# FLAVOURS OF $v_{\mathbf{G} O}$ : AUXILIARIES OF MOTION IN BRAZILIAN PORTUGUESE* 

Elizabeth Cowper

University of Toronto

## 1. Background and assumptions

Cross-linguistically, many auxiliary verbs are also used as main verbs. Generally, the main-verb use has a more specific or substantive meaning than the auxiliaryverb use has. The purpose of this paper is to propose a systematic way of capturing the relation between these two uses, using Brazilian Portuguese as the empirical base. If successful, the account proposed here should shed light on how the representations of functional/grammatical elements and lexical/substantive elements differ in the (distributed) lexicon and in the syntax.

Brazilian Portuguese has a relatively large set of auxiliary verbs. These are listed and briefly exemplified below. All of them have both auxiliary and mainverb uses; this paper will focus exclusively on the auxiliary verbs of motion.
(1) be-like auxiliaries - ser and estar:
a. O pão não é lá muito bom, mas está sendo comido. the bread not ser.pr.3s much good but estar.pr.3s ser.ndo eat.ppl
'The bread is not really very good, but it is being eaten.' T69:205 ${ }^{1}$
b. Eles estão sendo desagradáveis. they estar.pr. 3 p ser.ndo unpleasant
'They are being unpleasant.' S05:134 ${ }^{2}$
(2) have-like auxiliaries - ter and haver:
a. Como é que você tem estado? how ser.pr.3s that you ter.pr.3s estar.ppl
'How have you been?' T69:131
b. Vocês hão de ter lido êste livro até quinta-feira. you haver.pr.3p of ter.inf read.ppl this book at.the Thursday
'You are to have read this book through by Thursday.' T69:134

[^0]Aspectual auxiliary - ficar:
a. Você fica observando o que estiver sendo feito you ficar.pr.3s watch.ndo the that estar.fsbj.3s ser.ndo do.ppl na praça.
on.the square
'You keep watching whatever is being done on the square.' T69:206
b. Carlos ficou tremendo de pavor dos meninos darem Carlos ficar.pret.3s tremble.ndo of terror of.the boys give.inf.3p uma surra nêle. T69:167
a beating on.him
'Carlos was trembling with terror that the boys would beat him up.'
(4) Motion auxiliaries - ir 'go', vir 'come', and andar 'go around':
a. Vou desistir desta empresa.
ir.pr.1s give.up.inf of.this project
'I am going to give up this project. T69:125
b. Os rapazes vem chegando
the boys vir.pr.3p arrive.ndo
'The boys are arriving.' T69:207
c. Andam procurando alguém que saiba russo. andar.pr.3p seek.ndo someone that know.sbj Russian
'They are looking for someone who knows Russian.' T60:207
I assume, following Folli and Harley (2005) and Cuervo (2003), that Universal Grammar provides a small set of light verbs (v) with different properties having to do with argument structure and aspect. The grammatically relevant properties of these heads are represented by privative features in dependency relations, also known as feature geometries (Harley and Ritter 2002; Cowper 2005). I further assume the general framework of Distributed Morphology, in which possibly underspecified vocabulary items are inserted post-syntactically (Halle and Marantz 1993; Harley and Noyer 1999). Differences between syntactic representations may thus be obscured when the same underspecified vocabulary item is inserted to spell out distinct representations, creating surface syncretisms. Finally, I assume that lexical (i.e., non-featural) content is inserted in the form of acategorial roots (Harley 1995; Arad 1996; Arad 1999; Marantz 1997; Harley 2005).

## 2. Proposal

I propose that the auxiliary verbs of motion (AVMs) in Brazilian Portuguese instantiate three "flavours" of $v_{\mathrm{GO}}$, as listed in (5). The feature DYnAmic is a non-spatial analog of motion, and defines $v_{\mathrm{GO}}$. MANNER and DIRECTED encode the familiar Romance distinctionbetween directed-motion and manner-of-motion
verbs. InWARD expresses orientation toward the deictic centre. The dependency relations among these features are represented by the feature geometry in (6).
(5) a. $\quad$ vir $\Leftrightarrow$ INWARD
b. $i r \Leftrightarrow$ DIRECTED
c. andar $\Leftrightarrow$ MANNER


When ir , vir, and andar are used as auxiliaries, they spell out only $v$. When they appear as main verbs, they also spell out a verbal root denoting concrete motion in space-time, which I represent as $\sqrt{\text { MOVE. }}$

## 3. Main-verb use of andar, vir, and ir

### 3.1 Andar: a manner-of-motion verb

As a main verb, andar is used to describe physical motion without a specific goal. The manner of motion is underspecified; it is frequently interpreted as walking, but need not be.
(7) a. Andando contando proezas, êle ganhou fama de mentiroso. andar.ndo tell.ndo prowess he earn.pret.3s rep of liar
'By going around recounting his prowess, he got the reputation of a liar.' T69:205
b. Andamos juntos com freqüência em certa época. andar.pret.1p together with frequency in certain period
'We went out together frequently during a certain period.' T69:119

The structure of (7b) is shown in (8). The verb andamos is inserted postsyntactically, to spell out the morphological unit created by movement of $v$ to T , and agreement of T with the subject. ${ }^{3}$

[^1](8)


The status of andar as a manner-of-motion verb is confirmed by the fact that it cannot appear with a specific goal expression, as shown in (9):
(9) *Ele não andou na festa. he not andar.pret. 3 s in.the party
'He didn't go to the party.' (Intended) ${ }^{4}$

### 3.2 Vir: a verb of inward-directed motion

Like English come, vir describes motion directed towards the deictic centre. To the extent that the deictic centre is somewhere other than the speaker's actual location, vir can describe motion towards something other than the speaker's location.
a. Eu como em casa e venho encontrar com você aqui.

