The Structure of 'Out-Do' and its Implications[*]

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RUESHeL meeting, Humboldt Universität

1   Introduction

◆ English allows *out-* to occur as a prefix[1] to a predicate, to form a complex predicate: "**out-PRED**"

◆ Some examples of out-PRED, as attested on the internet, in books, and in periodicals:

(1) a. Armageddon **outgrossed** Deep Impact.   (http://bit.ly/2wUo66w)

   b. Google has **outdone** itself today   (http://bit.ly/1GY0Np0)

   c. Neither one **outsang** the other.   (http://bit.ly/19PZpup)

   d. 15-year-old Anna Meyer **outearned** her dad by playing shortstop in the All-American Girls Professional Baseball League.   (http://bit.ly/2Tlmtv0)

   e. Credit where credit is due - no one can **out-Mariah** Mariah.   (http://bit.ly/2x4NLK1)

   f. Feral hogs can **outcompete** and **outreproduce** deer.   (http://bit.ly/2NYjpPI)

   g. Sweet Potato **Out-Yields** Corn in Ethanol Production Study   (http://bit.ly/2LElIGg)

   h. By 2017, connected devices will **outnumber** people.   (http://bit.ly/1BqSr4I)

   i. [...] business interests **outresearched**, **outspent**, and **outlobbied** poorly funded and loosely organized groups   (http://bit.ly/1CcGIKq)

▸ <u>Salient property</u>: out-PRED is robustly mono-transitive, regardless of the valency/valencies of PRED

TODAY'S QUESTIONS

◆ What are the basic grammatical properties of these out-PRED predicates?
◆ What are the argument structure properties for out-PREDs? Where do they come from?
◆ How much of argument structure depends on the lexical predicate, and how much depends on the surrounding functional structure?

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[1] I use this term pre-theoretically, to refer to a morpheme that occurs before a (morphologically free) stem. I will not address the question of whether precisely this morpheme ought to be analyzed as a particle, preposition, or something else.

◆ |Previewing the conclusions:|

  ▸ out-PREDs can be **actively derived in the syntax**

    ▪ (*i.e., they are not formed/listed in a pre-syntactic lexicon*)

  ▸ out-PREDs' **argument structural properties are controlled by *out-*** rather than by PRED

    ▪ out-PRED diverges from PRED's argument structure, in consistent ways

  ▸ out-PRED formation **can be blocked** under certain grammatical conditions

    ▪ Where a PRED and its arguments must be interpreted in the same minimal domain for a felicitous interpretation

  ▸ Following these (and other) conclusions, out-PRED will be analyzed (roughly) as:

    (2)   [$_{ExtArgP}$ SUBJECT [$_{IntArgP}$ OBJECT [$_{outP}$ *out-* [$_{VP}$ PRED]]]]

       ▷ (*N.B. ExtArgP/IntArgP are simply shorthands for argument positions*[2])

    ▪ Importantly: (i) '*out-*' merges with PRED before its arguments do, and (ii) the surface object and subject are in the extended projection of '*out-*'

◆ Broader implications, based on this:

  ▸ Even with many obligatory transitives, the object merges not as a complement of the lexical PRED, but **in the functional structure of its extended projection**

       ◇ (Borer 2005a,b, Ramchand 2008, Bowers 2010, Lohndal 2012, Alexiadou 2014, Cuervo 2014, Svenonius 2016, a.o.; <u>but</u> see Harley 2014a,b for arguments to the contrary for some predicates)

  ▸ Moreover, **the functional structure where the object merges is <u>not</u> obligatory** even for robustly transitive predicates (e.g., *earn*)

    ▪ Such predicates can appear without their object in out-PRED (e.g., *out-earn*, (1d))

    ▪ The result of (2) is that internal arguments appear to be suppressed, in the same way that middles/anti-causatives give the appearance that external arguments are suppressed

2   Generalizations: PRED and out-PRED

◆ There are some very high frequency and salient out-PREDs, which appear to be somewhat idiomatic

    (3) a. **out-do oneself**: exceed the (high) standards one had previously established

        b. **out-smart / out-wit / out-fox**: to defeat, by using clever thinking

        c. **out-gun**: to have more guns/arms

        d. **out-number**: to exist in a greater number

  ▸ One might be tempted to say that each out-PRED is <u>not</u> the result of morphosyntactic processes

    ▪ **But** even these more idiomatic cases exhibit the grammatical properties common across out-PRED that we will uncover

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[2]There is almost certainly more structure to predicates and argument positions, which I will not make explicit in this talk (possibly especially relevant, but not included: projections for dynamicity/stativity, case licensing, etc.)

2.1   Productivity of out-PRED

◆ out-PRED is a morphologically complex object, formed by a productive grammatical process

  ▸ out-PRED can be formed using new(er) lexical items

(4) a.   I'm known as "the researcher", that guy that can **out-Google** anyone(http://bit.ly/2JZhZl1)

  b.   Kate Moore [...] **out-texted** more than 250,000 participants   (http://cnn.it/1xhXHfs)

  ▸ Similarly, out-PRED can be formed on (new) proper names[3]

(5) a.   We would all love to **out-Einstein** Einstein by coming up with a better theory of gravity.   (http://bit.ly/2nctg8B)

  b.   Has Kanye West just **out Kanye'd** himself?   (http://bit.ly/2LsyjAk)

  c.   Goin' to Lady Gaga tonight? EVERYONE is dressing up! We have everything here to help you **out-Gaga** your fellow concert-goers!!   (http://fb.me/BwjmIpD6)

  d.   Merkel has **out-merkeled** them again   (http://bit.ly/2AeFTcL)

  ▸ The stem to which *out-* attaches can itself be morphosyntactically complex

(6) a.   [*Cleaning products are being compared in effectiveness.*]
         This one **out-disinfects** the others.

  b.   [*Budweiser/Miller/Coors all make bad beer, but they can spend a lot of money to brainwash people into liking their beer. Smaller companies with bad beer don't stand a chance to do as well as B/M/C.*]
         [...] they don't have the resources to **outbrainwash** B/M/C. (http://bit.ly/2oRMnWA)

  c.   [*Jeff has 30 years of experience with sailing and sail racing, making him an expert.*]
         Jeff can **out-strategize** any newcomer   (http://bit.ly/2wVIuDB)

  d.   [*Two politicians, Mr. Harper and Mr. Martin are trying to show people they are nice guys, doing things all the political niceties of shaking hands, kissing babies, and metaphorically fingerpainting at kindergartens.*]
         [Mr. Harper]'s been trying to **out-fingerpaint** Mr. Martin   (https://tgam.ca/2Mdejxk)

  e.   [*You and I were each given the same email to re-word. Your new version of the email is better than mine.*]
         You **out-reworded** me.

  f.   [*My old oven takes a long time to pre-heat, but my new oven pre-heats very quickly.*]
         My new oven **out-preheats** my old oven.

  ▸ out-PRED can be formed on an existing out-PRED

(7)   [I_1 always run faster than everyone in my$_1$ class, and Kim$_2$ always runs faster than everyone in their$_2$ class too. However, Kim$_2$ always outruns everyone in their$_2$ class to a much greater extent than I outrun everyone in my class.]
         Kim **out-outruns** me.

  ▪ This mostly clearly demonstrates the morphosyntactic productivity of out-PRED:

   ◇ *out-* prefixation can apply recursively

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[3]The '*out-NAME NAME*' construction has been noted in the past; A post on Language log discusses this kind of example: `http://itre.cis.upenn.edu/~myl/languagelog/archives/003430.html`. (In the Oxford English Dictionary, entry 4c(c) for "out-, prefix" provides many examples of this as well. [`http://www.oed.com/viewdictionaryentry/Entry/133398`]) But '*out-NAME*' is not restricted to this context: (5) shows they can occur with a variety of objects.

