Unaccusatives, Resultatives, and the Richness
of Lexical Representations

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(1)   Definition

"A resultative phrase is an XP that denotes the state achieved by the referent of the NP it is predicated of as a result of the action denoted by the verb in the resultative construction".

(2)   *The Direct Object Restriction (DOR)*

A resultative phrase may be predicated of the immediately postverbal NP, but may not be predicated of a subject or of an oblique complement.

Distribution

(3)   Selected object of transitive
        a.   It soaks *all your fine washables clean*.
        b.   He kissed *them alive*.

(4)   *Subject of unergative
        a.   * *Dora* shouted *hoarse*.
        b.   * *The officers* laughed *helpless*.

(5)   *Oblique object
        a.   * John loaded the hay into *the wagon full*.
        b.   The silver smith pounded (*on) *the metal flat*.

(6)   Nonthematic object of unergatives
        a.   Dora shouted *herself hoarse*.   *fake reflexive*
        b.   The officers laughed *themselves helpless*.   *fake reflexive*
        c.   The dog barked *him awake*.
        d.   Sleep your *wrinkles away*.   *inalienable possession*

(7)   Unselected object of a transitive
        a.   She cooked *them into premature death*.   *unspecified object*
        b.   He drank *himself silly*.   *unspecified object*

Note: These "fake objects" can't appear on their own (*Dora shouted herself, *The dog barked him, *He drank himself).

(8)   Subject of passive
        a.   *The floor* has been swept *clean*.
        b.   *She* was shaken *awake* by the earthquake.

(9)   Subject of unaccusative
        a.   *The river* froze *solid*.
        b.   *The curtain* rolled *open* on the court.

(10)   Subject of middle
        a.   *This table* wipes *clean* easily.
        b.   *This pumpkin* cuts *to pieces* easily.

(11)   *"Fake-objects" of unaccusative
        a.   * The boulders rolled *the hillside bare*.
        b.   * The river froze *itself solid*.

(12)   Explanation: In all the good cases, the resultative is predicated of the underlying direct object, whether selected by the verb or not, as predicted by the DOR. In (4) it is predicated of an underlying subject, in (5) of an oblique object. The problem with (11) is orthogonal – unaccusatives don't license direct objects (Burzio's generalization).

(13)   A potential objection to DOR: Perhaps the relevant generalization is semantic after all; for example – resultatives can only be predicated of bare internal arguments. The implication would be that the "fake objects" in (6)-(7) are in fact genuine arguments of the unergative verb. In other words – the argument structure of unergatives is expanded in the resultative construction.

That can't be true…

(14)   Real internal arguments can be externalized, fake ones can't.

        a.   This metal pounds flat easily.   *middle*
        b.   * This baby ticks awake easily.

c.   a wiped-clean table / *a drunk-dry teapot   *adjectival passive*

d.   He felt rubbed raw.

cf.   e.   The baby was ticked awake by the loud clock

Note: How can (c-d) satisfy the DOR? See (20).

(15)   Real arguments can occur as *of*-NP inside nominalizations, fake one can't.

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

b.   * The drinking of oneself sick is commonplace in one's freshman year.

(16)   Extraction of real arguments from a *wh*-island produces a mild subjacency violation; extraction of fake arguments produces a stronger ECP violation.

a.   ? Which people do you wonder whether he punched senseless?

b.   ?? Which neighbors do you wonder whether the dog barked awake?

Conclusion: The resultative construction does not change the argument structure of the base verb.

(17)   Syntax – SC or not

a.   [$_{VP}$ V NP Pred$_R$]

b.   [$_{VP}$ V [$_{SC}$ NP Pred$_R$]]

Intuitively, (a) is suitable for the cases where NP is an argument of V and (b) for those where it isn't. If (b) is adopted, the DOR has to be modified so as to subsume SC-subjects; alternatively, raising to object should be adopted. L&R remain neutral on the syntactic analysis; their interest is in argument structure.

Explaining the DOR

(18)   Against the mutual c-command account

Williams and others have proposed that predication requires mutual c-command between the NP and the predicate. This immediately rules out secondary predication with oblique objects (introduced by P). It is also assumed that the

resultative XP is VP-internal (being selected and restricted by V), hence it cannot c-command the subject; hence, only direct objects can enter the resultative construction.

L&R's Critique:

Secondary predication doesn't always require the predicate to c-command the NP. Depictives are VP-internal, but still can be associated with the subject.
Note: It's unclear how to reconcile this statement with L&R's example:

a.   Jason wiped the table tired and Mary did so wide awake.

(19)   Aspectual analysis

Resultative predicates (RP) modify the end state brought about by an eventive verb, in case the verb specifies such a state (accomplishment; *destroy*), or simply specify that state, in case the verb doesn't (activity; *wipe*).

a.   The blacksmith pounded the metal.   → *no implied change of state*
b.   The blacksmith pounded the metal flat.   → *implied change of state*

Middles require COS predicates, explaining the obligatory presence of RP below:

c.   Metal pounds *(flat) easily.

