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The IPP Effect in Afrikaans: Southern African Variations on a West Germanic Theme*

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ABSTRACT This paper concerns the so-called *Infinitivus Pro Participio (IPP)* effect – an infinitive-like form surfacing where a selected past participle is expected – in modern Afrikaans. Prior research has highlighted the apparent optionality of this effect, leading to conflicting conclusions regarding the continued existence of a productive IPP effect in contemporary Afrikaans. Here we draw on recent corpus- and questionnaire-based investigations to consider the optionality of the IPP effect in Afrikaans in more empirical detail, with the objective of establishing (i) the status of the IPP in Afrikaans and (ii) how it differs from the IPP in Dutch. The paper's second objective is to consider the role of language contact in shaping the IPP effect as it is currently attested in (varieties of) Afrikaans.

1 INTRODUCTION

This paper concerns the *Infinitivus Pro Participio (IPP)* effect in modern Afrikaans (henceforth: *Afrikaans*). The IPP effect centres on the unexpected occurrence of something that looks like an infinitival form where a selected perfect participle would be expected. Consider the difference in form between Afrikaans (1a) and (1b):

(1) a. *dat ek* ***ge****leer*$_2$ *het*$_1$.
that I GE.learn have
'. . . that I have learned.'

b. *dat ek* ***leer***$_2$ *luister*$_3$ *het*$_1$.
that I learn.INF listen.INF have
'. . . that I have learned to listen.'

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In (1a), the perfect auxiliary *het* 'have' selects a *ge*-marked perfect participle *geleer* 'learned'. Generativists traditionally label *het* in these constructions with the number *1* and refer to it as V_1 to reflect the fact that it occupies the highest structural position in the verbal cluster. By the same logic, *geleer* is V_2. In (1b), V_1 *het* still selects for a perfect participle. However, when the verb that is selected by the perfect auxiliary itself selects a third verb (V_3; *luister* 'listen' in 1b), V_2 no longer appears in perfect-participle form; instead, it surfaces in an unmarked form that could, in Afrikaans, be the infinitive or a finite present-tense form. As participles can replace infinitives in other contexts (so-called *Participio pro Infinitivo* structures), it is traditional to describe the V_2s in (1b)-type structures as *IPP forms*. The IPP effect occurs in (varieties of) German and Dutch (Schmid 2005), but is absent in other West Germanic languages, including Frisian and contact varieties like English and Yiddish (Hinterhölzl 2009). The IPP in Afrikaans has been claimed to be optional (Ponelis; 1993, Robbers; 1997, De Vos; 2001, Zwart; 2007, cf. Donaldson 1993). An example of this optionality is given in (2):

(2) *dat ek die hele middag* ***(ge)****sit*$_2$ *en werk*$_3$ *het*$_1$.
that I the whole afternoon GE.sit and work have
'… that I sat and worked the whole afternoon.'

In sentences like (2), both the perfect participle and the IPP form are grammatical; and the alternation is semantically vacuous. Not all scholars that have written about this phenomenon in Afrikaans, however, agree that it is in fact still an active part of the grammar. Ponelis (1993) and Conradie (2012), for instance, claim that it is either a mere residue or may not even exist at all in modern Afrikaans. By contrast, De Schutter (2001: 205) argues that the phenomenon has started to 'live its own life' in Afrikaans, and that it should thus be seen as a phenomenon governed by an adapted rule compared to that which came into the language via earlier stages of Dutch. The aim of this paper is two-fold. First, we want to consider the optionality of the IPP effect in Afrikaans in more empirical detail to establish whether the effect (i) still exists in the language, and (ii) how it differs from IPP in Dutch. Second, we want to consider the role of language contact in shaping the IPP effect as it is currented attested in (varieties of) Afrikaans.

The paper is structured as follows: in section 2, we sketch a clear empirical picture of the optionality of the IPP effect in Afrikaans, incorporating insights from a recent corpus study and a recent questionnaire study. In section 3, we discuss some of the internal and contact factors that appear to have resulted in this IPP-profile. Section 4 concludes the paper, and presents directions for future research.

2 The Empirical Picture

2.1 Different subclasses of verbs

As mentioned in the introduction, the IPP effect in Afrikaans is often taken to be optional. However, there is a clear difference in the frequency of the IPP and the

perfect-participle form in IPP contexts if one considers the various V_2 subclasses. This is shown in a recent study by Dirix, Augustinus & Eynde (2020), who conducted a corpus study using the *Taalkommissie* ('Language Commission') corpus (https://viva-afrikaans.org/). Their study shows that aspectual verbs (*begin* 'begin', *gaan* 'go', *kom* 'come', *bly* 'stay', *aanhou* 'continue' and *ophou* 'stop'), subject control verbs (*probeer* 'try', *durf* 'dare' and *leer* 'learn'), causative *laat* 'let', perception verbs (*sien* 'see' and *hoor* 'hear') and benefactive *help* 'help' and *leer* 'teach' show very high frequencies of the IPP form, ranging from 81.25% to 100%. These are also the subclasses of verbs which exhibit the IPP effect in Dutch (Schmid 2005).[1] Two subclasses of Afrikaans verbs which show different IPP behaviour compared to Dutch, however, are (i) motion verb *loop* 'walk' and the three cardinal posture verbs, *sit* 'sit', *staan* 'stand' and *lê* 'lie', and (ii) the root modal verbs *moet* 'must', *kan* 'can', *wil* 'want' and *mag* 'may'. Let us look at each of these subclasses in turn.

