same directionality (DeLancey, 1981; Tsunoda, 1981)

- ERG/ABS ↔ NON-ERG ∼ perfective ≫ imperfective ≫ progressive (Dixon, 1994)

- ERG/ABS ↔ NON-ERG ∼ inanimates ≫ natural forces ≫ animates ≫ humans ≫ proper ≫ 3pl ≫ 3sg ≫ 1/2 (Silverstein, 1976)

The basic claims

- following Coon (2010), so called split-ergative languages are in fact ergative throughout

- what appears to be Aspect-based split ergativity is in fact a <u>disruption in case assignment</u>

- case disruption arises because the relevant structure got extended and a formerly local case checking configuration is not available anymore

- Coon and Preminger: the same principle is responsible for person-based splits and is related to the distribution of *have* and *be* auxiliaries in Romance

How many ergative splits?

- even though splits are usually characterized as a switch from an ergative pattern to an accusative pattern, it is not entirely clear whether this is the correct generalization

- Coon (2012): there are at least three types of ergative splits triggered by Aspect

- Coon and Preminger (2011) investigate patterns in which the split yields forms <u>without</u> any morphological marking

- thus, one might want to think about them as ergative versus non-ergative patterns (instead of NOM/ACC patterns)

- Coon (2012) calls them Ergative-to-Neutral splits

2.1 Aspect-based split

- an example: Basque

- (Tsez: a split within the imperfective aspect, in a construction known as the "bi-absolutive")

Ergative alignment:

- transitive objects and intransitive subjects take the same form of the article/determiner – in the singular, "-a" (absolutive)

- transitive subjects take a different form of the article/determiner – in the singular, "-ak" (ergative)

- both the perfective and imperfective aspects follow this pattern

(24)   the Basque perfective (ergative pattern)

    a.   [$_A$ Ehiztari-ak   ] [$_P$ otso-a   ]   harrapatu du.
        hunter-art$_{sg}$.ERG   wolf-art$_{sg}$.ABS caught aux(have)
        'The hunter has caught a/the wolf.'

    b.   [$_S$ Otso-a   ]   etorri   da.
        wolf-art$_{sg}$.ABS arrived aux(be)
        'The wolf has arrived.'

Non-ergative alignment:

- in the progressive aspect

- all core arguments take the same form of the determiner – in the singular, "-a" (absolutive)

(25)   the Basque progressive (non-ergative pattern)

    a.   [$_A$ emakume-a   ] [$_P$ ogi-a]   ja-te-n   ari da.
        woman-art$_{sg}$.ABS   bread-art$_s g$.ABS eat-nmz-loc prog aux(be)
        'The woman is eating the bread.'

    b.   [$_S$ emakume-a   ] dantza-n ari da.
        woman-artsg(ABS)   dance-loc prog aux(be)
        'The woman is dancing.'   (Laka, 2006)

2.2 Person-based splits

- visible either on the nominal inflection (Kham) or on the agreement with the predicate (Halkolem)

Kham:

- 3rd-person transitive subjects are marked with "-e" (ergative)

- 1st/2nd-person transitive subjects receive no marking:

(26)   Kham (Tibeto-Burman)

    a.   no-e   nən-lay poh-na-ke-o.
        he-ERG you-obj hit-2P-perf-3A
        'He hit you.'

    b.   nga: nən-lay nga-poh-ni-ke.
        I   you-obj 1A-hit-2P-perf
        'I hit you.'

    c.   nən nga-lay nə-poh-na-ke.
        you I-obj   2A-hit-1P-perf
        'You hit me.'   (Watters 1973, via DeLancey 1981)

Halkomelem (Salish)

- 3rd-person arguments follow an ergative pattern:

- transitive subjects trigger the agreement marker "-es" (ergative)

- but transitive objects and intransitive subjects do not:

(27)   Halkomelem (Salish) – ergative pattern

    a.   q'ó:y-t-es   te Strang te sqelá:w
        kill-trans-3s det Strang det beaver
        'Strang killed the beaver.'

    b.   í:mex   te Strang
        walking det Strang
        'Strang is walking.'

