The semantics of *out*-prefixation to *outrun* does not necessarily compare two running events.

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Intro

- *out*- one of English locative prefixes
- prepositional origin

**locative nouns**
- outhouse, outstation

**locative participle adjectives**
- out-hanging, outstretched

**locative verbs**
- outgas, out-migrate

**comparative verbs**
- outrun s.o., outplay s.o.

Bauer et al. (2013:ch.16); Marchand (1969)
(1) On and off camera, more girls are dishing about discharge, **outfarting their friends**, and taking part in other beyond-ribald behavior. (COCA)

(2) We try to **outdrink our friends** and end up as alcoholics. (COCA)

(3) We often try to outdrink *(our friends) (*the beer).

- by far most productive sense of *out-*
- *out-* generates transitive verbs
- has applicative potential — can license unselected Object
- meaning typically assumed: ~‘X better/more/longer than’, ‘have higher/better/more X than’

Bauer and Huddleston (2002:1679); Bauer et al. (2013:ch.16); Brinton (1988)
Today

1. Previous (semantic) treatment of *out*-prefixation in literature

2. Show that many predictions are not borne out by dint of corpus data

3. Show that data are more diverse and derive generalizations via a case study

4. Model general cases in Frame Semantics
Database

- data culled from, mostly, COCA and iWeb (Davies 2008; 2018)
  - ~ 900 tokens
  - ~ 600 types

- different search procedures
  - ~ 400 types are attested examples of structures predicted to be impossible/ungrammatical in the literature
Previous literature on *out’s* semantics

(1) The trick here is to **outsit your neighbors**. Lots of hunters get tired and antsy after spending many hours in a stand, and start coming down to the ground by 10 A.M. or so. (COCA)

**Analysis 1—(scalar) comparison** (e.g., Baker 2018; Talmy 2000; Tolskaya 2014)
- (1) means ‘sit on the stand longer than your neighbors’
- the unselected Object serves as a threshold to be exceeded
- comparison of two eventualities that are the same; e.g. two sitting-events
Previous literature on *out’s* semantics

*The girl outdanced the giant.*  (Analysis in Tolskaya 2014: 8)
Previous literature on *out*’s semantics

(1) The trick here is to **outsit your neighbors**. Lots of hunters get tired and antsy after spending many hours in a stand, and start coming down to the ground by 10 A.M. or so. (COCA)

**Analysis 2—resultative** (McIntyre 2003; Nagano 2011)

- (1) means ‘sit on the stand (possibly longer)—thereby competitor loses out’
- the unselected Object is licensed in a resultative structure (new subevent: one argument UNDERGOER of CHANGE-OF-STATE)
- natural interpretation that Object also engages in some eventuality usually not part of semantic representation:

  \[
  \text{John outdrank Paul.} \quad \rightarrow \quad \text{DO(JOHN,DRINK) \& CAUSE OUTDONE(PAUL)}
  \]
Previous literature on *out*'s semantics

- *out*- used as a test environment due to alleged restrictions on possible bases
- in particular for verb classification
  - transitivity
  - aspectuality
DATA
Promiscuity of *out-*

**Adjectival/nominal/phrasal bases** (pace McIntyre 2014; Nagano 2011)

(1) JOHNNY CASH, MUSICIAN: You know, we in country music, every once in a while, we'll get together and talk about -- try to **out-poor** each other. Like who is the poorest? (COCA)

(2) Perhaps they only represented charities and nonprofits, but in that case he was sure their clients *out-healed, out-helping-handed, overall out-charitied* their competing charities... (COCA)

- >250 nominal bases; >70 adjectival bases
Promiscuity of *out-*

**Stative bases** (pace e.g. Baker 2018; Levin 1999)

(1) And speaking of pain, she *out-knows* me. (COCA)

(2) At about 6-foot-3, he *outweighs* me by an easy 80 pounds... (COCA)

