Some notes on the origin and distribution of the IPP-effect

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1. Introduction

(1) Past participle morphology (Dutch)
   a. Ik heb ge-werk-t
      I have GE-work-D
      ‘I have worked.’
   b. Ik ben ge-kom-en
      I am GE-come-N
      ‘I have come.’
   c. Ablaut
      Ik heb ge-zong-en (< zingen)
      I have GE-singABL-N
      ‘I have sung.’
   d. Suppletion
      Ik heb ge-wees-t (< zijn)
      I am GE-beSUPPL-N
      ‘I have gone.’

(2) Infinitivus pro participio (IPP) (Dutch)
   a. * Ik heb ge-wil-d werk-en
      I have GE-want-D work-INF
      ‘I wanted to work.’
   b. Ik heb will-en werk-en
      I have want-INF work-INF
      ‘I wanted to work.’
   c. * Ik heb hem ge-zie-n werk-en
      I have him GE-see-N work-INF
      ‘I saw him work.’
   d. Ik heb hem zie-n werk-en
      I have him see-INF work-INF
      ‘I saw him work.’
   e. * Ik heb ge-staa-n werk-en
      I have GE-stand-N work-INF
      ‘I was working for a while.’
   f. Ik heb staa-n werk-en
      I have stand-INF work-INF
      ‘I was working for a while.’

(3) IPP with suppletive form (Dutch)
   Ik ben wez-en zwemm-en
   I am beSUPPL-INF swim-INF
   ‘I went for a swim.’

2. Word order generalizations

(4) IPP requires: 1-2-3 auxiliary₁ → participle₂ → infinitive₃ (Dutch)

(5) No IPP with: 3-2-1 infinitive₃ ← participle₂ ← auxiliary₁ (Frisian, Stellingwerfs)

(6) Stellingwerfs (Bloemhoff 1977)
   ..dat Jan dat doe-n kun-d had (*kunn-en) had (3-2-1)
   ‘..that John could have done that.’

(7) But: cases of optional IPP with 3-2-1:
   a. Achterhoeks (Blom & Hoekstra 1996)
      ..dat ik schriev-m {will-n, e-wil-d} had
      that I write-INF want-INF GE-want-D had
      ‘..that I had wanted to write.’
b. **Swabian** (Steil 1989), among other orders
   ..daß d Anna ons bsuach-a **well-a** had (3-2-1)
   that the Anna us visit-INF want-INF has
   ‘..that Anna wanted to visit us.’

c. **Austrian Bavarian** (Wurmbrand 2004): 3-2-1 with IPP acceptable in judgment task

(13) Optional IPP in other orders

a. **Standard German** (Wurmbrand 2004)
   ..daß er es hat **lös-en** könn-en (1-3-2)
   that he it has solve-INF can-INF
   ‘..that he was able to solve it.’

b. **West Flemish** (Haegeman 1994)
   ..da Valère nie nor us **will-en** kom-en eet (2-3-1)
   that Valery not to house want-INF come-INF has
   ‘..that Valery did not want to come home.’

c. **Austrian Bavarian** (Patocka 1997)
   ..da ma wås lean-a hettn **soi-n** (3-1-2)
   that we something learn-INF had shall-INF
   ‘..that we should have learned something.’

(14) New generalization
   IPP in 2-3 clusters occurs without exception:
   | 1-2-3 Dutch |
   | 2-3-1 West Flemish |
   | 2-1-3 does not occur |

3. 2-3 without IPP

(15) **Samatimeric** (Mileck 1997)

a. ıe hed si **g-set-ŋ** fuod-foa-n ([1]-2-3)
   you:PL have them GE-see-N away-go-INF
   ‘You saw them drive off.’

b. ıa hod k-holf-n umgro:ım
   he has GE-helpABL-N dig:INF
   ‘He helped shovel.’

(16) **Luxemburgisch** (Bruch 1973)

a. Hoffentlich huet keen dech **ge-si** go-en ([1]-2-3)
   hopefully has noone you GE-see go-INF
   ‘Hopefully noone saw you leave.’

b. Echhun dat **ge-spier-t** komm-en ([1]-2-3)
   I have that GE-see-D come-INF
   ‘I saw that coming.’

(17) **Austrian Bavarian** (Patocka 1997)

a. bin i aa dei **gång** fråg-n ([1]-2-3)
   am I also DEM GE:goSUPPL:N ask-INF
   ‘So I went and asked them too.’

b. nächdem håt des Gårn **miaβ-t** g-wåsch-n wead-n ([1]-2-4-3)
   afterwards has the net must-D GE-wash-N become-INF
   ‘Afterwards the net must be washed.’
(18) *Siberian Mennonite Plautdiitsch* (Jedig 1969)
a. äm kunt\(^a\) haud-st kun-t ne:m\(^a\)
the Walachian had-2SG can-\(D\) take:INF
‘You could have taken the Walachian [a horse].’

b. däi ha:ft j\(^\text{ä}p\text{r}^a\)-t äm prodavâts ko:m\(^a\)
DEM has GE-see-D the merchant come:INF
‘He saw the merchant come.’