- 1st/2nd-person subjects follow a non-ergative pattern:

- transitive subjects and intransitive subjects trigger the agreement marker "-tsel"

- transitive objects still trigger no overt agreement marker

(28)   Halkomelem (Salish) – non-ergative pattern

    a.   máy-t-tsel
        help-trans-1sg.s
        'I help him.'

    b.   yó:ys-tsel
        work-1sg.s
        'I work.'   (Wiltschko 2006:197–199)

2.3   Auxiliary selection

- certain Italo-Romance dialects NPs to the left of Silverstein's (3rd-person) appear with *have*, while those to the right (1st/2nd person) appear with *be*:

(29)   Abruzzese (D'Alessandro and Roberts   'I have eaten.'
    2010:54–55)   b.   Esse   a   magnate.
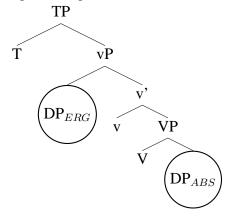   a.   Ji so' magnate.   he/she has eaten
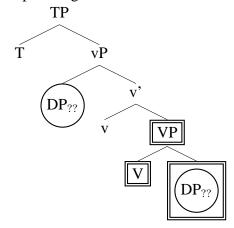   I am eaten-sg   'He/she has eaten.'

2.4   Proposal

- what all these cases have in common is that whenever a split appears it corresponds to a larger structure

- in case of the ergative split, the added structure yields the disruption of case checking

- in case of the auxiliary selection, the added structure prevents the incorporation of *be*, thus *have* is not available anymore

(30) a. Ergative alignment:

```
            TP
          /    \
         T      vP
               /  \
          ( DP_ERG )  v'
                     /  \
                    v    VP
                        /  \
                       V    ( DP_ABS )
```

b. "Split" alignment:

```
            TP
          /    \
         T      vP
               /   \
          ( DP_?? )  v'
                    /  \
                   v   [ VP ]
                       /    \
                    [ V ]   [ ( DP_?? ) ]
```

How is the structure added?

- Aspect-based splits: extra functional projection in the imperfective and progressive (see Coon 2010 for arguments)

- Person-based splits: extra functional projection (ParticipantP) in the case of 1st/2nd person

- (Auxiliary selection: ParticipantP disrupts head movement of *be*)

Note:

- for Coon (2010) and Coon and Preminger (2011) it is crucial that the added structure creates a new case-assigning domain

- it is plausible though that introducing a phase boundary is what really matters here

How is the case assigned?

- in Marantz's system, if the DPs are in two separate case domains, they become invisible for purposes of case-competition

- if ERG is a dependent case, it can be assigned only if there is another DP getting case in the same domain

- in a case-checking system (Chomsky, 2000, 2001), we need to play a bit with the embedding functional heads but in the end, again, we use the notion of a dependent case

3 Toward a unified account

- what these two proposals have in common is the observation that creating a locality boundary changes the case assignment properties

- in the NOM/ACC system creating a locality boundary yields *emergence* of a special morphological marking (NOM instead of the expected NOM)

- in the ERG/ABS system, creating a locality boundary yields *loss* of a special morphological marking (default or ABS instead of the expected ERG)

- the question is whether we can unify these two observations

3.1 The Spell-out hypothesis

- basic issue: can the case assignment in ERG/ABS system be equated with the case assignment in NOM/Acc system?

- two related questions: do the arguments appear in the same syntactic positions? are the cases assigned by the same or by distinct functional heads?

- an empirical difficulty: there is more than one ERG/ABS system (see, for example, Legate 2008)

- it is very likely there is more than one NOM/ACC system (see, for example, Grewendorf (1989) for an explicit argument that NOM/ACC systems form a continuum merging into ERG/ABS systems)

- we can circumvent the problem by asking a slightly different question: does the Spell-out proceed in the same fashion in the ergative languages as in the accusative languages?

- it has been argued that ERG/ABS and NOM/ACC languages are not syntactically identical

- in particular, it seems to be the case that while ABS is a fairly normal internal argument (for example, Massam 2006), ERG does not seem to share the properties of external arguments in the NOM/ACC system (see, for example, Manning's overview of distinctions in scope and information structure properties)

The unaccusative hypothesis

- ergative systems are at some level of abstraction passive or unacusative structures (Fillmore, 1968; Hale, 1970; Marantz, 1984; Bok-Bennema, 1991, among others)

- technically, ERG is not merged at the same position as the external argument in the NOM/ACC system – v is either entirely missing (Nash, 1995, 1996) or it is defective (Alexiadou, 2001)

- we can rephrase this in terms of phases and Spell-out (Chomsky, 2001, 2005, 2008):

(31) **The Spell-out hypothesis:**
      While a transitive vP is always a Spell-out in the NOM/ACC system, it is not in the ERG/ABS system, unless the structure gets independently extended.

