

# The semantics of *out*-prefixation

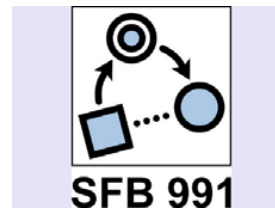
*to outrun* does not necessarily compare two running events

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MMM 12, Ljubljana

June 29, 2019



# Intro

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

<b>locative nouns</b>	outhouse, outstation
<b>locative participle adjectives</b>	out-hanging, outstretched
<b>locative verbs</b>	outgas, out-migrate
<b>comparative verbs</b>	outrun s.o., outplay s.o.

Bauer et al. (2013:ch.16); Marchand (1969)

# Intro

- (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

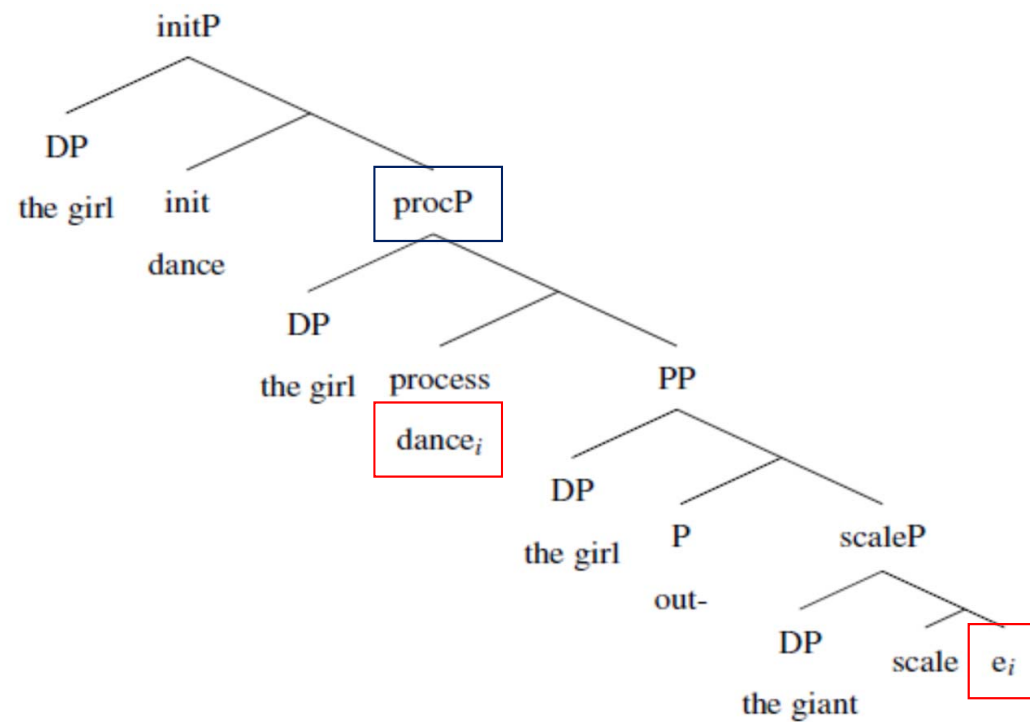
(1) The trick here is to **outsit your neighbors**. Lots of hunters get tired and antsy after spending many hours in a stand, and start coming down to the ground by 10 A.M. or so. (COCA)

**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:

*John outdrank Paul.*      →      DO(JOHN,DRINK) &<sub>CAUSE</sub> 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

	RUN-verbs	PERFORMANCE-verbs	EXIST-verbs
VERBNET NUMBERS	51.3.2 - 51.3.2-2-1	26.7 - 26.7-2-1	47.1 - 47.1-1-1
SUBCLASS OF	Verbs of Motion	Verbs of Creation and Transformation	Verbs of Existence
GENERAL DESCRIPTION	Non-directional manner of movement	Performances that themselves can occur as effected Objects	Existence of an entity at some location
THEMATIC ROLES	AGENT <sub>animate</sub> , (THEME, LOCATION, RESULT)	AGENT <sub>animate</sub> , (THEME, BENEFICIARY)	THEME, (LOCATION, PIVOT)
NUMBER OF MEMBERS	159	29	26
EXAMPLE MEMBERS	<i>crawl, creep, run, jump</i> etc.	<i>chant, play, dance, sing</i> etc.	<i>dwell, exist, live, remain</i> etc.