(19) *Zimbrian* (Schweitzer 1939)
a. de pruoder dahuame henn-en nixt ga-sex-t kxenn-j
the brothers at home have-him not GE-see-D come-INF
‘The brothers at home did not see him come.’

b. alora inj hêrre hêt-ar ga-wou-t fang-an wänte
then the man has-he GE-want-D take-INF rocks
‘Then the man wanted to pick up rocks.’

(20) *Afrikaans* (Du P. Scholtz 1963)
..dat ek ge-kom werk het
that I GE-come work:INF have

(21) *Yiddish, Middle High German, Middle Dutch*

(22) *Factors involved*
a. status of the V3 infinitive
b. status of the *ge*-prefix

4. Status of the V3 infinitive

(23) V3 infinitive must be final (*d.n.a.* to Afrikaans, Zimbrian, Yiddish)

a. *Luxemburgish* (Bruch 1973)
ob-s de hollânesch ge-léier-t hues schwätz-en
whether-2SG you Dutch GE-learn-D have speak-INF
‘whether you learned to speak Dutch.’

b. *Zurich Swiss German* (Lötscher 1978)
..wil er en ghöör-t hät choo
because he him hear-D has come:INF
‘...because he heard him come.’

[Note: Zurich Swiss German has IPP with [1]-2-3, but Lötscher notes that there is a tendency for participles to appear where infinitives are expected, suggesting another case of 2-3 without IPP]

(24) temporal auxiliary follows the participle in embedded clauses

*Siberian Mennonite Plautdiitsch* (Jedig 1969)
van mo\(^a\) de mut\(^a\) niç j\(^\text{ä}p\text{r}^v\) ve:\(e\)
if only the mother not GE-die:\(N\) were
‘If only mother hadn’t died.’

(25) competition with IPP-variant

ji: haud te:n\(^a\) hâ:v\(^e\)
you:PL had can:INF mow:INF
‘You could have mown.’
b. **Samatimeric** (Mileck 1997)

\[ \text{ie he'd si fuad-foa-n } \text{sc-ŋ} \]

You:PL have them away-go-INF see-INF

‘You saw them drive off.’

c. **Luxemburgish** (Bruch 1973)

\[ \text{wa keen dech håtthéier-e komm-en} \]

when noone you had hear-INF come-INF

‘...when noone would have heard you come.’

d. **Austrian Bavarian** (Patocka 1997)

\[ \text{wiar i mit knecht undlän håun åbat-n miass-n} \]

how I with servant and maid have work-INF must-INF

‘how I had to work with servants and maids.’

e. **Zurich Swiss German** (Lötscher 1978)

\[ \text{wil er en ghóör-e choo hât} \]

because he him hear-INF come:INF has

‘...because he heard him come.’

(26) **V3 infinitive may be ‘satzwertig’ (extraposed)**

a. **Samatimeric** (Mileck 1997)

\[ \text{wia hom si k-sst-ŋ } \text{mid ien kind ha:m gë:} \]

we have her GE-see-N with her child home go:INF

‘We saw her go home with her child.’

b. **Siberian Mennonite Plautdiitsch** (Jedig 1969)

\[ \text{dái ha:ft j-*þp*ã-t } \text{äm prodaväts ko:m*} \]

DEM has GE-see-D the merchant come:INF

‘He saw the merchant come.’

(27) **reminiscent of the ‘third construction’**

a. **Dutch**

\[ \text{dat hij het ge-probeer-d heeft } \text{te lez-en} \]

that he it GE-try-D has to read-INF

‘...that he tried to read it.’

b. **Frisian** (Reuland 1990)

\[ \text{dat er my dat boek ferbea-n hat } \text{te lëz-en} \]

that he me that book forbid-N has to read-INF

‘...that he forbid me to read that book.’

(28) **Hypothesis**

a. \[ 2 = \text{IPP } \text{[ 1 - 2 - 3 ]} \] (order irrelevant)

b. \[ 2 = \text{participle } \text{[ 1 - 2 ]} 3 \] (order irrelevant within [cluster])

(29) **3-2 orders without IPP: intraposition**

a. **Austrian Bavarian** (Patocka 1997)

\[ \text{wänn-st iawand såg-n hå-st g-hea-t} \]

when-2SG someone say-INF have-2SG GE-hear-D

‘when you heard someone say’
b. *Samatimeric* (Mileck 1997)

Samatimeric

\( sa \) hod\( mi \) kom-\( a \) **g-set-\( \eta \)**

he has me come-INF GE-see-N

‘He saw me come.’

