Resultatives Revisited

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> "Yes. If anything happens to me, he gets everything. Oh my God, Kat, he could murder me dead and get all my money."
> *Murder me dead?* Somewhere a grammar teacher rolled over in her grave.
> (K. Kijewski, *Stray Kat Waltz*, Putnam, New York, 1998, p. 64)

"A hallmark of the English resultative construction is the presence of a result XP—an XP denoting a state or location that holds of the referent of an NP in the construction as a result of the action denoted by its verb." (Rappaport Hovav & Levin 2001:766)

The perennial mystery: What are the conditions on a well-formed resultative construction, and, specifically, what conditions are there on the possible result XPs?

(1)   He hammered it flat/smooth/shiny/*beautiful/*safe/*tubular. (Green 1972:83-84, (6a/7a))

(2)   He wiped it clean/dry/smooth/*damp/*dirty/*stained/*wet. (Green 1972:83-84, (6b/7b))

While our understanding of these conditions has increased, there is still more to be said.

Goal of this talk: To bring new corpus data to bear on this question by taking a close look at various subtypes of resultative constructions, paying special attention to the distribution of particular result XPs across resultative types.

The scope and source of the data to be examined

• THE SCOPE OF THE DATA: Resultative constructions of the form NP1 V NP2 XP, where the verb may be a transitive or an unergative intransitive, the XP is an AP or PP predicated of NP2 — the latter are often called "caused motion constructions".

SUBTYPES OF 'NP1 V NP2 XP' RESULTATIVE CONSTRUCTIONS

— SUBCATEGORIZED NP: The postverbal NP is understood to be the object of the verb when used in isolation, as in *The waiter wiped the table (clean)*. Only possible with transitive verbs. The NP might in a few rare instances be a reflexive pronoun, as in *She scrubbed herself red with the loofah*.

— NONSUBCATEGORIZED NP: The postverbal NP is not understood to be the object of the verb when used in isolation, as in *My mother scrubbed her fingers *(raw)* or *The bells clanged us *(awake)*. Possible with both transitive and intransitive verbs.

— ("FAKE") REFLEXIVE: The postverbal NP is a reflexive pronoun which is not understood to be the object of the verb when used in isolation, as in *She scrubbed herself *(into a state of immobility)* or *The orator talked himself *(hoarse)*. Possible with both transitive and intransitive verbs.

• THE SOURCE OF THE DATA: A collection of over 2000 naturally-occurring resultative constructions predominantly drawn from newspapers and current fiction written since the late 1980s. (The collection includes many examples of the *way* construction, which are ignored here.)

1 Resultative constructions describe complex events

• Resultatives are often given a complex event analysis (e.g., Carrier & Randall 1993:124-125, Dowty 1979:220, Pustejovsky 1991:64-65, RH&L 2001).

• On this analysis, resultatives involve a CAUSING SUBEVENT represented by the verb—describing the activity that brings about a change of state—and a RESULT SUBEVENT represented by the result XP—describing the coming about of a change of state.

• One reason: many can be easily given a paraphrase which explicit references the two events.

(3)   *Tracy wiped the table clean* is paraphrasable as 'Tracy cleaned the table by wiping it'.

• There are constraints on the relation between the two subevents:

(4)   a.   The subevents need not be temporally dependent.
        b.   The result subevent cannot begin before the causing subevent.
        c.   Only the result subevent can bound the event as a whole.
        d.   There is no intervening event between the causing subevent and the result subevent; that is, causation is direct.
        (Rappaport Hovav & Levin 2001:783, (45))

• These properties also hold of lexical causatives; thus, Goldberg (1995:194-195) points out that resultatives also show the property in (4d), which has been clearly established for lexical causatives (e.g., Fodor 1970, McCawley 1978, Pinker 1989:66, Shibatani 1976, Smith 1970).

2 The nature and distribution of result XPs with property interpretations

• A MUCH STUDIED QUESTION: What are the constraints on possible result XPs and their interpretation?

• XPs are semantically differentiated according to whether they express a property or a path; both APs and PPs can be used for each option, although the path option is primarily expressed via PPs.

• The most specific constraints are articulated by Wechsler (2005), who analyzes resultatives in terms of scalar change in the postverbal NP rather than event complexity; on this analysis, the result XP is said to express a property scale.

— A SCALE is constituted by a set of degrees—points or intervals indicating measurement values—on a particular dimension (e.g., brightness, depth, height, ripeness, temperature), with an ordering relation. The dimension represents an attribute of an entity, with the degrees indicating the possible values of this attribute (Kennedy 2001, Kennedy & McNally 2005).

— A SCALAR CHANGE in an entity involves a change in the value of one of its scalar-valued attributes in a particular direction on the relevant scale.

(5)   Prediction 1: When the resultative's predication subject is an argument of the verb (i.e. in a control [=subcategorized NP] resultative), homomorphism and coextension between property scale and event are required. (Wechsler 2005:261)

(6)   Prediction 2: When the resultative's predication subject is *not* an argument of the verb (i.e. in an ECM [=nonsubcategorized NP or reflexive] resultative), homomorphism and coextension between property scale and event are *not* required. (Wechsler 2005:261)

2.1 Result APs with a property interpretation

• The adjective heading the AP must be stage-level since a change to that state is effected; thus, when an adjective has both stage- and individual-level senses, only the stage-level sense is attested.

