CHAPTER IV

INTRANSITIVE PREDICATES

KEY NOTES
In this chapter you will find out about:
- the main properties of unergative predicates
- the main properties of unaccusative predicates
- the main properties of copulative predicates
- the main properties of intransitive predicates with Prepositional Objects

1. ONE-ARGUMENT VERBS

1.1. ONE-ARGUMENT VERBS: A HOMOGENEOUS CLASS?

Traditionally, one-argument verbs have been known as belonging to one single homogeneous class, that of intransitives. Verbs like the ones in (1) and (2) have been analyzed as taking one single obligatory argument and evincing the same set of properties, among which the general impossibility of being followed by an NP (3):

(1)

a. A problem developed.
b. Some children came along the beach towards me.
c. A lot of snow melted on the streets of Chicago.
d. A ship appeared on the horizon.

(2)

a. There was so much smoke that she started coughing.
b. No other creature can fly as far, or for as long as birds.
c. The children are swimming.
d. The boys cried with laughter.

(3)

a. *The car had vanished John.
b. *My hopes collapsed me.
c. *She smiled her mother.

But the verbs in (1) and (2), in spite of being all one-argument verbs, have different semantic and syntactic properties. The most important semantic difference stems from the different theta-role which they assign to their argument. The argument in (1a), for example, the NP a problem, receives the role of Patient, whereas the argument in (2d), the NP the boys, is assigned the role of Agent.

Intransitives also differ with respect to the types of structures in which they may occur. Compare the behaviour of various intransitives in the structures illustrated in (4), (5), (6) and (7). All the there-sentences in (4) contain a one-argument verb. Still, only (4 a–c) are grammatical, (4 d–e) are not.
(4)
a. There developed a problem.
b. There appeared a ship on the horizon.
c. There was a boy in the garden.
d. *There melted a lot of snow on the streets of Chicago.
e. *There laughed many children.

In (5a) the one-argument verb freeze is followed by a resultative phrase, solid, without any element intervening between the two. The sentence is well-formed. Other one-argument verbs, like laugh for example, do not allow such a post-verbal phrase (5c is ungrammatical), unless a particular type of element intervenes between the two (see 5d). When an identical element intervenes between freeze and the resultative phrase solid (as in 5e), the sentence becomes ungrammatical:

(5)
a. The river froze solid.
b. The door slid open.
c. *John laughed sick.
d. John laughed himself sick.
e. *The river froze itself solid.

The past participle of intransitives also displays different properties. The participles in (6a) can occur inside the NP, whereas the ones in (6b) are disallowed in this position:

(6)
a. rusted pipes, tarnished dreams, decayed vegetation, corroded metal, wilted leaves, blistered palms
b. *an existed solution, *a raged fire, *a trembled tree

The non-canonical sentences in (7) below are instances of locative inversion. The subject occurs in post-verbal position and the sentence initial position is occupied by a locative PP. The difference between the one-argument verbs in (7a–b) and those in (7c–d) shows that not all intransitives are allowed to occur in this structure.

(7)
a. In the distance appeared a beautiful ship.
b. Here and there flourish groves of aged live oaks.
c. *On the streets melted a lot of snow.
d. *In the attic broke many windows.

Such data can lead to only one conclusion: intransitives do not represent a homogeneous class. The verbs belonging to this class display different properties: they assign different theta-roles to their argument, and they behave differently with respect to:

- there-sentences
- locative inversion
- resultative phrases
- the ability of their past participle of occurring inside the NP as a pre-noun modifier.
1.2. UNACCUSATIVES VS. UNERGATIVES

1.2.1. Different semantic properties

Perlmutter (1978) was the first to distinguish between two types of one-argument verbs, **unaccusatives** and **unergatives**. He claimed that these two classes are semantically and syntactically different and that the class to which an intransitive verb belongs is predictable from the semantics of the clause (p. 161). The same point of view is defended in Levin & Rappaport-Hovav (1995:4), where it is argued that the distinction between the two classes is semantically predictable and syntactically encoded. And this is the point of view which will be adopted in the present analysis.

But what does ‘semantically predictable’ mean? The two classes have a different set of semantic properties which can often help us to predict to which of the two classes an intransitive belongs.

Unaccusativity has been associated with non-agentivity, whereas unergativity has been mainly associated with agentivity. The class of **unaccusatives** includes predicates whose argument is assigned the theta-role of Patient or Theme (Perlmutter 1978):

\[ \text{(8)} \]
burn, fall, drop, sink, float, slide, slip, glide, soar, flow, ooze, seep, trickle, drip, gush, hang, dangle, sway, wave, tremble, shake, languish, flourish, thrive, drown, stumble, trip, roll, succumb, dry, blow away, boil, seethe, lie (involuntary), sit (involuntary), bend (involuntary).

\[ \text{(9)} \]
**inchoatives**: melt, freeze, evaporate, reddens, darken, yellow, rot, decompose, germinate, sprout, bud, wilt, wither, increase, decrease, blush, explode, die, perish, choke, suffocate, open, close, scatter, disperse, fill, vanish, disappear.

\[ \text{(10)} \]
**verbs of existing and happening**: exist, occur, happen, take place, result.

\[ \text{(11)} \]
**aspectual predicates**: begin, commence, start, stop, cease, continue, end, resume, halt, proceed, terminate, etc.

\[ \text{(12)} \]
**the so-called duratives**: last, remain, stay, survive, etc.

\[ \text{(13)} \]
**verbs denoting ‘non-voluntary emission of stimuli that impinge on the senses’**: shine, sparkle, glitter, glisten, glow, jingle, clink, clang, snap, crackle, pop, smell, stink, etc. (Perlmutter 1978:162–163)

In the sentences in (14) below the subject is assigned the role of Patient: it undergoes a change of state or location and has no control over the action denoted by the verb:

\[ \text{(14)} \]
a. A cluster of stars glowed above us.
b. A serious problem has arisen.
c. The soldier’s face reddened with anger.
d. The yolk oozes out.
e. The bells were clanging.
Unergatives describe mainly volitional acts (15) – (17):

(15) predicates describing willed or volitional acts: work, play, speak, talk, smile, grin, frown, grimace, think, meditate, cogitate, daydream, skate, ski, swim, hunt, bicycle, walk, skip, jog, quarrel, fight, wrestle, box, agree, disagree, knock, bang, hammer, pray, weep, cry, kneel, bow, laugh, dance, crawl, etc.

(16) manner-of-speaking verbs: whisper, shout, mumble, grumble, growl, bellow, etc.

(17) verbs describing sounds made by animals: bark, neigh, quack, roar, chirp, oink, etc.

(18) verbs denoting involuntary bodily processes: cough, sneeze, hiccough, belch, burp, vomit, defecate, urinate, sleep, cry, weep, etc. (Perlmutter 1978:162).

Their subject has control over the action, it is the instigator of the event and is assigned the theta-role of Agent, as can be seen in the sentences in (19):

(19) a. They quarrelled quite often.
   b. He hammered on the table.
   c. We sneezed a lot with hay fever.
   d. They go skiing in Switzerland every winter.
   e. She was weeping with joy at the ceremony.

One more semantic difference between the two classes of intransitives is related to their aspectual value. Unaccusativity is mainly associated to telicity whereas unergativity is associated to atelicity. Unaccusative verbs denote mainly telic events, i.e. events which have a natural end point. In the sentences below, the unaccusative verbs are incompatible with time adverbs which denote duration:

(20) a. *He stumbled over a stone for ten minutes.
   b. *She arrived for ten hours.

Unaccusatives denote mainly telic events.

Unergatives denote mainly atelic events.

(21) a. He has been grumbling since ten o’clock this morning.
   b. *He grumbled in five minutes.

The distinction telic/atelic is far from absolute, as we are going to see. However, the aspectual properties of intransitive predicates, especially those of unaccusatives, will be shown to be reflected in an important way in their syntactic behaviour.
The aspectual difference between these two classes of intransitives is also reflected in the way in which they behave with respect to various adverbs. Consider the sentences below:

(22)

a. The lake froze halfway.
b. The candle melted halfway.
c. The barn collapsed halfway. (Fagan 1988: 10)

The sentences in (22) have an unaccusative predicate, which can co-occur with the adverbial halfway. Unergative predicates cannot co-occur with this adverbial:

(23)

b. *Thomas ate halfway.

The adverbial phrases a little bit at a time, a lot at once behave like halfway: they can modify unaccusatives (24–25) but not unergatives (26–27) (all the examples are taken from Tenny 1988: 11):

(24)

a. The candle melted a little bit at a time.
b. The lake froze a little bit at a time.
c. The barn collapsed a little bit at a time.

(25)

a. The candle melted quickly, a lot of it melting at once.
b. The lake froze quickly, a lot of it freezing at once.
c. The barn collapsed quickly, a lot of it collapsing at once.

(26)

a. *Martha danced a little bit at a time.
b. *Jack whispered a little bit at a time.
c. *The announcer talked a little bit at a time.

(27)

a. ?Mary danced quickly, a lot of her dancing at once.
b. ?The actress whispered quickly, a lot of her whispering at once.
c. ?The announcer talked quickly, a lot of his talking at once.

Tenny (1988) argues that this difference is due to the semantic properties of the sole argument each of these classes takes. The argument of unaccusatives ‘measures out the event through some property it possesses’. It qualifies as the internal argument of telic predicates. The argument of unergatives, on the other hand, is not constrained to measure out the event. The adverbial phrases discussed above, which all measure the event, can co-occur only with unaccusatives because their event participant also measures out the event.
The conclusion so far is that intransitives fall into two classes, which evince different semantic properties:

a. Unergatives:
- denote volitional acts
- their argument is the Agent of the event
- their argument has control over the event
- unergatives denote mainly atelic events

b. Unaccusatives:
- denote mainly non-volitional acts
- their argument is never the Agent
- their argument does not have control over the event
- unaccusatives denote mainly telic events.