## Case study: VerbNet-classes

	RUN	PERFORMANCE	EXIST
SPEED	<b>21 (47%)</b>	1 (4%)	/
QUALITY	5 (11%)	<b>10 (43%)</b>	/
DURATION	/	1 (9%)	<b>6 (67%)</b>
N.A.	4 (9%)	3 (13%)	/
DISTANCE	<b>10 (22%)</b>	/	/
FREQUENCY	2 (4%)	/	/
MANEUVERABILITY	2 (4%)	/	/
TRADE POWER	1 (2%)	/	/
LOUDNESS	/	3 (13%)	/
QUANTITY	/	1 (4%)	/
VOCAL RANGE	/	1 (4%)	/
INTENSITY	/	1 (4%)	/
VERSATILITY	/	1 (4%)	/
IMPACT	/	/	1 (11%)
SUCCESS	/	/	1 (11%)
HEIGHT	/	/	1 (11%)
<b>total</b>	<b>45 (100%)</b>	<b>22 (100%)</b>	<b>9 (100%)</b>

## Case study: Lemmas

	TO RUN	TO SING
UNSPECIFIED	<b>54</b>	<b>57</b>
SPEED	<b>40</b>	/
LOUDNESS	/	<b>27</b>
DURATION	/	1
DISTANCE	4	/
FREQUENCY	1	/
MANEUVERABILITY	1	/
QUALITY	/	12
VOCAL RANGE	/	2
INTENSITY	/	1
total	100%	100%