(7)   a.   The waiter wiped the wine bottle dry. (Stage-level)

        b.   ∗ The sommelier decanted the wine dry. (Individual-level)

• Based on an analysis of a corpus of the resultatives in the BNC identified by Boas (2000)—henceforth, the Boas corpus—Wechsler (2005, 2012) proposes the hypothesis in (8).

(8)   The Maximal Endpoint Hypothesis (MEH): For English adjectives, there is a causal link between the MaxEndpt [=maximal endpoint closed-scale adjective] property and the ability of the adjective to appear in a resultative construction. (Wechsler 2012:123, (8))

NOTE: See Wechsler (2012) for a defense of this proposal against critiques.

• This hypothesis makes reference to a well-known adjective subtype (e.g., Kennedy & McNally 2005, Rotstein & Winter 2004)

SUBTYPES OF ADJECTIVES
NONGRADABLE: *dead*, *pregnant*
GRADABLE:
    OPEN-SCALE: *cool, deep, dim, expensive, short, shallow, wide*
    CLOSED-SCALE:
        MAXIMAL ENDPOINT: *clean, dry, empty, flat, full, pure, smooth, straight*
        MINIMAL ENDPOINT: *awake, bent, dirty, wet* (like open-scale adjectives in most respects)

A diagnostic for maximal endpoint closed-scale adjectives: modification by *completely/100%/fully* (Kennedy & McNally 2005:354–355; see also Wechsler 2012:121).

(9)   a.   completely clean/dry/empty/full/straight

        b.   ?? completely cool/dim/expensive/wide (maybe ok in the sense of 'very')

(10)   a.   # The line is completely straight, but it could be straighter. (Contradiction)

        b.   The carpenter is completely competent, but he could be even more competent.

• Evidence for this hypothesis comes from an analysis of all resultatives in the Boas corpus whose result XPs are headed by particular adjectives.

NOTE: Wechsler (2005:265) contrasts these resultatives with *make* causatives to show that people talk about causing these states.

(11)   Closed-scale adjectives (Wechsler 2005:269, Table 12.2; based on Boas 2000:Appendix A)

	Resultatives	*make* Causatives
clean	102	6
dry	77	8
flat	34	1
full	35	1
open	395	1
red	11	4
shut	207	0
smooth	5	12
solid	3	2

(12)   Open-scale adjectives—true and *de facto* (Wechsler 2005:268, Table 12.1; based on Boas 2000:Appendix A)

	Resultatives	*make* Causatives	
famous	0	37	Open-scale
fat	0	5	
ill	0	65	
sleepy	0	19	
sore	1	11	
tired	0	18	
dirty	0	8 (+33 *get*-causatives)	Minimal endpoint closed-scale
wet	0	12	

• Wechsler (2005:264) notes that resultatives with maximal endpoint adjectives have durative verbs.

(13)   … because of the homomorphism between the property scale and the event, the telicity of the event directly depends on the scalar structure of the adjective … And because of the coextension requirement, the duration of the event must be appropriate to the scale as well. (Wechsler 2005:264)

• In contrast, with nongradable adjective result XPs, the verb is punctual (Wechsler 2005:264).

EVIDENCE: In the Boas corpus, the verbs cooccurring in resultatives with the result AP *dead* almost always denote punctual events.

(14)   *dead*: 429 occurrences: *shoot* (408), *cut* (11), *kill* (9), *strike* (8), *stop* (6), *knock* (3), *flatten, kick, smite* (1 each) (Wechsler 2005:266, (24))

(15)   "You stabbed my only daughter dead likes she was nothing, didn't you?". (V.W. Wesley, *Of Blood and Sorrow*, Ballantine, New York, 2008, p. 222)

2.2   Result PPs with a property interpretation

• Result PPs come in several types, although only a subset of them has received real attention.

(16)   Result PP denotes a path traversed by the theme:

      a.   ... she used her big hair dryer to blow the hair spray out of Lulu's coat ... (L. Berenson, *A Pedigree to Die For*, Kensington, New York, 1995, p. 271)

      b.   My schoolmates had told me, in frightened whispers, that Catholics prayed the dead out of Purgatory ... (J. Stafford, *Boston Adventure*, Harcourt Brace Jovanovich, New York, 1944, p. 45)

(17)   Result PP denotes a property predicated of the theme:

      a.   the blue vein in the corner of his right eye so puffed and writhing that she longed to kiss it to calmness ... (S. Epstein, *Leah*, Little, Brown, Boston, 1964; Jewish Publication Society, Philadelphia, PA, 1987, p. 89)

      b.   The telephone startled her into hopefulness twice. (C. Dunne, *In the Beginning*, Jonathan Cape, London, 1997, p. 15)