\( [1]-3-2 \)

\( d \).

\( du \) hos\( dra \) kox-\( n \) **k-holf-\( n \)**

you have.her cook-INF GE-helpABL-N

‘You helped her cook.’

\( [1]-3-2 \)

\( g. \)

**Luxemburgish** (Bruch 1973)

\( deen \) de leit moral priesthood as **gaang**

REL the people ethics preach-INF ge:go\( \text{SUPPL} \)

‘who has gone preach ethics to the people’

\( 3-1-2 \)

\( r. \)

**Luxemburgish** (Bruch 1973)

\( deen \) de leit moral priesthood as **gaang**

REL the people ethics preach-INF ge:go\( \text{SUPPL} \)

‘who has gone preach ethics to the people’

\( 3-1-2 \)

\( f. \)

**Siberian Mennonite Plautdiitsch** (Jedig 1969)

\( át' \) ha: \( ám \) ho:n sjir:-\( a \) **j'-hi'-\( d \)**

I have the cock crow-INF GE-hear-D

‘I heard the cock crow.’

\( [1]-3-2 \)

\( 2 = \text{participle} \quad 3 \quad [ \quad 1 \ 2 \ ] \quad (\text{order within cluster irrelevant}) \quad (\text{cf. (28)}) \)

\( 30 \) The IPP-effect occurs whenever a participle takes an infinitive in its complement domain (i.e. the infinitive is not ‘extraposed’).

\( 31 \)

\( a. \) [ \( V1 \) [ \( V2 \) [ \( V3 \) ]]]IPP

\( b. \) [ \( [ \quad V1 \ [ \ V2 \ ] \] \ & \ [ \ V3 \ ] \] \participle

5. **Status of ge**

\( 33 \)

**History of ge** (Van Swaay 1899, Van Dijk 1998)

a. preverb meaning FULL, COMPLETE \( \rightarrow \)

b. telicity inducing particle \( \rightarrow \)

c. perfective marker \( \rightarrow \)

\( 34 \)

But not a perfective marker in all varieties

\( 35 \)

**Hypothesis**

IPP occurs only where ge is a pure perfective marker

(i.e. not where ge is absent [Frisian] or where it has a different status [Afrikaans, Zimbrian, Yiddish])
6. Aspectual properties of 3-verb clusters

(36) **Atelic**

a. Ik heb het boek ge-lez-en
I have the book GE-read-N

'I read the book.'

b. Ik heb het boek lat-en lez-en
I have the book let-INF read-INF

'I let (sc. them) read the book.'

[book is finished] [book is not finished, possibly not even read]

c. Ik heb de film ge-zie-n
d. Ik heb de film zien op nem-en
I have the movie GE-see-N I have the movie see-INF up take-INF

'I saw the movie.'

'I saw (sc. them) shoot the movie.'

[the whole movie] [some segment of the shooting process]

(37) **Resultative particle impossible**

a. Ik heb mijn fout ge-zie-n
I have my mistake GE-see-N

'I saw my mistake.'

b. Ik heb mijn fout in ge-zie-n
I have my mistake in GE-see-N

'I realized my mistake.'

c. Ik heb het plan (*in) zie-n mislukk-en
I have the plan in see-INF fail-INF

'I saw the plan fail.' / *'I realized that the plan had failed.'

(38) **Modals: projected polarity transition, incompatible with resultative**

a. Hij stierf
he died

'b. Hij wilde / zou / kon / mocht / moest sterv-en
he wanted / would / could / might / had to die-INF

'He died, he is dead (but he is still alive).’ [contradictory]

c. Hij is ge-storv-en (# maar hij leeft nog)
he is GE-die-N but he lives still

'He died, he is dead (but he is still alive).’ [contradictory]

he has want-INF / can-INF / may-INF / must-INF die-INF but he lives still

'He wanted / could / was allowed / had (to) die (but he is still alive).’ [not contradictory]

(39) **Instability of relation auxiliary—modal** (Hoekstra 1997, chapter 3)

a. Hij hadzull-en sterv-en
he hadshall-INF die-INF

'b. Hij zou ge-storv-en zijn
he shall: PAST GE-die-N be:INF

'He would have died, was supposed to die.’

'He would have died.’

(40) **Postural verb incompatible with telicity**

a. Hij zit te viss-en
he sits to fish-INF

'b. Hij heeft zitt-en viss-en
he has sit-INF fish-INF

'He is fishing, he is angling.’

'He has been fishing, angling.’

(41) **Accomplishment vs. past activity**

a. Hij is wez-en zwemm-en
he is be-INF swim-INF

'b. Hij is zwemm-en
he is swim-INF

'He has been out for a swim.’