- Not very frequent
- more so when spatial configuration verbs like *to sit* are included
Promiscuity of *out-*

**Change-of-state/Achievement** (pace Rappaport Hovav & Levin 2002; Tolskaya 2014)

(1) Coke’s biggest failure, the so-called “New Coke” of 1985, was an attempt to “out-sweeten” Pepsi which had ten more calories of sugar... (iWeb)

(2) Not only was I able to quickly and easily undo the backlash in my friend's line, but I was also able to outspot him when it came to seeing fish at a distance. (googlebooks)

- >25 clear-cut examples of CoS-verbs, Achievements apparently indeed very rare
Problems for comparative approaches

- ‘X better/more/longer than’ (Bauer & Huddleston 2002: 1679, a.o.) is too general a claim!
- Object not necessarily a potential argument of the base

1) Hippos cannot swim, which is one interesting fact about them. But when they chase you, they will basically run underwater, and they can move around 5 mph. This can be faster than you think. They also don’t tire easy, so you better have good cardio to outswim one. (iWeb)

2) “I wasn’t going to run,” Mr. Paxton said later after the game. “I figured I’m not going to outrun an eagle, so we might as well just see what happens.” (forbes.com)
Problems for comparative approaches

Subject-Object-discrepancy “explained”:
- comparisons made regarding particular scalar dimensions:

_to sing_—dimensions: LOUDNESS (1) V QUALITY (2)

(1) Good vocal control is essential, a backing singer must not try to 'outsing' the lead vocalist [...] Whilst most sound engineers and producers will adjust vocal volumes in the mix, it is important for singers who have strong voices to remember to back off the microphone a bit...

(iWeb)

(2) I have to admit that LBT is my guilty pleasure, you can’t deny their vocal abilities. Have seen them live and nobody out there can outsing them from a technical standpoint. (iWeb)
Problems for comparative approaches

Dimension comparison not “anything goes”
- While Object argument not necessarily possible Subject of base, apparent restrictions

(1) “I wasn’t going to run,” Mr. Paxton said later after the game. “I figured I’m not going to outrun an eagle, so we might as well just see what happens.” (forbes.com)
→ Both running and (inferred) flying from domain of LOCOMOTION (RUN-verbs in VerbNet)

(2) John ran/rapped fast. [Modification with a speed-adverb]

(3) ??John is a fast runner and Kim is a fast rapper, but John outruns her every time. [On the reading that John runs and Kim raps]
Problems for comparative approaches

*Only resultative OUTDOING available; no comparison:*

(1) So far, my encounters have relied on me out-witting and **out-sneaking** the fierce-looking **rat guards**, or occasionally lobbing a bottle at their heads to knock them out while I get away. (iWeb)

(2) Michael beat em. Michael rose to the top. **He out-sang his cynics. He out-danced his doubters. He out-performed the pessimists.** (iWeb)

- Although no comparison available, verb still carries an implicit high-degree reading (perform/sing/dance well etc.)
Problems for comparative approaches

- cline of interpretations with same verb
- differences in interpretation not (necessarily) a feature of base verb
- nature of Object argument and contextual/encyclopedic knowledge important

(1) In the 1988 presidential election, Hispanic women outvoted Hispanic men 52 percent to 48 percent, according to a survey...

(2) The United States, for the first time, in history, has no veto power. We have no weighted voting. We can be outvoted by two small countries.

(3) In 1998, a group of Dominican nuns [...] showed up at the annual GE shareholders meeting to demand the company educate the public about the risks of its discharge of industrial waste into local rivers. The resolution was outvoted...