◆ **It must <u>not</u> be the case that each out-PRED is listed in a static lexicon**[4]

GENERALIZATION: PRODUCTIVITY OF OUT-PRED

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(8) out-PRED formation is a productive process of English, resulting in a morphosyntactically complex object

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2.2 Allomorphy and out-PRED

◆ Since out-PRED is derived, PRED also should be active in the morphosyntactic derivation

◆ Evidence of this comes from allomorphy

▸ out-PRED forms inherit all the morphophonological irregularities of the stem to which they attach:[5]

(9) Past forms for "(out)-think"
   a. think   + -PAST =   thought   (*thinked)
   b. out-think + -PAST = out-thought   (*out-thinked)

(10) Past and past participle forms for "(out)-drive"[6]
   a. drive   + -PAST   =   drove   (*drived)
   b. out-drive + -PAST   = out-drove   (*out-drived)
   c. drive   + -PASTPART =   /dɹɪvn̩/   (*/dɹajvn̩/)
   d. out-drive + -PASTPART = out-/dɹɪvn̩/   (*out-/dɹajvn̩/)

(11) Past, past participle, and 3.SG present forms for "(out)-do"
   a. do   + -PAST   =   /dɪd/   (*/dud/)
   b. out-do + -PAST   = out-/dɪd/   (*out-/dud/)
   c. do   + -PASTPART =   /dʌn/   (*/dun/)
   d. out-do + -PASTPART = out-/dʌn/   (*out-/dun/)
   e. do   + -3.SG.PRES =   /dʌz/   (*/duz/)
   f. out-do + -3.SG.PRES = out-/dʌz/   (*out-/duz/)

GENERALIZATION: ALLOMORPHY IN PRED AND OUT-PRED

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(12) The contextually determined allomorphs for PRED (in its broader distribution as a verbal predicate) will serve as allomorphs for out-PRED in the same contexts

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◆ <u>Premise</u>: irregular morphological forms are tied to particular lexical items

▸ If out-PRED *always* uses the same allomorph as PRED would in the same context, PRED must be identifiable in morphology

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[4]Based on what we have seen so far, it is indeed possible that an out-PRED is formed in an active lexicon, if such a linguistic module exists —though see Marantz 1997, Borer 2005a,b, or Ramchand 2008, among many others, for detailed arguments against such a module— so long as that active lexicon allows for processes that manipulate argument structure properties (valency, types of thematic relations, passivizability, etc.).

[5]Below are predictions / judgments for varieties of English that regularly distinguish past and past participle forms. (This contrasts with dialects where, e.g., /dɪd/ is both the past form and past-participle form for *do*.

[6]In the sense of steering a vehicle.

- By the operation that selects the appropriate allomorph (e.g., Vocabulary Insertion)
  - ▸ If out-PRED and PRED were listed separately in the lexicon, <u>systematic shared allomorphy would be unpredicted</u>

◆ For example: if out-PRED were listed as a separate lexical item, we should predict (at least some) regularization by *out-* prefixation, along the lines of (13)

  (13) <u>Past forms for "(green)-light"</u>
        a. light   + -PAST = lit
        b. green-light + -PAST = green-lighted

  (14) <u>Past forms for "(pile)-drive"</u>
        a. drive   + -PAST = drove
        b. pile-drive + -PAST = pile-drived

  - ▸ *light* and *drive* have irregular past forms when occurring alone, but the <u>regular</u> past form can be used when they occur as part of compounds like *green-light* or *pile-drive*[7]

  - ▸ Conversely, no speakers (to my knowledge) allow *out-drived* for past or past participle forms of *out-drive* (cf. (10))
    - In other words, <u>out- does not affect allomorph selection</u>, in the familiar way that verbal prefixes like *re-* also do not affect allomorph selection.

2.3   (Non-)Stativity of out-PRED

◆ In the interpretive domain as well, lexical properties[8] of PRED persist in out-PRED

  - ▸ For so-called lexically stative PREDs, out-PRED also behaves as lexically stative

  - ▸ As a text of stativity, consider the distribution of the progressive,[9] in contexts where an 'ongoing' interpretation is intended:

  (15) a. James was born this morning he {weighs / [#]is weighing} 4kg.

        b. James was born this morning he {**outweighs** / [#]is **outweighing**} the other babies in the hospital.

  (16) a. The new first years arrived today and they {number / [#]are numbering} 250.

        b. The new first years arrived today and they {**out-number** / [#]are **out-numbering**} the second years.

  (17) a. Kay was promoted, and now they {earn / are earning} a better salary than Alex.

        b. Kay was promoted, and now they {**out-earn** / are **out-earning**} Alex.

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[7]Three possible explanations for *pile-drived*: (i) *pile-drive* is listed as its own atomic lexical item, (ii) *pile-drive* is morphologically derived but *drive* is not treated as a verb in the derivation, (iii) *drive* is treated at a verb in the derivation of *pile-drive*, but not with the right kind of locality or visibility at the relevant level of the derivation where tense enters into play.

[8]This information could be stored directly in the lexical for the lexical item corresponding to the PRED, or it could be that "PRED" is a shortcut for syntactic structure of a certain size that may include information about 'lexical' stativity/dynamicity.

[9]Another canonical diagnostic of telicity is the ability to use adjuncts such as '*in an hour*'. Here the judgments seem to vary. Tolskaya 2014 offers sentences like *The girl out-danced the giant in an hour* as felicitous, which she takes to indicate that *out-dance* is telic even through intransitive *dance* is not. It is difficult to know how to interpret this sort of data, since *dance* also has several telic uses as well, and it is not obvious 'which *dance*' is in the input to *out-dance*. To complicate matters, not all native speakers find this example to be felicitous. As such, at this point it is not clear what sorts of conclusions we can draw about telicity, or even what the results of the *in an hour* test are.

(18) a. Kelly flies every day, and today she {#pilots / is piloting} a new plane.

b. Kelly flies every day, and today she {#**out-pilots** / is **out-piloting**} Louisa.

(19) a. Right now at karaoke, Joanna {#sings / is singing} a song from the 90s.

b. Right now at karaoke, Joanna {#**out-sings** / is **out-singing**} Louisa.

GENERALIZATION: STATIVITY IN PRED AND OUT-PRED

(20) The contexts in which PRED can occur in the progressive are the same as the contexts in which out-PRED can occur in the progressive.

- ▸ In standard varieties of English, (most) stative predicates do not occur in the progressive (without coercion)
  - ▪ cf. *(out-)weigh*, *(out-)number*
- ▸ Non-stative verbs require a progressive form for an 'ongoing' reading (Dowty 1979)
  - ▪ cf. *(out-)pilot*, *(out-)sing*
- ▸ The availability of the appropriate interpretations <u>depend on lexical properties of PRED</u>, and those facts are shared across PRED and out-PRED

2.4   Implications of These Generalizations

- ◆ **Evidence from productive complexity, allomorphy, and stativity/dyanmicity suggest that PRED is derivationally active in out-PRED clauses**
  - ▸ These individual generalizations are each concerned with a different domain of the formal derivation:
    - ▪ morphosyntax (productivity),
    - ▪ morphophonology (allomorphy),
    - ▪ interpretation (stativity/eventivity).
  - ▸ In a Y-model of grammatical architecture and realizational model of morphology, providing a derivation for these facts across modules requires a syntactic core

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META-GENERALIZATION: OUT-PRED IS SYNTACTIC

(21)   out-PRED formation is a productive syntactic process of English

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- ◆ Let's turn now from properties shared between PRED and out-PRED, to properties shared across cases of out-PRED
  - ▸ These facts will shape the sorts of syntactic derivations that would be appropriate

3   Generalizations: the Properties of out-PRED

3.1   The Interpretive Core of out-PRED

◆ Here again are some out-PRED data, withc which we will consider the basic interpretive properties of out-PRED

(22) a.   She **out-cooked** Julia Child.   (http://bit.ly/2UvmMRi)

  b.   …the KDs will **out-glow** and **outlast** the other two.   (http://bit.ly/2NUc3xz)

  c.   In all seriousness tho, can CB **outdance** Janet?   (http://bit.ly/2TBX4h1)

  d.   This new big pig **outweighs** the famous Hogzilla by >25 kilograms. (http://bit.ly/2EQv0gk)

  e.   Paul clearly **outwrites** John on Abbey Road and on Let it Be   (https://amzn.to/2CeacyN)

  f.   My book club can **out-drink** your book club.   (http://bit.ly/1HUmVUP)

  g.   78-Year-Old Natator Says He Can **Outfloat** Rivals   (http://bit.ly/1FJXJ2w)

▸ ┌─────────────────────────┐
  │ **Abstract interpretation** │
  └─────────────────────────┘

  ■ "SUBJECT is/was in a PREDICATE event/state, in some way better than OBJECT".[10]

▸ More concretely for (22a): "She cooked better than Julia Child."

  ■ On what dimension she cooked better than Julia Child is left unspecified in (22a)

    ◇ If it is a competition of speed, then she cooked faster; if it is a competition of taste, then her food tasted better; etc.

  ■ In this way, the object of *outcook*, *Julia Child*, is not construed as having the same semantic relation to *cook* as typical objects of transitive *cook*

    ◇ i.e., the object is not construed as an object of PRED

◆ Note that *out-* does not force the subject/object to be construed as thematically related to PRED in any particular way

  ▸ **out-PRED's subjects/objects can be construed as having a range of semantic relations** to the event/state in question, as in in (23)–(25)

    (23)   Volitional initiators of an event

      a.   Gorbachev is **outmaneuvering** his critics.   (http://trib.in/1EGgwq6)

      b.   He **outsells** all our other salespeople.   (http://bit.ly/1CqpKJV)

    (24)   Undergoers of change in an event

      a.   This food **outlasts** even a Twinkie.   (http://bit.ly/1OyYvSw)

      b.   Mustangs are **outselling** all other pony cars now.   (http://bit.ly/2O4OQaY)

    (25)   Holder of a mental state in an event

      a.   Students [doing X] **outrecalled** students [doing Y].   (http://bit.ly/1btQXRZ)

      b.   And a bear can **out-smell** even a bloodhound.   (http://bit.ly/1BMPvz3)

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[10] I do not aim to do full justice to the comparative semantics or its syntactic correlates here. There are indeed issues here which merit their own investigation, and which can yield a more complete view on the structural properties of out-PRED.

