

# Argumenthood diagnostics

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## 1 The core participants test

Core participants are arguments, noncore participants are adjuncts.

- (1) Sally ate a sandwich in the kitchen.

## 2 The optionality test

Adjuncts are optional, arguments are not.

- (2) Timmy devoured the pizza (in the kitchen).

Problem: non-obligatory arguments, and also obligatory adjuncts  
(Jackendoff 1990, Goldberg and Ackerman 2001)

- (3) Mandy elbowed her way into the crowd.

## 3 The verb specificity test

Arguments are tied to specific verbs or verb classes (Koenig et al. 2003).

- (4) a. The conflict lasted for a month.  
b. I lived in Paris for month.

## 4 The prepositional content test

The more semantic content a preposition contributes to a phrase, the more likely it is that it heads an adjunct. (Pollard and Sag 1987,136); Wechsler (1991,123)

- (5) Louise rested {in the forest/beside the big tree/on the lawn}.
- (6) a. Kim trusted in her own abilities  
b. \*Kim trusted on her own abilities.

- (7) a. Kim relied on her own abilities  
 b. \*Kim relied in her own abilities.

Problem:

- (8) Martha lives {beside the train station/in France/on a mountain}.

## 5 The fixed preposition test

If a verb requires its complement to have a fixed preposition, the PP is an argument Pollard and Sag (1987,136); Wechsler (1991,123). See (5–7).

## 6 The extraction test

It is possible to extract arguments, but not adjuncts, out of weak islands. (Examples (9–10) are from Williams 1994)

- (9) a. \*Where do you wonder why John danced *t*?  
 b. Who do you wonder why John liked *t*?

Problem: The judgements are often unclear. And what do we do with examples like (10)?

- (10) a. \*With whom do you wonder whether Mary left *t*?  
 b. ?Who do you wonder whether Mary left with *t*?

## 7 Adjunct island test

It is possible to extract out of arguments, but not out of adjuncts (Ross 1967, Huang 1982, Chomsky 1986, Johnson 2003, Hedberg and DeArmond 2009).

- (11) a. I promised to water the tall plants  
 b. Which plants did you promise to water \_\_?  
 (12) a. Bill ran after annoying Susan.  
 b. \*Who did Bill run after annoying \_\_?

Problem: It is sometimes possible to extract out of adjuncts, especially PP-adjuncts and non-finite adjuncts. (Borgonovo and Neeleman 2000, Truswell 2007)

- (13) Which table did she dance on \_\_?  
 (14) What is John sitting there eating \_\_? (from Truswell (2007,1360))

## 8 The alternation test

If a phrase can alternate with a subject or an object NP, it is an argument (e.g., Lewis 2004).

- (15) a. The garden swarmed with bees.  
b. Bees swarmed in the garden.
- (16) a. Mandy gave a present to Lisa.  
b. Mandy gave Lisa a present.

## 9 The iterativity test

Adjuncts can be iterated, arguments cannot (example (18) from Bresnan 1982c)

- (17) \*John saw the man the cookie.
- (18) Fred deftly [Manner] handed a toy to the baby by reaching behind his back [Manner] over lunch [Temp] at noon [Temp] in a restaurant [Loc] last Sunday [Temp].

## 10 The relative ordering test

Arguments tend to have a more fixed position in the sentence than adjunct.

Adjuncts are typically ordered after complements. Pollard and Sag (1987), Dalrymple (2001), examples (19–20) below are Pollard & Sag's examples (258–259).

- (19) The authorities blamed the arson on the skydivers without checking the facts.
- (20) \*The authorities blamed the arson without checking the facts on the skydivers.

## 11 The word-order dependent meaning test

Different orderings of adjuncts can change the truth-conditional meaning of the sentence. This is not true for arguments. (Dalrymple 2001, Pollard and Sag 1987)

- (21) a. Kim ran twice a day reluctantly.  
b. Kim ran reluctantly twice a day
- (22) a. the alleged first-time offender  
b. the first-time alleged offender
- (23) a. Sarah chatted about the weather with Matthew.  
b. Sarah chatted with Matthew about the weather.

## 12 The *wh*-word conjunction test

Two *wh*-words that refer to arguments with different semantic roles cannot be conjoined. Two adjuncts with different semantic roles can be conjoined. An argument *wh*-word cannot be conjoined with an adjunct *wh*-word.