I eat.pr.1s in house and come.pr.1s meet.inf with you here
'I'll eat at home and come back to meet you here.' T69:127
b. O prédio estava vindo abaixo.
the building estar.impf. 3 s come.ndo down
'The building was coming down.' T69:199
c. $O$ tio vem jantar conosco. the uncle come.pr.3s dine.inf with.us 'Uncle is coming to our house for dinner.' T69:199

The structure of (10c) is shown in (11).

[^2](11)


### 3.3 Ir: the unmarked verb of directed motion

The verb $i r$ is used to describe directed motion either away from the deictic centre of the utterance, or along a path unrelated to the deictic centre.
(12)
a. Irei, nem que tenha que ir a pé. ir.fut.1s even that ter.pr.sbj.1s that go.inf to foot
'I'll go, even if I have to walk.' T69:123
b. Não sei se êle já foi ou não. not know.pr.1s if he already ir.pret.3s or no
'I don't know whether he has gone or not.' T69:154
c. Desde então, não vamos mais a êsse restaurante.
since then not ir.pr.1p more to that restaurant
'Since then we haven't been going to that restaurant.' T69:118

The structure of (12c) is shown in (13).
(13)


## 4. Auxiliary uses of andar, vir, and ir

All three can appear as the auxiliary in a continuous tense form, taking a gerundive complement, while only ir can be used with an infinitival complement to express prospective aspect. Consider first the continuous tense forms.

### 4.1 Continuous tense forms

I claim that when these verbs are used as auxiliaries, they spell out $v$, without a lexical root, as illustrated in the structure in (15). This is supported by the fact that their semantic contribution to the sentence lacks any implication of motion through space-time, in contrast to their use as main verbs.
(14) a. Êle diz para vocês andarem pensando nisso. he say.pr.3s for you andar.inf.3p think.ndo on.that 'He tells you to be thinking about that.' T69:205
b. Êle anda dizendo que eu consegui sua demissão. he andar.pr.3s say.ndo that I obtain.pret.1s your dismissal 'He keeps saying that I got you fired.' T69:207
c. Andam procurando alguém que saiba russo. andar.pr.3p seek.ndo someone that know.sbj Russian ‘They are looking for someone who knows Russian.' T69:207

The structure of $(14 \mathrm{c})$ is shown in (15). The structure of the continuous tense forms in (16) and (17) differs only in the feature specification of the auxiliary $v$.
(15)

(16)
a. Êle não tem boa letra ainda, mas está praticando e he not ter.pr.3s good letter still, but estar.pr.3s practise.ndo and vem melhorando.
come.pr.3s improve.ndo
'He doesn't have a good handwriting yet, but he is practicing and is improving.' T69:207
b. Os rapazes vem chegando.
the boys come.pr.3p arrive.ndo
'The boys are arriving.' T69:207
(17) a. O Brasil vai sendo transformado em país industrializado. the Brazil ir.pr.3s ser.ndo transf.ppl in country industrialized 'Brazil is being transformed into an industrial country.' T69:206
b. Eles foram ficando contaminados pelas idéias comunistas. they ir.pret.3p ficar.ndo contaminate.ppl by.the ideas communist 'They were being contaminated by communist ideas.' T69:206
c. O doente vai melhorando aos poucos. the patient ir.pr. 3 s improve.ndo at.the little 'The patient is improving little by little.' T69:206

The meaning of keep on $V$-ing is present with all three auxiliaries of motion. This is due to the feature DYNAMIC carried by all three, and distinguishes these constructions from the less marked continuous tense forms with estar, illustrated in (18). With ir and vir, the event being described is semantically unidirectional, while with andar directionality seems to be absent. This correlates with the presence of the feature DIRECTED with $i r$ and vir, and its absence with andar.
a. Ele está sendo cruel. he estar.pr. 3 s ser.ndo cruel 'He is being cruel.' S05:133
b. Eu estava falando com êle.

