Exploring the cross-linguistic relationship between resultative constructions and participles

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What is a resultative construction?

The term “resultative” is used in two different ways in cross-linguistic studies. They can be distinguished in terms of Vendler’s (1967) verbal aspect categories as STATIVE RESULTATIVES (1) and ACCOMPLISHMENT RESULTATIVES (2):

Latvian (Indo-European, Baltic)

(1) Sien-a ir no-krāso-t-a.
   wall-NOM.F.SG be:PRS3 PV-paint-PTC.PST.PASS-NOM.F.SG
   ‘The wall is painted.’

(2) Jānis no-krāso-ja sien-u zil-u
   Janis PV-paint-PST3 wall-ACC.F.SG blue-ACC.F.SG
   ‘John painted the wall blue.’
Toward a definition of stative resultatives

Nedjalkov & Jaxontov (1988: 6): “verb forms that express a state implying a previous event”

A **stative resultative** construction, as understood here, is any expression of a state with some formal trace of dynamicity and/or anteriority reflecting a potential, not necessarily an actual, previous event.

Includes, for instance, also the **transitive-verb-in-intransitive construction** strategy:

(3) Kobon (Trans-New Guinea, Madang)

Ru pa jö g-öp

axe strike break do-PERF3SG

‘The axe is broken’ (Davies 1981: 163)
Participle with stative auxiliary, the most common case?

“In the most common case, the resultative sense is the outcome of the combination of the stative auxiliary, which provides the sense of a present state and the past and/or passive participle, which signals a dynamic situation which occurred in the past and is seen as affecting the object of the transitive verb or the subject of the intransitive” (Bybee, Perkins & Pagliuca 1994: 67-68).

(4) Angolar (Portuguese-based creole)
Kai e tha zi-ru ki buru ki n’thêkê
house this be make-PTC with stone with sand
‘This house is made of stone and sand.’ (Maurer 1995: 91)
What is a participle from a typological point of view?

Haspelmath (1994: 152) “Participles are best defined as verbal adjectives, i.e. words that behave like adjectives with respect to morphology and external syntax, but are regularly derived from verbs.”

Croft (2001: 88): propositional act constructions and semantic classes

<table>
<thead>
<tr>
<th>Objects</th>
<th>Reference</th>
<th>Modification</th>
<th>Predication</th>
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<tr>
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<td>UNMARKED NOMS</td>
<td>genitive,</td>
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<td>UNMARKED ADJECTIVES</td>
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<td>Actions</td>
<td>action nominals,</td>
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<td>complements,</td>
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-Verbal adjective
- Marked verb form in modification (attributive) function
Participle vs. relative clause (= “adjective clauses”)

<table>
<thead>
<tr>
<th>-Arguments</th>
<th>+Arguments</th>
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<tbody>
<tr>
<td>Participle</td>
<td>Adjective clause</td>
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<tr>
<td>Verbal noun</td>
<td>Nominalization</td>
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</tbody>
</table>

Motuna (isolate; Bougainville island, Papua New Guinea)

(5) impa hoo peero neetu itik-o-i-juu mono-o-ro,  
and ART.M banana ripe be.hung-3MID-CONT-DS see-3 > 3-PERF  
ti-ki iti’iti-kori-ki itik-ah  
there-INST hilly.patch.of.land-L-INST hang-PTC  
‘He saw some ripe bananas hanging – they were hanging on a hilly patch of land.’

(6) hoo sinoo’ [tuu tuh-ah] noo no-ri tuh-ee-nna-na?  
ART.M coconut water be-PTC possibly one-CL.nut be-AAPL-1U.3A.PERF-F  
‘Have you got a coconut container of water’ (Onishi 2003)
### Multiple functions of participles

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<tr>
<td><strong>Objects</strong></td>
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<td><strong>Properties</strong> (States)</td>
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<td><strong>Actions</strong></td>
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**Major functions of participles**

- **Attributive**: If a *reading* traveler is interested in conversation...
- **Habitual**: a *traveling* salesman
- **Stative**: It is *written* here that...
- **Modal, purpose**: a *reading* lamp, a *readable* text

**Frequent secondary (non-defining) functions:**

- **Perfect**: She has *written*
- **Perception of event**: I see her *writing*

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"Adjectives are generally more time-stable than verbs...and therefore more likely to refer to (more time-stable) states than to (less time-stable) events" (Haspelmath 1994: 159)
Minimal requirement for a **resultative** construction (in predicative use)

<table>
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<tr>
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Ideal properties for **participle**
(when considering the attributive function as basic along with Croft)

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**Non-finite**

Differences:
• Resultatives and participles are logically fully independent
• Participles are forms, resultatives are constructions

Links (none of them imperative):
• Stative is one of the major function of participles, notably of past participles
• Many participles can also be used in predicative function
• Constructionally derived items are often also morphologically derived
• State expressions are often less finite than action expressions
How participles and resultatives can fail to match
(not exhaustive)

I. There is a special form restricted to **attributive** function

II. There is a participle-like form which **does not express states**

III. A form expressing states is **not derived morphologically** from a verb

IV. There is a special synthetic form which **includes a stative support verb**

V. The form used in resultative function is **not non-finite**

VI. The form in resultatives is a verbal noun, **infinitive or converb**, not a participle

VII. ...
I. Languages with different resultatives in attributive and predicative use

Mapudungun (isolate; F. Zúñiga p.c.)