(18)   Result PP denotes a transformed state of the theme:

      a.   ... her hair had been short, dark, and moussed into an urchin look ... (J.W. Martin, *A Likeness in Stone*, St. Martin's, New York, 1997, p. 9

      b.   Or could it be that his mama, attuned to his habits, waited until her sonny boy drank himself into a stupor ... (M. O'Callaghan, *Only in the Ashes*, Berkley, New York, 1997, p. 203)

(19)   Result PP denotes a "possessor of a property" (the property is treated as theme):

      a.   '... It's made some poor sap flip his lid and near-on batter the life out of women. ...' (B. Crossley, *Candyfloss Coast*, Virago, London, 1991, p. 93)

      b.   "Unless you have a better idea, we're going to have to beat the truth out of Don. ..." (S. Zukowski, *Jungleland*, Signet, New York, 1997, p. 339)

• Wechsler (2005:264) proposes that the verb found with property result PPs headed by *to* or *into*, prepositions whose object NP specifies a bound, is normally durative, unless the path is very short.

EVIDENCE: A comparison of the verbs found with *to death* vs. *dead* in the Boas corpus reveals that durative verbs predominate in resultative constructions with *to death* (Wechsler 2005:267-268).

(20)   *To death:* 547 occurrences: *stab* (114), *beat* (74), *batter* (39), *frighten* (34), *crush* (25), *scare* (24), *burn* (18), *torture* (16), *drink* (15), *starve* (15), *bludgeon* (12), *hack* (12), *shoot* (11), *kick* (11), *club* (9), *bore* (8), *knife* (8), *choke* (8), ... (many, many other verbs) (Wechsler 2005:267, (27))

(21)   a.   The rabbits had apparently been battered to death/*dead.

      b.   He and a confederate shot the miller to death/dead.

      (Wechsler 2005:267, (26))

NOTE: *to death* has developed into an intensifier as in *She hated/loved him to death*, i.e. 'She hated/loved him to excess' (Margerie 2011). Corpus studies tend not to distinguish such uses from true resultative uses, yet the instances of *bore* cited in (20) are likely to be of this type.

• Beavers (2002, 2008) makes a more specific proposal based on an analysis of a significant subset of the corpus used in this talk.

(22)   *To* XPs require durative readings and only combine with verbs that have durative readings. *Into* XPs do not require durative readings and may combine with both punctual and durative verbs. (Beavers 2002:19, (34))

(23)   a.   Kim polished the shoes into/to a sombre, unscuffed shine.

       b.   The gray sky dimmed into/to dusk and the snow started up again.

       c.   I was startled into/??to indiscretion.

       d.   I ducked into/*to the cave.

       (Beavers 2008:249, (9))

(24)   Durative context with a semelfactive verb:

       a.   It took her a few minutes to kiss it into calmness.

       b.   It took her a few minutes to kiss it to calmness.

       (Beavers 2002:12, (19ib)), 13, (20ib))

(25)   Punctual context with a semelfactive verb:

       a.   ?? With one quick peck, she kissed it to calmness.

       b.   With one quick peck, she kissed it into calmness.

       (Beavers 2002:13, (21i))

3   Case studies of specific XPs

• Despite their valuable contributions to understanding constraints on XPs that are APs, previous studies insufficiently consider how specific XPs are differentially distributed over the major resultative types (e.g., sucategorized NP, nonsucategorized NP, reflexive).

For instance, to the extent that some PPs and APs are near paraphrases of each other, the conditions on using each one and any preferences for one over the other need further study.

(26)   *dead* vs. *(in)to death*; *unconscious* vs. *(in)to unconsciousness*; *silent* vs. *(in)to silence*

• Various researchers recognize that more result XPs are permissible in nonsubcategorized NP and reflexive resultatives, an observation that L&RH (1999) and Wechsler (2005) attribute to looser relations between the scale and the event or the causing and result subevents.

(27)   "While the exact aspectual conditions on ECM [=nonsubcategorized NP or reflexive] resultatives are not known, it is clear that they are considerably freer than control [=subcategorized NP] resultatives." (Wechsler 2005:271)

EXAMPLE: Wechsler (2005:270-271) notes that open-scale adjectives do sometimes appear with nonsubcategorized NP and reflexive resultatives, citing data from the Boas corpus:

— *hoarse* is attested 9 times with such resultatives and never with subcategorized NP resultatives;

(28) Parents yelled themselves hoarse as their offspring panted, scarlet-faced, to the winning post ... (M. Sheepshanks, *Facing the Music*, Century, Great Britain, 1996; St. Martin's, New York, 1997, p. 194)

• GOAL: To show that specific XPs are indeed differentially distributed across resultative types through a series of case studies and to provide some insight into why this might be so.

• A CAVEAT: Since the resultative examples here are not drawn from a larger 'balanced' corpus designed to be representative of current English, the numbers should be taken to be suggestive of patterns that may exist, but the distribution could be different in another corpus.

3.1 A distinction relevant to verb distribution: Manner/result

• Two major verb classes can be identified in the English lexicon, each characterized by a convergence of meaning/behavior (L&RH 1991, 2013, RH&L 1998, 2010).