1.2.2. Different D-structure

The two classes of intransitives have different underlying structures (Perlmutter 1978, Burzio 1986, Chomsky 1981). Unergatives take a D-Structure subject (28a) (i.e. Agent arguments are D-structure subjects) and no internal argument. This property is related to the theta-role which the argument receives, that of Agent. The argument of unergatives has the properties of a prototypical subject (agentivity, control over the action) and, consequently, it is a genuine external argument.

But the argument of unaccusatives has object-like properties. This suggests that unaccusatives take a D-structure internal argument (Patient/Theme arguments are D-Structure objects) and no external argument (28b):

(28)

a. unergatives: NP [vp V]
   b. unaccusatives: - [vp V NP]

This means that at D-Structure unergatives have an external argument but no internal argument, whereas unaccusatives have an internal argument but no external argument:

(29)

a. unergatives
   VP
      /\  \
     /   \\
   NP   V'

   V'
   V'   0

b. unaccusatives
   VP
      /\  \
     /   \\
   V'   NP

On this analysis, the D-Structure of a VP containing an unergative (30a) is the one in (30b):^2

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^1 On such a definition, the D-structure configuration of unaccusatives is identical to that of passive constructions, which also have a D-structure direct internal argument but no external argument. Unaccusative and passive configurations share one more syntactic property: their verb cannot assign Accusative case. See Chapter VI, section 2 for more on the properties of passive predicates.

^2 We leave aside here the functional categories of the verb, focussing only on the position in which the argument is base-generated.
The D-Structure of the VP in (31a), which contains an unaccusative, is provided in (31b), where the argument occupies the Complement position:

(31)

a. The water froze.
   b.  
      \[ \text{VP} \]
      \[  \text{Spec} \]
      \[  \text{V'} \]
      \[  \text{John} \]
      \[ V \]
      \[ \text{froze} \]
      \[ \text{the water} \]

This difference is closely linked to the case assigning properties of the two classes. It has been noticed that there is a correlation between the case assigning ability of a verb and its ability of taking an external argument. This correlation has been known in the literature as Burzio’s Generalization, briefly defined in (32):

(32)

**Burzio’s Generalization**: a verb which has no external argument cannot assign Accusative case.

According to this generalization, unaccusatives, which do not take an external argument, cannot assign case either. This explains why the NP cannot remain in this position, as the internal argument of transitive verbs does. Since transitive verbs have an external argument, they also have the property of being case assigners. But unaccusatives cannot assign case. The NP will be forced to move out of the VP, case-driven.

As we are going to see, the prototypical unaccusatives can never assign case and consequently can never occur in a transitive frame, whereas unergatives, which have an external argument, can assign Accusative case in special configurations.

The data discussed in this subsection can be summarized as follows:

Unaccusatives (whose argument behaves in many respects like an object):
- select an internal argument
- their argument receives the theta-role of Patient/Theme
- lack an external argument
- are unable to assign Accusative case.

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2 But see Belletti (1988) and Roberts (1987) for a different point of view.
4 See Chapter VI: The Floating Nature of (In)transitivity.
Unergatives (whose argument behaves like a prototypical subject):
- select an external argument
- their argument receives the theta-role of Agent
- lack an internal argument
- can assign Accusative case in special configurations.

1.2.3. Different syntactic properties

1.2.3.1. Intransitives and There-sentences

One of the most reliable tests for unaccusativity/unergativity in English is the *there*-sentence test. As already seen in (4), some intransitives can occur in such sentences, whereas others are disallowed. Let us examine the following sentences:

(33)
- a. A problem developed.
- b. There developed a problem.

(34)
- a. A ship appeared on the horizon.
- b. There appeared a ship on the horizon.

(35)
- a. A boy was in the garden.
- b. There was a boy in the garden.

(36)
- a. An old woman lodged at Mrs Parker’s.
- b. *There lodged an old woman at Mrs Parker’s.

(37)
- b. *There smiled many children.

The verbs used in (33)–(37) are all one-argument verbs. However, only some of them can occur in *there*-sentences, which are typically found with unaccusatives (33–35). Unergatives are not allowed in these constructions (36–37).

This property can be related to the different D-structures of the two classes of intransitives. Unaccusatives have their argument base-generated in post-verbal position. When *there* occupies the canonical subject position, [Spec IP], the argument NP can remain in situ, inside the VP. It inherits case from *there*, with which it forms a chain: *there … NP*. Along this chain, *there* marks the case assigning position, since it occurs in [Spec IP], and the NP marks the theta-assigning position, since that is the position where the argument is assigned a theta-role at D-Structure:

(38)  
- There remained two students in the room.  
  ↓↓  
  Case position  Theta-role position

But the argument of unergatives is not base-generated in post-verbal position, which may explain the resistance of this class of intransitives to *there*-sentences.

5 For more on the properties of *there*-sentences, see Chapter X, section 2.
The hypothesis that there is a link between the base-position of the argument and there-constructions is further reinforced by the behaviour of passive predicates. Consider the following sentences:

(39)  
a. There was found an ancient treasure.  
b. There was glued a poster on this wall.

Both (39a) and (39b) are grammatical, which means that passive predicates are compatible with there-sentences. A brief examination of any passive construction\(^6\) will reveal that the NP which occurs in post-verbal position in the there-sentence is actually the internal argument of the verb. In (39a) for example, an ancient treasure is the internal argument of the verb find, so at D-Structure it occurs under the VP, in complement position, just like the argument of unaccusatives.

The data so far entitle us to reach a straightforward conclusion: unaccusatives and unergatives behave differently with respect to their compatibility with there-sentences: unaccusatives can occur in there-sentences whereas unergatives cannot. But this preliminary conclusion is only half correct. It is true that no unergative can occur in there-sentences but, as the data in (40) show, the conclusion that all unaccusatives can occur in there-sentences is too strong:

(40)  
a. A lot of snow melted on the streets.  
b. *There melted a lot of snow on the streets of Chicago.

Unaccusatives denoting a definite change of state cannot appear in there-constructions. Some verbs which basically denote a change of state, such as grow, open may occur in there-sentences:

(41)  
There grew lots of roses in that garden.

But when they do, they are understood as verbs of appearance or existence (Milsark 1979).

The unaccusatives which are most likely to occur in there-constructions are those denoting “existence” (42a–c) and “appearance” (43):

(42)  
a. **Verbs of existence**: be, blaze, bubble, cling, coexist, correspond, depend, drift, dwell, elapse, emanate, exist, extend, fester, float, flow, fly, grow, hide, hover, linger, languish, live, loom, lurk, overspread, persist, predominate, prevail, project, protrude, remain, revolve, reside, rise, settle, shelter, spread, stream, survive, sweep, swing, thrive, tower, wind, writhe (Levin 1993: 249)  
b. **Verbs of sound existence**: echo, resonate, resound, reverberate, sound (Levin 1993:251)  
c. **Verbs of group existence**: abound, bustle, crawl, creep, hop, swarm, swim, teem, throng (Levin 1993:252)

\(^6\) The properties of passive sentences are presented in Chapter VI: The Floating Nature of (In)transitivity.
Verbs of appearance: accumulate, appear, arise, assemble, awake, awaken, begin, break, burst, dawn, derive, develop, emanate, emerge, ensue, evolve, exude, flow, follow, gush, happen, issue, materialise, occur, open, plop, rise, spill, steal, stem, supervene, surge, pop up, turn up, show up (Levin 1993: 89)

Besides these two classes of verbs, non-agentive verbs of sound emission (clink, jingle, etc.), non-agentive verbs of light emission (gleam, glitter, glow, shine, sparkle, etc.), or non-agentive verbs of motion (fall, hang, dangle, lie, stretch, swing, etc.) or verbs of spatial configuration (Levin 1993), are also used in there-constructions:

There dangles a shiny new briefcase from his hand.

The basic sense of some of these verbs may not be that of existence or appearance (see, for example the verbs of group existence). However, when used in this construction, they will show this sense (Levin 1993).

We are now in a position to reformulate the conclusion we reached earlier with respect to intransitives and their ability to occur in there-sentences:

- only unaccusatives which can express existence or appearance are allowed in this type of sentence
- unergatives and definite change of state unaccusatives cannot occur in there-sentences.

1.2.3.2. Intransitives and the two types of there-insertion constructions

It is important to distinguish between two types of there-constructions: those in which the NP is adjacent to the verb (illustrated in 45) and those in which a PP intervenes between the verb and the NP (illustrated in 48b). Let us examine the two types of constructions with a focus on the type of predicate which they allow.

(a) There V NP PP

a. There remained three men in the room.
b. Throughout the war years there stood six statues of the martyrs on the place lawn.
c. There was a moment’s silence.
d. There followed a great flood of indignation in the newspaper. (Collins Cobuild 1992: 417)

These sentences have the post-verbal NP adjacent to the verb. Nothing intervenes between the two. If there is a locative PP, the NP is at the left of the PP. They have been referred to as “inside verbals” (Milsark 1974, 1979). In terms of information status, they simply postulate the existence of some entity or entities (Quirk et al. 1985: 1406) and they may contain no overt locative information (see 45c). This type of there introduces a distinct type of presentative construction. The NP cannot receive an agentive interpretation. This will distinguish between sentences such as (45a) and (46) below, whose meaning is that the three men deliberately chose to stay in the room, i.e. where
the NP can be interpreted as agentive:

(46) Three men remained in the room.

The verbs which occur in this construction cannot take any type of object, not even cognate objects:

(47) a. *Karen appeared a striking appearance at the department party.

Importantly, it is only this *there*-construction which can diagnose unaccusativity, i.e. it is this type of construction which allows only unaccusatives denoting existence and appearance, disallowing unergatives and definite change of state unaccusatives.