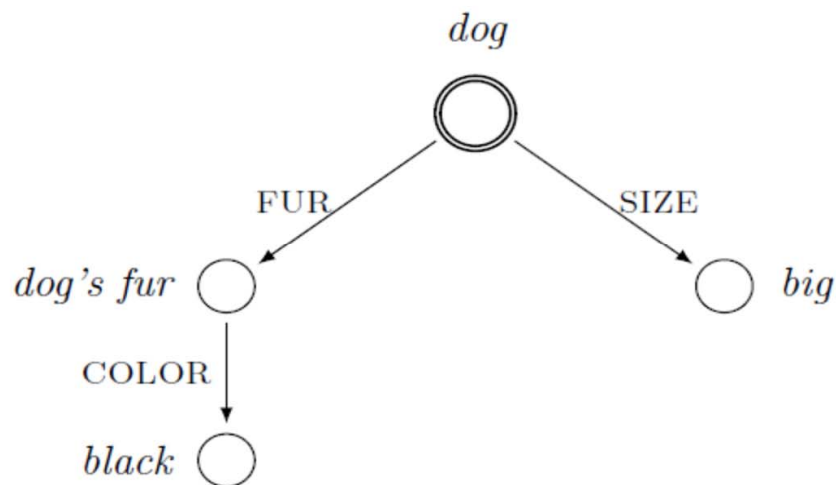
# Intermediate conclusion

- 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

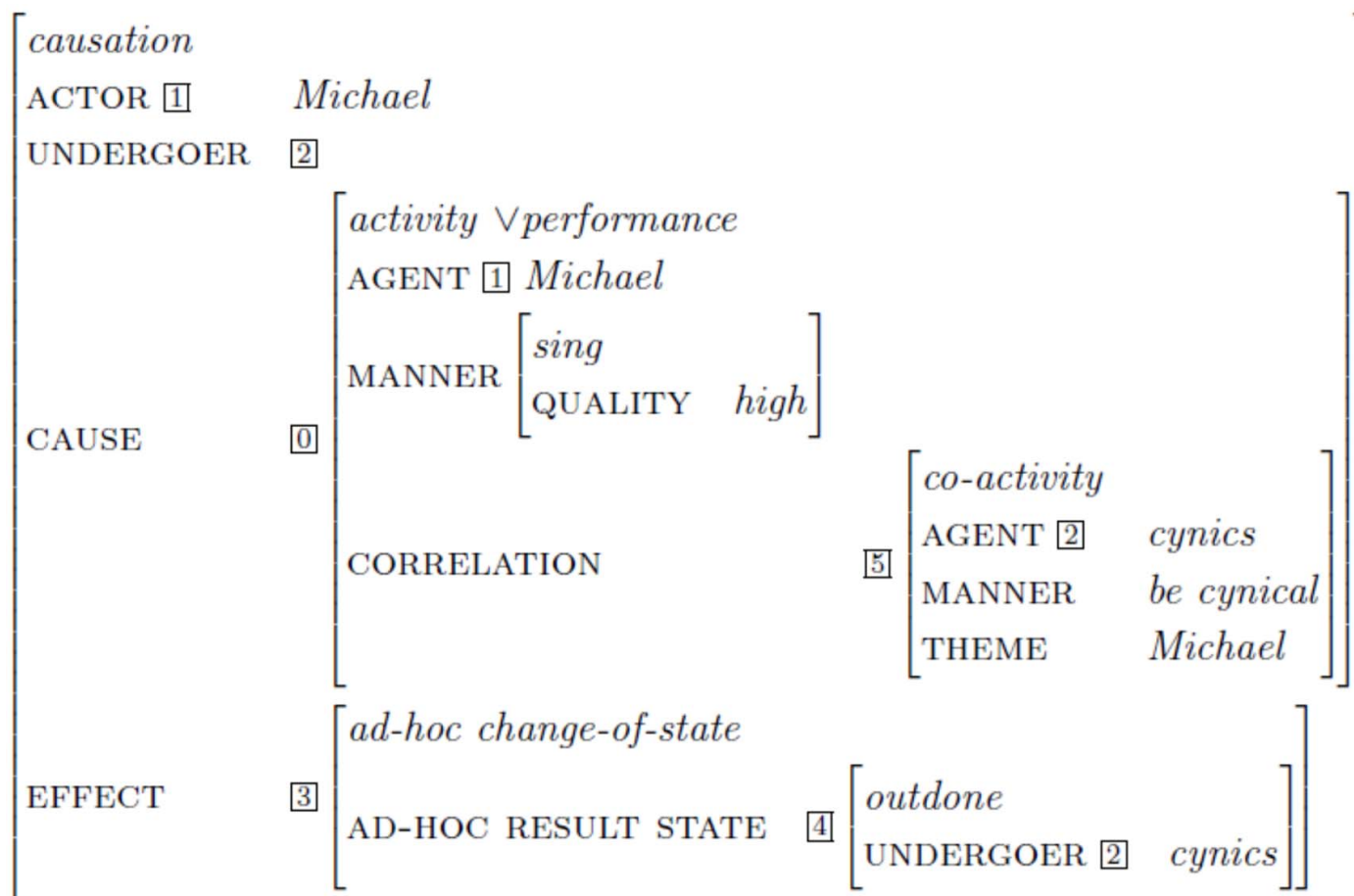