- ▸ At the same time, for a given clause, the subject and object of out-PRED **must share the <u>same</u> relation** to that event/state[11]
  - ▪ A subject/object of *out-sell* could be construed either as volitional initiator, as in (23b), or as an undergoer of change, as in (24b)
    - ◇ But <u>both</u> must share the <u>same</u> semantic construal
  - ▪ This is why '*Mustangs outsell all our salespeople*' would only be coherent in worlds quite dissimilar ours
    - ◇ (e.g., one where Mustangs are agentive sellers, or one where salespeople are sold)
- ◆ Thus out-PRED can be defined on the basis of interpretive characteristics, summarized in (26)

GENERALIZATION: INTERPRETATIVE CORE OF OUT-PRED

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(26)   The subject and object of out-PRED are construed as having the same semantic relation to the event/state, and the subject is evaluated doing or being better than the object.

SIDEBAR: A DIFFERENT OUT-

- ◆ The characterization in (26) separates out-PRED from other superficially similar forms
  - ▸ For example, *out-* an occur prefixed to other predicates, with a directional meaning, as in (27)

    (27)   Directional *out-* (**not** cases of out-PRED)
    - a.   The financial sector outsources technical services.   (http://bit.ly/1HKvRZC)
    - b.   The program won't output the letter grade.   (http://bit.ly/1ETW6MS)
    - c.   They [...] outrighted right-hander Todd Williams to Tacoma.
      (https://nyti.ms/2CzerYu)
  - ▸ Supporting evidence to separate these superficially similar forms comes from stress
    - ◇ Directional *out-* bears word-level stress in these examples (like the first member of a two-word compound) – i.e., *óutsource*, *óutput*, and *óutright*
    - ◇ But the *out-* of out-PRED is less stressed than the predicate to which it prefixes – e.g., *outnúmber* or *outcóok*.
  - ▸ Most importantly, directional *out-* predicates **do <u>not</u> exhibit the grammatical properties of out-PRED** that we will uncover in the remainder of this talk

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[11]Some 'out-' prefixed predicates allow an internal argument that is a standard or point on a scale (e.g., '*Both of these two portfolios outperformed the market average…*' [`http://bit.ly/2vv2kVm`], where the market average cannot be said to perform). True examples of out-PRED do <u>not</u> allow this: e.g. **John outran the average time*. Examples that allow these sorts of internal arguments also appear to have different grammatical properties; *out-perform* cannot be easily passivized here (?**The market average was outperformed…*), unlike the *out*-PREDs discussed here (including *out-perform* with different types of arguments); see (49)–(48) and surrounding discussion. In fact, this sort of 'out-' seems to occur where '*under-*' and '*over-*' can also occur, as in '*it underperformed*'. Cases of *over-* and *under-* do not have an effect on argument structure, as discussed in Tolskaya 2014.

3.2   Arguments of out-PRED

◆ Perhaps surprisingly, it is **not the case that the subject and object should be arguments of PRED**

▸ Consider the entailments that do not hold (cf. Marantz 2009)

(28)   I can **outpace** the bus on my bike

a.   does not entail '*I pace*'

b.   does not entail '*the bus paces*'

(29)   Aircraft carriers can **out-run** almost any other boat

a.   does not entail '*aircraft carriers run*'

b.   does not entail '*almost any other boats run*'

▸ Moreover, PRED need not be able to occur with clausal arguments of its own at all

(30)   I was **out-numbered**.

a.   *I was numbered.

b.   *I numbered (one).

(31)   We **out-smarted** them.

a.   *We smarted.

b.   *They smarted.

(32)   She **out-Einstein'd** Einstein.

a.   ?She Einstein'd.

b.   ?Einstein Einstein'd.

◆ Instead, the lexical predicates **are in the derivation to help identify the scale of comparison, not to introduce arguments**

▸ Lexical predicates like *pace*, *run*, *number*, *smart*, *Einstein* are suggestions about what kind of scale to use to compare the subject and object

▪ (*See Tolskaya 2014 for a formalization and discussion of this*)

◆ In other words, the subject and object of out-PRED are arguments of comparison introduced by *out-*, **not** arguments of PRED

> **GENERALIZATION: ARGUMENTS IN OUT-PRED**
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> (33)   Arguments in out-PRED are arguments of *out*, not arguments of PRED

▸ Additional evidence of this will be discussed in §5.2 (*with even more in the appendix*)

3.3   out-PRED's Argument Structure

◆ More reasons to believe that *out-* is the predicate with which arguments compose is that out-PREDs have consistent argument structure, syntactically

　▸ And an out-PRED importantly differs from its stem PRED, in terms of argument structure

◆ out-PREDs can be formed with PREDs that can occur in an array of argument structures; and **out-PRED is always mono-transitive**

　▸ Unaccusative[12] PRED

(34) a.   I think the hardware shines (*the computer).   (https://tcrn.ch/2GwZDum)

　　 b.   I still think Samsung's hardware **outshines** *(its software).   (http://bit.ly/2Gvjg6b)

(35) a.   This candidate polls (*themselves) well.

　　 b.   This candidate **outpolls** *(that candidate).

(36) a.   The signs hung (*the message) for a long time.

　　 b.   The signs with name-brand tape **out-hung** *(those with store-bought tape).

　▸ Unergative PRED

(37) a.   Mike danced (a funky dance).

　　 b.   Mike **outdanced** *(Janet).

(38) a.   Sleeping Beauty slept (a long sleep).

　　 b.   Sleeping Beauty **outslept** *(the dwarves).

　▸ Monotransitive PRED

(39) a.   She thinks (about syntax).

　　 b.   She **outthinks** *(them).

(39) a.   He spent *(his inheritance).

　　 b.   He **outspent** *(his siblings).

(40) a.   Iron Man 2 grossed *($625million).

　　 b.   Iron Man 2 **outgrossed** *(Iron Man 1).

　▸ Ditransitve PRED[13]

(41) a.   Jackie donated money to museums.

　　 b.   Jackie **outdonated** Lisa.

(42) a.   Our group gave blood to the Red Cross.

　　 b.   Our group **outgave** a local hospital.

◆ In addition, **any plausible object(s) of PRED can never surface in out-PRED**

　▸ Regardless of whether the object is obligatory in other usages of PRED

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[12] By 'unaccusative', I simply mean that an internal argument ends up as the subject, without passive voice. In this way, it is a cover-term, encompassing anticausatives, ergatives, etc.

[13] It has been suggested that what is happening in these cases is that the verbs are being coerced into an activity reading. I do not disagree – but such an intuition begs an analysis of what it means to coerce an activity reading. This analysis can be seen as an analysis of the nature of morphosyntactic derivation that would be necessary to achieve such a coercion. (And morphosyntax must be involved, given the morphosyntactic properties/constraints discussed here.)

(43) a.   She **outthinks** (*about syntax) them (*about syntax).

      b.   He **outspent** (*his inheritance) his siblings (*his inheritance).

      c.   James **outweighs** (**75kg*) Josh (**75kg*).

      d.   Iron Man 2 **out-grossed** (**$625million*) Iron Man 1 (**$625million*).

(44) a.   Jackie **outdonated** (*money) (*to museums) Lisa (*money) (*to museums).

      b.   We **outgave** (*blood) (*to the Red Cross) a local hospital (*blood) (*to the RC).

GENERALIZATION: VALENCY OF OUT-PRED

(45)   out-PRED is obligatorily monotransitive, regardless of PRED's
        typical argument structure

◆ This means that out-PRED's argument structure can be defined uniquely, apart from the argument
  structure of PRED

SIDEBAR: RECOVERABILITY

◆ Though out-PRED is productive, it appears to be constrained by recoverability of the internal
  argument(s)
  ▸ Recoverability is a necessary condition on out-PRED, but it is not recoverability that *causes*
    the suppression
  ▸ The argument is equally salient in the following PRED and out-PRED examples, but is oblig-
    atory in PRED and impossible in out-PRED
      (46) a.   Speaking of red wine, France produces *(red wine).
            b.   ...in terms of red wine, France usually **out-produces** Italy. (http://bit.ly/1BMLive)
      (47) a.   Speaking of car engines, this radiator cools *(car engines).
            b.   *(CONTEXT: discussion of various radiators' abilities to cool car engines)*
                 ...it **outcools** my stock radiator significantly   (http://bit.ly/1FVRSpF)

3.4   Passivization

◆ Also about the syntactic argument structure, out-PRED can always be passivized
  ▸ Regardless of whether the base PRED can be
      (48) a.   She cooked tofu.
            b.   Tofu was cooked (by her).
            c.   She **out-cooked** Julia Child.
            d.   Julia Child was **out-cooked** (by her).
      (49) a.   By mid-September, they numbered 10,000.
            b.   *By mid-September, 10,000 were numbered (by them).
            c.   By mid-September, they **out-numbered** us.
            d.   By mid-September, we were **out-numbered** (by them).