'He is out for a swim.’
c. Hij is tien minuten wez-en zwemm-en
he is ten minutes beSUPPL-INF swim-INF
‘He has been out for a swim for ten minutes.’

d. * Hij is in tien minuten wez-en zwemm-en
he is in ten minutes beSUPPL-INF swim-INF
(intended reading) ‘He was back from his swim in ten minutes.’

(42) IPP incompatible with resultative
a. Hij heeft ge-holp-en allochtonen te ler-en fiets-en
he has GE-help-N foreigners to learn-INF bike-INF
‘He helped foreigners to learn how to ride a bike.’
b. Hij heeft allochtonen help-enler-en fiets-en
he has foreigners help-INF learn-INF bike-INF
‘He helped foreigners to learn how to ride a bike.’

c. Hij heeft { tien minuten, ‘in tien minuten’ } ge-studeer-d
he has ten minutes in ten minutes GE-study-D
‘He studies { for / ‘in’ } ten minutes.’
d. Hij heeft zich{ in tien minuten, ‘tien minuten’ } rijk ge-studeer-d
he has REFL in ten minutes ten minutes rich GE-study-D
‘He studied himself to a fortune { in / ‘for’ } ten minutes.’

e. ? Hij heeft zich rijk ge-holp-en allochtonen te ler-en fiets-en
he has REFL rich GE-help-N foreigners to learn-INF bike-INF
‘He made a fortune helping foreigners to learn how to ride a bike.’
f. * Hij heeft zich rijk allochtonen help-enler-en fiets-en
he has REFL rich foreigners help-INF learn-INF bike-INF

g. ? Hij heeft zich suf ge-probeer-d eenvriendin te vind-en
he has REFL drowsy GE-try-D a girlfriend to find-INF
‘He tried to the very end to find a girlfriend.’
h. * Hij heeft zich suf prober-en eenvriendin te vinden
he has REFL drowsy try-INF a girlfriend to find-INF

(43) Conclusion: ! the V2 participle in 3-verb clusters would not have triggered application of perfective ge
! IPP results not from suppression of ge but from failure to add ge

7. The historic development

(44) Side by side
a. auxiliary + ge-marked participle
b. auxiliary + ge-less participle + infinitive
c. modal + infinitive + infinitive

(45) Result: analogical pressure to assimilate the ge-less participle to the infinitive
(cf. Paul 1920: 129)

(46) In between forms

a. West Flemish (De Schutter 1974)  b. Zeeuws (De Schutter 1974)
Hij is wees-t viss-en  Hij is wees-t-en viss-en
he is beSUPPL-D fish-INF he is beSUPPL-D-INF fish-INF
‘He has been out fishing.’  ‘He has been out fishing.’
Altenburgisch (Weise 1900)
b. ..dass ihm kein Mensch was hat konn-t an-hab-en
   that him no man something has can-D on-have-INF
   ‘...that noone could do anything to him.’

c. wenn man das hätte konn-t wiss-en
   when one that had can-D know-INF
   ‘If one only could have known that.’

d. Dillingen (Saar) (Labouvie 1938)
   Er hat nicht möch-t-en komm-en
   he has not may-D-INF come-INF
   ‘He was not allowed to come.’

e. Early Middle Dutch (Heersche 1991)
   ..of hi also alse recht es hem heuet dae-n sinn-en
   whether he thus like just is him has doSUPPL-N excuse-INF
   ‘...whether he thus rightly let himself be absolved.’

(47) Interference Frisian (Wolf 1996)
a. rinn-en sjoe-n ÷ b. sjoe-n rinn-en ÷ c. sje-n rinn-en
   run-INF seeABL-N seeABL-N run-INF see-INF run-INF
(48) let
   a. laten stikken       b. laten zitten
   let suffocate          let sit
   ‘abandon, leave to one’s own devices’      ‘give up, forget about’

c. laten vallen
   let fall
   ‘drop, cease to pursue’ ‘abandon, withdraw support’

(49) see
   a. iemand zien zitten       b. iemand niet zien staan
   someone see sit             someone not see stand
   ‘appreciate someone’        ‘ignore someone, fail to respect someone’

(50) noncompositionality
   a. Hij heeft mij lat-en stikk-en
      he has me let-INF suffocate-INF
      ‘He abandoned me.’
   b. # Ik benge-stik-t
      I am GE-suffocate-D
      ‘I suffocated’
      (not ‘I was abandoned’)
   c. Hij heeft mij nooit zie-n zitt-en
      he has me never see-INF sit-INF
      ‘He never liked me.’
   d. # Ik heb nooit ge-zet-en volgens hem
      I have never GE-sit-N according to him
      ‘I never sat, according to him.’
      (not ‘He never liked me.’)

(51) fronting
   a. Ik heb hem niet zie-n zwemm-en
      I have him not see-INF swim-INF
      ‘I did not see him swim.’
b. * Zwemm-en heb ik hem niet zie-n / ge-zie-n
swim-INF have I him not see-INF GE-see-N

References.