(b) There V PP NP

Such constructions have their NP at the right of the PP, which intervenes between the verb and its argument. They are called “outside verbals” (Milsark 1974, 1979) and their domain is not restricted to unaccusatives. The list of intransitive verbs which can occur in this construction is very large, comprising also verbs which are not allowed in inside verbals:

(48) a. A little boy darted into the room.
    b. There darted into the room a little boy.
    c. ??There darted a little boy into the room.
    d. ??Into the room there darted a little boy (Levin 1993:89).

One class of verbs which can be found in this type of sentence is the *run* class:

(49) *run* verbs: amble, climb, crawl, creep, dance, dart, flee, float, fly, gallop, head, hobble, hop, hurtle, jump, leap, march, plod, prance, ride, roam, roll, run, rush, sail, shuffle, skip, speed, stagger, step, stray, stride, stroll, strut, swim, trot, trudge, walk

The outside verbal *there*-construction is not a test for unaccusativity.

In this section the behaviour of various intransitive verbs with respect to *there*-sentences has been analyzed. The data show that:

- (almost) any intransitive can occur in outside verbals, i.e. *there*-sentences whose argument NP is separated from the verb by a PP: [There verb PP NP].
- inside verbals, i.e. *there*-sentences whose NP argument is adjacent to the verb [There verb NP (PP)] are more restrictive with respect to the type of verb they allow: only unaccusatives denoting existence and appearance are allowed in this

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7 For a definition of cognate objects, see Chapter VI, *The Floating Nature on (In)transitivity*, section 4.
1.2.3.3. Unaccusatives and *there*-sentences

The way in which unaccusatives behave with respect to *there*-sentences is, however, intriguing. Some unaccusatives (verbs of existence and appearance) are allowed to occur in this construction, whereas other unaccusatives (those which denote a change of state) are not. The fact seems even more intriguing as one sub-class of unaccusatives (verbs of existence) compatible with *there*-sentences denotes atelic situations, while the other one (verbs of appearance) denotes telic situations. Aspectual properties do not seem relevant. The obvious question which arises at this point is why verbs of appearance and existence behave differently from one-argument verbs of definite change of state with respect to *there*-insertion constructions. What exactly do the two classes (i.e. verbs expressing existence and appearance) share?

One possible answer is to say that these two classes are semantically related, in the sense that verbs of appearance mean 'come into existence', while verbs of existence describe the state resulting from the appearance of some entity. So, they both imply the idea of existence.

Also, they require a location argument (overt or implicit) (Lyons 1967:390, Levin & Rappaport-Hovav 1995, Hoekstra & Mulder 1990). This means that actually verbs of existence and verbs of appearance have two (internal) arguments:

(i) one describing the entity that exists (the Theme)
(ii) one describing the location at which this entity exists (the location argument)

Some analyses of *there*-sentences focused on the idea of location (Kuno 1971, Kimball 1973 cited in Jenkins 1975). A *there*-sentence could be interpreted as expressing the coming into being of some entity and the "location" of this entity. This could explain why these classes of unaccusatives (but not the others) can occur in *there*-sentences.

One more property which these two sub-classes of verbs share is related to their inability of being used in transitive frames. They both lack a causative variant, as the ungrammaticality of (50) shows:

\[
\begin{align*}
(50) & \\
a. & * \text{He appeared a book on the table.} \\
b. & * \text{Her job lived my mother in Boston.} \\
c. & * \text{The thief disappeared the bicycle.}
\end{align*}
\]

They do not permit an 'without outside help' interpretation of 'by herself/himself' (see 51a), while the definite change of state verbs which cannot occur in *there*-sentences normally allow such an interpretation (51b):

\[
\begin{align*}
(51) & \\
a. & \text{My father lived by himself.}
\end{align*}
\]
b. The ice melted all by itself.

This is due to the fact that the event which prototypical unaccusatives denote has no external cause. But they are not internally caused either. The notion of external/internal causation is irrelevant for these two classes. They are prototypical unaccusatives.

But there are also unaccusatives which have a causative transitive counterpart\(^{11}\). Consider the pairs of sentences in (52)–(54), where the intransitive is an unaccusative and the transitive use always involves causation:

\[(52)\]
\[
a. \text{The window broke.} \\
b. \text{Pat broke the window.} 
\]

\[(53)\]
\[
a. \text{The sky cleared.} \\
b. \text{The wind cleared the sky.} 
\]

\[(54)\]
\[
a. \text{The door opened.} \\
b. \text{John opened the window.} 
\]

Their lexical semantic representation is basically that of a causative verb, illustrated in (55), but they can also be projected as one-argument verbs (56):

\[(55)\]
\[
\text{Break} : [[x \text{ DO sth } ] \text{ CAUSE } [y \text{ BECOME be broken}]]^{12} 
\]

\[(56)\]
\[
\text{Break} : [y \text{ BECOME be broken}] 
\]

The two structures in (55)–(56) reflect the ways in which one and the same event can be construed.

Such verbs are inherently two-argument causatives which detransitivize in the lexicon, i.e. causatives which denote eventualities that can be construed in two ways: as events involving two participants (as in 55) or as events which involve one single participant (as in 56). Derived unaccusatives (sometimes also referred to as ergatives or anticausatives in the literature) are lexically derived intransitives (Keyser & Roeper 1984, Roberts 1987): the Agent role of the transitive verb can be eliminated. This lexical rule is semantically constrained, though. The shift is possible only if the eventuality which the verb denotes can come about independently, without an external agent. In (55)–(56) you can see what this means in terms of lexical conceptual structure. One could say that the shift is possible only if the eventuality which the verb denotes can be also “incompletely” or partially construed as only [y BECOME V-en].

Compare the meaning of two transitives which involve causation: open and murder. The event which the former denotes could be, under certain circumstances, interpreted as coming about independently (54a). In this case, the verb enters an intransitive frame and there is no external cause involved. The argument interpreted as the causer, the Agent, is no longer part of the argument structure of the verb. Murder, on the other hand, does not allow such an interpretation. The eventuality which it denotes cannot be construed as truncated. Murder belongs to the class of transitives which always require an intentional and volitional Agent

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\(^{11}\) See also Roberts (1987) where a distinction is made between intransitives such as break, dry, melt and prototypical unaccusatives illustrated by come, go, arrive.

\(^{12}\) This may read, in simpler terms, as “x does something that causes y to become to be broken”. It is an event that necessarily involves the idea of causation.
as subject. Such transitives cannot occur in intransitive frames.

Summarizing the discussion so far, there is evidence that there are two sub-classes of unaccusatives:

(i) prototypical unaccusatives, which have no transitive/causative counterpart
(ii) unaccusatives derived from basically two-argument causative predicates which detransitivize.

Verbs of existence and appearance belong to (i).

As already seen, the two sub-classes behave differently with respect to there-sentences: the unaccusatives belonging to sub-class (i) are allowed in there-sentences (inside verbals), whereas the derived ones cannot occur in there-sentences (inside verbals). And, as we are going to see, they also behave differently with respect to other unaccusativity tests which we will be discussing.

Summing up, the different behaviour of unaccusatives with respect to there-sentences led to a more detailed analysis of the properties of this class of intransitives. The data suggest that unaccusatives fall into two classes:

(i) prototypical unaccusatives
(ii) derived unaccusatives

Only prototypical unaccusatives imply the idea of existence and have a locational argument. This can explain why they can occur in there-sentences.

1.2.3.4 Intransitives and Locative Inversion

Locative inversion is a non-canonical construction in which the surface subject stays in post-verbal position and the verb is preceded by a locative PP:

(57) *(Locative) PP – V – NP (subject)*

The sentences in (58) (taken from Birner & Ward 1998) illustrate this type of structure:

(58)

a. On a counter are loaves – whole wheat, cinnamon raisin, oatmeal.
b. On our left was the Mediterranean
c. On the table sat a nervous cat.
d. Out of nowhere appeared a mysterious figure.
e. To their left, beyond a strip of grass, was the front of a large high building in grey stone.
f. In a little white house lived two rabbits.
g. Once upon a time there was a lake in the mountains and in that lake lived a huge crab.

All the predicates in (58) are intransitives. Transitive verbs cannot occur in this construction:

(59)

---

13 For more about the properties of locative inversion in English, see Chapter IX, section 3.
*In the kitchen ate Mary an apple.

A brief look at the sentences in (60) will immediately show that not only transitives are disallowed from occurring in locative inversion; there are also intransitives which are incompatible with this type of syntactic structure:

(60)

a. *In the hall talked many people.

b. *In the offices complain many people.

In (60) the verbs are intransitives but of the unergative type. In (58), where all the sentences are grammatical, the verbs are unaccusatives. This suggests that unergatives cannot occur in locative inversion constructions.

Let us see now if all the unaccusatives are compatible with this non-canonical structure. Just like with there-sentences, the verbs most commonly found in this construction are prototypical unaccusatives, i.e. verbs of existence and appearance (see the lists in 32–33 and the sentences in 58), and also verbs of spatial configuration 14 (illustrated in 61):

(61)

On the corner of the two boulevards stood a statue of Jefferson. (Levin 1993: 255)

Derived unaccusatives which denote a definite change of state are banned from this construction:

(62)

a. *On the top floor broke many windows.

b. *On the streets melted a lot of snow.

So far, there is a great similarity between the way in which intransitives behave with respect to there-sentences and locative inversion. Both types of non-canonical sentences allow prototypical unaccusatives and disallow derived unaccusatives and unergatives.

But locative inversion can occasionally accommodate some unergatives, as can be seen in (63):

(63)

a. On the third floor worked three women.

b. Around them chattered and sang many girls.

c. Leaves and flowers among which ran, flew, crawled or idled an extraordinary variety of insects.

d. Up the stairs bounded Senator X.

e. Through the orchards rattled his Ford….