2.2 Motion and posture verbs

In Afrikaans, the motion verb *loop* 'walk' and the posture verbs *sit* 'sit', *staan* 'stand' and *lê* 'lie' occur in pseudo-coordination constructions (see De Vos (2005) for detailed discussion). Consider again (2) above. In Robbers (1997), De Vos (2001), De Vos (2005), Augustinus & Dirix (2013), and Biberauer (2019b) among others, it has been noted that this set of verbs in particular exhibits optional IPP. Cavirani-Pots (2020) additionally shows that this optionality is reflected both in corpus data and in large-scale native-speaker judgements. The latter is an important addition to the discussion surrounding the optionality of the IPP effect in Afrikaans because corpus results typically cannot tell us anything about speaker-internal optionality. Cavirani-Pots's data are based on the recently collected judgements of 201 Afrikaans native-speakers who assessed three-verb clusters featuring the above four verbs in the correct IPP context.[2] They reveal a high degree of intraspeaker optionality regarding the IPP- and non-IPP forms in IPP contexts. An adapted version of the relevant data-table is given here in Table 1 (Cavirani-Pots 2020: 192).[3]

As Table 1 shows, for the majority of speakers surveyed, *ge-* is truly optional in IPP contexts featuring motion and posture verbs. Interestingly, the extent to which speakers permit both IPP- and non-IPP forms mirrors the extent to which

[1] The Afrikaans aspectual subclass includes two innovative aspectual verbs, *aanhou* (literally: on.hold = 'start') and *ophou* (literally: up.hold = 'stop'), which are not IPP-triggering verbs in Dutch. The causative subclass has been said to include *maak* ('maak'), which does not exist as a causative verb in Dutch. We leave this verb aside here as it only seems to trigger IPP infrequently (see Dirix et al. (2020) and Cavirani-Pots (2020: 245) and there also appear to be verb-specific factors in play that distinguish productive causative *laat* from *maak*.

[2] This is where V_1 is a finite auxiliary, V_2 belongs to the class of IPP triggers, and V_3 is a lexical verb which also surfaces in the infinitive form (see again (1b), and the description in section 1). In Afrikaans, these structures always exhibit 2-3-1 ordering, i.e. IPP TRIGGER-LEXICAL VERB-FINITE AUXILIARY, a point we will return to in section 3

[3] In the original table in Cavirani-Pots (2020: 192), two types of *loop* 'walk' are given, one that is used to indicate progressive aspect, and one that is used to indicate andative aspect. Given that this semantic difference is not relevant for the purposes of this paper, we give the average of both uses in the table in the current paper.

Verb	Obligatory *ge-*	Optional *ge-*	Obligatory no *ge-*
Loop 'walk'	15.1	69.4	15.5
Sit 'sit'	13.1	84.4	2.5
Staan 'stand'	12.5	82.8	4.7
Lê 'lie'	8.0	91.0	1.0

Table 1 Optionality of *ge-* per motion or posture verb (%).

the verb in question has been grammaticalised (De Vos 2005, Breed 2017, Cavirani-Pots 2020):[4] most speakers permit both IPP- and non-IPP forms with *lê*, the least grammaticalised posture verb, with *sit* and *staan* less generally permitting both options, and strongly grammaticalised *loop* doing so least of all. Similarly, the number of speakers requiring an IPP form (no *ge-*) is highest for *loop* and lowest for *lê* with *sit* and *staan* behaving more like this least grammaticalised verb.

For the four verbs under consideration here, then, IPP evidently can be truly optional for many modern-day speakers. However, as discussed in Cavirani-Pots (2020: 276), these data do not represent all varieties of Afrikaans, and exclude especially those regions that are hard to reach via an online questionnaire (e.g. the Northern Cape). We return to consider IPP in colloquial varieties of Afrikaans, including, notably, some that were not covered in Cavirani-Pots's survey, in section 2.6 below.