- under the ergative split condition, the structure gets extended and vP becomes a strong phase

- interestingly, for example, in Georgian, if the split takes place, the verb appears with a so called Thematic suffix – a special morpheme that has been argued to be an overt realization of v (Nash, 1995, 1996)

3.2   One phase $\sim$ one Case

- Alexiadou and Anagnostopoulou (2001) observed that two DPs cannot be assigned Case if they stay VP internal:

(32)   **Subject-in-situ Generalization** (Alexiadou and Anagnostopoulou, 2001, p. 216, (46))

     a.   By Spell-out VP can contain no more than one argument with an unchecked Case feature.

     b.   Interpreted as: v and T cannot both have active Case features when they form a complex head.

- if vP is not a Spell-out domain in an ergative system, then two DPs need to be assigned Case

- I argue that the generalization observed by Alexiadou and Anagnostopoulou (2001) should be extended to <u>every</u> Spell-out domain

(33)   ***2-Case generalization [descriptive version]**

     a.   Given a Spell-out domain α, at most one DP can be assigned Case within α.

     b.   If there are two DPs within α that need to be assigned Case, one of them must be realized as a PP.

(34)   ***2-Case generalization [feature version]**

     a.   Every Spell-out domain needs to have a Case feature.

     b.   There can be at most one Case feature per Spell-out domain.

A cross-linguistic variation is then a result of two factors:

- which head(s) will get a Case feature

- which head will trigger Spell-out

3.3   Two types of Absolutive

- Legate (2008) suggested that ABS is either a structural case or a default morphological realization

- **Consequence:** if (34) is correct, then the difference between types of Absolutives translates into differences between Ergatives

(35)   **Absolutive-Ergative parameter**

     a.   If a language assigns ABS as a structural case, then ABS cannot co-occur with another structural case in the same Spell-out domain $\Rightarrow$ ERG must be a lexical case or a PP.

     b.   If a language assigns Absolutive as morphological default, then ABS can co-occur with another structural case in the same Spell-out domain $\Rightarrow$ ERG as a structural case.

- we can make a further step and associate Case assignment with the head which is the closest head to the DP which gets a structural case:

(36)   ABS **Case-Feature parameter**
   a.   If a language has Case feature on v, ABS is a structural case.
   b.   If a language has Case feature on T, the DP will be realized with a morphological default (ABS).

- the question is what it means for a case to be a morphological default

- for concreteness, I will assume that a morphological default arises if the Case feature on a DP was checked but not valued

- furthermore, I assume that only Case feature on v can value a Case feature on a DP

- T may have a Case feature in some circumstances but the feature will always set to a default

- furthermore, if a probe values a feature on a goal, it becomes inactive

3.4   ERG **as a lexical case**

- if vP is not a Spell-out domain in an ergative system, there are two DPs that need to be assigned Case

- only one of them can get Case ⇒ Absolutive

- if ABS is structural Case, the Case feature is on v

- after the Case feature is assigned to the internal argument it is no longer active

- the remaining DP must be assigned a lexical case/PP ⇒ Ergative

NOM/ACC **parallel:**

- if vP is a Spell-out domain and if there are two DPs within the Spell-out domain one of them must be realized as PP

- ⇒ ACC/Dat or ACC/PP in double-object constructions

TMA splits:

- if the structure gets extended and vP becomes a Spell-out domain, v assigns ABS to the internal argument within vP

- since every Spell-out domain has a Case feature, there must be a Case feature on T as well, (34)

- T assigns Case to the "formerly" ERG argument

- if ABS is assigned by T it is a morphological default ⇒ the lack of special morphological marking in these types of TAM splits

- examples: Basque, Hindi, Gurajati (see Coon (2012) for a discussion and further references)

NOM/ACC parallel:

- if vP is a Spell-out domain, v assigns ACC to the internal argument within vP (either objects in transitive/ditransitive clauses or *have*-Perfect of the Ukrainian type)

- if vP is not a Spell-out domain, the Case feature is on T – the realized Case is a morphological default ⇒ Nominative

- if both vP and CP are Spell-out domains the Case feature is on T – the realized Case is a morphological default ⇒ Nominative

- Note: in many languages Nominative has its own marker, it is far from clear whether the marker is a morphological realization of a Case feature or some other feature(s). For example, in Slavic, the Nominative marker expressed a thematic vowel and potentially Gender and Number (Jakobson and much subsequent work); in Icelandic, Nominative might realize the definite/indefinite article; etc.