Most of the unergatives in (63) are verbs of manner of motion or verbs of emission. But the fact that some unergatives can, nevertheless, occur in this construction raises the question of whether locative inversion can indeed differentiate between unaccusatives and unergatives, i.e. whether it is a reliable unaccusativity test. The linguists who argue that it can be a reliable test propose that those unergatives which are found in locative inversion structures have two regularly related meanings: one compatible with an unaccusative diagnostic, and one compatible with an unergative one. When they occur in locative inversion, they are

14 These verbs imply the idea of existence.
interpreted as having the unaccusative meaning.

This subsection briefly examined the behaviour of intransitives with respect to locative inversion. The data lead to the following conclusions:

- prototypical unaccusatives (which denote existence and appearance) can occur in locative inversion structures
- derived unaccusatives cannot occur in locative inversion structures
- most unergatives cannot occur in locative inversion
- those unergatives which can be cross-listed as unaccusatives, i.e. which can also be interpreted as having an unaccusative meaning, will occasionally occur in locative inversion.

1.2.3.5. Intransitives and the Resultative Construction

The behaviour of unaccusatives and that of unergatives with respect to the so-called resultative constructions provides further evidence that the semantic difference between these two classes of one-argument verbs is syntactically encoded. A resultative phrase is an XP which denotes the state achieved by the NP argument as the result of the action denoted by the verb. For example, in (64a) solid denotes the state achieved by the river as a result of its freezing. In (64c), himself sick denotes the state achieved by John as a result of laughing:

(64)

a. The river froze [solid].
   b. The door slid [open].
   c. John laughed [himself sick].
   d. The horse galloped [itself lame].

The phrases in square brackets above represent resultative phrases. They act as delimiters of events (Tenny 1987), specifying a resultant change of state or location. But this change of state relates to the internal argument of the verb. Resultative phrases can only be predicated of the post-verbal NP, traditionally associated with the direct object, and not of a preverbal one, i.e. they cannot be predicated of the subject of the verb. This is the Direct Object Restriction, which could be formulated as in (65):

(65)

The Direct Object Restriction: Resultative phrases can only be predicated of direct objects.

The Direct Object Restriction can also be formulated as a restriction on the theta-role of the argument of which the resultative is predicated. The direct object is an undergoer, a Theme or Patient (van Valin 1990), i.e. an entity that undergoes a change of state or position or whose state or position is described. So, a resultative can only be predicated of an argument bearing the Theme or Patient role. This correlates with the aspectual properties of the construction. Telic predicates (achievments and accomplishments) have a natural end point, a resultant state. They have an undergoer, a delimiter (which corresponds, in most cases, to the direct object): eat an apple, build a house, bake a pie. Activities, on the other hand, are atelic, they have no natural end point or resultant state: dance,
laugh, sleep. They do not have a delimiter.

These facts lead to two conclusions. First, we would expect only verbs which denote telic events to be able to occur with a Resultative phrase. Second, we would expect only those verbs which have an internal argument (transitives, unaccusatives, passives) to be compatible with Resultative phrases. Unergatives, which are typically activity verbs, i.e. atelic, and whose argument is the Agent and not the delimiter, should not be able to co-occur with resultatives. Some unaccusatives, the atelic ones, should also be banned. These conclusions are indeed borne out by the data. Consider the sentences in (66) (taken from Levin & Rappaport-Hovav 1995), which all contain a transitive verb and a resultative phrase that predicates of the direct object of the verb:

(66)
- a. Woolite safely soaks all your fine washables clean.
- b. And when her father finally did come home and kiss them, he was like the handsome prince, thought Laura, kissing them all alive.
- c. She dipped a finger into the peanut butter and licked it clean.

In (67) the resultative predicates of the argument of a passive, and in (68a-b) of the argument of unaccusatives:

(67)
- a. The floor had been swept quite clean of debris.
- b. She was shaken awake by the earthquake.

(68)
- a. The curtain rolled open on the court of the king.
- b. The gate slid open.
- c. *She remained tired.

But in (68c) the unaccusative denotes an atelic situation, which makes it incompatible with a resultative.

The sentences in (69) below are all ungrammatical because their unergative predicate cannot occur with a resultative:

(69)
- a. * She shouted hoarse.
- b. * They laughed tired.
- c. * He grumbled calm.

But, as we are going to see, unergatives can occur with Resultative phrases. On the other hand, verbs like arrive, which belong to the class of unaccusatives, are incompatible with Resultatives, in spite of the fact that they denote telic eventualities. Let us see under what conditions unergatives can occur in resultatives and what exactly excludes some telic unaccusatives from this type of construction.

The sentences in (70), whose predicate is an unergative, are all ungrammatical. But they can all become grammatical if a fake reflexive object is added. A fake reflexive object does not represent a new argument: it is a ‘copy’ of the external argument, placed in post-verbal position. Aspectually, it signals a change in Aktionsart: the predicate is interpreted as denoting a telic situation:

(70)
- a. We searched the woods and cliffs, yelled ourselves
hoarse and imagined you drowned.

b. The conclusion was that my mistress grumbled herself calm.

c. The other officers laughed themselves sick. (Levin & Rappaport-Hovav 1995: 35)

d. He laughed himself tired.

Unergatives can also occur with Resultative phrases when the post-verbal NP is not a fake reflexive:

(71)

a. The dog barked [him awake]

b. You may sleep [it (= the baby) quiet again]. (Levin & Rappaport-Hovav 1995)

The NP following the unergative verb can also be an inalienably possessed NP (usually denoting a body part). In this case, the possessor and the subject of the verb are co-referential:

(72)

a. Sylvester cried [his eyes out].

b. Sleep [your wrinkles away]. (Levin & Rappaport-Hovav 1995: 36-37)

e. We ran the soles off our shoes.

f. The joggers ran their Nikes threadbare.

g. He sneezed the handkerchief soggy. (Carrier and Randall 1992: 173)

At first sight, the verb in these sentences may seem a recategorized transitive, in which the post-verbal NP is analyzed as the direct object, i.e. as the internal argument of the verb. But there is evidence that the NP in post-verbal position is not the argument of the verb, as can be seen from the ungrammatical sentences below:

(73)


b. *You may sleep it.

The post-verbal NP is the subject of the Resultative construction and it is not subcategorized for by the verb. In (71a), him is the subject of awake, its theta-role assigner. It, in (71b), is the subject of quiet. Notice also that the NP is not subcategorized for by the verb in the examples in (72) either. The NP his eyes is not the internal argument of cry in (72a), nor is your wrinkles the internal argument of sleep in (80b). The sentences in (73) or (74) are ungrammatical precisely because their verb does not select for a complement:

(74)

a. *John cried his eyes.

b. *Sleep your wrinkles.

c. *We ran the soles.

Further evidence that the NP in resultatives which occur with unergatives is not the argument of the verb comes from the domain of noun externalization and nominalization. Let us analyze the pieces of evidence in turn.

The post-verbal NP in a transitive construction, i.e. one which has a genuine direct object, can be externalized and
become the subject of a middle construction.\textsuperscript{15}

(75)  
a. They wipe \textbf{this table} clean easily.

This \textit{table}, the post-verbal NP in the transitive construction in (75a), is externalized, i.e. it moves out of the VP to sentence initial position (see (75b). Compare the data in (75) to those in (76) – (77), where the predicate is an unergative:

(76)  
a. They ran the pavement thin.

b. *This type of pavement runs thin easily.

(77)  
a. They drank the teapot dry in no time at all.

b. *The teapot drinks dry in no time at all.

The movement of the post-verbal NP to sentence-initial position results in ungrammaticality, as (76b) and (77b) show. This NP behaves differently in resultatives based on transitives and in resultatives based on unergatives.

The NP in the two types of constructions behaves differently with respect to nominalization too. Compare the data in (78) and (79) below:

(78)  
a. They watered the tulips flat.

b. The watering of tulips flat is a criminal offense in Holland.

(79)  
a. They drank themselves sick.

b. *The drinking of oneself sick is commonplace in one’s freshman’s year. (Randall & Carrier 1992: 201)

In (78), the resultative occurs with a transitive. The NP can occur as the of complement in the nominalization, as can be seen in (78b). When the resultative occurs with an unergative, as in (79), the NP cannot be the of complement of the nominalization (79b is ungrammatical).

These data provide clear evidence that the post-verbal NP is an argument of the verb in resultatives based on transitives but it is not an argument of the verb in resultatives which are based on unergatives. The verb does not change its argument structure.

Unlike unergatives, unaccusatives do not need a fake reflexive or a non-subcategorized for NP in order to meet the Direct Object Restriction. The sentences in (80) are all grammatical:

(80)  
a. The river froze solid.

b. The prisoners froze to death.

c. The bottle broke open.

d. The gate swung shut.

e. The curtain rolled open on the court of the king. (Levin & Rappaport-Hovav 1995 : 33)

Such sentences would be ungrammatical if a fake reflexive or a non-subcategorized for NP were added:

\textsuperscript{15} Middle constructions are analyzed in Chapter VI, \textit{The Floating Nature on (In)transitivity}, section 2.
a. *The cart rolled [the rubber off its wheels]
b. *The log rolled [its bark off].
c. *The river froze itself solid.

This difference derives from the fact that unaccusatives cannot assign Accusative case, not even to cognate objects, whereas unergatives can take cognate objects (82):

(82)
a. She slept a restful sleep.
b. Malinda smiled her most enigmatic smile.

Unaccusatives cannot assign Accusative case. Their D-structure argument must raise to [Spec IP] to receive case. The NPs in the resultative phrases in (81) would violate the Case Filter, since they cannot possibly receive case in that position.

The appearance of the fake reflexive object in resultative phrases with unergatives is an indication that the contrast between unaccusatives and unergatives is a syntactic one. The reflexive fulfills the syntactic need of the resultative phrase to be predicated of an object, not the subcategorization properties of the intransitive verb. The verb occurring with a resultative phrase projects its arguments in exactly the same way as it does when there is no resultative phrase.

The data so far show that unaccusatives and unergatives behave differently with respect to resultative phrases:

- telic unaccusatives can occur with resultative phrases.
- unergatives can occur with resultative phrases only if a fake reflexive object or a non-subcategorized NP are added in post-verbal position.