— Manner verbs: specify a manner of carrying out an action (e.g., *pound, sweep*)
— Result verbs: specify the result of an action (e.g., *remove, put, cover, empty, clean*)

• RH&L (2010) propose this distinction is rooted in the notion SCALAR CHANGE
      (Hay, Kennedy & Levin 1999, McClure 1994, Rappaport Hovav 2008):
Result roots lexically specify scalar change and manner roots nonscalar change.

• Many manner verbs lexicalize manners that are conventionally associated with particular results.
      e.g., *wipe* and *scrub* lexicalize actions involving surface contact and motion,
      which are often used to remove stuff from a surface.

• However, such manner verbs don't entail these results.

(29) I just wiped the counter, but it's still dirty/sticky/covered in crumbs.

• In English, resultatives provide a way to explicitly express a result with a manner verb; further, given the direct causation condition on resultatives, this result is understood to be directly caused by the manner action.

(30) # I just wiped the counter clean, but it's still dirty. (Contradiction)

(31) # I just wiped the counter clean, but the wiping had nothing to do with the cleanness. (Contradiction)

• Not surprisingly, then, as the case studies show, manner verbs figure prominently among the verbs found in resultatives.

• Nevertheless, result verbs are attested in resultative constructions when the result XP further specifies the result lexicalized by the verb (L&RH 1995, among others.)

(32) 'Did you iron those [= receipts]?' Jake asked. 'Oh, of course not. I was on the road, Agent Lovett. But when I got each one, I laid it on a flat surface and smoothed it flat before putting it with the others.' (D. Fanning, *Punish the Deed*, Severn House, Sutton, Surrey, 2010, p. 140)

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3.2 When the XP is *clean*

	Subcategorized NP	Nonsubcategorized NP	Reflexive
clean	64	8	1

(Two resultatives with *clean* in the sense of *a clean cut/break* are ignored here.)

• *clean* is overwhelmingly found in subcategorized NP resultatives.

• This adjective names a property that holds of both inanimate and animate entities; this property is typically not inherent to an entity, but is externally caused, coming about as a result of some sort of action on it.

• Various actions, usually ones that remove stuff/impurities from a surface are conventionally performed with the goal of achieving cleanness in an entity, so the result XP *clean* is attested primarily with verbs of surface contact—the manner verbs which lexicalize such actions.

• Such result XPs are predicated of the surface argument of these verbs, i.e. these are subcategorized NP resultatives.

(33) a. SURFACE CONTACT VERBS: scrape, scrub, soak, sweep, wipe

     b. OTHER VERBS: shake, slap, smack

(34) a. When her chastened animal had been hosed clean, she took him indoors … (J. LaPierre, *Run a Crooked Mile*, Perseverance Press, Palo Alto, CA, 2009, p. 131)

     b. She had creamed her face clean … (E. Taylor, *The Soul of Kindness*, Chatto and Windus, Great Britain, 1964, p. 104)

• The nonsubcategorized NP resultatives also involve verbs that denote actions that could be used to remove or have the effect of removing impurities from something, but these actions do not take the surface to be cleaned as their object, but are directed at the impurities themselves; nevertheless, as a consequence of such actions, the surface becomes clean, but it is not a subcategorized NP (cf. the *pump dry* examples in section 3.4).

(35) Others require you to take an air shower that blows you clean in the vestibule. (S. Boxer, "Moving From Scruffy Quarters to a Limestone Labyrinth", *The New York Times*, April 15, 2001, p. 18)

• A subclass of the nonsubcategorized NP resultatives take body part postverbal NPs; their verbs denote actions that emit secretions (e.g., saliva, sweat) that result in the cleanness of the body part from which this secretion is removed.

(36) Caz had to spit her mouth clean … (A. Keegan, *Cuckoo*, Headline Book, Great Britain, 1994; St. Martin's, New York, 1995, p. 32)

3.3   When the XP is *flat/smooth*

	Subcategorized NP	Nonsubcategorized NP	Reflexive
flat	32	4	0
smooth	26	1	1

• These adjectives are overwhelmingly found in subcategorized NP resultatives.

• Both adjectives name properties that hold of inanimate entities; these properties are typically not inherent, but are externally caused, coming about as a result of some sort of action on an entity.

• A variety of actions which are conventionally performed with the goal of achieving one of these properties in an entity; these actions are lexicalized by manner verbs, explaining why the preponderance of resultatives with these APs are subcategorized NP resultatives.

(37)   VERBS WITH *smooth*: brush, pat, rake, roll, rub, scuff, shave, tape, wear, ...

(38)   The old walnut floors had been polished smooth ... (M. Sefton, *Knit One, Kill Two*, Berkley, New York, 2005, p. 19)

(39)   VERBS WITH *flat*: bomb, bulldoze, crunch, crush, hammer, mash, pat, pin, plaster, press, smash, squash, tap, ... (NOTE: Many are verbs of contact by impact or exerting force)

(40)   Ben and I spent some time drinking coffee and discussing how funny it is when you crunch empty eggshells flat with your hand ... (M. Macdonald, *Road Kill*, St. Martin's, New York, 2000, p. 14-15)

• Interestingly, three of the four nonsubcategorized NP examples involve verbs of contact by impact which typically take oblique arguments in isolation (i.e. *stomp*, *tread*), so in some sense these are less different from the subcategorized NP resultatives than the label might suggest.