# Frame Semantics

- 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



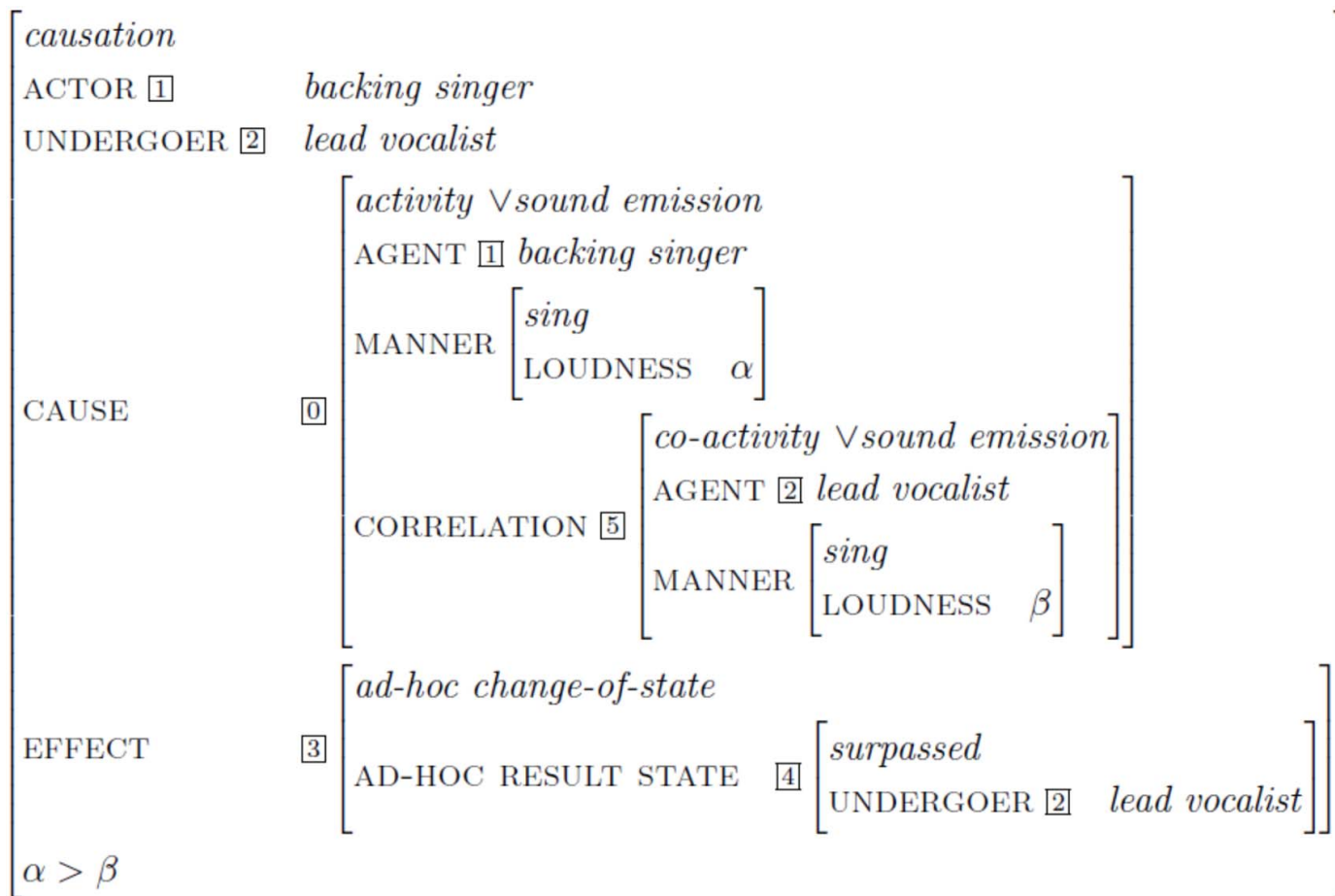
Barsalou 1992; Löbner 2014; Petersen 2007