- thus we can formulate a NOM/ACC parallel of (36) as follows:

(37)   ACC **Case-Feature parameter**
    a.   If a language has Case feature on v, the structural case is Accusative.
    b.   If a language has Case feature on T, the DP will be realized with a morphological default (Nominative).

NOM/ACC parallel – further prediction:

- an interesting case is what happens if there are two DPs but vP is not a Spell-out domain

- the current system predicts that the Case feature should be on T and both DPs should be realized as morphological default

- recall, a probe becomes inactive only if it values a feature on its goal

- consequently, both DPs should get Nominative

- If such a structure gets independently extended and the two DPs get spelled out in two separate phases, the prediction is that the higher one should be assigned NOM, while the lower one should be assigned ACC

- this prediction seems to be borne out in Arabic nominal copular clauses (S. Bejar, p.c.)

- nominal copular clauses in Arabic show distinct case pattern depending on the tense of the copular clause

- as in (38-a), copula-less small clauses show no ACC assignment

- crucially, as in the ergative split pattern what we see here is not a special marking but a *lack* of marking

- If the structure gets extended, which is presumably the case of Past and Future in (38-b)–(38-c), the lower DP gets spelled out in the vP phase, resulting in a distinct case assignment of the two DPs:

(38)   a.   Hassan   Tabiib
              Hassan.NOM doctor.NOM
              'Hassan is a doctor.'
        b.   kaan Hassan   Tabiib-an
              was Hassan.NOM doctor.ACC.INDEF
              'Hassan was a doctor.'
        c.   Sayakuunu Hassan   Tabiib-an
              be.FUT   Hassan.NOM doctor.ACC.INDEF
              'Hassan will be a doctor.'

3.5   Loose ends? ERG as a structural case

- at least in some ERG/ABS systems, ERG seems to behave as a structural case

- let's assume that ERG is assigned by T only if vP is not a Spell-out domain and the rest of the system stays unchanged

ERG/ABS:

- if vP is not a Spell-out domain (the default situation) and if there's only one argument, then this argument will get Case from T ⇒ ERG

- if vP is not a Spell-out domain and if there are two arguments, one of them will get ERG from T, the other one will become a morphological default ⇒ ABS

NOM/ACC:

- this is an uneventful NOM/ACC system and is indistinguishable from the previous system (until we look at splits)

TAM splits:

- if vP becomes a Spell-out domain, then v assigns Case to the only argument ⇒ ABS

- in other words, this is a system where the only argument of an intransitive clause is either ABS or ERG – depending on the aspect of the clause

- such a system might be exemplified by some languages of the Mayan family (Yucatec, Chol, etc.) in which the argument of a Perfective clause surfaces with ABS and the argument of Progressive clause gets ERG

- Coon (2012) call these splits "Ergative to extended-ergative"

- the problem is that according to Coon (2010) and Coon (2012) it is the Progressive structure which is bigger

- so either Coon is not right in her analysis of Progressive or this prediction is simply wrong

References

Alexiadou, Artemis. 2001. *Functional structure in nominals. Nominalizations and ergativity*. Amsterdam–Philadelphia: John Benjamins.

Alexiadou, Artemis, and Elena Anagnostopoulou. 2001. The Subject-in-Situ Generalization and the Role of Case in Driving Computations. *Linguistic Inquiry* 32:193–231.

Babko-Malaya, Olga. 2003. Perfectivity and prefixation in Russian. *Journal of Slavic Linguistics* 11:5–36.

Billings, Loren, and Joan Maling. 1995. Accusative-assigning participial -no/-to construction in Ukrainian, Polish, and neighboring langauges: An annotated bibliography. *Journal of Slavic linguistics* 3:177–217 [A–M], 396–430 [N–Z].