(20)   *The COS Linking Rule*
An NP that refers to the entity that undergoes the change of state in the eventuality described in the VP must be the direct object of (governed by) the verb heading the VP.

⇒ Given that RP is predicated of the argument that undergoes change of state, and that this argument is linked to the direct object position, the DOR follows.

L&R: "In addition, this NP must be in the appropriate structural relation – presumably mutual c-command – with the resultative XP" (p. 51).

This is, as far as I can see, a redundant stipulation.

Note: If the COS argument happens to be external, the DOR will not hold; for example, in adjectival passives:

  a.   a wiped-clean table / *a drunk-dry teapot   *adjectival passive*
  b.   He felt rubbed raw.

(21)   A crosslinguistic puzzle: If the fake object of an unergative is not an argument of the verb, why is it licensed in some languages but not in others?

  a.   The soprano broke / sang the glass wines to pieces.
  b.   zameret ha-sopran shavra / *shara et kosot ha-yayin li-rsisim.   *Hebrew*
        singer the-sopran broke / *sang ACC glasses the-wine to-pieces

(22)   Comment: Does the argument from resultative constructions support a *syntactic* analysis of unaccusatives? L&R seem to believe it does:

> "If the single argument of an unaccusative verb were a D-structure subject, then this argument would not meet the requirement that the argument undergoing a change of state be a direct object or governed by the verb. For the same reasons, the COS Linking Rule would be violated if a resultative phrase were predicated of this argument directly" (p.52).

Response: One can accept the generalization that RP are predicated of the COS argument *without* accepting the COS Linking Rule. While there may be good reasons to adopt this rule, the licensing of resultatives is not one of them.

Semantic restrictions

(23)   The DOR is only a necessary, not a sufficient condition for the occurrence of a RP with an unaccusative verb. Some unaccusatives resist RP.

  a.   Carla remained in the country bored.   *stative*
  b.   Willa arrived breathless.   *inherently directed motion*

The secondary predicates here only have depictive readings.

(24)   <u>RP as delimiters</u>

Some verbs encode an end point (*delimited, telic*); others don't (*undelimited, atelic*). The *in/for X minutes* test distinguishes the two types.

a.   Mary ate grapes for/*in an hour.
b.   Mary built the house in/*for a year.

An object specifying quantity or a goal PP delimit the event:

c.   Mary ate a bunch of grapes in/*for an hour.
d.   Mary pushed the cart (to the shed).

RP are similar – they can delimit events:

e.   The waiter wiped the table in/for two minutes.
f.   The waiter wiped the table dry in/*for two minutes.

(25)   <u>Proposed constraint</u>: An event may have at most one delimiter.
Verbs of inherently directed motion are *achievements*, encoding an inherent delimiter. $\Rightarrow$ the lack of resultative reading in (23b). The only delimiters allowed are those further specifying the inherent one:

a.   We arrived at the airport.

Objects of transitives describing inherently directed motion are also bad with RP:

b.   * Mary took/brought Bill breathless.

More evidence for "competition" for the delimiter slot:

c.   We ran the soles off our shoes (*into the town).
d.   We ran (*the soles off our shoes) into the town.

(26)   Unaccusatives with inherent non-locational end state do allow RP:

a.   The bottle broke open.

Why can the event in (a) have two delimiters – the inherent one, broken state, and the RP *open* – but the event in (23b) not? L&R: *open* in (a) modifies the broken state, hence doesn't count as an independent delimiter. *Breathless* in (23b) does contribute a new delimiter, which clashes with the one inherent in *arrive*.

Note: This asymmetry seems quite arbitrary.

(27)   Statives are incompatible with RP

a.   * Carla remained in the country bored.
b.   The botanist sniffed/*smelled the moss dry.

L&R: There is no such thing as a delimited state. Since RP create a delimited event out of an undelimited one (*activity* → *accomplishment*), when they combine with statives the output doesn't fit into any known eventuality type.

Against purely semantic accounts

(28)   Van Valin (1990) claims that unaccusativity is purely an aspectual distinction. RP must be predicated of the Undergoer role (the argument of the BECOME predicate in conceptual structure), and this role is only present in accomplishments and achievements. Unergative verbs are aspectually activities, which provide no slot for an Undergoer argument, hence their incompatibility with RP.

(29)   Question: Why is a fake reflexive necessary to license RP with unergatives?
       V.V.'s answer: The fake reflexive is an aspectual shifter, turning activity into accomplishment.
       R&L's reply: This doesn't explain why such a fake reflexive is not needed to license RP with transitive and unaccusative activity verbs:

a.   The blacksmith pounded the metal flat.
b.   The curtain rolled (*itself) open on the court.