(41)   I stomped/trod on the hat.

(42)   a.   As Imogen bent the box, and trod it flat to compact it enough to put it out by the dust-bins ... (J. Paton Walsh, *A Piece of Justice*, Hodder and Stoughton, 1999; St. Martin's, New York, 1995, p. 10)

      b.   She wished she would have taken his expensive hat and stomped it flat. (E. Fowler, *Love Mercy*, Berkley Books, New York, 2009, p. 175)

• Very occasionally, an action can be performed on another entity that has the effect of bringing about one of these results in a third entity, perhaps because of contact between them, as in (43). Such examples have nonsubcategorized postverbal NPs.

(43)   "Before you go, crank me flat." (L.M. Roberts, *Almost Human*, Ballantine, New York, 1998, p. 17)

3.4 When the XP is *dry*

	Subcategorized		Nonsubcategorized	
	NP	Reflexive	NP	Reflexive
dry	32	1	18	4

• Unlike the previous adjectives, *dry* is found not only in subcategorized NP resultatives, but also in a fair number of nonsubcategorized NP resultatives.

• As expected there are no attested resultatives with the individual-level sense of the adjective *dry* as in *dry wine/ginger ale*.

• A closer look at the examples reveals that the two types of resultatives are distinguished by the nature of the entity the property *dry* is predicated of:

— SUBCATEGORIZED NP RESULTATIVES: The entity is a surface, e.g. *a dry counter*.

— NONSUBCATEGORIZED NP RESULTATIVES: The entity is a container, e.g., *a dry well/tank*.

• These properties come about as a result of some sort of action, but the actions involved in the two instances are different, explaining why when a surface is the postverbal NP, the resultative is of the subcategorized NP type, while when a container is the postverbal NP the resultative is of the nonsubcategorized NP type.

— SUBCATEGORIZED NP RESULTATIVES: There are various actions which are conventionally performed with the goal of drying a surface; many of them involve using instruments designed to absorb or remove liquid that is on the surface of an entity; thus, these actions are lexicalized by manner verbs which take the surface as object, giving rise to subcategorized NP resultatives.

(44)   VERBS INCLUDE: bloat, brush, dab, lick, rub, spin, towel, wipe, . . .

(45)   a.   Toweling dry as he went, he padded to the bedroom . . . (C. Weir, *Murder Take Two*, St. Martin's, New York, 1998, p. 94)

         b.   The waitress comes back, wiping the silverware dry with a cloth napkin . . . (M.G. Jaffe, *Dance Real Slow*, Farrar Straus Giroux, New York, 1996, p. 24)

         c.   . . . a skinny little white woman was washing a huge pile of fresh mixed greens and spinning them dry. (M. Maron, *High Country Fall*, Mysterious Press, New York, 2004, p. 145)

— NONSUBCATEGORIZED NP RESULTATIVES: When *dry* is predicated of a container, it indicates that the container is empty of liquid. This state is usually brought about by acting on the liquid in the container and not directly on the container itself. Thus, resultatives that describe bringing this state about of a container have the container as a nonsubcategorized NP as the action denoted by the verb is directed at the container's contents.

(46)   a.   Having . . . drunk the teapot dry . . . (E. Dark, *Lantana Lane*, p. 94)

         b.   Davina and I erupted from the knife-sharp grass, shrieking our lungs dry as we brandished our spears at the enemy soldiers. (M. Meyers, *Swimming in the Congo*, Milkweed Editions, Minneapolis, MN, 1995, p. 29)

• The reflexive resultatives can be viewed as an extension of the nonsubcategorized NP uses.

(47) One of them [=teakettles] must've whistled itself dry ... (S.J. Conant, *Ruffly Speaking*, Doubleday, New York, 1995, p. 76)

3.5 When the XP is *raw*

	Subcategorized NP	Nonsubcategorized NP	Reflexive
raw	30	2	0

• This adjective too is overwhelmingly found in subcategorized NP resultatives, although the NP is almost invariably a body part.

• As expected the individual-level sense of the adjective *raw*—uncooked (e.g. *raw meat*) or unprocessed (e.g. *raw materials*)—is not attested in resultative constructions.

• Attested instances involve *dry* in the sense 'abraded, chafed'—a sense predicated of body parts.

• This property is not inherent to an entity, but is externally caused, coming about as a result of certain actions performed on that entity; typically, these actions involve contact with a surface. Thus, these actions are lexicalized by verbs of surface contact, a type of manner verb which takes the surface as the object, giving rise to subcategorized NP resultatives.

(48) VERBS INCLUDE: bite, burn, floss, flay, lick, pluck, rub, scour, scrape, scrub, ...