Bjorkman, Bronwyn Alma Moore. 2011. BE-ing default: The morphosyntax of auxiliaries. Doctoral Dissertation, MIT, Cambridge, Mass.

Blevins, James P. 2003. Passives and impersonals. *Journal of Linguistics* 39:473–520.

Bohnemeyer, Jürgen, and Mary Swift. 2004. Event realization and default aspect. *Linguistics and Philosophy* 27:263–296.

Bok-Bennema, Reineke. 1991. *Case and agreement in Inuit*. Dordrecht: Foris.

Borer, Hagit. 1994. On the projection of arguments. In *Functional projections*, ed. Elena Benedicto and Jeffrey T. Runner, volume 17 of *University of Massachusetts Occasional papers*, 19–48. Amherst, MA: GRADUATE LINGUISTIC STUDENT ASSOCIATION.

Borer, Hagit. 2005. *Structuring sense: An exo-skeletal trilogy*. New York: Oxford University Press.

Borsley, R.D. 1988. A note on impersonal passives. *Journal of Linguistics* 24:483–487.

Burzio, Luigi. 1986. *Italian syntax: A government-binding approach*. Dordrecht: Reidel.

Chomsky, Noam. 1981. *Lectures on Government and Binding*. Dordrecht: Foris.

Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by Step*, ed. R. Martin, D. Michaels, and J. Urigereka. Cambridge, MA: MIT Press.

Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, 1–52. Cambridge, MA: MIT Press.

Chomsky, Noam. 2005. On phases. MIT ms.

Chomsky, Noam. 2008. On phases. In *Foundational issues in linguistic theory: Essays in honor of Jean-Roger Vergnaud*, ed. Jean-Roger Vergnaud, Robert Freidin, Carlos Peregrín Otero, and Maria Luisa Zubizarreta, 133–166. Cambridge, Mass.: MIT Press.

Coon, Jessica. 2010. Complementation in Chol (Mayan): A theory of split ergativity. Doctoral Dissertation, MIT, Cambridge, Mass.

Coon, Jessica. 2012. TAM split ergativity. Unpublished manuscript. McGill University, February 2012.

Coon, Jessica, and Omer Preminger. 2011. Towards a unified account of person splits. A talk presented at the WCCFL 29, April 2011.

Danylenko, Andrii. 2006. *Slavica et Islamica: Ukrainian in context*. München: Verlag Otto Sagner.

DeLancey, Sott. 1981. An interpretation of split ergativity and related patterns. *Language* 57:626–657.

Demirdache, Hamida, and Miryam Uribe-Etxebarria. 2000. The primitives of temporal relations. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, ed. Roger Marting, David Michaels, and Juan Uriagereka, 157–186. Cambridge, Mass.: MIT Press.

Dixon, R.M.W. 1994. *Ergativity*. Cambridge: Cambridge University Press.

Dowty, David. 1979. *Word meaning and Montague grammar*. Dordrecht: D. Reidel.

Emonds, Joseph E. 1985. *A unified theory of syntactic categories*. Dordrecht: Foris Publications.

Emonds, Joseph E. 2010. Case theory revisited: Nominative and Aaccusative super case. In *Karlík a továrna na lingvistiku. Prof. Petru Karlíkovi k šedesátým narozeninám [Charlie and the linguistics factory. A festschrift in honor of the sixtieth birthday of Petr Karlík]*, ed. Aleš Bičan, Jan Klaška, Petra Macurová, and Jana Zmrzlíková, 98–124. Brno: Host/Masarykova Univerzita.

Fillmore, Charles. 1968. The case for case. In *Universals in linguistic theory*, ed. Emmon Bach and Richard Harms, 1–90. New York, New York: Holt, Rinehart and Winston.

Fitzpatrick, Justin M. 2006. Deletion through movement. *Natural Language & Linguistic Theory* 24:399–431.

Grewendorf, Günther. 1989. *Ergativity in German*. Dordrecht: Foris Publications.