2.3 Modal verbs

The class of modal verbs in Afrikaans behaves significantly differently to the other subclasses of IPP triggers in the language. Modal verbs are morphologically special as they have a past-tense form, which the other IPP triggers do not: compare *moet–moes* 'must', *kan–kon* 'can', *wil–wou* 'want', and, marginally, *mag–mog* 'may' (*mog* is an archaic verb, absent from the active lexicon of most present-day speakers of Afrikaans). Furthermore, they lack a perfect-participle form (Donaldson 1993: 242). Dirix et al. (2020) show, based on a corpus study, that the classic IPP perfect-tense construction (MOD-V_3-het_1) is virtually non-existent in the corpus. Specifically, they tested Robbers's claim 1997: 56-7 that a sentence like (3) can have five different past-tense forms associated with different degrees of acceptability:

(3) *Jan kan*$_1$ *hard werk*$_2$.
Jan can hard work.INF

'Jan can work hard.'

[4] One reflex of the difference in how grammaticalised the relevant verbs are is the extent to which speakers require a literal interpretation of the motion/posture verb in IPP-structures, i.e. the degree of semantic bleaching: a literal interpretation is nearly always required for *lê*, while this is less so for *sit* and *staan*, with *loop* quite readily being interpreted as a general motion verb, similar to *gaan* 'go' (another IPP trigger).

The different options are given in (4).

(4) a. *Jan* ***kon***$_1$ *hard werk*$_2$.
Jan can.PST hard work.INF

b. *Jan het*$_1$ *hard* ***kon***$_2$ *werk*$_3$.
Jan have hard can.PST work.INF

c. *Jan het*$_1$ *hard* ***kan***$_2$ *werk*$_3$.
Jan have hard can.PRES work.INF

d. *Jan* ***kon***$_1$ *hard gewerk*$_3$ *het*$_2$.
Jan can.PST hard GE.work have

e. *Jan* ***kan***$_1$ *hard gewerk*$_3$ *het*$_2$.
Jan can.PRES hard GE.work have

Insofar as we can label one of these options as being 'IPP-like' (compare the Dutch IPP form: *Jan heeft*$_1$ *hard* ***kunnen***$_2$ *werken*$_3$), it would at first sight be (4c): here we have a modal that is selected by perfect auxiliary *het* 'have', with the modal itself selecting a third verb, and not surfacing as a participle (**gekan*), but as a present-tense/infinitival form. The fact that the modal does not appear as a participle is unsurprising as Afrikaans for the most part lacks modal participles.[5]

It, however, turns out that exactly this option – which speakers judge as being available in the context of grammaticality judgements[6]– is virtually absent in the corpus search executed by Dirix et al. (2020). This replicates the findings of De Schutter (2001)'s smaller, fiction-based corpus study. Like De Schutter, Dirix et al. also found that (4a)-type structures are very common in contexts where an IPP-structure could have surfaced in Dutch; that is, Afrikaans speakers favour the use of a two-verb past-marked modal (MOD$_1$-V$_2$) pattern where Dutch speakers harness the classic IPP perfect-tense MOD$_2$-V$_3$-AUX$_1$ pattern.

The other commonly occurring pattern is (4d), a construction in which a past-marked modal selects the perfect auxiliary, which in turn selects V_3. The past-tense morphology on the modal is unexpected as the perfect auxiliary and participle combination, *gewerk het*, already expresses that the event happened in the past, rendering the past-tense morphology on the modal superfluous. These so-called

[5] *Gekan/gekon* (GE.can.PRES/GE.can.PST) and *gewil/gewou* (GE.will.PRES /GE.will.PST) are still available to some speakers of some varieties, e.g. Kaaps, a heavily contact-influenced variety spoken on the Cape Peninsula (see Hendricks (2016: 28); Kotzé (2016: 50)). Importantly, these participles do not seem to be compatible with IPP structures (Chevân van Rooi, P.C.), i.e. the restricted availability of modal participles does not produce optional IPP in Kaaps.

[6] The first author conducted a mini-grammaticality judgement survey centring on non-contextualised instances of these structures among 18-45 year-old native-speakers of Afrikaans. All participants accepted modal-containing IPP structures. This also accords with the first author's own native-speaker judgements. Follow-up discussion with a subset of the participants, however, indicated that they were uncertain about contexts in which they would use these structures. This is unsurprising, given the corpus results, which suggest that these structures may no longer be used or that they may only be used in very restricted contexts and possibly also not by all speakers. The details are a matter for future research.

preteritive assimilations (Ponelis 1979) are very common, however, whereas (4e)-type structures exhibit a much more restricted distribution (at least in more standardly oriented varieties; (4e)-type structures are not uncommon in Kaaps – see again Hendricks 2016).

We also see past-doubling in (4b), where both auxiliary *het* and *kon* express the past tense. This structure is interesting as *kon* could in fact be an infinitive form: as part of the reanalysis of perfect-auxiliary *het* (see section 3), Afrikaans has innovated a past-tense modal infinitive structure which permits speakers to produce structures like (5) (see Conradie 2007, Conradie in press for extensive discussion):

(5) *Om destyds daar te kon$_2$ werk$_3$ het$_1$ was 'n voorreg.*
INF.C that.time there to can.INF werk.INF have was a privilege

'To have been able to work there was a privilege.'