11

(50) a.   Titanic 2 didn't run in theaters for a very long time.

b.   *Theaters weren't run in for a very long time (by Titanic 2).

c.   Titanic 2 didn't **outrun** Titanic, which ran for a very long time.

d.   Titanic, which ran for a very long time, wasn't **outrun** by Titanic 2.

GENERALIZATION: PASSIVIZABILITY OF OUT-PRED

(51)   out-PRED can always be passivized, even if PRED cannot be

---

◆ Passivization is controlled by syntactic material that is high in a predicate's extended projection (e.g., Kratzer 1996, Pylkkänen 2008, Harley 2013)

‣ Because passivization can always occur apply to an out-PRED, it must be that **some properties of out-PRED's extended projection are constant** across out-PREDs

▪ Such that passives are possible

‣ Moreover, **out-PRED's extended projection may fundamentally differ from PRED's**

▪ Such that passivizability of PRED is irrelevant

4   The Grammatical Structure of out-PRED

4.1   Recalling Generalizations

(8)   **Productivity of out-PRED**
out-PRED formation is a productive process of English, resulting in a morphosyntactically complex object

(12)   **Allomorphy in PRED and out-PRED**
The contextually determined allomorphs for PRED (in its broader distribution as a verbal predicate) will serve as allomorphs for out-PRED in the same contexts

(20)   **Stativity in PRED and out-PRED**
The contexts in which PRED can occur in the progressive are the same as the contexts in which out-PRED can occur in the progressive.

(26)   **Interpretative Core of out-PRED**
The subject and object of out-PRED are construed as having the same semantic relation to the event/state, and the subject is evaluated doing or being better than the object

(33)   **Arguments in out-PRED**
Arguments in out-PRED are arguments of *out*, not arguments of PRED

(45)   **Argument Structure of out-PRED**
out-PRED is obligatorily monotransitive, regardless of PRED's typical argument structure

(51)   **Passivizability of out-PRED**
out-PRED can always be passivized, even if PRED cannot be

◆ Key ideas:

‣ out-PRED is formed syntactically: (8), (12), (20)

‣ PRED does not introduce any arguments: (26), (33)

‣ its argument structure is monotransitive and enforced by *out*: (45), (51)

4.2   An Analysis of out-PRED

4.2.1   Some Assumptions

◆ Adopted view: a 'late-insertion' model
  ▸ Morphosyntax builds structures with abstract features alone
    ▪ The lexical items are inserted <u>on the basis of</u> those structures[14]
    ▪ Lexical predicates can be seen as identifying the relevant event
◆ Adopted view: structures that have been built cannot be destroyed
  ▸ This would violate the No Tampering Condition and the Extension Condition (cf. Collins and Stabler 2016)
  ▸ Koontz-Garboden's (2007) Monotonicity Hypothesis: adding morphemes cannot destroy syntactic structure
  ▸ Thus **'argument suppression' cannot be modeled as merging a feature to destroy previously established structure**

4.2.2   Structural Analysis

◆ In out-PRED, all of PRED's arguments are 'suppressed' (i.e., not syntactically introduced)
  ▸ This suppression is the essential effect of *out-* prefixation
◆ At the same time, PRED is active in the syntactic derivation of out-PRED: cf. (8), (12), (20)
  ▸ Therefore, **PRED's arguments must not merge, even though PRED does**, when *out-* merges
◆ Because of Monotonicity, it cannot be that *out-* destroys any arguments introduced by PRED
  ▸ Potential Solution: internal arguments merge outside of the XP of the lexical predicate
◆ To see how this works, consider a sentence like (52a), for which the structure would be as in (52b)

(52) a.   She thinks about syntax

b.
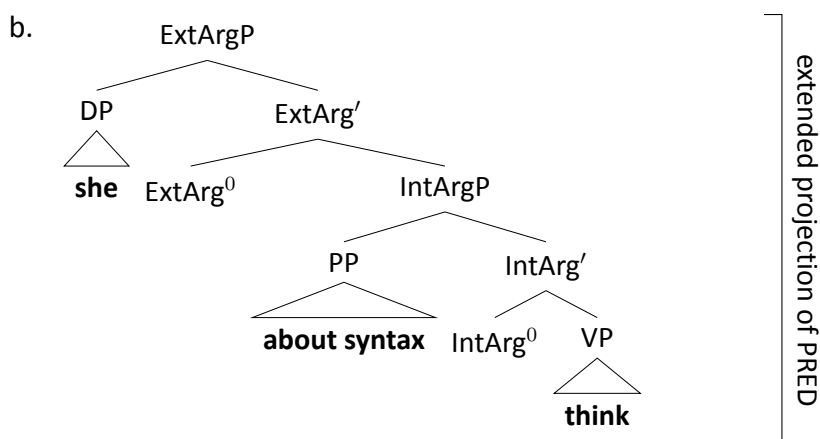
    ▪ All of *think*'s arguments are introduced in the extended projection of *think*
      ◇ (*IntArgP/ExtArgP are simply shorthands, cf. fn.2; what matters is that these positions*

---

[14]There are different ways of implementing this. I will mention only two here. One way is to have the lexical predicate inserted at a particular point in a span of possibly multiple lexical+functional syntactic heads (e.g., Svenonius 2012, Ramchand 2018). Another is to have predicates be the spell-out of structural complexes (possibly formed by movement) plus some Vocabulary Insertion rules (e.g., Halle and Marantz 1993, Embick and Noyer 2007).

are outside of what includes the lexical predicate)

- No arguments are introduced in the VP

  ◇ (*VP is also a shorthand, and may conceal fine grained structure, e.g., √THINK and a verbalizer*)

- Here what the lexical predicate *think* does is identify the type of event

◆ In out-PRED, **PRED merges but does not have much of an extended projection**

▸ The extended projection that houses the surface object/subject is the extended projection of *out-*

(53) a. She **outthinks** them

b.
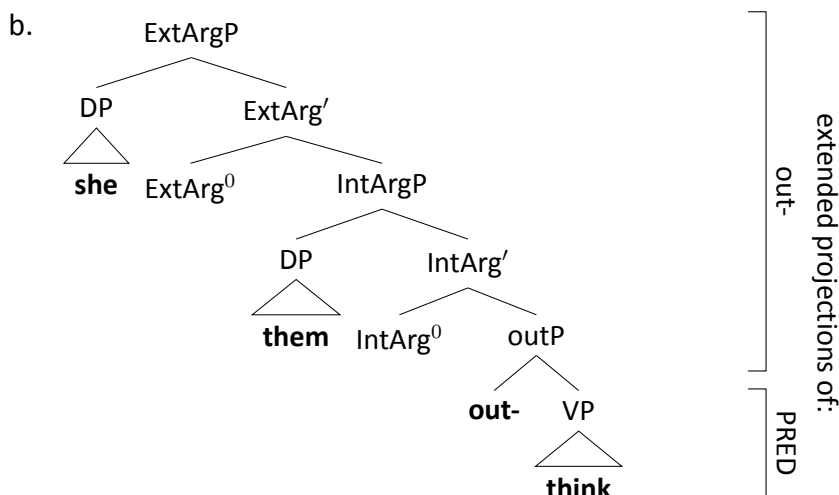
- *think*'s function is to identify what kind of scale to be used in the interpretation

- The argument structure is in the extended projection of *out-*

- Note that the *out-think* takes a nominal object, while *think* takes a prepositional one

▸ The 'suppression' of *think*'s arguments is the result of out- merging with a structure that is too small

- i.e., one that does not contain *think*'s extended projection

- No violation of Monotonicity to achieve this 'suppression'

  ◇ It results from there not being enough (of the right kind of) structure to support an internal argument

  ◇ As is the case for middles and anti-causatives that lack certain arguments

◆ PRED must be underspecified so as to not need to introduce an object[15]

▸ Even of robustly transitive PREDs; recall data like (54)

(54)   James **outweighs** (*75kg*) Josh (*75kg*).

