# 1 Argument structure

## 1.1 Preliminaries

### 1.1.1 Valency

Verbs differ in terms of the number of syntactic and semantic dependents they require (or are compatible with). This is often called verb valency.

(1) It rained.

(2) a. Chris ran.
    b. The door opened.

(3) a. Chris hit the ball.
    b. Chris knows the answer.

(4) a. Sam put the book on the table.
    b. *Sam put the book.
    c. *Sam put on the table.
    d. Sam gave Tyler a book.
    e. *Sam gave Tyler.
    f. *Sam gave a book.

**Observation:**

Do any verbs take more than 3 dependents (subject plus two objects)?

### 1.1.2 External arguments

Let's look at *external arguments* (subjects) more closely. In (6)–(7) we see cases where the external argument (subject) varies but the verb and internal argument (object) stay the same. How do the readings within (6) and within (7) differ?

(6) a. Kim took a nap.
    b. The child took a nap.
    c. The dog took a nap.
    d. ?The computer took a nap.

(7) a. Kim threw the ball.
    b. The child threw the ball.
    c. The monkey threw (the dog) the ball.

Now, in (8)–(9), we see cases where the internal argument varies while the verb and external argument stay the same. How do the readings differ within (8) and (9)? How are these cases different from those in (6)–(7)?

(8)  a.  Kim took a nap.
     b.  Kim took a book from the shelf.
     c.  Kim took a bus.
(9)  a.  Kim threw the ball.
     b.  Kim threw a party.
     c.  Kim threw a tantrum.
     d.  Kim threw the match [lost the game on purpose].

**Generalization:**  How can we derive this generalization in our formal system?
Tree:
(10)  *Sam ate cake*:

See Kratzer (1996) for the original proposal; the paper gets a bit technical at times but is fairly readable overall. See chapter 1.3 of Alexiadou et al. (2015) or chapter 1.3.1 of Kastner (2020) for a very quick overview.

## 1.2  Sublexical modification

Now let's go deeper into argument structure by seeing how morphology and syntax interact.

### 1.2.1  Syntax

What are the possible readings for (11)?

(11)    Itamar turned the wi-fi off again.

We can do this with various predicates:
(13)    Chris opened the door again.

How do we capture this formally? Say we schematize an event the following way (von Stechow 1996; Beck and Johnson 2004; Dowty 1991). What can *again* modify?
(15)    [Chris CAUSE [door BECOME open]]

### 1.2.2    Morphology

Is there an affix that does the same job as *again,* and has the same readings?

(18) _____

Other affixes influence argument structure. How?

(19) a.  I danced.
     b.  *I danced Eryl.

(20) a.  *I out-danced.
     b.  I out-danced Eryl.

The following verbs seem to allow *out*-prefixation easily:

(21) a.  swim, dance, jump, eat.
     b.  I out-swam/out-danced/out-jumped/out-ate Eryl.

But these ones resist it (at least with the meanings they have when used with just a subject and no object).

(22) a.  appear, arrive, die.
     b.  *I out-appeared/out-arrived/out-died Eryl.

What's the difference between the verbs that allow it and the ones that don't?

And do the following sentences change our description of the behavior of *out*-prefixation?

(23) a.  *The bus ran
     b.  I out-ran the bus.
     c.  *My pajamas grew
     d.  I out-grew my pajamas.

Here's a similar example, Spanish *sobre-* 'over' (Fábregas and Scalise 2012:100):

(24) a.  *El pájaro vuela.*
        'The bird flies.'
     b.  *El   pájaro sobrevuela *(la  casa)*
        The  bird   over-flies   (the  house)
        'The bird flies over the house.'

**Summary.** Events, or verb phrases in technical terms, have internal structure. We can isolate parts of this structure through *sublexical modification*: modifying part of an opening event, for example, using an adverbial. See chapter 2.2.2.1 of Alexiadou et al. (2015) for more on this.

If syntax and morphology are the same module, we expect that these adverbials could be either words or affixes - as is the case. And these elements which we add can also change the argument structure of the verb (adding or removing arguments), in ways which we haven't made precise yet.

# References

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