In light of (5), (4b) also appears to be an IPP structure, another IPP innovation thus. Like (4c), though, this structure barely surfaces in Dirix et al's study. What speakers prefer instead is (4d), i.e. … *om daar te kon gewerk het.*

In sum, given that Afrikaans modals have no perfect-participle form, morphological restrictions rule out optional IPP for this class of verbs from the outset: only the IPP form is expected to be possible. In practice, modals do not seem to occur in IPP contexts, however, as speakers instead prefer either a past-tense form with just one selected main verb (4a) or so-called *preteritive assimilation constructions*, in which the modal is no longer the cluster's V_2, with the result that it cannot 'show IPP' (4d). This class thus behaves very differently from its cognates in Dutch. This is a significant consideration, given that modals constitute the core class of IPP verbs in that language, and in West Germanic more generally (Schmid 2005).

2.4 IPP with ***wees*** *'to be'*

One verb that shows the IPP effect in Dutch that has not been discussed so far – and that, indeed, is not typically discussed in the literature on Afrikaans IPP – is the verb *wees* 'to be'. In standard (mostly Netherlandic) Dutch, this verb exhibits a distinctive morphological form: rather than the true infinitive (*zijn*) surfacing as V_2 in IPP structures, a suppletive form, *wezen*, which looks like the base for perfect forms (e.g. perfect-participle *geweest*), shows up (Zwart 2007). Consider (6):

(6) *Hij is$_1$ wezen$_2$ zwemmen$_3$.*
he is be.SUPPL-INF swim.INF

'He has been out for a swim (and is now back).'

Here perfective-auxiliary *is* selects the suppletive infinitive *wezen*, which itself selects an infinitival V_3 (*zwemmen*). Now the question is whether Afrikaans *wees* shows similar behaviour. The answer is no, as (7) demonstrates:

(7) **Hy is wees swem.*
he is be.INF swim.INF

Here it is worth noting that, although Afrikaans mostly lacks Dutch-style HAVE-BE auxiliary selection, *wees* is in fact a verb that forms its perfect with BE, e.g. *Hy is gewees* ('He has been'). Perfect *is* categorically requires a perfect participle, however, and this *gewees* cannot select a further verbal complement (**Hy is*$_1$ *swem*$_3$ *gewees*$_2$).

In addition to the class of modals, then, there is another verb that shows IPP in Dutch that systematically does not do so in Afrikaans, namely *wees* 'to be'.

2.5 IPP verbs and quirky V2

So far, we have seen that there are six subclasses of Afrikaans verbs that show the IPP effect either (almost) obligatorily or optionally as an alternative to the expected *ge*-marked form:

(8) a. Aspectual: *begin* 'begin', *gaan* 'go', *kom* 'come', *bly* 'stay', *aanhou* 'continue', *ophou* 'stop'.

b. Subject control: *probeer* 'try', *durf* 'dare' and *leer* 'learn'.

c. Causative: *laat* 'let'.

d. Perception: *hoor* 'hear' and *sien* 'see'.

e. Benefactive: *help* 'help' and *leer* 'teach'.

f. Pseudo-coordination: *loop* 'walk', *sit* 'sit', *staan* 'stand' and *lê* 'lie'.

Interestingly, the majority of these verbs have another type of morphosyntactic behaviour in common, namely that they are able to occur in the so-called *quirky Verb Second* (henceforth *quirky V2*) constructions (De Vos 2005, Biberauer 2019b). An illustration of the construction is given in (9a); compare this with the standard V2 configuration in (9b).

(9) a. *Daar* ***loop (en) vertel*** *hy alweer allerhande stories!*
there walk and tell he again all.kinds stories
'There he's going around telling all kinds of stories again!'

b. *Daar* ***loop*** *hy alweer allerhande stories* ***en vertel!*** (Biberauer 2019b: 6)

In (9a), the entire pseudo-coordination construction appears in V2 position. In (9b), only the finite verb, *loop* 'walk', appears there. In Dutch, quirky V2 is completely ungrammatical.[7]

The only verbs listed above that cannot occur in quirky V2 structures are the perception verbs, and *aanhou* 'continue', *ophou* 'stop', and *durf* 'dare'. For the perception verbs, we assume quirky V2 to be ruled out because the perception verb and the lexical verb each have their own subject, which requires the projection of independent vPs (thematic/argument-structure domains). This assumption seems justified, given that the relevant perception verbs, *hoor* ('hear') and *sien* ('see') retain their core lexical semantics – one cannot employ the relevant verbs in IPP structures without the subject hearing and seeing what is encoded by V_3 and its associated arguments and modifiers; *hoor* and *sien* are therefore not (part-) grammaticalised evidentials of the kind found in many languages (Aikhenvald 2014). *Aanhou* 'continue' and *ophou* 'stop' have a 'size problem' as well in that they are particle verbs, which obligatorily strand their particles under V2. Consider (10a) and (10b):

(10) a. *Hy* ***hou*** ***aan*** *oor* *sy* *stukkende* *fiets* *neul.*
he hold on over his broken bike whine
'He keeps whining about his broken bike.'

b. … *dat* *hy* *oor* *sy* *stukkende* *fiets* ***aanhou*** *neul.*
… that he over his broken bike on.hold whine
'… that he keeps on whining about his broken bike.'