Hale, Kenneth. 1970. The passive and ergative in language change: the Australian case. In *Pacific linguistic studies in honor of Arthur Capell*, ed. S. Wurm and D. Lyscock, 757–781. Pacific Linguistic Series.

van Hout, Angeliek. 2000. Event semantics in the lexicon-syntax interface. In *Events as grammatical objects*, ed. Carol L. Tenny and James Pustejovsky, 239–282. Stanford: CSLI Publications.

van Hout, Angeliek. 2004. Unaccusativity as telicity checking. In *The unaccusativity puzzle*, ed. Artemis Alexiadou, Elena Anagnostopoulou, and Martin Evereart, 60–83. Oxford: Oxford University Press.

Iatridou, Sabine, Elena Anagnostopoulou, and Roumyana Izvorski. 2001. Observations about the form and meaning of the perfect. In *Ken Hale: A life in language*, ed. Michael Kenstowicz, 189–238. Cambridge, Mass.: MIT Press.

Jóhannsdóttir, Kristín M., and Lisa Matthewson. 2008. Zero-marked tense: The case of Gitxsan. In *Proceedings of NELS 37*, 299.

Katzir, Roni. 2007. Abstract case, morphological case, and ergativity. Talk given at the Ergativity Research Seminar, September 2007.

Kayne, Richard S. 1993. Toward a modular theory of auxiliary selection. *Studia Linguistica* 47:3–31.

Kibort, Anna. 2008. Impersonals in Polish. *Transactions of the Philological Society* 106:246–289.

Kiparsky, Paul. 1998. Partitive case and aspect. In *The projection of arguments*, ed. Miriam Butt and Wilhelm Geuder, 265–308. Stanford: CSLI Publications.

Kit, Olena. in preparation. The influences of the impersonal passive. B. Arts Sc. Honors Thesis. McMaster University (expected May 2012).

Kratzer, Angelika. 2004. Telicity and the meaning of objective case. In *The syntax of time*, ed.

Jacqueline Guéron and Jacqueline Lecarme, 389–424. Cambridge, Mass.: MIT Press.

Kučerová, Ivona. 2011. What is dependent case dependent on? A case study from Slavic. A talk presented at the GLOW 34 meeting in Vienna, April 29, 2011.

Kuz'mina, I. B. 1993. *Sintaksis russkich govorov v lingvogeografičeskom aspekte*. Moscow: Nauka.

Kuz'mina, I. B., and E. V. Nemčenko. 1971. *Sintaksis pričastnych form v russkich govorach*. Moscow: Nauka.

Laka, Itziar. 2006. Deriving split ergativity in the progressive: The case of Basque. In *Ergativity: Emerging issues*, ed. Alana Johns, Diane Massam, and Juvenal Ndayiragije, 173–196. Kluwer Academic Publishers.

Lavine, James, and Robert Freidin. 2002. The subject of defective T(ense) in Slavic. *Journal of Slavic linguistics* 10:251–287.

Lavine, James E. 2000. Topics in the syntax of non-agreeing predicates in Slavic. Doctoral Dissertation, Princeton University.

Lavine, James E. 2005. The morphosyntax of polish and ukrainian -no/-to. *Journal of Slavic linguistics* 13:75–117.

Lavine, James E. 2010a. Case and events in transitive impersonals. *Journal of Slavic linguistics* 18:101–130.

Lavine, James E. 2010b. Case and events in ukrainian experiencer predicates. In *Formal Approaches to Slavic linguistics 18*, ed. Wayles Browne et al. Ann Arbor: Michigan Slavic Publications.

Legate, Julie A. 2003. Some interface properties of the phase. *Linguistic Inquiry* 34:506–515.

Legate, Julie Anne. 2008. Morphological and abstract case. *Linguistic Inquiry* 39:55–101. URL http://www.mitpressjournals.org/doi/abs/10.1162/ling.2008.39.1.55.

Leinonen, Marja. 2002. Morphosyntactic parallels in North Russian dialects and finno-ugric languages. *Scando-Slavica* 48:127–146.

Maling, Joan. 1993. Unpassives of unaccusatives. Paper presented at UC Irvine, University of Massachusetts at Amherst, University of Iceland.

Maling, Joan. 2006. From passive to active: Syntactic change in progress in Icelandic. In *Demoting the agent: passive, middle and other voice phenomena*, ed. Benjamin Lyngfelt and Torgrim Solstad, 197–223. Amsterdam: John Benjamins.

Maling, Joan, and Sigríður Sigurjónsdóttir. 2002. The 'new impersonal' construction in Icelandic. *Journal of Comparative Germanic Linguistics* 5:97–142.