But the conclusion is misleading with respect to the behaviour of unaccusatives. Recall that we said that some unaccusatives, mainly those belonging to the *arrive* class (83), are incompatible with resultative phrases. All the sentences in (84) contain a verb belonging to this class and they are all ungrammatical:

(83) **arrive verbs**: advance, arrive, ascend, come, depart, descend, enter, escape, exit, fall, flee, go, leave, plunge, recede, return, rise, etc.

(84)
a. *She arrived tired.*
b. *The convict escaped exhausted.*
c. *She fell broken to pieces.*

This incompatibility may be related to the meaning of the verbs in this class. They all have an inherently specified achieved location or a specified delimited path. A resultative phrase acts as a delimiter of the event. But an event can only be delimited once (Tenny 1987). Since the arrive-type verbs already have an inherent delimiter, they are incompatible with a second one, i.e. with the resultative. A sentence like (85) below can be interpreted only as (i) the letter came without having been sealed or (ii) the letter became unsealed /the letter came

Only derived (telic) unaccusatives can co-occur with resultative phrases.
to be unsealed. But it cannot be interpreted as meaning "the letter became unsealed as a result of coming":

\[(85)\]

The letter came open.

The fact that a verb can take one single delimiter can also be seen in sentences like (86), where the presence of a goal phrase blocks the presence of a resultative, i.e. of a second delimiter:

\[(86)\]

*She ran herself to the store ragged.

We are now in a position to reformulate the previous conclusion with respect to unaccusatives: (telic) unaccusatives can occur with resultative phrases provided they do not denote an event with an inherently specified achieved location or a specified delimited path, i.e. with an inherently specified delimiter. This amounts to saying that only derived unaccusatives can occur with resultatives.

1.2.3.6. Intransitives and NP-Internal Participles

It has been widely accepted in the literature that the past participle of transitive (87) and of unaccusative verbs (88) can occur as noun modifiers within the NP, whereas the past participle of unergatives does not have an NP-internal use (89) (Hoekstra 1984, 1986, Ackema 1995, Levin 1993 among many others), i.e. it cannot be used with an adjectival value:

\[(87)\]

a respected scholar, a well-loved teacher, a rented car, a broken window, a sharpened pencil, a well-written paper, a stolen car, an admired actor

\[(88)\]

a fallen leaf, recently arrived guests, a recently appeared book, a newly emerged scandal, drifted snow, elapsed time, risen dough, rotten fruit, stuck window, sunken treasure, swollen feet, vanished civilizations, wilted lettuce, withered hopes, a wrinkled dress

\[(89)\]


The ability of the past participle to occur as a modifier within NPs has been consequently taken as one more unaccusativity test. But not all unaccusative participles can appear within an NP. Consider the following examples:

\[(90)\]

rusted pipes, tarnished dreams, wine fermented in casks, decayed vegetation, corroded metal, wilted leaves, blistered palms, molten skin

\[(91)\]

*a man lived in Paris, *an existed solution, *a raged fire, *a trembled tree

As can be seen in (90) and (91) above, the past participle of the unaccusatives which describe a telic situation are compatible with an NP-internal use (90), whereas those describing an atelic situation are excluded from this position (91). In the previous discussion about the semantic properties of unaccusatives and unergatives it was said that unaccusatives are mainly associated with telicity. Some unaccusatives can be indeed interpreted as telic, and their past
The past participle can be used with an adjectival value. Levin & Rappaport-Hovav (1995: 258) list about 80 verbs that are telic unaccusatives: verbs of appearance (92), disappearance (93), verbs of inherently directed motion, and many verbs denoting an internally caused change of state (see the examples in 80 above):

(92) **verbs of appearance** [+ telic]: appear, arise, awake, awaken, break, burst, come, dawn, derive, develop, emanate, emerge, erupt, evolve, exude, flow, form, grow, gush, issue, materialize, open, plop, result, rise, spill, spread, steal, stem, stream, supervene, surge, wax, pop up, show up, turn up

* a recently appeared book

(93) **verbs of disappearance** [+ telic]: die, disappear, expire, lapse, perish, vanish

* vanished civilizations

The class of unaccusatives which denote an internally caused change of state is actually by far the most productive in this construction. The past participle of the unaccusatives in the other classes which denote telic situations is either simply incompatible with an NP-internal position (as illustrated in 94) or can occur either only in prenominal position or only in postnominal position (95) (Borgonovo & Cummins 1998: 107):

(94) *receded tiles, *fled civilians, *mountain-climbers plunged to their deaths, *subsequently ensued events

(95) a. departed guests/* guests departed in a huff;
   b. a repairman come to check the pipes/* a recently come repairman

Some past participle constructions of telic unaccusatives are quite restrictive with respect to the type of arguments and the type of modifiers they can take (Borgonovo & Cummins 1998: 107):

(96) a recently appeared book/*a recently apppeared explorer/*a recently appeared planet

(97) recently arrived guests/*tardily arrived guests/*early arrived guests/*already arrived guests/*hurriedly arrived guests/*subsequently arrived guests

These empirical data show that more than telicity should be taken into account when trying to distinguish between those unaccusatives whose past participle can and those whose past participle cannot be used in NP-internal position. Borgonovo & Cummins (1998) suggest that telic unaccusatives fall into two classes:

(i) unaccusatives which depict a change of state (rot) and
(ii) unaccusatives which depict a change of location (arrive).
You will have noticed that their sub-classes correspond to what we have referred to as derived unaccusatives and telic prototypical unaccusatives (the arrive class). The verbs in both classes are telic, denoting a process that culminates in a state.

However, the nature of this final state is different. The unaccusatives which depict a change of state refer to processes which culminate in an accidental quality acquired by the argument as a result of the activity denoted by the verb. The final state is a “property”. The unaccusatives which depict a change of location do not involve the acquisition of any quality by the argument. The final state is a “place” or a “location”. The verbs belonging to the former class can appear freely within NPs and can have only a stative reading. Blistered feet, for example, can only be interpreted as meaning “feet that are in a blistered state”, and not “feet that something has blistered” (Borgonovo & Cummins 1998:108). The unaccusatives belonging to the “place” class are less felicitous.

Some verbs can have both meanings. The verb fall, for example, can refer to both a downward movement to a location, with a final state involving only some new location. In this case, its past participle is less felicitously used within an NP:

(98)

a. a fallen child  
b. fallen books

When it denotes a transition to “a fully-specified state” (Borgonovo & Cummins 1998:109), i.e. when its final state involves the acquisition of a property or a quality, its past participle can be felicitously used in an NP-internal position:

(99)

fallen leaves

The data are clearer with the past participle of those unaccusatives which are interpreted as atelic: they all resist an NP-internal position. This is the case of verbs of existence (*an existed solution) as well as of verbs of modes of being involving motion:

(100)  
verbs of modes of being involving motion [ -telic] : bob, bow, creep, dance, drift, eddy, flap, float, flutter, hover, jiggle, joggle, oscillate, pulsate, quake, quiver, revolve, rock, rotate, shake, stir, sway, swirl, teeter, throb, toter, tremble, undulate, vibrate, waft, wave, wavering, wiggle, wobble, writhe (Levin 1993: 251)

• a trembled leaf

The data discussed in this subsection revealed the following:

• the ability of the past participle of a verb of occurring within an NP is an unaccusativity diagnostic

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16 Further evidence that the two classes of unaccusatives behave differently is provided by their behaviour with respect to there-sentences and locative inversion. The unaccusatives which denote a change of location are allowed in both these constructions, whereas those which denote a change of state are not.
the past participle of telic unaccusatives can occur NP-internally, with an adjectival value

the past participle of unergatives is excluded from this position.

the NP-internal predication by a past participle of an unaccusative requires certain aspectual properties: if the verb denotes a telic situation, in particular a situation which ends in a final state that involves a change of quality in the argument, its participle will be freely used within a NP. If the unaccusative is telic but the final state to which the process it denotes leads involves a mere change of location, the use of the past participle within an NP will be more restrictive.

1.3. THE FLOATING NATURE OF UNACCUSATIVITY

1.3.1. Variable behaviour verbs

Some of the one-argument verbs whose properties have been analyzed in the present chapter can be systematically associated with a range of meanings, alternating between unergative and unaccusative behaviour, displaying regular polysemy. This semantic property is associated with the syntactic property of occurring in a range of syntactic patterns, i.e. each event construal is correlated with one particular syntactic pattern. These verbs are sometimes referred to as variable behaviour verbs (Levin & Rappaport-Hovav:1995).

One should emphasize the fact that this unaccusative/unergative alternation is systematic. The various meanings of a verb are not simply listed as such in the lexicon, but are often derived from the syntactic context in which that particular verb is used. This could be seen in the analysis in the previous section, where sometimes a verb could be cross-listed, i.e. it could display both unaccusative and unergative properties and could belong to two lists.

So, alternative classifications are possible. This idea goes back to Perlmutter (1978), who was the first to signal that the classes refer to semantic types of predicates, which allows one verb to belong to different classes according to the meaning it acquires in one particular context. Consider the examples below (taken from Perlmutter 1978), which show that one verb can appear in different clause types:

(101) a. The wheels slid on the ice.
    b. Joe slid on the ice.

(102) a. The figurine stood on this table.
    b. The children stood on this table.

(103) a. The unemployment rate jumped in July.
b. Henry jumped over the fence.

In each of the above pairs of sentences, the arguments have different theta-roles: Patient or Theme vs. Agent. So, one and the same verb can have unaccusative or unergative properties.

1.3.2. Verbs of manner of motion

Unergatives which denote agentive manner of motion can acquire an unaccusative value when used with directional phrases. Members of the run class or many members of the class of verbs of motion basically describe motion without any specific direction of motion being implied. But, when they occur with an explicit directional phrase, the direction of motion is expressed and they exhibit unaccusative behaviour. In this case, these verbs can occur with resultative phrases without a fake reflexive object or a non-subcategorized for object:

(104)

a. She danced/swam free of her captors.