- (24) Sam showed the picture to Kim.  
(25) \*What and to who(m) did Sam show?  
(26) Jolanda met a friend in Minneapolis on Friday.  
(27) Where and when did Jolanda meet a friend?

An optional argument can be co-ordinated with an adjunct *wh*-word (Browne 1972, Gračanin Yuksek 2007).

- (28) What and why did you eat? (Gračanin Yuksek 2007,40)

Example (28) is only acceptable on the reading in (29a), not on the reading in (29b), as pointed out by Gračanin Yuksek (2007):

- (29) a. What did you eat and why did you eat at all?  
b. What did you eat and why did you eat it?

## 13 The VP anaphora test

Adjuncts may be added to ‘do so’ clauses, but arguments may not (Lakoff and Ross 1966, Baker 1978).

- (30) John ate the cake yesterday and Bill did so today.  
(31) \*John ate the cake and Bill did so the frosting.

## 14 The pseudocleft test

Adjuncts, not arguments, can occur after *do* in a VP-focussed pseudocleft (Hedberg and DeArmond 2009).

- (32) What Mia did in her room was sleep.  
(33) \*What Lara did the problem was discuss.  
(34) \*What Sandy did in Peter was trust.

## 15 The VP-preposing test

Arguments must move with the verb in VP-preposing, but adjuncts can be left behind.

- (35) \*Kylie wanted to draw a picture and draw she did a picture.
- (36) Kylie wanted to leave on Monday and leave she did on Monday.
- (37) Kylie wanted to draw a picture, and draw a picture she did.

## 16 Coordination

It is possible to coordinate two arguments, and it is possible to coordinate two adjuncts. It is not possible to coordinate an argument and an adjuncts.

- (38) John studied tonight and last night.
- (39) John studied French and German.
- (40) \*John studied French and last night.

Problem: You can only coordinate like with like anyway.

- (41) \*We deliver cakes and to bakeries.
- (42) \*John ate last night and quickly.
- (43) but: We're gonna do this right away and thoroughly.

## 17 Adjunct preposing

It is possible to prepose adjunct PPs and to-clauses, but it is difficult to prepose argument PPs and to-clauses Bresnan (1982a).

- (44) a. My parents waited patiently at the train station.  
b. At the train station, my parents waited patiently.
- (45) a. Linda looked thoughtfully at the picture.  
b. \*At the picture, Linda looked thoughtfully.
- (46) a. Mary trained to win the race.  
b. To win the race, Mary trained.
- (47) a. Mary promised to win the race.  
b. \*To win the race, Mary promised.

## 18 Resultative XPs in English (Liz Christie’s work)

(48) Kelly hammered the metal flat.

(49) The river froze solid.

(50) Kelly rolled the ball down the hill.

(51) The ball rolled down the hill.

- On the argument/adjunct status of resultative XPs: Halliday (1967), Halliday (1967), Simpson (1983), Carrier and Randall (1992), Rappaport Hovav and Levin (2001), Iwata (2006), Mateu (2011).

**Table 1:** A summary of the results of 12 argumenthood tests

	Causative Property	Non-Causative Property	Non-Causative Path	Causative Path
Core Participant	<i>adjunct</i>	<i>adjunct</i>	<i>adjunct</i>	<i>adjunct</i>
Optionality	<i>adjunct</i>	<i>adjunct</i>	<i>adjunct</i>	<i>adjunct</i>
Verb Specificity	Argument	Argument	Argument	Argument
Extraction out of XP	Argument	Argument	Argument	Argument
Long Distance Extraction	Argument	Argument	Argument	Argument
Fixed preposition	Argument	Argument	<i>adjunct</i>	<i>adjunct</i>
Prepositional Content	Argument	Argument	<i>adjunct</i>	<i>adjunct</i>
Iterativity	Argument	Argument	Argument	Argument
VP anaphora	Argument	Argument	Argument	Argument
VP preposing	Argument	Argument	Argument	Argument
Pseudoclefting	Argument	Argument	Argument	Argument
Wh-word conjunction	Argument	Argument	Argument	Argument

- Proposal: The lexical entry for a verb like *hammer* does not have a resultative in its basic argument structure. The result phrase can be added by a lexical rule (cf. Simpson 1983). It is an added argument, an XCOMP in LFG. It has the phrase structural position of an argument: it is a sister to the verb.

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