These verbs are thus independently incapable of forming a unit with the lexical verb that undergoes movement to the V2 (Verb Second) position. As for *durf* 'dare', the semantic connection between this verb and the class of root modals and the fact that Dutch *durven* groups with the root modals in respect of its fixed *plaatscategorie* ('positional category') in complex verb-clusters (Coussé & Bouma 2022: 126) lead us to expect that this verb will pattern with the modals. And this is correct: the modals can never occur in quirky V2 structures (in stark contrast to what we see in the Brazilian German varieties mentioned in Footnote 7):

(11) a. **Sy* ***moet*** ***help*** *die* *kinders.*
she must help the

[7] Postma (2019) and Kaufmann (2022) report a distinct kind of 'quirky V2' pattern in the Pomeranian varieties of German that are spoken in the Espírito Santo province of Brazil (referred to as *Brazilian Pomeranian* and *Pomerano* by the relevant authors). Here the 'complex' V2 verb systematically consists of a modal and a past-tense auxiliary, i.e. a completely different pattern to that observed in Afrikaans, but again one involving a member of the IPP class. The differences between Afrikaans and Brazilian German 'quirky V2' would seem to relate to key differences in the make-up of their tense-aspect-mood/TAM systems, a topic we leave to future research (consider the brief discussion in section 3, however).

b. *Sy* ***moet*** *die kinders* ***help***.
she must the children help

'She must help the children.'

The fact that IPP verbs that aren't independently precluded from doing so can also occur in this construction is of theoretical importance: it shows us that Afrikaans IPP verbs are verbs that can combine very closely with the lexical verbs they select. That is, in order to be able to co-occur in V2 position, the two verbs combined must appear to the syntax as one complex verb, and, moreover, as one in which the component parts are more tightly bound than those of particle verbs (which, as shown in 10a and 10b, are separated under V2). This perspective picks up on earlier discussion of IPP phenomena which views it as the reflex of the co-occurrence of two or more verbs which have to share a domain which is in fact too small for them (see Kjeldahl 2010 for discussion and references). A full theoretical analysis of the Afrikaans IPP effect and how IPP triggers facilitate quirky V2 is beyond the scope of this paper. In section 3 below, we will, however, offer some initial thoughts, focusing specifically on the interaction between pre-existing Dutch-derived properties and Afrikaans's development in a contact environment.

2.6 IPP in colloquial Afrikaans

The last component of our empirical sketch concerns a discrepancy between more and less standard-oriented colloquial varieties of Afrikaans. Donaldson (1993: 225-226) notes for colloquial varieties in general that the presence of *ge-* on V_2 in IPP contexts is strongly preferred. Other scholars mention specific varieties that seem to strongly prefer *ge-* on V_2 in IPP contexts, e.g. Griqua/Griekwa Afrikaans, Knysna Boswerker ('Knysna Forest-worker') Afrikaans, and Kaaps (De Vos 2003, Conradie 2012). Interestingly, in some cases, this strong preference for *ge-* on V_2 seems to correlate with other non-standard behaviours of the prefix, and also with some further relevant morphosyntactic properties. Three of the properties discussed in De Vos (2003) and Conradie (2012) are briefly presented here, namely (i) the combination of *ge-* with other verbal prefixes and particles, (ii) *ge-* occurring on V_3 rather than on V_2 in IPP contexts, and (iii) auxiliary *het* (V_1) being dropped in the presence of *ge-* on V2 in IPP contexts.

In Griqua Afrikaans, and also in less standard-oriented varieties more generally, *ge-* (often pronounced as *ga-*, Conradie 2012) frequently occurs on the perfect-participle forms which already contain a verbal prefix like *be-, er-, her-, ont-, ver-*. Rademeyer (1938: 62-3) gives ***ge****begene* 'begun', ***ge****ërken* 'acknowledged', ***ge****herken* 'recognised', ***ge****onthou* 'remembered' and ***ge****verneem* 'enquired' as examples. These forms indicate that *ge-* has greater freedom in the relevant varieties than in standard Afrikaans, where *ge-* is obligatorily absent in the presence of these prefixes. In Griqua Afrikaans, *ge-* exhibits even greater positional freedom: where *ge-* consistently appears between the particle and the verbal stem in Dutch and also in most varieties of Afrikaans (e.g. *op****ge****bel* – up.GE.call –'called'), it can attach to the outside of the entire particle-verb complex in Griqua Afrikaans, e.g. ***ge****opbel* 'called'. Examples

from Rademeyer (1938) are ***ge**neersit* 'put down' and ***ge**aanteel* 'reproduce'. Further, according to Rademeyer, *ge-* can even occur in both positions simultaneously. Consider (12):

(12) *Ek het nou nie* ***ge-*** *skool* ***ge-*** *gan nie.*
I have now not GE school GE gone not.