In (104) the unergatives dance and swim occur in the unaccusative resultative pattern, with no surface object available. The fact that the structure is indeed unaccusative is supported by the ungrammaticality of (105):

(105)

*They swam themselves apart.

When these basically unergatives behave as unaccusatives the resultative construction is interpreted as involving a directed motion. When used unergatively, their resultative phrase involves unspecified direction. Compare a and b below:

(106)

a. She danced free of her captors [directed motion]
b. She danced her feet sore [unspecified direction of motion].

The difference illustrated in (106) suggests that agentive verbs of motion can be associated with both unaccusative and unergative patterns which are correlated to two related, though distinct readings.

1.3.3. Verbs of sound emission

Many verbs which denote sound emission can be used with directional phrases (107), on condition their subject is not an agentive one (107a) and they describe a sound that is concomitant with the motion of the entity denoted by the argument of the verb (107). When the subject is an agentive one, the sentence is ungrammatical (108):

(107)

a. The elevator wheezed upward.
b. At that moment, a truck rumbled through the gate.
c. The kettle clashed across the metal grid.
(108)
  a. *He yelled down the street.
  b. *The frogs croaked to the pond.

(Levin & Rappaport-Hovav 1995:190)

In this case, they become verbs of directed motion and they can appear in the unaccusative resultative phrase construction:

(109)
  a. The refrigerator door clicked open.
  b. The curtains creak open.
  c. The skylight thudded open with a shower of powdery plaster.
  d. The lid of the boiler clunked shut.

(Levin & Rappaport-Hovav 1995: 191)

The resultative phrase must denote a change of location rather than a change of state, as can be seen from the ungrammaticality of (110), where the resultative denotes a change of state:

(110)
  a. *The door banged to pieces.
  b. *The curtains creaked threadbare.
  c. *The skylight thudded to smithereens.
  d. *The lid clunked flat.

When such verbs describe a type of sound emitted by an animate entity, they behave like unergatives with respect to resultatives. The sentences in (111) have an Agentive animate subject and the verb yell can only co-occur with a resultative if a fake reflexive is added. (111a) contains such a fake reflexive, and it is grammatical. The absence of a fake reflexive leads to ungrammaticality (111b–d):

(111)
  a. We yelled ourselves hoarse.
  b. *He yelled clear of the falling rocks.
  c. *The frogs croaked apart.
  d. *They shouted free of their captors.

The verbs of sound emission are among those classes which are difficult to classify as unaccusatives or unergatives. We have seen that they may display both unaccusative and unergative behaviour with respect to their ability of co-occurring with resultative phrases.

The same class of verbs displays an ambiguous behaviour with respect to there-sentences and locative inversion. When their argument can be interpreted as non-agentive, they may occur in these constructions:

(112)
  a. There ticked a grandfather clock in the hallway.
  b. In the hallway ticked a grandfather clock.

1.3.4. Unaccusatives which may display unergative behaviour
The verbs in the roll class can describe both agentive and non-agentive motion when they take an animate argument:

(113) Max rolled down the hill. (Levin & Rappaport-Hovav 1995: 208)

In (113) Max can be interpreted both as an Agent and as a Theme. When the argument is interpreted as an Agent, the verb will display unergative behaviour. In (114) the verb roll co-occurs with a resultative phrase according to the unergative pattern. A non-subcategorized for NP is required as the subject of the Resultative phrase:

(114)

a. The children ran the grass flat.
b. The children rolled their way across the field. (Levin & Rappaport-Hovav 1995: 210)

When the verb takes an inanimate argument, it will behave like an unaccusative, as can be seen in (115):

(115)

b. *During the spring thaw, the boulders rolled the hills bare.

**Intermediate Summary**

In the first part of the chapter it was shown that one-argument verbs fall into two main classes: unergatives and unaccusatives. The two classes evince different semantic properties which are reflected in their syntax. The unaccusatives themselves fall into two sub-classes: prototypical unaccusatives (verbs of existence and appearance) and derived unaccusatives.

The results of the analysis are summarized in the Table below:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>UNACCUSATIVES</th>
<th>UNERGATIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>The theta-role of the argument</td>
<td>Theme/Patient</td>
<td>Agent</td>
</tr>
<tr>
<td>Semantic properties of the argument</td>
<td>it has no control over the action denoted by the verb</td>
<td>it is the instigator of the action denoted by the verb and has control over it</td>
</tr>
<tr>
<td>D-Structure status of argument</td>
<td>Complement of V</td>
<td>Subject of V</td>
</tr>
<tr>
<td>External argument</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>CASE assigning properties</td>
<td>they cannot assign structural Accusative case</td>
<td>they can assign Accusative case if needed (some verbs can take cognate objects)</td>
</tr>
<tr>
<td>Compatible with inside verbals [There V NP (PP)]</td>
<td>YES: if prototypical unaccusative</td>
<td>NO</td>
</tr>
<tr>
<td>Compatible with locative inversion structures</td>
<td>YES: if prototypical unaccusative</td>
<td>NO with the exception of some unergatives which can be contextually interpreted as unaccusatives</td>
</tr>
<tr>
<td>Ability of the past participle to occur NP-internally</td>
<td>YES if [+ telic]; more freely if it is a derived unaccusative</td>
<td>NO</td>
</tr>
</tbody>
</table>
Co-occurrence with Resultative phrases | YES if [+ telic] derived unaccusative | YES only if a fake reflexive or a non-subcategorized for NP is added.
--- | --- | ---
Co-occurrence with halfway, a little bit at a time, a lot at once | YES | NO

Some classes of intransitives may behave both as unaccusatives or unergatives in a rule-governed type of alternation. Very often, an important part in the alternation is played by the theta-role that the argument receives: Agent vs. Patient/Theme.

2. COPULAR PREDICATES

2.1. THE DATA

In this section we will be examining the structure of a different type of intransitive predicate, illustrated in (116) below:

(116)

a. John is a hunk.
b. She remained a widow.
c. They ran mad.
d. He will make a good engineer.

A brief look at these sentences reveals that they all contain a copular (116a) or a copula-like verb (116 b-d), which provides a link between the subject of the sentence and the element which predicates about this subject. For example, in (116a) John is the subject and the element which is predicated of John, i.e. which assigns a property to John, is the NP a hunk. Be is said to be a copular verb or a copula in such sentences. And the element which actually assigns a property to the subject is said to function as a predicative. In (116d), the predicative a good engineer denotes the property which is assigned to the subject of the sentence, he. The copular verb and the predicative are said to form a copulative predicate.

Consider the following sentences, which contain copula be:

(117)

a. John is a good teacher.
b. John is clever.
c. John is of good stock.
d. His dream is to study syntax.
e. The truth is that he has always wanted to teach grammar.

In all the examples above the copulative predicate is the result of the joint contribution of two constituents: the copular verb and a predicative. The predicative can be an NP (a good teacher) (117a), an AdjP (clever) (117b), a Prepositional Phrase (of good stock) (117c), an IP (to study syntax) (117d) or a whole clause, as in (117e): that he has always wanted to teach grammar.

As you may have noticed at the beginning of this short introduction to the empirical data which we will be examining, copulative predicates actually fall into two groups: some of them
contain be, which does not carry any substantive meaning at
all, and which is the prototypical copular verb. Others contain a
verbal element which has some specific meaning, associated to
the meaning of their fully lexical counterparts, i.e. they are
copula-like verbs (116 b–d).

In what follows, we will be first discussing the properties
which the predicates illustrated in (116) share, taking the case of
copular be as representative, and then we will address the
differences between copula be and the so-called copula-like verbs.
In particular, the following questions will be addressed:

(i) what are the main properties of a copulative predicate?
(ii) in what way do these properties distinguish a copular
verb from a lexical verb?
(iii) to what extent can we say that copula be and the
so-called copula-like verbs fall into the same class?
(iv) in what way does copula be differ from the progressive
auxiliary be?

A general conclusion will emerge from our analysis with
respect to the syntactic status of copular verbs: they are all
unaccusatives which subcategorize for a small clause comple-
ment (Hoekstra & Mulder 1990).

2.2. THE SYNTACTIC STATUS OF COPULA BE

2.2.1. Copular verbs and argument structure

If we examine the sentences in (117) we will notice that it is
the predicative and not the copula which assigns a property to
the subject. In (117a) John is assigned the property a good
teacher, in (117b) John is assigned the property clever, and so
on. This clearly points to the fact that the predication relation is
established between the subject and the predicative, and not
between the subject and the copula. The NP which is the
subject of the sentence is assigned a theta-role and is the
argument of the predicative, not the argument of be. That this
is the case can be seen in certain semantic restrictions which
the predicative imposes on the subject. Consider the following
sentences:

(118)
  a. * Mary is a hunk.
  b. * Your husband is plumpy.
  c. *John is pretty.
  d. *John is my sister.

Such sentences are ungrammatical because the property
denoted by the predicative cannot be assigned to the entity
denoted by the subject. A hunk is a property of a [+ male] entity,
whereas pretty, plumpy, and my sister cannot be predicated of a
[+ male] subject. This explains the unacceptability of the sen-
tences in (118).

The selectional restrictions cannot be associated with the
copula, since sentences with a copulative predicate are accep-
table with such predicatives when the subject has different
semantic properties:
(119)

a. John is a hunk.
b. His wife is plumpy.
c. His wife is pretty.
d. Mary is a widow.

The properties of what has been known in the literature as reciprocal copulative predicates: be alike, be equal, be married, be joint, be attached, be equivalent, be identical, be correlated, be kindred with, etc. also derive from the semantics of the predicative.

The analysis so far leads to at least two general conclusions: (i) verbs are not the only lexical category which can assign theta-roles and (ii) not all the verbs are theta-role assigners. The conclusion in (ii) is reinforced by the results of our analysis of auxiliary verbs.