# Frame for *Michael outsang his cynics*



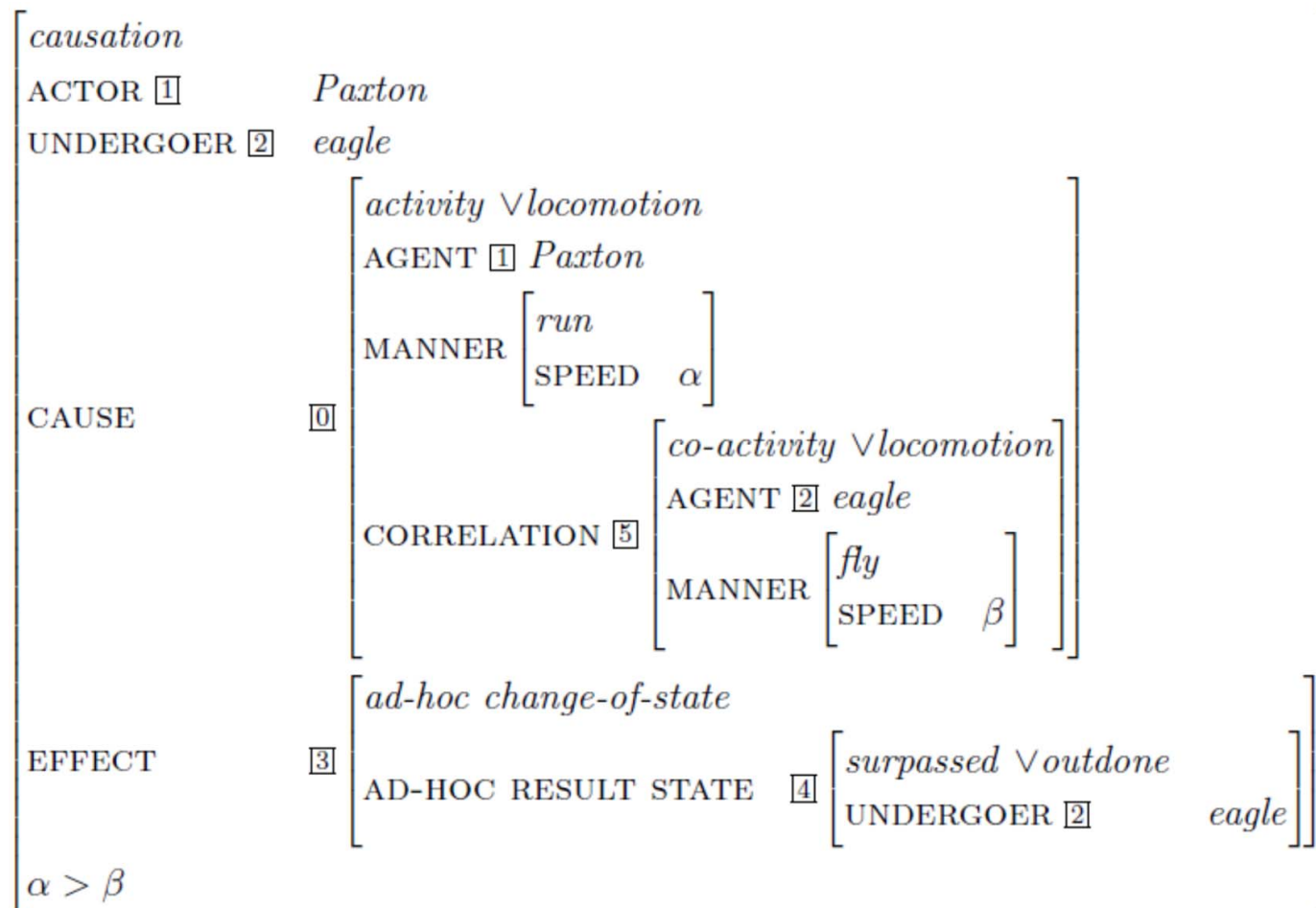
- no scalar comparison
- Subject and Object do not engage in similar/same eventuality
- 'losing out' as result state prevalent

Frame for *a backing singer must not try to **outsing** the lead vocalist*



- scalar comparison
- same eventuality for Subject and Object

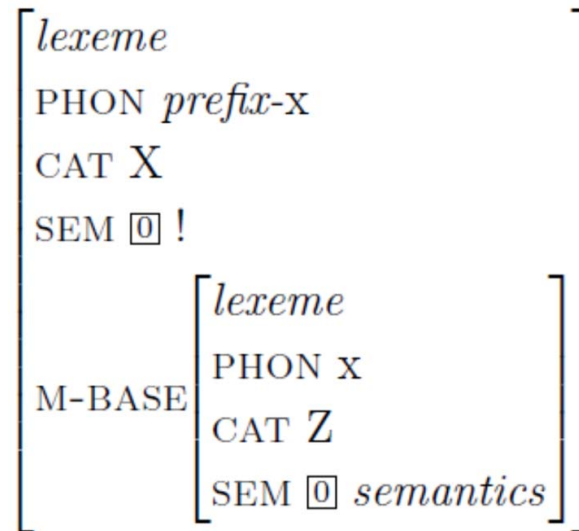
Frame for Mr. Paxton: “I figured I’m not going to *outrun* an eagle”