'I did not really attend school.' (Rademeyer 1938: 63)

The second deviation from standard varieties with respect to *ge-* placement that Griqua Afrikaans shows, and that it shares with other less standard-oriented varieties such as Knysna Boswerker Afrikaans, Baster Afrikaans ('Bastard Afrikaans'), and Velddrifse Vissertaal ('Velddrif Fishermen's Language'; De Vos 2003), is that *ge-* can also occur on the lexical verb (V_3) in IPP contexts rather than on V_2. Consider (13):

(13) *Ons het*$_1$ *nou sy kopklip …in Delport lop*$_2$ *op**ge**mak.*
us have now his headstone …in Delport walk up.GE.make

'We have now erected his headstone in Delport.' (Conradie 2012: 133)

Note that this option may be more widespread than just the varieties mentioned by De Vos (2003). Cavirani-Pots's (2020) questionnaire study did not target dialectal varieties *per se*, but found that *ge-* on V_3 was accepted by 14 speakers in pseudo-coordination constructions in IPP contexts with *loop* 'walk' as V_2, and by 35 speakers in similar constructions with *sit* 'sit' as V_2. Future work should probe this in more detail.

The final morphosyntactic property that Griqua Afrikaans specifically has that combines with its preference for *ge-* in IPP contexts is that it often drops auxiliary *het* 'have'. Consider (14) (*[HET]* marks the position of the omitted V_1 auxiliary):

(14) a. *Ek [HET] by hille daarie klom jare* ***ge**bly.*
I have by them that bunch years GE.stay

"I stayed with them all those years.' (Van Rensburg 1984: 869)

b. *Die ene wat my broer se vrou* ***ge**vat [HET].*
the one what my brother POSS wife GE.take

'The one who stole my brother's wife.' (Van Rensburg 1984: 1019)

Taking the data in this section together, we see that there appear to be colloquial varieties of Afrikaans, including Griqua Afrikaans, in which the IPP is much less strongly attested than in standard and standard-oriented varieties of Afrikaans. Significantly, for at least some of these varieties, this fact correlates with further distinctive morphosyntactic behaviour, notably of *ge-* and of the perfect auxiliary *het*. In the following section, we consider how the 'un-Dutch' behaviour of these and other elements discussed above may shed light on the form that the IPP takes in contemporary Afrikaans.

3 Inheritance and Contact in the making of Afrikaans IIP

In the preceding discussion, we have seen that the IPP is certainly still a feature of modern Afrikaans, albeit to varying extents in different varieties. The internal make-up of the most commonly attested IPP structures is quite different from what is found in Dutch and West Germanic more generally, however. Where modal-centred IPP is common to all Continental IPP systems (Schmid 2005), this option seems only to be rarely attested in Afrikaans production (see again section 2.3 above). Similarly, IPP with *wees* is also unavailable, in contrast to what we see in Dutch (see section 2.4). On the other hand, Afrikaans does feature a comparatively speaking wide range of IPP triggers, including several innovated ones (e.g. *aanhou* 'continue' and motion *loop* 'walk'). Furthermore, these IPP structures can alternate with *ge*-marked structures in a way that is not possible in Dutch varieties (see section 2.2 and section 2.6). In this section, we will offer some initial consideration of factors – both 'internal' and 'external' – that may have played a role in creating the IPP picture that has emerged from our empirical investigation.

Firstly, it is important to note that Afrikaans IPP clusters consistently require 231 clustering.[8] This contrasts with the usual Dutch pattern, which is 123, with 231 being an additional option in some dialects. The fact that Afrikaans permits only the 231 order plausibly follows from two factors:

i. The loss of ordering options in two-verb clusters: unlike Dutch, which permits ordering permutation, Afrikaans systematically requires modals and other infinitival verb/clause-selecting verbal elements to precede their complements (1-2), while auxiliaries consistently follow their selected participle (2-1); and

ii. The way in which three-verb clusters are acquired, namely by combining the relative orderings of the component verbs (Kampen & Jacqueline 2017). Three-verb clusters are thus effectively acquired by combining earlier-acquired knowledge of the ordering of two-verb clusters.