(all COCA)
CASE STUDY
Case study

- corpus study on available information on lemma- and VerbNet-class levels (iWeb)
- interpretation for individual lemma / generalizations above lemma level
- specified dimension information

<table>
<thead>
<tr>
<th>VERBNet NUMBERS</th>
<th>51.3.2 - 51.3.2-2-1</th>
<th>26.7 - 26.7-2-1</th>
<th>47.1 - 47.1-1-1</th>
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<td>Verbs of Motion</td>
<td>Verbs of Creation and Transformation</td>
<td>Verbs of Existence</td>
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<td>GENERAL DESCRIPTION</td>
<td>Non-directional manner of movement</td>
<td>Performances that themselves can occur as effected Objects</td>
<td>Existence of an entity at some location</td>
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<td>THEMATIC ROLES</td>
<td>AGENT&lt;sub&gt;animate&lt;/sub&gt;, (THEME, LOCATION, RESULT)</td>
<td>AGENT&lt;sub&gt;animate&lt;/sub&gt;, (THEME, BENEFICIARY)</td>
<td>THEME, (LOCATION, PIVOT)</td>
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<tr>
<td>NUMBER OF MEMBERS</td>
<td>159</td>
<td>29</td>
<td>26</td>
</tr>
<tr>
<td>EXAMPLE MEMBERS</td>
<td>crawl, creep, run, jump etc.</td>
<td>chant, play, dance, sing etc.</td>
<td>dwell, exist, live, remain etc.</td>
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Case study: VerbNet-classes

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<td>10 (43%)</td>
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<td>/</td>
<td>/</td>
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<tr>
<td>MANEUVERABILITY</td>
<td>2 (4%)</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>TRADE POWER</td>
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<td>/</td>
<td>/</td>
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<td>3 (13%)</td>
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<tr>
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<tr>
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<tr>
<td>INTENSITY</td>
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<td>1 (4%)</td>
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<td>HEIGHT</td>
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<td>/</td>
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<td><strong>total</strong></td>
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Case study: Lemmas

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</tr>
<tr>
<td><strong>total</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
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Intermediate conclusion

- clear-cut comparative semantics not available for all cases
- if comparative, comparison can trigger different dimensions
- events don’t have to be the same, but have to show similarity on some higher level
- VerbNet-classes allow for some generalizations of available dimensions – lemmas may show peculiar behavior, though
- structural similarities with resultative constructions, but proper result states not always available, either
MODELING
Frame Semantics

- A frame is a recursive attribute–value structure
- Attributes are unique to the attribute holder and take a single value at one point in time
- Frames unify the representation for linguistic and extra-linguistic knowledge

Barsalou 1992; Lübner 2014; Petersen 2007
Frame for *Michael outsang his cynics*

- no scalar comparison
- Subject and Object do not engage in similar/same eventuality
- ‘losing out’ as result state prevalent
Frame for a backing singer must not try to *outsing* the lead vocalist

- scalar comparison
- same eventuality for Subject and Object
Frame for Mr. Paxton: “I figured I’m not going to outrun an eagle”

- scalar comparison
- different eventualities for Subject and Object
- same general type LOCOMOTION
Frame Semantics for derivation

- E.g., referential shifts on nodes in structure of base (cf. Plag et al. 2018), unification of base and affix representations (cf. Zinova 2016)
- I will follow Andreou (2017) who proposes lexical/lexeme formation rules (cf. Bonami & Crysmann 2016; Koenig 1999) operating on and manipulating base structures
Frame for “comparative” out-

- Making use of Talmy’s ACTION CORRELATION as a functional attribute
- Assumption of a new subevent added to the base structure
- See Kallmeyer & Osswald (2013) for causation frames
- Making use of Andreou’s (2017) “0!”-notation for structure copying (see Sag 2012)
Conclusion

- *out*- is far more promiscuous than often assumed
- a pure comparative approach cannot capture all attested examples
- different interpretations are not (necessarily) down to the base but rely on the interplay of base, arguments, and contextual info
- weak ad-hoc result states, while murky, allow for generalizations and flexibility (mere ‘being surpassed’ v ‘outdone’)
- general cases can well be modeled in frame semantics via word-based lexeme formation rules
- optional constraints that are contextually (not) satisfied allow for capturing interpretational differences
THANK YOU!