- Even a predicate like *weigh* must not lexicalize/realize the structure that introduces objects

◆ Syntactically high properties like passivization are related to the extended projection of *out-*

▸ Which is why all out-PREDs are passivizable

▸ (*See appendix for further evidence with high adjuncts*)

---

[15]This claim is to be understood as about the sorts of PREDs that can occur in out-PRED. Indeed, it may be the *some* PREDs to lexicalize the structure that introduces the internal argument; if any such PREDs exist, they are predicted to not serve as a base for a well-formed out-PRED.

5   Blocking out-PRED

◆ We ought to test the limits of this analysis, by not just understanding where out-PRED is possible, but where it is **impossible** too

　▸ We will consider some contexts in which out-PRED is blocked

◆ There are three such domains in which out-PRED is blocked

　▸ Three empirical domains of support:

　　■ idioms (e.g., *shoot the breeze*/#*outshoot*)

　　■ the verb *have* (e.g., *have cars*/*outhave)

　　■ (CoS Unaccusative Verbs (e.g., *dishes dry*/*outdry)

　▸ This is a heterogeneous class, syntactically

　　■ | **Common property**: External forces require the object and PRED must be interpreted together |
　　　| :-- |

5.1   Idioms

◆ Consider the behavior of idioms in out-PRED contexts

　▸ In (55a-c), the verb and an argument form the idiom together, while in (55d), the idiosyncratic interpretation does not depend on any argument[16]

　　(55)　a.　Julie <u>cooked the books</u>.
　　　　　　=Julie <u>falsified financial records</u>

　　　　　b.　Eddie <u>passed the hat</u> around his neighborhood.
　　　　　　=Eddie <u>solicited contributions</u> around his neighborhood

　　　　　c.　We <u>shot the breeze</u> with them.
　　　　　　=We <u>had a casual conversation</u> with them.

　　　　　d.　<u>The</u> acting <u>bug bit</u> me.
　　　　　　=I <u>became very enthusiastic about</u> acting.

　　　　　e.　A local student <u>shines</u> in a national competition.
　　　　　　=A local student <u>does exceptionally well</u> in a national competition

◆ Let us now establish that idioms are syntactically complex

　▸ Chunks can move around, and some idioms can be passivized (Fraser 1970, Richards 2001 among many others)

　　(56)　a.　<u>The books</u> have been <u>cook</u>ed.　　　　　　　　　　　　　(idiomaticity OK)

　　　　　b.　<u>The hat</u> has been <u>passed</u>.　　　　　　　　　　　　　　(idiomaticity OK)

　　　　　c.　#<u>The breeze</u> has been <u>shot</u>.

　　　　　d.　I was <u>bitten</u> by <u>the</u> acting <u>bug</u>.

　　　　　e.　*A national competition has been <u>shined</u> in by a student.

◆ However, all pieces of the idiom must be syntactically present in the relevant domain of interpre-

---

[16]The idiom '*the (...) bug bite* ...' most typically occurs with an object of *bite* and a modifier of *bug*, though it can also occur without either: '*Runners are the first to admit they're the worst junkies – once the bug has bitten, there's no turning back*'.

tation for the idiomatic meaning to emerge (cf. #*Julie cooked the ledgers*)

▸ For that reason, the interpretive domain of the idiom *cook the books* must include, minimally, the VP and the IntArgP:

(57)

← underline = idiom chunks; must be interpreted together
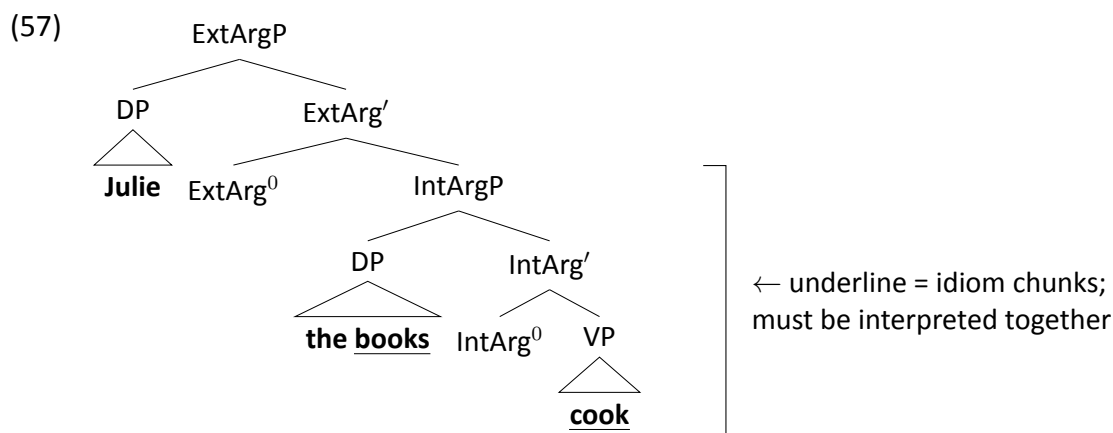
◆ What happens with idioms in out-PRED contexts?

▸ If all chunks of the idiom is syntactically projected (but with some silent), the idiomatic readings should be available

▸ If any chunks of the idiom is syntactically absent, the idiomatic readings should be unavailable

▸ We find the latter to be the case:

(58) a. Julie **out-cooked** the other accountants.
$\neq$ Julie falsified financial records better than other accountants.

b. Eddie **out-passed** other volunteers.
$\neq$ Eddie solicited contributions better than other volunteers.

c. We **out-shot** him.
$\neq$ We had better casual conversation than him.

d. The travel bug **out-bit** the acting bug.
$\neq$ Enthusiasm for traveling was stronger than enthusiasm for acting.

e. This student **out-shines** all others.
$=$ A local student does exceptionally well in a national competition, better than others.

■ (58e) stays idiomatic, because no chunk of the idiom is syntactically absent

■ On the other hand, **(58a-c) do not stay idiomatic, because the missing idiom chunks are indeed absent from the derivation**

◇ Suggesting out-PRED **doesn't** occur with PRED's object(s) on **any level**

◆ To generalize: If proper ('idiomatic', in this case) interpretation of PRED depends on the presence of a particular argument, out-PRED is impossible when that argument is not in the derivation

▸ At the same time, in (58d) and in (59), the idiom includes the subject, which still surfaces, and no object
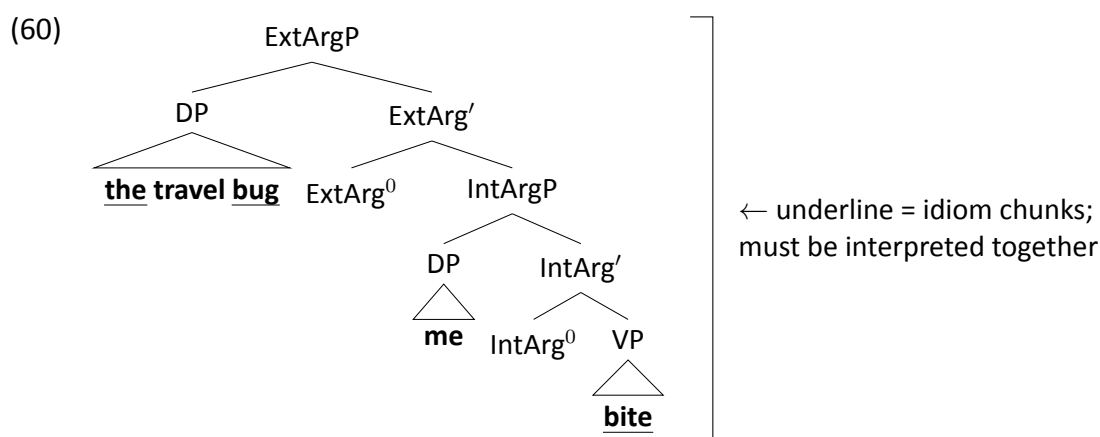
(59) a. Wait until <u>the fat lady sings</u>.
$=$ Wait until <u>it's over</u>.

     b. Wait until the fat lady **out-sings** someone.
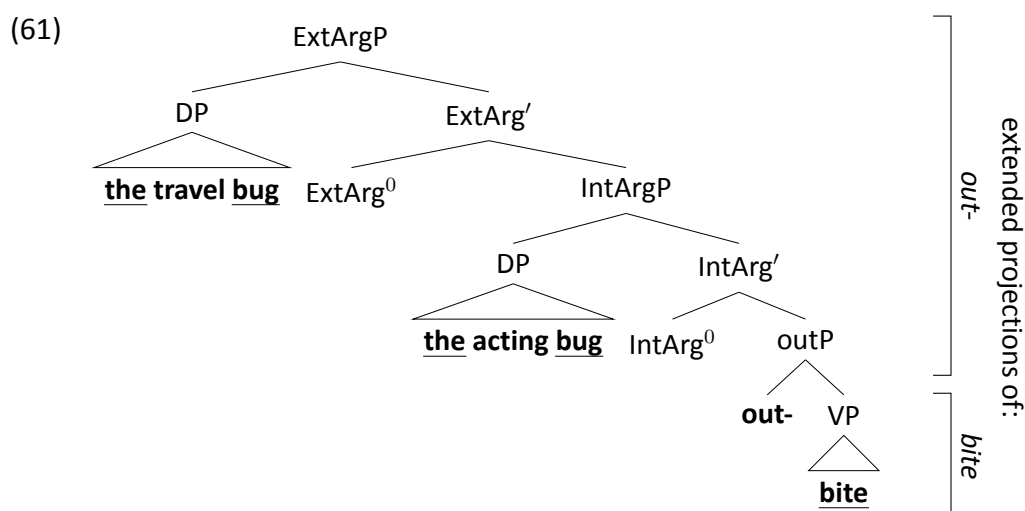$\neq$ Wait until it's over.