Going back to copular verbs, then, the conclusion we have reached is that they are verbs which do not assign an external theta-role. This property can be related, just like in the case of auxiliaries, to the fact that they do not have substantive content.

If the subject of a sentence containing a copulative predicate receives its theta-role from the predicative, according to the locality condition on theta-role assignment, the D-Structure of the sentences in (117) must be the one in (120), which captures two things. Firstly, that copula be has no external argument and, secondly, that the subject of the sentence occupies a base position where it can be assigned a theta-role by the predicative:

(120)

a. is [John a good teacher].
b. is [John clever].
c. is [John of good stock]
d. is [his dream to study syntax].
e. is [the truth that he has always wanted to teach grammar]

The D-Structure in (120) also shows that the copular verb be has one single argument: the small clause18 which "hosts" the predication relation between the subject of the sentence and the predicative.

But the subject moves out of the small clause to [Spec IP], in search of case as well as to satisfy the EPP condition. Remaining in situ will result in ungrammaticality:

(121)

* Is John a good teacher.

The analysis so far shows that copula be has no external argument. It selects a small clause as its internal argument. Moreover, the subject of the small clause must move to [Spec IP], which means that it cannot receive case either from its predicate or, by exceptional case marking, from be. Be cannot assign case. Remember that, if a verb cannot assign the external theta-role, it cannot assign case either. The copular verb be behaves like unaccusatives. We can then assume that it is a particular type of unaccusative, whose internal complement is a small clause:

(122)

\[
\text{VP}
\]

---

17 See Chapter II.
18 You will remember that a small clause is a reduced clause which contains a predicative linking.
One problem has remained unexplained, though. It concerns the movement of the subject out of the small clause, i.e. from its base position to [Spec IP]. You will probably recall that one condition imposed on movement is that the constituent which moves should make the shortest possible move, i.e. it should move to the nearest available landing site. In the representation in (122) one can see that the subject of the small clause could choose [Spec VP] as a landing site when moving from its base position. The obvious question is: why does it not choose this position as its landing site? [Spec VP] is an A-position and it is empty because copula be has no external argument. Skipping this position would violate the Shortest Move condition. Remember though that the subject generated in [Spec VP] moves to [Spec IP] for two reasons: to meet the EPP condition and to receive case. By analogy, we have already assumed that the subject of the small clause which is the internal complement of be moves to [Spec IP] for the same reasons. This means that [Spec VP] is an empty position but it is not an appropriate landing site: the subject cannot receive case in this position. Moreover, the EPP condition is still not met. So, the subject raises to [Spec IP] via [Spec VP], i.e. it passes via the nearest [Spec VP], which is empty, but it has to move further to a position which can satisfy its search for case. Shortest Move is not violated in this case:

(123)

The data analyzed in this sub-section lead to the conclusion that copular predicates represent intransitive predicates which take a small clause as their complement. Given the fact that copulas cannot assign the external theta-role or case, they can be included in the class of unaccusatives.
2.2.2. The role of the copula

If the copula has no substantive content and cannot assign any roles or case, what is then its role inside the copulative predicate? You will remember that small clauses are reduced clauses which lack functional categories, in particular Tense. But they denote predication relations, i.e. states of affairs which must receive temporal anchoring. The temporal anchoring of these small clauses is dependent on the verb of which the small clause is a complement. The copular verb spells out the morphological features which are normally realized by a verbal predicate: Tense, Aspect, Agreement, Mood as can be seen in the examples in (124):

(124)

a. John is polite.
b. John is being rude today!
c. John has always been polite.
d. They were worried because he had never been that rude.
e. I wish he were polite.

The fact that the copular verb carries Agreement information makes it more obvious that it provides a link between the subject and the predicative, anchoring the state of affairs denoted by the small clause to the time of realis (124a-d) or to irrealis (as in 124e, for example).

2.2.3. Copula be vs. copula-like verbs

Traditional grammars often mention a class of so-called copula-like verbs, which includes verbs like become, remain, turn, run, get, go, grow, fall. The sentences in (125) illustrate the copula-like uses of these verbs:

(125)

a. He became a famous politician.
b. She remained a widow.
c. The leaves gradually turned yellow.
d. She is getting prettier and prettier.
e. Mary makes an excellent wife.
f. They fell silent.

Just like the prototypical copula, these verbs relate the subject of the sentence to a predicative which is the actual property assigner. They all lack an external argument and take a small clause as their internal complement:

(126)

\[
\begin{align*}
\text{VP} & \quad \text{V'} \\
\text{V''} & \quad \text{SC} \\
\text{Copula-like V} &
\end{align*}
\]

This is the property which explains why they are treated as...
copula-like verbs. But they also evince a set of properties which clearly distinguish them from the prototypical copular verb *be*.

Firstly, they still preserve some of the substantive content of their fully lexical counterpart and consequently often carry aspectual information. They may denote durative (*stay, remain*) or inchoative (*become, get*) states of affairs, for example.

Moreover, because of this residual lexical meaning, unlike *be*, which remains passive in the selection of the constituents inside the small clause, copula-like verbs may impose certain selectional restrictions on the composition of the small clause. Compare the sentences below:

(127)  
   a. The well ran dry.  
   b. ??The man ran mad.

(128)  
   a. The well was dry.  
   b. The man was mad.

In (128) both sentences, which contain the copular verb *be*, are acceptable, whereas (127b) is unacceptable precisely because *run* as a copula-like verb imposes selectional restrictions on its internal complement.

Other copula-like verbs have an even more specific lexical meaning. Consider the case of *fly* in (129) below:

(129)  
   He flew into a rage.

Besides the residual meaning which makes us interpret the sentence as denoting a change of state that took place very quickly, there is also some substantive content which imposes very strict selectional restrictions, which explains the unacceptability of (130):

(130)  
   *John flew mad/angry.*

Hoekstra & Mulder (1990:21) suggest that we are actually faced with a metaphoric use of the verb *fly* which is possible "by virtue of suspending the thematic role that the verb assigns as a lexical or full verb, and hence the metaphor has a structural basis."

This difference between copula *be* and copula-like verbs (no substantive content vs. residual substantive content) can account for the differences between the two.

The semantic lightness of copula *be* can explain why it behaves like auxiliaries with respect to *do*-support properties: (i) it can undergo V-to-I-to-C movement, inverting with the subject in interrogative sentences (131a); (ii) it can be directly negated by *not/n’t* (131b); (iii) it can be stressed in emphatic affirmations (131c), and (iv) it can occur in tags and codas (131d–e):

(131)  
   a. Is she a teacher?  
   b. She is not a teacher.  
   c. Well, but she IS a teacher.  
   d. She is a teacher, isn’t she?  
   e. She is a teacher, and so is her mother.
Just like auxiliaries, copula *be* can precede sentence-medial adverbs:

(132)

a. She is always nice to everyone.
   b. He is never rude to his parents.
   c. They are already arrogant.

However, in spite of the fact that both auxiliary *be* and copula *be* exhibit unaccusative properties (they are one argument verbs which take a small clause as their internal argument) and also share a set of distributional properties (see 129-130 above), we will continue to distinguish between auxiliaries and copula *be*.

Unlike auxiliaries, which can only co-occur with a VP/AspP complement, copula *be* can take a variety of small clauses as its internal argument: NP, PP, AP, IP, CP. Also, auxiliaries have a deficient morphological paradigm. For example, the auxiliary *be* can only occur in the Simple Present or the Simple Past (133a), whereas copula *be* can co-occur with any temporal-aspectual form:

(133)

a. The children *are/were* playing in the garden.
   b. They *are/were/are being/have been/had been/will be/will have been* silly.

Copula *be* can co-occur with other auxiliaries, the progressive auxiliary *be* included:

(134)

a. She has always been polite to me.
   b. You are being silly now!

These properties suggest that we cannot treat copula *be* on a par with auxiliaries. It is a particular type of unaccusative. Why “particular”? Because of the properties illustrated in (131–132), which distinguish it from fully lexical unaccusatives, as well as because of the properties illustrated in (133)–(134) and their selectional properties, which distinguish it from auxiliaries.

Copula *be* also differs from copula-like verbs in terms of selectional properties and in terms of do-support properties. We have already seen that copula-like verbs can impose restrictions on their complement. Also, they cannot combine with the same categorial diversity of small clauses as *be*. Remember that we said that they still preserve some of the substantive content of their lexical counterpart. This can also explain why they behave like lexical verbs with respect to movement to I (135), with respect to negation (136), tags (137) or codas (138):

(135)

a. Did the leaves turn yellow?
   b. *Turned the leaves yellow?*

(136)

a. The leaves did not turn yellow.

Copula *be* behaves like auxiliaries with respect to do-support.

Copula *be* behaves like lexical verbs with respect to do-support.
b. *The leaves turned not yellow.

(137)
a. The leaves turned yellow, didn’t they?
b. The leaves turned yellow, *turnedn’t they?

(138)
a. The leaves turned yellow and so did the grass.
b. The leaves turned yellow *and so turned the grass.

Like lexical verbs, and unlike copula be, they cannot precede sentence-medial adverbs:

(139)
a. *Leaves turn always yellow in autumn.
b. Leaves always turn yellow in autumn.

One more property which distinguishes copula-like verbs from the prototypical copular verb be is illustrated in (140)–(141):

(140)
a. This small question was the cause of the fight.
b. The cause of the fight was the cause of the accident.

(141)
a. Her brother became a teacher.
b. *A teacher became her brother.

As you can see, when the small clause contains two NPs, any of the two can raise out to [Spec IP] if the copula is be:

(142)
D-Structure: be [ NP1 NP2 ]
a. NP1 be NP2
b. NP2 be NP1

When the predicate contains a copula-like verb, only the NP subject is allowed to move out, as shown in (141).