(49) a. Aunt Essie ... scoured her fingertips raw with a brush to get all the tar out from under her nails ... (M. Maron, *Home Fires*, Mysterious Press, New York, 1998, p. 39)
b. ... the wiry grasses that would whip her legs raw within minutes. (V. McDermid, *Booked for Murder*, The Women's Press. London, 1996, p. 7)

• There are a few nonsubcategorized NP examples; once again, the verb denotes an action that is performed on some unexpressed entity can cause the state to hold of another entity, as in (50).

(50) She worked them [=her hands] raw some days. (M. Logue, *Poison Heart*, Ballantine, New York, 2005, p. 224)

3.6 When the XP is *hoarse*

	Subcategorized NP	Nonsubcategorized NP	Reflexive
hoarse	0	0	12

• Unlike the other APs, *hoarse* is attested only in reflexive resultatives in my corpus and Boas's.

• Hoarseness is a state that holds only of humans (and perhaps some other animates).

• Given its nature, it cannot be directly externally caused to hold of someone, so there are no actions that are conventionally directed at a human to bring it about; hence, the lack of subcategorized NP resultatives.

• However, people can bring this state on themselves via certain activities that affect their throat; hence, the attestation of reflexive resultative constructions whose verb is one of those activities.

(51)   VERBS INCLUDE: cough, roar, shout, sing, talk, yell, ...

(52)   At the end of the last race she shouted herself hoarse. (K. Fforde, *Going Dutch*, Arrow Books, London, 2007, p. 88)

• This adjective makes a minimal pair with *raw* because it too is typically predicated of animate entities, although specifically their body parts; however, it describes an externally caused state.

3.7   When the XP is *awake*

	Subcategorized		Nonsubcategorized	
	NP	Reflexive	NP	Reflexive
awake	33	2	13	15

• Wakefulness is a state that holds only of animate entities, but unlike hoarseness, the adjective *awake* is found in various subtypes of resultatives: it is found almost as often in resultatives with and subcategorized NPs and without—both reflexive and nonsubcategorized NP.

• The verbs in each resultative type are different, but in ways consistent with the nature of the type.

— SUBCATEGORIZED NP: These examples primarily involve verbs of contact by impact and verbs of force exertion—actions which when performed on a sleeper can cause him/her to awake.

(53)   WITH SUBCATEGORIZED NP: poke, bump, hug, jerk, kiss, slap, tickle, tug, ...

(54)   a.   Last night, the dog poked me awake every hour to go outside. (G. Dunford, "Charity's for the Birds", *The Toronto Sun*, November 27, 1994, p. 6)

       b.   ... the moment he was deeply asleep Vinck was tugging him awake ... (J. Clavell, *Shogun*, Atheneum, New York, 1980, p. 652)

— NONSUBCATEGORIZED NP: These examples primarily involve verbs of sound emission, with emitters that make noises loud enough to wake a sleeper.

(55)   WITH NONSUBCATEGORIZED NP: bark, crow, jangle, scream, shout, shrill, stare, ...

(56)   a.   ... the roosters that scratch in the yard of Brastagi's best hotel crowed me awake that dawn a few months ago ... (T. Robbins, "Treks for the Sophisticated Traveler", Section 6, Part 2, *The New York Times*, March 16, 1986, p. 8)

       b.   He had set an alarm, which rang at five thirty the following morning, shrilling them both awake. (R. Pilcher, *Voices in Summer*, St. Martin's Press, 1984, p. 116)

— REFLEXIVE: These examples primarily involve verbs of bodily process, involuntary activities that can cause a sleeper to awake. A few also involve deliberate activities that a person might engage in when sleepy to reach a state of wakefulness again.

(57)   WITH REFLEXIVE: blink, cough, puff, read, snort, scream, shower, stretch, ...

(58)   a.   Her dreams during brief intervals of sleep continued the theme, replaying in distorted form various incidents of the day, woven in with vivid but imaginary events, so that, when she tossed herself awake, she couldn't be sure which of them had actually happened. (A. Fraser, *Next Door to Murder*, Severn House, New York, 2008, p. 33)

   b.   Yarborough was "a biblio-holic" and history buff who "read himself awake each morning." (J. Gonzalez, "Hundreds mourn Yarborough", Texas Section, *The Fort Worth Star-Telegram*, January 31, 1996, p. 17; Nexis)

• Thus, the verbs found in each type reflect the ways one brings this state about on the self vs. others.

3.8   When the XP is *silent/(in)to silence/speechless*

	Subcategorized NP	Nonsubcategorized NP	Reflexive
silent	8	4	0
into silence	8	5	1
to silence	2	0	0
speechless	10	0	0
into speechlessness	1	0	0
Total:	29	9	1

• These nearly-synonymous result XPs show a strong preference for subcategorized NP resultatives, although *silent* and *(in)to silence* are found in nonsubcategorized NP resultatives.

• These result XPs are most frequently predicated of animates, but a few examples are predicated of noise-emitting devices (e.g., television, alarm clock).

• The subcategorized NP resultatives include experiencer object psych-verbs involving a reaction with a sudden onset, such as shock, surprise, or fear—reactions manifested in silence/speechlessness.