The loss of optionality in two-verb clusters may be a contact effect (simplification resulting from adult L2 learning; Trudgill 2011), but the way in which innovated aspectual and pseudo-coordination verbs have slotted into the existing 231 IPP pattern reflects the internal organisation of the grammar and the learning biases that drive L1-acquirers to make maximal use of minimal means (here: already-existing grammatical classes[9]) while acquiring this organisation (Biberauer 2019a). That IPP-structures are 231 is significant as this order ensures (i) the cluster-initiality of the IPP verbs, (ii) the adjacency of the IPP verb (V_2) and the lexical verb (V_3), and (iii) the cluster-finality of *het* (V_1).

[8] *Pace* Schmid (2005: chapter 3), who registers 123 and even 213 as alternative/preferred orders.

[9] Specifically, the innovative IPP verbs – which are all aspectually and perspectivally oriented in semantic terms – have joined the class of modal-patterners, which require their selected verbal complement to follow them, i.e. MOD_1-INF_2. In the IPP context, meanwhile, the temporal auxiliary selects its (IPP-shaped) participial complement to its left, as usual, giving [[IPP $_{\text{PARTP}}$ V_2-V_3]-V_1], or consistent 231 ordering.

(i) matters as all the IPP triggers are in some sense point-of-view/speaker-oriented (i.e. perspective- or stance-marking elements), and peripheral structural domains have independently been argued to constitute the locus for innovation and further grammaticalisation of such elements (see, for example, Biberauer's 2018 *Peripheral Speaker-Hearer Hypothesis*).

Importantly, there has been significant innovation in the Afrikaans point-of-view-centred aspectual domain, with 'light' verbs familiar from Dutch (e.g. *gaan* 'go', *kom* 'come', *loop* 'walk' and *staan* 'stand') becoming more grammaticalised than their Dutch counterparts (see i.a. Breed (2017), Biberauer (2019b), Cavirani-Pots (2020), aspectual pseudo-coordinations becoming established (De Vos 2005, Biberauer 2019b, Biberauer & Vikner 2017, Cavirani-Pots 2020), and additional lexical items (e.g. *aanhou* 'continue' and *ophou* 'stop') joining the class of IPP triggers, potentially an early step in an incipient grammaticalisation process.[10] The quirky V2 phenomena presented in section 2.5 demonstrate the extent to which some of these aspectual forms – crucially, those internally/grammatically licensed to do so (see again section 2.5) – have grammaticalised: they effectively serve as adverbial modifiers adjoined directly to the finite verb. Had (ii) not held – i.e. had IPP clusters not consisted of cluster-initial perspectival/aspectual IPP triggers (V_2) directly followed by lexical verbs (V_3) – the formal conditions for the rise of quirky V_2 would have been compromised, that is, as noted in section 2.5, IPP structures seem to involve structural compression; which was able to serve as a springboard for univerbation – creating a 2-3 unit – owing to Afrikaans's **23**1 IPP clustering.[11] Here, then, three factors came together to produce the observed innovation: (i) a contact-related need – having a robust inventory of perspectival and vernacular narrative-friendly[12] structures – which interacted with (ii) internal/formal considerations – the existing formal make-up of the grammar, and universally available loci for further development – and (iii) the way in which first adults and then children make maximal use of minimal means.

At the same time, *ge-*, often analysed as a completive-aspect marker in Dutch (Zwart 2007), also seems to have undergone further grammaticalisation, becoming a tense-marker in modern-day Afrikaans (De Vos 2003).[13] In Griqua Afrikaans, *ge-*'s tense-marking status is particularly clear (see again 14 where *ge-* is able to convey past-tense meaning in the absence of auxiliary *het*). This process may have its origins in the Cape Dutch pidgin that fed into the structure of Afrikaans: Roberge (2002: 93) notes that *ge-/ga-* in the Cape Dutch pidgin thought to underlie Afrikaans

[10] In considering the striking rise of novel and/or more grammaticalised aspectual V_2 elements in Afrikaans, it is worth noting the pre-existing connection between IPP V_2 and aspect in Dutch. Without V_2-*wezen* in (6), for example, the completion reading (*the swimmer has by now returned*) is lost: *Hij is*$_1$ *zwemmen*$_2$ simply conveys that the individual has gone swimming.

[11] Many Afrikaans 231 clusters are therefore actually two-verb clusters, with 2-3 constituting the initial verb and 1 the second. This pattern matches the invariant 2-1 ordering found with auxiliary *het*.

[12] Pseudo-coordination structures are narrative structures *par excellence*; see Roberge (2002) on the origin and development of these structures.

[13] This development also seems to be relevant in understanding the rise of innovative aspectual forms in Afrikaans: the loss of completive-marking *ge-* seems to go hand-in-hand with the rise of numerous inceptive and process-oriented 'light' verbs; see again the list in (8).