(7) trafo-le-y [fotilla]
    break-RES-IND bottle
    ‘the bottle is broken’

(8) [chi trafo-n fotilla]
    ART break-NOML bottle
    ‘the broken bottle’

In attributive use the resultative marking is optional, emphatic and focussing:

(9) chi trafo-le-n fotilla
    ART break-RES-NOML bottle
    ‘the broken bottle (and not the one that is not broken)’

-(kü)le, sometimes called ”stative”, is used for resultative and progressive, depending on the actionality type of the verb (Zúñiga 2001). It expresses temporary state as opposed to -nge permanent state. -(kü)le is perhaps related to the verb müle ‘be.at (temporarily), stay’.
Swahili (Niger-Congo, Bantu)

Relative clauses have a restricted tense-aspect inventory: only past, present, future

(10)  
  [Mti  u-li-o-anguka]  u-me-kauka  
  tree[II]  II-PST-II:REL-fall  II-PERF-dry  
  ‘The fallen tree has dried out.’  
  (Brauner & Bantu 1973: 76)

Resultatives are supplied by the perfect
**Miya** (Afroasiatic, West Chadic; Schuh 1998: 263, 323, 156)
The verb takes the form of the “participle” in relative clauses (Schuh 1998: 265)

<table>
<thead>
<tr>
<th>Attributive state</th>
<th>Predicative state</th>
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<tbody>
<tr>
<td>“Participle”, verbal noun</td>
<td>Verbal noun, gerund, perfective</td>
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<tr>
<td>ndùwul bá ɓ-ussè pot REL break:PTC-NOM:ITR3SG.M ‘broken pot’</td>
<td>ndùwul áa-ɓ-àhíy pot *AUX-break-GERUND ‘the pot is broken’</td>
</tr>
<tr>
<td>ɓa ‘break’ + -w PTC + intransitive object copy pronoun for nominal TAM</td>
<td>kwàmbal ɓuwyé-tà s-áy stick break[PFV]-ITR3SG.M TOT-TOT ‘the stick is/has broken’</td>
</tr>
</tbody>
</table>
II. There is a participle-like form which does not express states

Kobon (Trans-New Guinea; East NG Highlands)

(11) Ru pa jō g-öp.  
axe strike break do-PERF3SG  
‘The axe is broken’ (Davies 1981: 163)

Present not available for statives. Perfect expresses the present result of a past situation.

Yad nan g-öp.  
1SG[TOP] thing[SUB] do-PERF3SG  
‘I am ill’ (Davies 1981: 169)

(12) Wal wayöŋ ud-ep mam yad au-ab.  
possum cassowary take-NOML/ADJR brother 1SG come-PRS3SG  
‘My hunter [hunting] brother is coming’ (Davies 1981: 65)

possum cassowary = animal;  
animal take = hunt

Relative clauses are formed with finite verb forms.
III. A form expressing states is **not derived morphologically** from a verb

**Maori** (Austronesian, Oceanic)

(13) Kua **mau** te rama ki teetahi poari.
    
    \[\text{PERF fixed[NEUT.VERB]} \text{ DEF light/torch GOAL a/one board}\]
    
    ‘The lamp is fixed to a piece of wood’ (Ihaia Murchie, p.c., from picture quest.)

*mau* ‘be caught, confirmed, made fast, held, seized, established, captured, taken, overtaken, comprehended, understood, caught out’ ([http://www.maoridictionary.co.nz](http://www.maoridictionary.co.nz))

Neuter verbs (also “participles”): *mutu* ‘be ended’, *pakaru* ‘be broken’, *pau* ‘be consumed’, *riro* ‘be seized’, etc. Neuter verbs often express states, but are not notionally stative. They are ergative in type:

(14) Kua **mau** i a Tuu tetapi manu
    
    \[\text{PERF caught[NEUT.VERB]} \text{ CAUSE PERS Tu a(SPEC) bird}\]
    
    ‘Tu has caught a bird’ (Bauer 1993: 413)

(15) Kua **pine-hia** teetahi pepa ki te pakitara.
    
    \[\text{PERF pin-PASS one paper GOAL DEF wall}\]
    
    ‘A paper is pinned to the wall’ (Ihaia Murchie, p.c.)