▸ Why then should the idiomatic reading be missing in these cases?

     ▪ This necessitates a more complex model for blocking out-PRED

5.2 Blocking out-PRED

◆ To block out-PRED for idioms like *the fat lady sings*, we will invoke the notion that there are **syntactically-defined domains of idiosyncratic interpretation** (e.g., Borer 2013, Harley 2014b, Kratzer 1996, Marantz 1984, 2013)

▸ When an idiom involves a PRED and some argument(s), the PRED and its arguments must all be present in the domain of idiosyncratic interpretation

(60)

```
                ExtArgP
            ／        ＼
         DP            ExtArg′
       ／  ＼          ／    ＼
  the travel bug   ExtArg⁰    IntArgP
                            ／       ＼
                          DP          IntArg′
                          △          ／    ＼
                          me     IntArg⁰    VP
                                            △
                                           bite
```

← underline = idiom chunks; must be interpreted together

(Tree (60): nodes **the travel bug**, **me**, **bite** in bold; *the travel bug*, *bug*, *bite* underlined. $ExtArg^0$, $IntArg^0$.)

▸ What blocks idiomaticity (58d) is that *the (...) bug* is too far from *bite*

(61)

```
                ExtArgP
            ／        ＼
         DP            ExtArg′
       ／  ＼          ／        ＼
  the travel bug   ExtArg⁰        IntArgP
                              ／          ＼
                            DP             IntArg′
                          ／  ＼          ／    ＼
                     the acting bug   IntArg⁰   outP
                                              ／   ＼
                                           out-     VP
                                                    △
                                                   bite
```

extended projections of: *out-* | *bite*

(Tree (61): $ExtArg^0$, $IntArg^0$; **the travel bug**, **the acting bug**, **out-**, **bite** in bold; underlined idiom chunks.)

     ▪ Intuitively: '*the travel bug*' is too far from '*bite*' in (61), but close enough in (60)

     ▪ More concretely: '*the (...) bug*' and '*bite*' must occur in the same domain of idiosyncratic interpretation to yield an idiomatic meaning,

        ◇ i.e., the same extended projection

◆ Idioms like *the (...) bug bite* and *the fat lady sing* provide further evidence of (33)

(33)   **Generalization: Arguments in out-PRED**
Arguments in out-PRED are arguments of *out*, not arguments of PRED

◆ Properly interpreting an idiomatic PRED+argument or a *have*+argument combination requires that...

   ▸ ...the argument merges in the syntax

   ▸ ...they occur in the same interpretive domain

GENERALIZATION: CONSTRAINT OF INTERPRETIVE DOMAINS

(62)   If proper interpretation of a predicate/argument requires the two to be interpreted together, out-PRED is blocked

---

◆ We will see further evidence for this with *have* and change-of-state unaccusatives

5.3   *Have*

◆ *Have* occurs with a wide range of meanings

   ▸ A sample of those meanings are given in (63), each of which come from Myler 2014:Ch.4

   (63) a.   John has a Playstation 3.   [Relational *have*]

         b.   The stadium has two pubs flanking it.   [Locational *have*]

         c.   John had something wonderful happen (to him) today.   [Experiencer *have*]

         d.   I'm having my butler shave the cow.   [Engineer *have*]

         e.   The wind had our belongings strewn across the field.   [Causer *have*]

         f.   We had a conversation.   [Light Verb *have*]

      ■ Myler argues that *have* in all of these cases is essentially semantically vacuous

         ◇ Myler (2014:387): "Because *have* itself is semantically vacuous, all of the thematic content of such sentences comes from *have*'s [internal argument]."

◆ Turning now to *out-* prefixation with *have*

   ▸ We expect that, if *have*'s object (the source of *have*'s interpretative contribution) is not merged, the result should be ill-formed

   (64) a.   *In terms of game consoles, John **out-has** Bill.   [Relational *have*]

         b.   *In terms of nearby pubs, the stadium **out-has** the library. [Locational *have*]

         c.   *In terms of wonderful experiences, John **out-had** Bill.   [Experiencer *have*]

         d.   *In terms of butlers shaving one's cows, I'm **out-having** you. [Engineer *have*]

         e.   *In terms of belongings strewn across the field, the wind **out-had** the earthquake.
                                                                              [Causer *have*]

         f.   *In terms of conversation, we **out-had** them.   [Light Verb *have*]

   ▸ **Because *have*'s object is not formally represented in the syntax, the clause never receives a proper interpretation**

      ■ *have* data suggests that PRED's objects are **not syntactically projected** in out-PRED

   ▸ Compare (65) to (64a); it is not possessive interpretation that blocks out-PRED

   (65)   In terms of game consoles, John **out-owns** Bill.   [*own*]

6   Change-of-State Unaccusative Verbs

◆ Objects Change-of-State (CoS) unaccusative verbs have been analyzed as being introduced higher than VP (e.g., Hale and Keyser 1993, Cuervo 2003, Alexiadou and Schäfer 2011)

  ▸ This makes them a prime candidate to be 'suppressible'

  ▸ And they can indeed go missing in CoS transitive contexts:

  (66) a.   Pine Sol cleans the floor better than Mop-n-Glo, in a product-test.

  b.   Pine Sol **out-cleans** Mop-n-Glo.

  (67) a.   Scott dried dishes better than Anna, in a dish-drying competition.

  b.   Scott **out-dried** Anna.

◆ What's interesting is what happens when the CoS verb is unaccusative

  ▸ In this case, the CoS predicate cannot undergo *out-* prefixation[17,18]

  (68) a.   Hardwood cleans better than tile, in a Pine-Sol's product-test.

  b.   #Hardwood **out-cleans** tile.

  (69) a.   The glassware dried better than the silverware, in a dish-drying competition.

  b.   #The glassware **out-dried** the silverware.

◆ The unacceptability of (68) and (69) is **not** a function of unaccusativity

  ▸ We've already seen examples of unaccusative predicates allowing *out-* prefixation

  (70) a.   This student shines, when it comes to math.

  b.   This student **outshines** everyone else, when it comes to math.

  (71) a.   That candidate polls well.

  b.   That candidate **outpolls** everyone else.

  (72) a.   The basketball bounced.

  b.   The basketball **out-bounced** the baseball.   (Keyser and Roeper 1984)

◆ Instead this has to do with the way CoS internal arguments get interpreted

  ▸ Resultees are interpreted as being in a final state that is specified by the lexical predicate

    ▪ This means such objects must be interpreted with the lexical predicate (Ramchand 2008, Rappaport Hovav 2008)

  ▸ This should recall the interpretive constraint discussed for idioms and *have*

---

[17]The same lexical form can be used as both a CoS unaccusative (*tofu cooks*), CoS trasnitive (*Ray cooks tofu*), and some kind of null-object unergative (*Ray cooks*). In the case of *Ray cooks*, it would seem to be that *cook* is the unergative type, as true CoS predicates are said to require IntArgs for their semantic composition (Rappaport Hovav 2008).

[18]Certain verbs that can be used as CoS unaccusatives have been reported to be acceptable with *out-*; in particular, *out-grow* and *out-bloom* (Adamson 2015). However, these appear to be exceptional, and few forms have been found to behave this way. Perhaps it is that they are construed as unergatives (see footnote 17) – a similar idea is proposed by Adamson.

(62) **Constraint of Interpretive Domains**
If proper interpretation of a predicate/argument requires the two to be interpreted together, out-PRED is blocked

■ 'Must be interpreted together' = 'Must be in the same extended projection'

◆ This interpretive constraint dictates that the underlined arguments below must be interpreted together with the lexical predicate

▸ Let's start with a CoS transitive undergoing out-PRED

(73) a. Pine Sol cleans <u>hardwood floor</u> better than Mop-n-Glo.

b. Pine Sol **out-cleans** Mop-n-Glo.