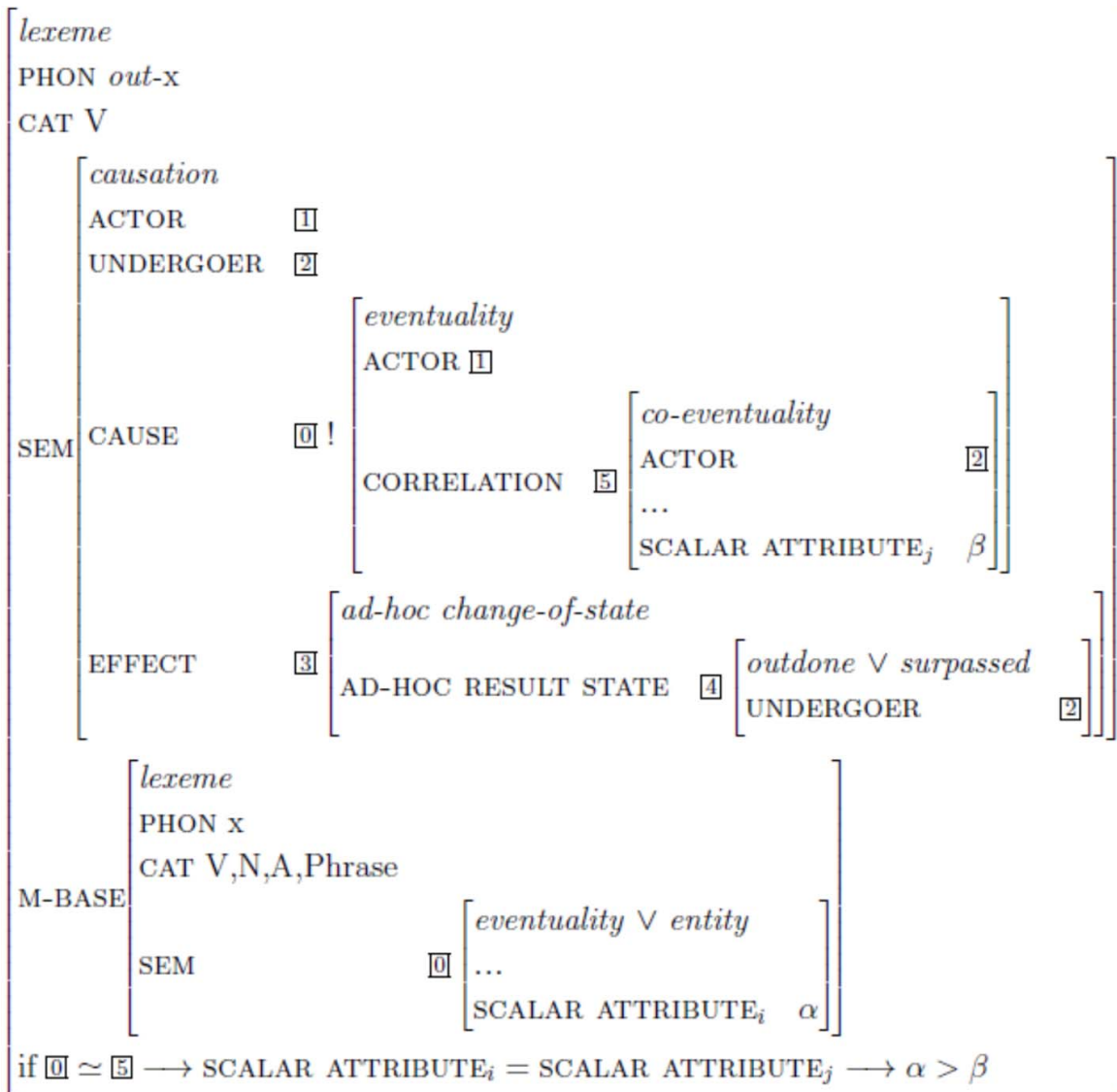


- scalar comparison
- different eventualities for Subject and Object
- same general type LOCOMOTION

# 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!

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