The Maori passive is basically not stative, but is sometimes used for states. The static/dynamic distinction is unpredictable (Bauer 1991: 406)
**Malagasy** (Austronesian, W Malayo-Polynesian; Rahajarizafy 1960: 29)
“root verbs” expressing results: *afaka* ‘free(d)’, *azo* ‘caught, understood’, *araka* ‘followed’
activity verbs, however, have prefixes: *man-afaka* ‘liberate’, *man-araka* ‘follow’.

**Dakota (Siouan)** “By far the majority of verbal stems are neutral. The concept of a condition extends over almost all inanimate objects that may be brought into a condition. ‘To scratch’ is not primarily an activity; the active verb is derived from the condition of a scratched surface. These stems can be made active only by adding instrumental prefixes which express the means by which the condition is brought about, or by locative elements which apply the condition to a certain object.” (Boas & Deloria 1939: 23).

**Mangarayi** (Australian, Mangarrayi; Northern Australia; Merlan 1982: 131,133) Verbs are a small closed class of light verbs where most predicates are expressed by means of complex constructions with particles (also called co-verbs). Only 36 monomorphemic root forms for verbs have been recorded (Merlan 1982: 131). Most predicates are expressed by uninflected verb particles with an auxiliary.

<table>
<thead>
<tr>
<th>Particle</th>
<th>Meaning</th>
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<tbody>
<tr>
<td><em>ni</em></td>
<td>‘sit, be’</td>
</tr>
<tr>
<td><em>war</em></td>
<td>‘throw’</td>
</tr>
<tr>
<td><em>nod</em></td>
<td>‘heap up, in a pile’</td>
</tr>
<tr>
<td><em>nod ni</em></td>
<td>‘be in a heap’</td>
</tr>
<tr>
<td><em>nod war</em></td>
<td>‘make a pile’</td>
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</table>
IV. There is a special form which includes a stative support verb

Imonda (Border; New Guinea)

Imonda resultatives with root serialization with positional verb
(16) ehe-na udo  ōh-ia  bas-keda-lōh-na-fna
     3-POSS netbag  PX-LOC  CL:netbag-hang-stand-BEN-PRO
     ‘Her netbag was hung up there.’ (Seiler 1985: 126)

(17) udō  sabla  bas-apt-ihi-li-f
     netbag  two  CL:netbag-DU-put-lie-PRS
     ‘There are two netbags.’ (Seiler 1985: 126)
**Ngandi** (Australian, Gunwinyguan; Heath 1978: 88): there is only a single verb that can be clearly assigned to a similar pattern as Imonda:

The auxiliary - đu ‘stand’ is combined with six stems, but only one of them occurs elsewhere as a transitive dynamic verb:

- *galiñ- đu* ‘be hanging, suspended, aloft’
- *got- đu* ‘be confined’
- *jiˀ- đu* ‘(fish) hang still in water’...

*galiñ- đu* ‘hang up, suspend’

Most typical lexical concepts for resultatives are non-verbal in Ngandi:

- *buɭku* (N) ‘cooked, ripe, ready to eat’
- *ɖiku* (N) ‘raw; fallen, fainted’
- *yaku* ‘missing, absent’

or dynamic and stative verbs have different stems (e.g. ‘to open’).

**Bininj Gun-Wok** (Australian, Gunwinyguan; Evans 2003): ‘stand’ is probably one of two sources for the persistive (expressing persistence of state or – with change of state verbs – a result)

(18) Ka-rrukka- **yind-i**
    3-tie.up-PERSIST-NONPST
    ‘He’s tied up’ (Evans 2003: 377)
V. The form used in resultative function is not non-finite

Mandarin: -zhe; V zài L
Indonesian: ter-
Semelai: br-

**Semelai** (Austro-Asiatic, Aslian) $b(r)$- middle and decausative

“The decausative is used in a range of contexts, where the verbal action is viewed in relation to the resultant state of the referent” (Kruspe 2004: 119)

$b(r)$- ‘MID’ is also used to convert transitive verbs into attributive modifiers

(19) $t^{h}i$ jəŋ br-nək ki = təh
hand foot MID-bind 3A = untie

‘(Her) bound hands (and) feet, he untied’ (Kruspe 2004: 120)
VI. The form in resultatives is a verbal noun, infinitive or converb, not a participle

**Kannada** (Dravidian, Southern Dravidian)

Predicative resultatives are supplied by the **passive** (**infinitive + ‘experience’**) or the **transitive-verb-in-intransitive-construction** strategy. Attributivization (including relative clauses) happens with **“relative participles”**.