🌟 The analysis in this section showed that copula be and copula-like verbs are unaccusatives which select a small clause as an internal argument. The fact that copula be behaves like auxiliaries with respect to do-support, whereas copula-like verbs pattern with lexical verbs in this respect has been assumed to derive from the semantic lightness of be as opposed to the residual substantive content of copula-like verbs.

In spite of the fact that copula be shares an important set of syntactic properties with auxiliaries, the conclusion was reached that copula be cannot be treated on a par with auxiliaries. It is a distinct type of unaccusative.

3. INTRANSITIVES WITH PREPOSITIONAL OBJECTS

So far, we have only discussed simple intransitive predicates (unaccusatives and unergatives) and copulative predicates. In what follows we will briefly address the problem of those intransitive verbs which subcategorize for a Prepositional Object, i.e.
intransitive verbs which have an indirect argument. Consider the following examples:

(143)
a. John relies on you.
b. *John relies.

(144)
a. He looked at her.
b. *He looked.

As the starred sentences in (143b) and (144b) show, the omission of the Prepositional Object results in ungrammaticality. This clearly points to the fact that the Prepositional Object is part of the subcategorization frame of the verb.

One should distinguish between such Prepositional Objects, which are indirect arguments, and adjuncts, whose omission does not render the sentence ungrammatical:

(145)
a. He was speaking to me about his problems
b. He was speaking to me.
c. He was speaking in a loud voice.

As the examples in (145) show, the two Prepositional Phrases in (145a) can be omitted (illustrated in 145b–c) without triggering any change in the degree of acceptability of the sentence. This shows that the two PPs are not obligatory constituents, i.e. they are not arguments of the verb.

This is why we shall restrict the definition of prepositional intransitives so as to include only those verbs which have an external argument and an indirect internal argument. The internal argument is an indirect internal argument, which is assigned a theta-role and case via a preposition. The subcategorization frame of the verb includes the preposition which heads the constituent, but there is no way in which one can predict this preposition. This is an idiosyncratic property of the respective verb and is, accordingly, stated as such in the lexicon.

For more details, examples, and the difference between indirect arguments and adjuncts, see Chapter II, section 2.4.

Summary

This chapter dealt with the analysis of intransitive predicates in English. Three types of intransitive predicates were identified:

- Simple intransitive predicates
- Copulative predicates
- Intransitive predicates with indirect internal arguments

It was argued that simple intransitive predicates fall into two main classes:

A. unaccusatives
B. unergatives

Both classes comprise one-argument verbs. But they were shown to differ with respect to the properties of this argument.
Unaccusatives take one internal argument, whose theta-role is that of non-Agent. Their D-Structure is the one below:

```
-V_{unaccusative}  NP
\downarrow
```

Unergatives take an external argument, whose theta-role is that of Agent. Their D-Structure is given below:

```
NP  V_{unergative}
\downarrow
```

Various unaccusativity tests (there-insertion, locative inversion, resultative constructions and NP-internal participles) were applied to simple intransitive predicates in English, with a view to showing that unaccusativity is semantically predictable but syntactically encoded.

Copulative predicates were defined as those predicates which contain a copula or a copula-like verb and a predicative, which is actually the element that assigns a property to the subject of the sentence. Copular verbs were defined as unaccusatives whose internal argument is a small clause (SC):

```
V_{copular}  SC
```

The properties of copula be were compared to those of auxiliaries. In spite of the fact that they share an important bundle of properties, the analysis led to the conclusion that copula be cannot be treated on a par with auxiliaries.

The last section of the chapter briefly discussed the case of intransitive predicates with an indirect internal argument. They were defined as those predicates whose main verb has an external argument and an internal argument which receives a theta-role and case in an indirect way, i.e. via the preposition which heads the constituent that occurs in this position.

**Exercises**

(1) Some of the there-sentences below are ungrammatical. Explain the source of their ungrammaticality. Why are the other there-sentences grammatical? What generalization can you reach on the basis of the analysis of these sentences?

- a. There were three students sick.
- b. There arrived three more candidates on my doorstep.
- c. *There work three students in the garden.
- d. *There talked three policemen to the crowd.
- e. * There melted all the ice on the lake.
- f. * There dried all the clothes on the clothes line.
- g. ?There disappeared a man.
h. * There settled a man in the valley.
i. * There swam three boys to the shore.
j. * There sneezed many students in the hall.
k. * There barked a dog in the distance.
l. * There were three students tall.

2) Which of the following sentences are ill-formed? Explain why.
a. There sparkled a magnificent diamond on her finger.
b. In the hall there ticked a grandfather clock.
c. There vanished a boat from sight.
d. Suddenly, there stood before us the most beautiful house.
e. There hangs behind the counter a beautiful portrait.
f. There laughed many students at his jokes.

3) Explain the difference between a and b in the pairs of sentences below:
   (i) a. There arrived three men too late.
      b. Three men arrived too late.
   (ii) a. There appeared a beautiful woman.
      b. * There disappeared a beautiful woman.

4) The following verbs are members of the so-called LODGE class: bivouac, board, camp, dwell, live, lodge, reside, settle, shelter, stop, stay.
   (i) What kind of situation do they describe?
   (ii) Do they involve the subject’s control over the action?
   (iii) Some of them can also be used as verbs of existence. Which verbs in the list do you think can be cross-listed?
   (iv) Can the verbs in this class be used in there-constructions? Under what condition?

5) The following verbs denote change of colour: blacken, brown, crimson, green, redder, silver, tan, whiten, yellow.
   (i) Do they describe a volitional or a non-volitional change of state when used as one-argument verbs?
   (ii) Can they occur in there-constructions?

6) What situation do the verbs in the list below describe?
   bloom, blossom, flower, rust, sprout, tarnish, wilt, wither
   (i) What can you say about the selectional restrictions which they impose on their arguments?
   (ii) What theta-role do they assign?
   (iii) Can they be used in there-constructions?
   (iv) Can their past participle occur as a noun modifier inside an NP?

7) The verbs below are all cooking verbs (Levin 1993: 246): bake, barbecue, blanch, boil, braise, broil, brown, charbroil, coddle, cook, crisp, deep-fry, French-fry, fry, grill, hardboil, heat, microwave, oven-fry, oven-poach, overcook, pan-broil, pan-fry, parboil, percolate, perk, plank, poach, pot-roast, rissole, roast, sauté, scald, scallop, shirr, simmer, softboil, steam, steam-bake,
stew, stir-fry, toast

(i) They are all transitive verbs. Do you expect them to occur with resultative phrases? Explain why.
(ii) Do they denote telic or atelic events?
(iii) What does your answer to (ii) tell you about the ability of the past participle of the verbs in this class to occur inside a NP?

(8)

All the sentences below are instances of locative inversion. Which are grammatical and which are ungrammatical? Explain why:

a. Over Europe’s thinkers and leaders hangs a pall of gloom reminiscent of the deep euro-pessimism of the 1980s.
b. On the line are drying a lot of towels.
c. In a little white house lived two rabbits.
d. To their left, beyond a strip of grass, was the front of a large high building in grey stone.
e. From his pocket protruded a notebook with metal covers.
f. Above them pranced the horses on the frieze.
g. Through the portal gleamed and glistened a beautiful valley.
h. On her finger sparkled a magnificent diamond.
i. In the hall ticked the clock.
j. Over the fire bubbled a fragrant stew.

(9)

Discuss the grammaticality/ungrammaticality of the following NPs:
tarnished metal, an existed solution, fallen leaves, a trembled student, capsized boat, withered plants, an already occurred event, a sparkled diamond, a gushed fountain, a bubbled stew, dried clothes

(10)

When discussing the properties of resultative phrases, a distinction was made between those verbs which have an inherent delimitation and those which lack such an inherent delimitation.

(i) Why is this distinction relevant for the analysis of resultative constructions?
(ii) Why can a verb like to break occur with a resultative phrase in spite of its lexical delimitation? The bottle broke open.

(11)

Translate into English, using resultatives wherever possible. Compare the resultatives in the Romanian sentences to their possible counterparts in English:

a. A alergat de șî-a făcut pantofii fereînță.
b. A plîns de i-au ieșit ochii din cap.
c. Au rîs de li s-a făcut rău.
d. Au urlat pînă au răgușit.
e. A mormăit pînă s-a calmat.
f. Au umblat de li s-a desprins talpa de la pantofi.
g. Poartă s-a deschis pe neașteptate.
h. Poartă s-a ridicat lăsînd să se vadă un castel minunat.
i. Au înnotat pînă i-au durut brațele.
j. Au băut pînă ce au căzut sub mașă.
Identify the copulative predicates in the text fragments below. State whether they contain a copula or a copula-like verb and the status of the predicative:

a. Tensions between civilians and the military run so deep that they seem cultural rather than merely a matter of turf. Political parties, Congress, and the military are at war with each other. Even more important is the war of analogy.

b. To kill a culture is to cast its individual members into everlasting oblivion, their memories buried with their mortal remains.

c. He has gone so far in this direction that he seems genuinely dazzled by the high-tech weaponry he describes.

d. Henry James remained through his life focused on his boyhood and early manhood, and correspondingly on younger boys and men, and John R. Bradley illustrates how it is in the context of such narcissism that James consistently dealt with male desire in his fiction.

e. The Washington DC we discover in these pages is not exactly the self-assured capital of global empire. Muscularity and flex are not much in evidence. Instead, Halberstam’s Washington seems like a small town racked by palace intrigue.

f. She had known from the very beginning that this sly woman would not make a good wife.

Compare copula be to auxiliaries and then to lexical verbs. What conclusion can you reach with respect to the syntactic status of copula be?

State the most important properties which copula-like verbs share with copula be and the most important properties which they share with full verbs. Identify then the properties which distinguish between (i) lexical verbs and copula-like verbs and (ii) between copula be and copula-like verbs. What conclusions can you reach with respect to the syntactic status of copula-like verbs?