Note: How do R&L force the fake reflexive with unergatives and exclude it with transitive and unaccusative verbs? Because the single argument of unaccusatives undergoes a change of state (the COS argument), it is linked to the object position and licenses RP. And because the single argument of unergatives doesn't undergo a change of state, it is linked to the subject position and doesn't license RP.

But how different is it than V.V.'s account? We've seen that what's crucial for L&R is the fact that the RP is associated with the COS argument; whether this argument is projected as object or subject is not, strictly speaking, relevant to the licensing of RP (recall the adjectival passive facts). So V.V. could easily respond that *pound* and *roll* provide an Undergoer role (even if they are activities), and this renders unnecessary the fake reflexive.

(30)   L&R claim that V.V. also fails to account for the fact that fake objects are excluded with unaccusatives. V.V.'s suggestion (again, invoking aspect) doesn't work for cases like:

a.   * The boulders rolled the hillside bare.
b.   * The rice slowly cooked the pot black.

But again – what was L&R's account? They ruled out these examples by Burzio's generalization. Does BG entail a syntactic account of unaccusatives (the point that L&R are trying to make)? It seems that the following two statements are consistent: i) no Actor → no accusative case (RRG's BG); ii) the subject of unaccusatives is underived. In other words – the lack of accusative case for the fake object doesn't, in and of itself, demonstrate that the subject is derived.

A brief outline of L&R's linking theory

(31)   <u>The causative alternation</u>

a.   He opened the door / The door opened
b.   She broke the glass / the glass broke

<u>L&R</u>: The lexical conceptual structure of the unaccusatives is the same as that of the transitives; namely, a bi-eventive structure (x CAUSE y BECOME z). It is only at the level or argument structure (the input to syntax) that the Causer argument is eliminated in unaccusatives of the alternating type.

(32)   <u>Unergative verbs don't alternate</u>

a.   Mary shuddered / *He shuddered Mary / He made Mary shudder
b.   Mary smiled / *He smiled Mary / He made Mary smile.

(33)   What's the difference between the two types of verbs? *External vs. internal causation*. With alternating unaccusatives, the event is brought about by some causer external to the subject. With unergative verbs, the event is brought about by some inherent property of the subject; in agentive verbs, this is the will of the agent, but agentivity is not necessary for unergativity. Cf. verbs of emission: *flash, glow, ring, buzz, stink, bubble, ooze.*

⇒ Since individual-level adjectives denote intrinsic properties that normally cannot be externally caused, deadjectival verbs that display the causative alternation are formed only with stage level adjectives:

a.   *clear, dry, warm. brighten, deepen, moisten, soften, tighten, widen, smarter* (= make someone well-dressed, not make someone intelligent).

⇒ subtle semantic contrasts, traceable to external vs. internal causation, explain why some verbs are subject to alternations and others don't:

b.   The ladder leaned against the wall / I leaned the ladder against the wall
c.   The surly youth slouched against the wall / *I slouched the surly youth against the wall.

(34)   <u>A constraint on detransitivization</u>

a.   The baker/knife cut the bread / *The bread cut
b.   The terrorist murdered the senator / *The senator murdered
c.   The wind cleared the sky / The sky cleared
d.   He cleared the table / *The table cleared

An event which can come about without the intervention of a volitional agent allows an unaccusative variant. The decision on such matters is sensitive to our world knowledge about the event/entity denoted by the verb/argument.

(35)   <u>Verbs of existence / appearance / position</u>: *exist, flourish, appear, emerge, arise, sit, stand*. These verbs are not derived from any causative variant, but are clearly unaccusative (apparent causatives are derived through a different process).

Linking Rules

(36)   *Immediate Cause Linking Rule*
The argument of a verb that denotes the immediate cause of the eventuality described by that verb is its external argument.

[the subject of: agentive verbs, internally caused intransitives (verbs of emission, maintain spatial position), externally caused transitives]

(37)   *Directed Change Linking Rule*
The argument of a verb that corresponds to the entity undergoing the directed change described by that verb is its direct internal argument.

[the object of COS verbs; the subject of directed motion verbs]

(38)   *Existence Linking Rule*
The argument of a verb whose existence is asserted or denied is its direct internal argument.

[the subject of: verbs of existence/appearance, simple spatial configuration]

(39)   *Default Linking Rule*
An argument of a verb that does not fall under the scope of the other linking rules is its direct internal argument.

[the subject of: non-directed motion verbs]

(40)   <u>Rule ranking</u>

Directed Change, Existence >> Immediate Cause >> Default

For example, if V involves both internal causation and directed change, directed change prevails and the verb is unaccusative (Italian *arrossire* 'blush', and *cadere* 'fall' – even when used agentively!). Likewise, existence prevails over immediate cause, making V unaccusative (Italian *rimanere* 'remain', even when used agentively). However, if V involves internal causation and non-directed change, it will be unergative (e.g., *run* vs. *roll*).