■ The argument undergoing a CoS in (73a) must be interpreted with the PRED, *dry*

■ In (73b), however, there is no argument undergoing a CoS

▸ Now let's consider a CoS unaccuastive

(74) a. <u>Hardwood</u> cleans easier than tile does.

b. *<u>Hardwood</u> **out-cleans** <u>tile</u>.

■ The arguments undergoing a CoS in (74a) must be interpreted with the PRED, *clean*

■ In (74b), both the subject and object of out-PRED undergo a CoS, and would need to be interpreted with PRED

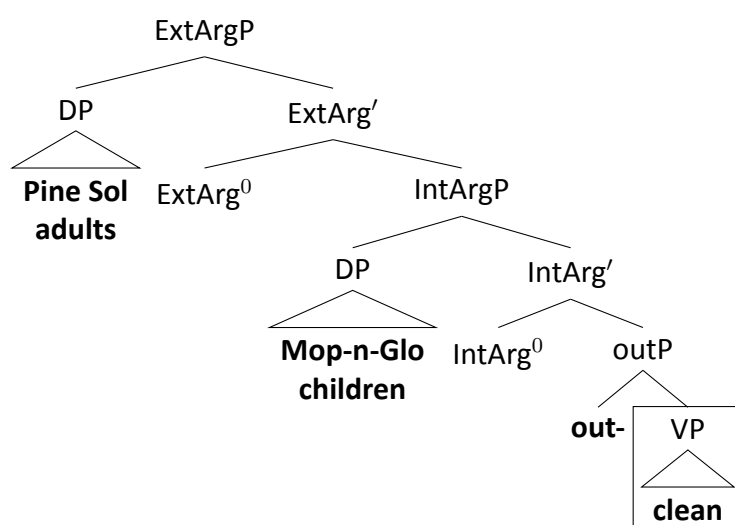## 6.1   Derivations of out-PRED and CoS Verbs

◆ With the interpretive constraint in (62) and the syntactic derivation of out-PRED, **we can derive the grammaticality pattern witnessed in (74)**

◆ Let's start with the syntax of out-PRED as it applies to CoS verbs

▸ First, transitive CoS clauses

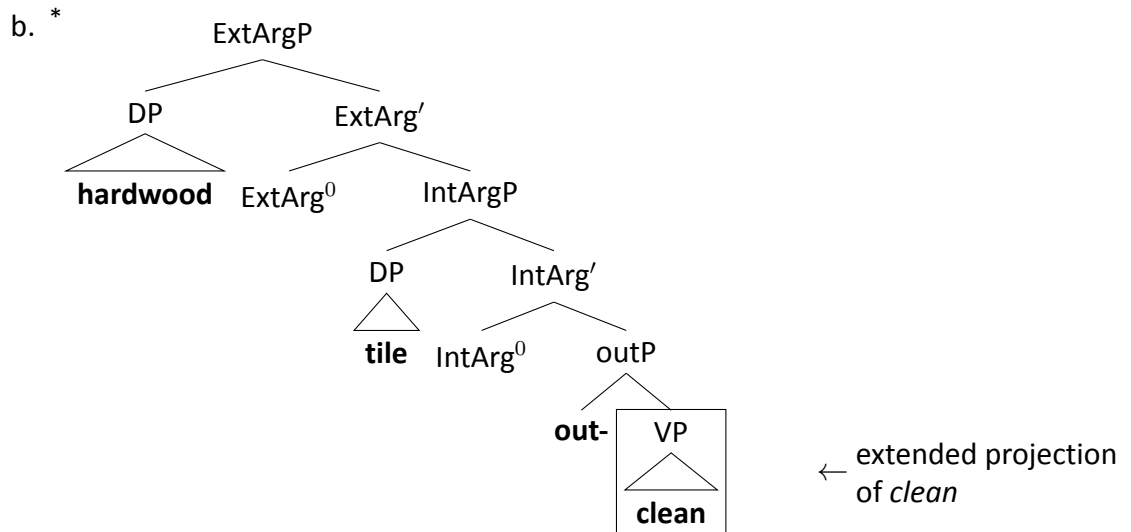(75) a. Pine Sol out-cleans Mop-n-Glo

b. Adults out-clean children

c.

■ There is no CoS object in either (75a) or (75b)

■ Therefore it doesn't matter that the argument of *out-clean* are outside the extended pro-

jection of *clean*

▸ On the other hand, there are CoS objects realized in (76a)

(76) a. *Hardwood out-cleans tile

b. *

ExtArgP
├── DP
│   └── **hardwood**
└── ExtArg′
    ├── ExtArg^0
    └── IntArgP
        ├── DP
        │   └── **tile**
        └── IntArg′
            ├── IntArg^0
            └── outP
                ├── **out-**
                └── VP
   └── **clean**

← extended projection of *clean*

- Here the CoS internal argument *hardwood* is too far from the CoS PRED to be interpreted with it[19]

- The CoS objects, *hardwood* and *tile*, are in the extended projection of *out-* and not the result state, *clean*

- This causes the derivation to fail

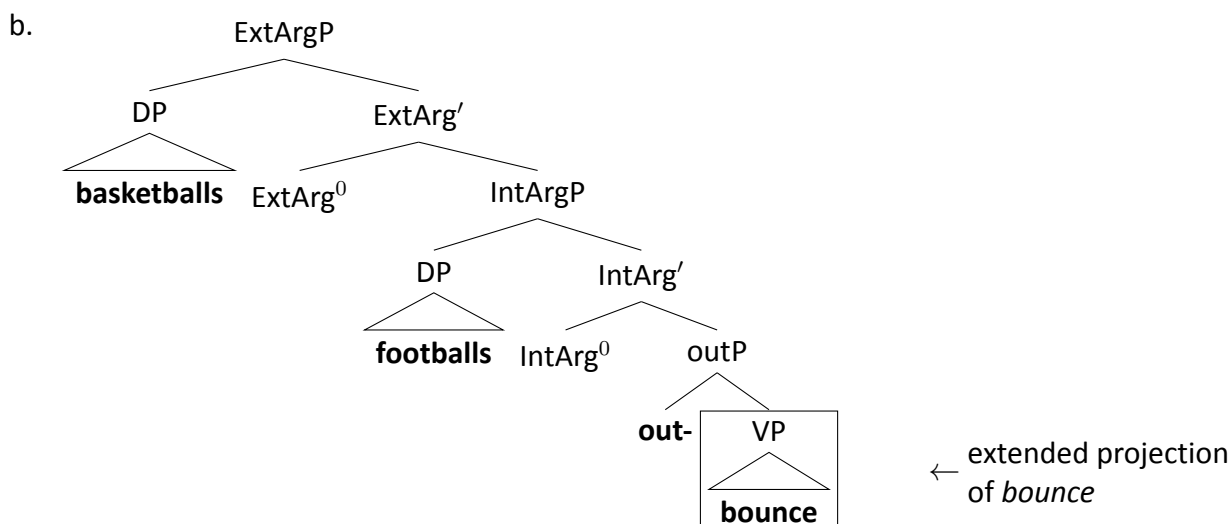## 6.2 Derivations of out-PRED with Other Unaccusatives

◆ On the other hand, consider an unaccusative PRED whose internal argument **does not** undergo a change of state, such as *bounce*

(77) a. Basketballs bounce.

b.

IntArgP
├── DP
│   └── basketballs
└── IntArg′
    ├── IntArg^0
    └── VP
        └── **bounce**

← extended projection of *bounce*

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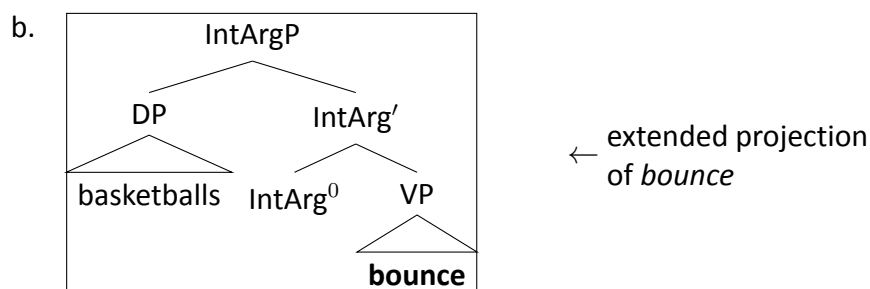
[19]Alternatively, CoS predicates are complex, containing a resultative head, which is higher than VP. Since *out-* takes VP complements, the PRED will never be a CoS predicate.
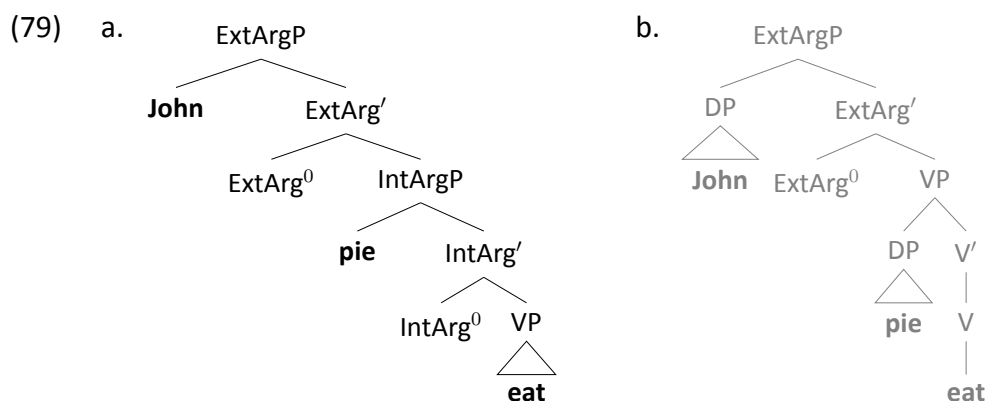
(78) a. Basketballs out-bounce footballs.

b.