(59)   VERBS WITH *silent/(in)to silence:* lash, lull, pat; amaze, flabbergast, scare, shock, startle, strike, stun, . . .

(60)   a.   Her words stunned me silent for a moment. (E. Fowler, *Sunshine and Shadow*, Berkley, New York, 2003, p. 33)

   b.   . . . the slow swoosh of the waves lulled them into contented silence. (R. Sisman, *Just Friends*, Ballantine, New York, 2001, p. 273)

(61)   VERBS WITH *speechless*: rattle, scare, shock, startle, stun

(62)   His accusation stunned me speechless. (J. Dobson, *Quieter Than Sleep*, Bantam, New York, 1998, p. 116)

• Nonsubcategorized NP resultatives mostly involve activities directed at a person—expressed as the postverbal NP—that trigger a reaction of shock, surprise, or fear manifested in silence/speechlessness.

(63)   VERBS INCLUDE: curse, roar, snarl, stare

(64)   Robinson, the best orator in Washington ..., roared him into silence with a ringing defense of religious liberty and tolerance. (E. Dumas, "Really, There's No Need to Thank Us", The Week in Review, *The New York Times*, June 13, 1999, p. 17)

• Other nonsubcategorized NP resultatives involve activities directed at silencing noisy devices.

(65)   a.   Marta zapped the reporter into silence with the remote control ... (L. Scottoline, *Rough Justice*, HarperCollins, New York, 1997, p. 71)

         b.   I fumbled the alarm clock silent. (M. Macdonald, *Death's Autograph*, Hodder and Stoughton, 1996; St. Martin's, New York, 1997, p. 9)

• The near absence of reflexive resultatives likely reflects that silence is typically something that is desired—and imposed on—someone else.

(66)   When he had stammered himself into silence, Mrs Brandon said she thought there was a seat under the tulip tree ... (A. Thirkell, *The Brandons*, Hamish Hamilton, Great Britain, 1939; Hogarth Press, London, 1988, p. 41)

3.9   When the XP is *unconscious/(in)to unconsciousness*

	Subcategorized NP	Nonsubcategorized NP	Reflexive
unconscious	15	0	3
into unconsciousness	2	0	0
to unconsciousness	1	0	0

• A state predicated of animates brought about by a physical action or strong psychological reaction as reflected in the verbs attested.

• These result XPs too are overwhelmingly found in subcategorized NP resultatives presumably because this state has to be externally and directly caused of an animate NP; typically the relevant actions involve the use of weapons or forceful contact and impact with the animate entity, giving rise fo subcategorized NP resultatives.

(67)   VERBS INCLUDE: beat, choke, club, drug, kiss, knock, pummel, strike, thump, whack, ...

(68)   a.   ... her husband had shaken their tiny daughter to unconsciousness ... (D.M. Davidson, *Sticks and Scones*, Bantam, New York, 2001, p. 99)

         b.   I had only, the doctor said, been choked nearly unconscious. (G.F. Edwards, *No Time to Die*, Doubleday, New York, 1999, p. 253)

• Paucity of reflexive resultatives reflects that one doesn't deliberately bring this state on oneself.

(69)   Gwen almost hacked [=coughed] herself unconscious with bitter mirth. (S.Andrews, *Only Flesh and Bones*, St. Martin's, New York, 1998, p. 229)

3.10 When the XP is *dead/to death*

	Subcategorized		Nonsubcategorized		Intensifier
	NP	Reflexive	NP	Reflexive	Reflexive
dead	11	1	0	0	0
to death	22	0	2	18	10

• These synonymous states are predicated of animates, with a few exceptions (machines that fail).

• My data taken together with other studies (Arrizabalaga 2003, Tsuzuki 2003, Wechsler 2005) shows that *to death* is found with a greater range of verbs than *dead* and suggests that it is more prevalent in terms of number of occurrences as well.

AN EXCEPTION: The result XP *dead* is more pervasive with the verb *shoot*.

(70) Verbs with three or more occurrences in the COBUILD Direct Corpus (Tsuzuki 2003:748-749, (5)-(7); note: Some verbs are likely in intransitive resultatives)

   a. *to death*: *stab* (178), *beat* (89), *starve* (62), *burn* (43), *crush* (38), *freeze* (34), *batter* (30), *bleed* (28), *hack* (27), *drink* (26), *choke* (21), *shoot* (21), *club* (20), *bludgeon* (18), *kick* (16), *stone* (16), *blast* (15), *torture* (10), *knife* (8), *strangle* (8), *work* (6), *bash* (6), *maul* (6), *eat* (4), *smoke* (3), *gore* (3)

   b. *dead*: *shoot* (480), *drop* (40), *kill* (18), *strike* (12), *fall* (7), *knock* (6)

   c. *to one's death*: *fall* (24), *plunge* (18), *jump* (12), *drag* (4), *hurl* (3), *sweep* (3), *throw* (3)

There is considerable overlap between the verbs in (70a) and those Wechsler cites given repeated here from (20); additional verbs from my corpus are also listed.

