

Further issues with verbal projections

Modification

Adverbs

When talking about adverbs, we must differentiate between *VP-adverbs* and *sentential adverbs*, the former modifying only the verb and the latter the whole clause.

- (1) a. he unfortunately may find out
b. *he quickly may find out
c. he may unfortunately find out
d. he may quickly find out
e. he may unfortunately quickly find out
f. *he may quickly unfortunately find out

The example shows that sentential adverbs can be adjoined higher (namely to I') than VP-adverbs. The question is, then, where VP-adverbs might be adjoined.

As the adverbs is between the modal and the subject in (1-a), there is no other possibility than to assume that is an adjunct at I' level

- (2) a. will accurately have been making notes
b. will have accurately been making notes
c. will have been accurately making notes
d. *will have been making accurately notes
e. will have been making notes accurately

The most important questions are posed by the last two cases. First, we have to assume that adjunct cannot be attached to projections the verb moved out of. Second, it seems that the sentence final construction must be a derived one as adverbs are of category A, which is left-adjoined

It would be quite hard to pose an absolute limit on where the adjunct might appear as the verbal projection may have very different sizes.

Prepositional phrases

While the distribution of PP-modifiers is less free, the following poses a puzzle:

- (3) a. *John saw in the cinema a film
b. John lived with his mother in a flat.

It seems that PP-complements can move backwards, while DPs cannot. The backward movement of PPs is further supported by examples like (4-b).

- (4) a. a book about cats was published
b. a book was published about cats

It is not at all clear, however why DPs cannot undergo this kind of movement as they can be moved out of Case-positions in other constructions, and, if a DP is sufficiently big, it can move behind the PP (this is known as the *heavy DP shift*).

- (5) a. [this exercise]₁, I don't think anyone can do t₁
 b. [which book]₁ were you reading t₁?
 c. yesterday, I saw in the garden a fat black cat with a white spot on its head

Phrasal verbs

Phrasal verbs include a preposition-like element called a *particle*. The combination of a particle and a DP complement does not form a PP, however, as the following tests show.

- (6) a. he took off his hat
 b. he took his hat off
 c. he lived in a flat
 d. *he lived a flat in
- (7) a. he took the keys right from the table
 b. *he took right off his hat
- (8) a. books sat on the table and near the sofa
 b. *he took off his hat and off his shoes

It might be tempting to claim that the particle is a P head adjoined to the verb (which could explain the often idiomatic meaning), but there are a number of problems. First, the object might come between the verb and the particle. Also, structures with head adjunction are right-headed unlike phrasal verbs.

Recall compounds like *armchair* or *orange juice*

Another problem is that phrasal verbs behave differently when the particle follows the object:

- (9) a. the cat put the dog off his food
 b. *the cat put the dog his food off

A possible solution:

- (10) a. [_{VP} the cat [_{V'} e [_{VP} the dog [_{V'} put [_{PP} off his food]]]]]]
 b. [_{VP} the cat [_{V'} e [_{VP} the dog [_{V'} put [_{PP} off]]]]]]
 c. [_{VP} the cat [_{V'} e [_{VP} the dog [_{V'} [_V put off₁] [_{PP} t₁]]]]]]

But it is still a mystery why certain prepositional complements behave like this and others don't.