'marked events situated in the past', and mentions the possibility that this usage was reinforced by Khoekhoe preterital particles of similar form. In most varieties, *ge-* still combines with *het*, which has also undergone further grammaticalisation in all varieties of Afrikaans (Conradie 2007, Zwart 2017). Like *ge-*, *het*'s precise formal status need not concern us here (see Conradie 2007, Conradie in press, and Zwart 2017, on *het* as an inflectional clitic or affix); what matters is that final (as opposed to V2) *het*'s peripheral position has clearly fed into its formal reduction, and this reduction has, in turn, led to a significant restructuring of the Afrikaans tense system.

Focusing first on *ge-*: its distribution in colloquial varieties (other than Griqua Afrikaans) suggests that it has become part of what appears to be a circumfixal tense-marking (*ge-V-het*).[14] As such, the tendency to want to include it in IPP-structures can be understood as a tendency to regularise the expression of past-tense in Afrikaans. This impetus to regularise may well be reinforced by the existence of superficial 231 structures that are in fact two-verb 2-1 clusters (see footnote 11): 2-1 structures are participial structures in Afrikaans. Given the fact that *ge-* is, however, not consistently realised in (standard-oriented) varieties that retain (versions of) the Dutch-derived *be-/ge-/her-/er-/ont-/ver-* prefixal constraint and also in IPP structures, optionality is to be expected. Interestingly, Conradie (2012, in press) points to phonological considerations that appear to condition the realisation of *ge*-marking in standard-oriented varieties: participles are characterised by a rising stress-pattern, in the absence of which *ge-* is obligatory; thus *het gegáán* 'went' versus *het probéér* 'tried'. In less standard-oriented varieties, this phonological consideration is loosened under the influence of what can be viewed as a 'competing' *ge*-generalisation/regularisation pressure, thus giving rise to forms like those introduced in section 2.6. Since IPP structures effectively feature a two-part participle in Afrikaans (see again footnote 11), with V_3 serving as a stressed component, e.g. *gaan éét* 'go buy', we expect the *ge*-less structure to be preserved in more standard-oriented varieties. This, then, supports the retention of IPP structures. Where *ge*-generalisation is in play, optionality emerges, however. Against this backdrop, the fact that Afrikaans IPP structures may be *ge*-marked therefore follows from internal factors (the considerations determining the realisation of *ge-*) and the differing formal generalisations that speakers of different varieties postulate – possibly to varying extents in different registers – regarding those internal factors.

Returning to *het*: its formal reduction has not just affected the realisation of participial structures; it also seems to be an important consideration in the reorganisation of the modal system. Specifically, if *het* has become a tense suffix, as proposed by Zwart (2017), it becomes possible to analyse past-marked modals as suppletive forms which will therefore not co-occur with *het*. To the extent that speakers'

[14] *Het* in V_2 position then clearly requires explanation (see also Zwart (2017)). A formal distinction between Afrikaans's full and reduced *het*'s paralleling that for the English non-modal auxiliaries proposed in MacKenzie (2013) strikes us as promising in this regard. Note, too, that our characterisation of *ge-… het* as 'circumfixal tense-marking' should be interpreted in descriptive rather than analytical terms; there are various empirical indications that *ge-* and *het* function independently in modern Afrikaans varieties, as they do in West Germanic. The details go beyond the remit of the present paper, however.

grammars contain inflectional *het*, both (4b) and (4c) are therefore expected to be absent from production, as observed. Similarly, (4a) is expected to be common, again as observed. Space considerations preclude full engagement with the patterns discussed in section 2.3, but what again seems clear is that the differences between Afrikaans and Dutch in the modal domain are at least partly the result of contact (the factors affecting the reanalysis of *het* and *ge-*) and partly of the kind of internal reorganisation that is familiar from systems in which key elements (here: the past auxiliary and the participial marker) undergo reanalysis.

4 Conclusion and Outlook

In this paper, we set out to probe the optionality of the IPP effect in Afrikaans, and to consider the factors that have produced the IPP picture that we see today. We have established that the IPP continues to exist, albeit in a clearly altered form compared to Dutch, with some core patterns having been lost, while new ones were innovated. In colloquial varieties, IPP forms alternate – often interpretively vacuously – with *ge*-marked forms. This is a phenomenon that appears to follow from partly independent changes to the tense-system, which also account for the loss of modal-centred IPP. In considering the innovative patterns, we see clear continuity with the Dutch formal system, but also various uncontroversial contact influences, notably also reflecting the need for Afrikaans to be a viable interaction-oriented spoken-language system in a sociolinguistically complex setting, that have led to reorganisations of this system. Ponelis (1993) and Conradie (2012) were therefore correct – in Afrikaans, Dutch-style IPP is dead; but so was De Schutter (2001) – the IPP is indeed living its own life. Probing the form that this takes in different varieties of Afrikaans, how the various systems came about, and to what extent the attested optionality is genuinely interpretively vacuous are just some of the questions that now suggest themselves.

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