ExtArgP
— DP
——— **basketballs**
— ExtArg′
——— ExtArg⁰
——— IntArgP
————— DP
——————— **footballs**
————— IntArg′
——————— IntArg⁰
——————— outP
————————— **out-**
————————— VP
——————————— **bounce**

← extended projection of *bounce*

▸ Though basketballs is not in the extended predicate of *bounce* in (78), there is no problem
  ▪ *Basketballs* is not a CoS object
  ▪ And so it is not subject to the interpretive constraint
▸ What rules out (a subset of) unaccusatives with *out-* must not be unaccusativity, per se
  ▪ But rather the properties of a derivation with a CoS internal argument

7   Conclusions

◆ Some of our main findings in our investigation of the properties of out-PRED
  ① PRED is syntactically active
    ▪ Contributing idiosyncrasies to both PF and LF
  ② compared to PRED's typical extended verbal projection, out-PRED has an entirely distinct one
    ▪ With its own argument structure, adjuncts, and ability to passivize
  ③ out-PRED selects a PRED complement, which projects no arguments
    ▪ Even non-change-of-state internal arguments are severed from the lexical predicate
  ④ If a PRED and its internal argument must be interpreted together, out-PRED is impossible
    ▪ Ruling out out-PRED with certain idioms, *have*, and change-of-state unaccusatives
◆ out-PRED causes the objects of a PRED to not surface
  ▸ This <u>looks</u> like morphosyntactically-controlled argument suppression
  ▸ But this is an illusion: in out-PRED, the PRED's structure is too small to support an object
  ▸ It is not argument suppression, *per se*, but is rather **failure to merge the functional structure that introduces objects**
◆ Taking this more broadly, this suggests that **objects are severed from the lexical predicate, in the same way as subjects**
  ▸ Thus *John ate pie* resembles (79a) more closely than (79b)

(79) a.

```
        ExtArgP
       /      \
    John     ExtArg′
            /        \
        ExtArg⁰     IntArgP
                   /        \
                 pie      IntArg′
                         /       \
                     IntArg⁰      VP
                                 /
                               eat
```

b.

```
        ExtArgP
       /      \
     DP      ExtArg′
     /\     /       \
   John  ExtArg⁰    VP
                   /   \
                  DP    V′
                  /\    |
                pie     V
                        |
                       eat
```

- ■ Syntax may transparently corresponds to a fully neo-Davidsonian semantics

- ■ **All arguments separated from the lexical predicate, each introduced by unique semantic functions, which correspond with unique syntactic positions**

  - ▸ At least for predicates that allow out-PRED

    - ■ Parsimony would have us believe that derivations always proceed in this way

    - ■ But it is still an open question, for the case where out-PRED is impossible

    - ■ (Though we have seen how this analysis rules out out-PRED with several cases)

- ◆ For predicates that don't allow out-PRED out-PRED may be illicit because...

  - ▸ ... interpretive constraints block it (e.g., *out-have)

  - ▸ ... PRED lexicalizes/realizes structure that includes object-introducing structure (cf. *out-arrive)

8   Open Questions

- ◆ **Why are verbs like *weigh* robustly transitive (outside of the domain of out-PRED)?**

  - ▸ This research suggests that it <u>can't</u> be that...

    - ■ ... *weigh* <u>obligatorily</u> comes with the syntactic structure that introduces a measurement object (cf. Ramchand 2008)

    - ■ ... *weigh* <u>obligatorily</u> comes with conventionalized knowledge that it occurs with a measurement object (cf. Borer 2005)

  - ▸ In other words: whatever constraints there are appear to be violable

- ◆ **Why do the subject/object of out-PRED appear to have the same thematic relation to PRED as one another?**

  - ▸ Recall: '*Mustangs outsell all our salespeople*' would only be coherent in worlds quite dissimilar ours (e.g., one where Mustangs are agentive sellers, or one where salespeople are sold)

  - ▸ Perhaps this has to do with what would make a sensible scale of comparison

    - ■ Further investigation is required, to understand the constraints on scale selection

    - ■ It appears there are syntactic effects:

      (80) a.   Mustangs are bought more than Fords.

      b. #Mustangs **out-buy** Fords.   (cf. ✓out-sell)

(81) a.   I enjoyed it more than the others in the audience.

        b. *I **out-enjoyed** the others in the audience.

◇ If the effect were purely pragmatic, the vocabulary item *buy* should be able to supply the same sorts of scales as the vocabulary item *sell* for a buying/selling event

◇ Similarly, psych predicates like *enjoy* seem to routinely block out-PRED with (non-initiator) expereiencers

◆ **Why are some out-PREDs acceptable only in the passive?**

(82)   [*Kim Kardashian tried to break the internet, but...*]

     a.   [...] she was out googled by one person

     b. #[...] one person out googled her

(83)   [*The Facebook page for Marvel recently got more likes than the one for DC Comics.*]

     a.   DC Comics' Facebook page was out-liked by Marvel's page

     b. #Marvel's page out-liked DC Comics' page.

(84)   [*The Grand Canyon has been the most photographed landmark in the U.S. But this year...*]

     a. ??The Grand Canyon will be out-photographed by the Washington Monument.

     b. #The Washington Monument will out-photograph the Grand Canyon.

(85)   [*The Grand Canyon has been the most visited landmark in the U.S. But this year...*]

     a. ?The Grand Canyon will be out-visited by the Washington Monument.

     b. #The Washington Monument will out-visit the Grand Canyon.

▸ Are these somehow not the same out-PRED?

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9   Appendix: Adjuncts and out-PRED

◆ Given out-PRED's unique argument structure, we may expect other differences that indicate that out-PRED is not the same type of predicate as its PRED stem

◆ The range of adjuncts for out-PRED can differ from those available to PRED

  ▸ out-PRED allows adjuncts that modify the extent of the difference in the comparison

    (86) a. $^{\#}$John ran the race <u>by several minutes</u>.

          b.   John out-ran Bill <u>by several minutes</u>.

    ■ In (86b), '*by several minutes*' indicates the extent to which John did better than Bill, modifying the comparison introduced by *out-*

  ▸ out-PRED allows instrument adjuncts even where PRED does not

    (87) a.   David is smart ($^{\#}$with limited weapons).   ($^{\#}$*instrumental with*)

          b.   In the end however, the much smaller David **outsmarted** him with limited weapons.
             (http://bit.ly/1OXjYI1)

    (88)   [*Zac and I are trying to make ourselves sparkle.*]

          a.   I made myself sparkle <u>with the glitter</u>.

          b.   I sparkled ($^{\#}$<u>with the glitter</u>).   ($^{\#}$*instrumental with*)

          c.   I **outsparkled** Zac with the glitter.

    ■ Instruments are well-known to be very high adjuncts, and they are known to depend on the structure related to agentivity/initiation (e.g., Reinhart 2000)

    ■ In (88a&c), the instrumental PP '*with the glitter*' has an agent/initiator to license the modification

    ■ In (88b), no such agent/initiator exists, because unaccusative *sparkle* lacks the relevant structure

  ▸ However instrument PPs seem to not be able to target PRED alone

    (89) a.   Katie ate (pizza) <u>with a fork</u>.

          b. $^{\#}$Katie didn't **out-eat** Pete <u>with a fork</u>.   (*Intended: eating with a fork*)

    ■ The interpretation that is unavailable: eating took place with a fork, but Katie didn't win

    ■ This suggests that *eat* lacks an agent/initiator

◆ out-PRED's extended projection (where agents/initiators are introduced, and adjunction takes place) is different from the extended projection of the PRED

  ▸ And there are limits to the amount of PRED's extended projection that can manifest in out-PRED