(20) raste agala ma:D-al-paTT-i-de
road wide make-INF-PASS/experience-PF[CNV.be]-N.PST:3SG.NONHUM
‘The road has been widened’ (Sridhar 1990: 216)

(21) ni:ru ka:y-is-i-de
water boil-CAUS-be-N.PST:3SG.NONHUM
‘The water is boiled’ (Sridhar 1990: 216)

(22) avanu huTT-id-a u:ru ide:
he born-PST-REL.PTC.PST town this:EMPH
‘This is the town where he was born’ (Sridhar 1990: 216)
Japanese

The periphrastic imperfective with the converb -te and the co-verb iru ‘be’ has resultative and progressive function (depending on the semantics of the verb). Adjective clauses are formed by preposing finite clauses to nouns, i.e. attributive resultatives have as much ‘be’ support as predicative ones:

(23) ichi nich¡ hachi jikan meikushi-te i-ru hito e
one day eight hour wear.makeup-CONV be-PRS person GOAL
‘for people wearing makeup eight hours a day (from an ad)’ (Höfler 2006: 55)

[the verb in the example is one of very few allowing for both a resultative ‘wearing makeup’ and a progressive reading ‘putting on makeup’, the progressive reading is cancelled contextually.]
VII. Subjective resultatives are nouns/participles, objective resultatives are verbs

Misantla Totonac (Totonacan)

Intr. verb + nominalizer -nį > attributive (subjective) resultative

(24) mas-nį  
rot[INTR]-NOML  
‘rotted’

(25) čaa-nį [čáan]  
ripen[INTR]-NOML  
‘ripened’ (MacKay 1999: 384)

Trans. change-of-state verb + inchoative ta- > predicative (objective) resultative

(26) ut ta-ɬkawįįt  
s/he INCH-fold[TRANS]  
‘X is folded’

(27) ut ta-čųku  
s/he INCH-cut[TRANS]  
‘X is cut’ (MacKay 1999: 256)

Predicative (objective) resultative + -nį > attributive resultative

(28) ik-įįwą-lał  
1SUB-buy-PFV  
‘I bought the toasted coffee’ (MacKay 1999: 385)

hun-kafɛɛ  
DET-coffee

ta-čuču-nį  
INCH-toast-NOML
Distribution of resultative constructions and participle forms in the sample
### Resultative has same/similar form as progressive/“durative”/“persistive”

<table>
<thead>
<tr>
<th>Neither resultatives nor participles attested</th>
<th>Malagasy, Mangayari, (Ngandi,) Dakota</th>
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</thead>
<tbody>
<tr>
<td>Resultatives exist, participles not attested</td>
<td>Moore, Swahili, <strong>Mandarin</strong>, <strong>Japanese</strong>, Semelai, Indonesian, Maori, Bukiyp, <strong>Bininj Gun-wok</strong>, Maricopa, Choctaw, <strong>Sochiapan Chinantec</strong>, (Guaraní)</td>
</tr>
<tr>
<td>Resultatives and participles exist, but use different forms</td>
<td>(Miya,) Kannada, Tauya, Kobon, <strong>Karok</strong>, (<strong>Huallaga Quechua</strong>) <strong>Mapudungun</strong></td>
</tr>
<tr>
<td>Participles exist, resultatives are not attested</td>
<td></td>
</tr>
<tr>
<td>Resultatives and participles exist and (partly) use the same form</td>
<td>Basque, Italian, Erzya Mordvin, Georgian, Turkish, Hausa, Mandinka, Angolar, Amele, Motuna, Squamish, Klamath, Tümpisa Shoshone, Purépecha, (Misantla Totonac,) Tzutujil, Awa Pit, Yanesha’, Mosetén, (<strong>Huallaga Quechua</strong>)</td>
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</tbody>
</table>
Conclusions

- Resultative constructions are cross-linguistically more widespread than participles.

- Participles have two entirely different macro-functions: reducing of actionality [=higher time-stability] (state, among others) and attributivization. Only the former they share with resultatives, the latter they share with relative clauses.

- If a language has past and/or passive participles that are not restricted to attributive use, the chance that these are involved in a resultative construction is considerable.

- However, resultative constructions can be supplied by many more sources, including many with finite forms:

  middle/reflexive, transitive-verb-in-intransitive-construction, passive, perfect (even from non-resultative sources), root-serialization with positional verb, converb construction, 3rd plural impersonal.
Motuna (Onishi 2003: 15; isolate; Bougainville Island, New Guinea)

(29) tii  patak-ah sooo waasiih ong.
there  arrive-PTC ART.M story DEM.M

‘This story has finished here.’

“Much more research on participles and similar phenomena in the languages of the world is needed for a deeper understanding of their nature” (Haspelmath 1994: 173)
References