(71) *To death:* 547 occurrences: *stab* (114), *beat* (74), *batter* (39), *frighten* (34), *crush* (25), *scare* (24), *burn* (18), *torture* (16), *drink* (15), *starve* (15), *bludgeon* (12), *hack* (12), *shoot* (11), *kick* (11), *club* (9), *bore* (8), *knife* (8), *choke* (8), ... (many, many other verbs) (Wechsler 2005:267, (27))

(72) VERBS IN MY CORPUS WITH *to death* NOT ATTESTED IN OTHER STUDIES: bite, chew, drag, gas, maul, nibble, peck, press, ride, spray

• Rodríguez Arrizabalaga (2003:127) writes "*to death* combines with verbs that describe either a specific manner of killing like *bayonet*, *shoot*, *stab*, and *strangle*, for instance, or a more or less violent impact between two different entities, like *beat*, *bludgeon*, *dash*, *hack*, *lash* and *torture*, among others."

• Tsuzuki (2003:753, (22)) notes "*To one's death* as a goal argument must be used instead of *to death*, if and only if we perceive that the relevant object dies as a result of moving from one place to another."

• These result XPs are overwhelmingly found in subcategorized NP resultatives because this state has to be externally and directly caused of an animate NP; typically the relevant actions involve the use of weapons or forceful contact and impact with the animate entity, giving rise fo subcategorized NP resultatives.

• A review of the reflexive resultatives in my corpus shows that many of them have connotations of carrying out the activity denoted by the verb to excess. Many of their verbs denote activities that are known to be harmful, either in general (e.g., *drink, smoke*) or in excess (e.g., *eat, party* and various physical activities, such as dancing, jogging, walking).

(73)   VERBS INCLUDE: bake [in the sun], cough, cry, dance, drink, eat, fret, grieve, jog, laugh, pace, party, ring [of a phone], shake, smoke, tap, wag, walk,

4   A question for future consideration

• Scales are established differently in resultatives with AP and PP result phrases.

— WHEN THE XP IS AN AP: The AP names a scalar-valued property of an NP, and the resultative construction expresses an increase in the value of this property.

— WHEN THE XP IS A PP: The object of the P names a location (or property), which together with the nature of the P itself, is used to define a point on or a segment of a path—a spatial scale. The path itself is constructed from this information in combination with the unexpressed, but contextually inferable, starting point of the theme.

• These differences have repercussions for whether a resultative with the relevant XP is bounded.

— WHEN THE XP IS AN AP: The event described by such a resultative is bounded if the scale associated with the AP is bounded, and among gradable adjectives, only maximal endpoint closed-scale adjectives have scales that are inherently bounded.

— WHEN THE XP IS A PP: The event described by such a resultative is bounded at least if the head of the PP is *into, out/off (of), to*, as such PPs are inherently bounded given the nature of their head.

• Perhaps the strong preference for maximal endpoint closed-scale adjectives in resultatives arises because a bound can always be established for the event with such adjectives, unlike with other types of gradable adjectives (cf. Wechsler 2012).

• TWO QUESTIONS: Do property result PPs show an analogue of the maximal endpoint closed-scale adjective head preference with result APs? Does suggesting such an analogy even make sense?

• The answer depends on exactly how the scale is calculated in PP resultatives: presumably, the preposition makes a large contribution, but does the property noun also provide information as the "reference object"? That is, is the noun also providing information about scale structure that comes together with the requirements of the preposition? If so, what makes the scale bounded?

• Potential evidence bearing on the answer: those nouns whose base is a gradable adjective.

WHY? Can check if the base adjective is a maximal endpoint closed-scale adjective. (In contrast, it can be difficult to determine even what the relevant scale is with deverbal or simple nouns.)

THE RELEVANT DATA: Among the attested resultatives with result PPs, there are nominals based on maximal endpoint closed scale-adjective (e.g., *clear, immobile, perfect, rigid, silent, sterile*), but also some that are not (e.g., *competent, cordial, indiscreet, normal*).

(74)   a.   . . . a hairdo that looks as if it had been sprayed into immobility . . . (D. Merkin, *Enchantment*, Harcourt Brace Jovanovich, New York, 1986, p. 212)

b. . . . the stretch of pavement we had soaped to slimy perfection. (T. Bridal, *The Tree of Red Stars*, Milkweed Editions, Minneapolis, MN, 1997, p. 57)

(75) a. Georgiana was surprised into cordiality. (J. Barrett, *Presumption*, M. Evans, New York, 1993, p. 91)

b. I was startled into indiscretion. (J. Dobson, *The Northbury Papers*, Doubleday, New York, 1998, p. 47)

• Clearly, the adjectival base of the preposition's complement is making a different contribution than in an AP result phrase.

• The larger question and the reason for the telicity of resultatives that underlies it both deserve further investigation.

5   Conclusion

These case studies suggest that fine-grained studies that focus on the individual contribution of each ingredient of a resultative construction have much to contribute to the larger understanding of this construction, including the factors giving rise to each subtype.

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