Manning, Christopher. 1996. *Ergativity: Argument structure and grammatical relations*. Stanford, CA: CSLI Publications.

Marantz, Alec. 1984. *On the nature of grammatical relations*. Cambridge, Massachusetts: MIT Press.

Marantz, Alec. 1991. Case and licensing. In *Proceedings of ESCOL '91*, 175–195. Cornell Linguistic Club.

Markman, Vita G. 2004. Causatives without causers and Burzio's Generalization. In *Proceedings of NELS 34*, volume 2, 425–440.

Maslov, Ju. S. 1984. *Očerki po aspektologii*. Leningrad: Izdatel'stvo Leningradskogo Universiteta.

Massam, Diane. 2006. Neither Absolutive nor Ergative is Nominative or Accusative. In *Ergativity. Emerging issues*, ed. Alana Johns, Diane Massam, and Juvenal Ndayiragije, 27–46. Dordrecht: Springer.

McCoard, R.W. 1978. *The English perfect: Tense choice and pragmatic inferences*. Amsterdam: North Holland.

Nash, Léa. 1995. Portée argumentale et marquage casuel dans le langues SOV et dans les langue ergatives: l'example du géorgian. Doctoral Dissertation, Université de Paris VIII, Paris.

Nash, Léa. 1996. The internal ergative subject hypothesis. In *Proceedings of North East Linguistic Society*, ed. Kiyomi Kusumoto, 195–210. Harvard University and MIT: Graduate Linguistic Student Association.

Nedashkivska Adams, Alla. 1998. -no/-to and voice: Statality and actionality in conternmporary Ukrainian. *Canadian Slavonic Papers* 40:189–208.

Paslawska, Alla, and Arnim von Stechow. 2003. Perfect readings in Russian. In *Perfect explorations*, ed. Artemis Alexiadou, Monika Rathert, and Arnim von Stechow, 307–362. Mouton de Gruyter.

Pereltsvaig, Asya. 2000. On accusative adverbials in Russian and Finnish. In *Adverbs and adjunction*, ed. Artemis Alexiadou and Peter Svenonius, volume 6 of *Linguistics in Potsdam*, 155–176. Potsdam: Potsdam University.

Ramchand, Gillian. 1997. *Aspect and predication: The semantics of argument structure*. Oxford – New York: Oxford University Press.

Richards, Norvin. 2003. Why there is an EPP. *Genko Kenkyu. Journal of the Linguistic Society of Japan* 123:221–256.

Richardson, Kylie. 2007. *Case and aspect in Slavic*. Oxford: Oxford University Press.

Sigurðsson, Halldór Ármann. 2006. The Nominative puzzle and the low Nominative hypothesis. *Linguistic Inquiry* 37:289–308.

Sigurðsson, Halldór Ármann. 2011. On the new passive. *Syntax* 14:148–178.

Silverstein, Michael. 1976. Hierarchy of features and ergativity. In *Grammatical categories in australian languages*, ed. R. M. W. Dixon, 112–171.

Sobin, Nicholas J. 1985. Case assignment in Ukrainian morphologicak passive constructions. *Linguistic Inquiry* 16:649–662.

von Stechow, Arnim. to appear. Tenses in compositional semantics. In *The expression of time in language*, ed. Wolfgang Klein.

Svenonius, Peter. 2002. Case as uninterpretable aspect. In *Proceedings of perspectives on aspect*. Utrecht: University of Utrecht.

Trubinskij, V. I. 1988. Resultative, passive, and perfect in Russian dialects. In *Typology of resultative constructions*, ed. V. P. Nedjalkov and B. Comrie, volume 12 of *Typological studies in language*, 389–410. Amsterdam: John Benjamins.

Tsunoda, Tasaku. 1981. Split case-marking patterns in verb types and tense/aspect/mood. *Linguistics* 19:389–438.

Veselovská, Ludmila, and Petr Karlík. 2004. Analytic passives in Czech. *Zeitschrift für Slavistik*

2:163–243.

Wasow, Tom. 1977. Transformations and the lexicon. In *Formal syntax*, ed. Peter Culicover, Tom Wasow, and Adrian Akmajian, 327–360. New York, New York: Academic Press.