I estar.impf.1s speak.ndo with him
'I was talking to him.' T69:198

### 4.2 Proximate future/Prospective aspect

Only ir appears as an auxiliary with an infinitival complement. The construction has a meaning like that of the English be-going-to future, as illustrated in (19).
(19)
a. Vai chover.
ir.pr.3s rain.inf
'It is going to rain.' T69:125
b. Todo mundo já sabia o que ia acontecer. all world already know.impf.3s the that ir.impf.3s happen.inf 'Everybody knew what was going to happen.' T69:129
c. Vou fazer trinta anos amanhã. ir.pr.1s do.inf thirty years tomorrow
'I'll be thirty years old tomorrow.' T69:125
The structure of (19c) is shown in (20). For concreteness, I assume that infinitival complements are headed by Fin (Rizzi 1997).
(20)


The proposed analysis accounts for the fact that andar and vir cannot appear in this construction. Following Comrie (1985), Copley (2002), Wolvengrey
(2006), Glougie (2007), and Hayashi (2011), I assume that the proximate future is best seen as a kind of prospective aspect, denoting the preparatory phase of a future event. The current situation is thus oriented, or directed, towards the future event. Since andar bears the feature MANNER, it cannot express direction or orientation of any sort, and thus cannot express prospective aspect. The problem with vir is slightly different. Vir carries the feature DIRECTED, and can thus be used to express a directed situation. However, it also bears the feature INWARD, and thus expresses orientation towards the deictic centre. Since the deictic centre consists of the speaker, the time of utterance, and the place of utterance, orientation from the speaker towards a future event is by definition away from the deictic centre. This orientation is thus incompatible with the featural specification of vir.

I now turn to a set of constructions that initially seem, to involve the auxiliary use of $i r$, vir, and andar. However, we will see that they are properly analyzed as main-verb uses, with depictive secondary predicates. Consider (21)-(23).
a. Êle abriu a porta e foi entrando. he open.pret.3s the door and ir.pret.3s enter.ndo 'He opened the door and went on in.' T69:207
b. Era preciso que fôssem abrindo passagem com facões. ser.im. 3 s necess that ir.imsbj. 3 p open.ndo passage with machetes 'It was necessary for them to open a passage with machetes.' T69:204
c. Se você quer que a casa esteja limpa, vai

If you want.pr.3s that the house estar.prsbj. 3 s clean, ir.pr.3s limpando.
clean.ndo
'If you want the house to be clean, start cleaning.' T69:205
a. Não seja preguiçosa, anda arrumando a casa. not ser.prsbj.3s lazy, andar.pr.3s arrange.ndo the house 'Don't be lazy; get to straightening up the house.' T69:205
b. Naquela época andei tomando cerveja de noite com os in.that period andar.pret.1s take.ndo beer of night with the amigos.
friends
'In that period I went around drinking beer at night with my friends.' T69:202
c. Andando contando proezas, êle ganhou fama de mentiroso. andar.ndo recount.ndo prowess he earn.pret. 3 s rep of liar 'By going around recounting his prowess, he got the reputation of a liar.' T69:205
(23) Ela vem vindo de mansinho. she come.pr. 3 s come.ndo of quiet
'She comes creeping softly.' T69:199

These sentences are superficially identical to the auxiliary uses in the continuous tenses. However, they differ in significant respects. First, they always involve concrete motion in space/time, suggesting that they include the root $\sqrt{\text { MOVE. }}$ Second, they lack the progressive aspectual properties that are the hallmark of the continuous tense forms, suggesting that the clause as a whole, in each case, is not in the continuous form. As the translations indicate, these sentences all have the aspectual interpretation normally associated with the tense of andar, vir or ir. Both of these facts follow automatically if ir , vir, and andar are taken to be the main verbs in these constructions, and the gerundive phrases to be depictive secondary predicates, as shown in (25). For concreteness, I adopt the syntax of depictive secondary predicates proposed by Pylkkänen (2008), in which subject-oriented depictives are adjoined to an intermediate projection of Voice.

Foi entrando.
ir-pret-3s enter-ndo
'He went on in.' T69:207
(25)


## 5. Conclusion

The behaviour of Brazilian Portuguese auxiliary verbs of motion suggests that just as there are flavours of the causative/agentive $v$ (Folli and Harley 2005), there are also flavours of $v_{\mathrm{GO}}$. I have shown that the flavours can be elegantly accounted for by grammaticalized, privative features, with $v_{\mathrm{GO}}$ itself defined by the
feature DYNAMIC. When one of these $v$ s appears without a root, it carries only featural meaning, and functions as an auxiliary. However, it can also serve as a category-determining head, combining with an acategorial root. I have proposed a semantically impoverished root, $\sqrt{\text { MOVE }}$, which combines with each of the $v \mathrm{~s}$, and is spelled out by the same Vocabulary Item that spells out the $v$ alone.

This approach provides a simple and explicit definition of what it means to be an auxiliary verb, as opposed to a semantically light verb that may appear with a secondary predicate. I propose that auxiliary verbs are purely functional elements, lacking lexical roots altogether and consisting only of grammaticalized features. This is not to say that all auxiliary verbs are $v$; any functional head that can carry features normally spelled out on verbs can be an auxiliary verb.

A further line of research suggested by this analysis has to do with how languages divide their lexical categories into subclasses (Levin 1993). Assuming, as we have been, that lexical verbs always consist of an acategorial root attached to a category-defining $v$ head, and assuming further that all flavours of $v$ are available to combine with acategorial roots to form lexical verbs, we would expect that the features active in the auxiliary system in a given language should play a significant role in determining how verbs are classified in that language. To the extent that verb classes are systematic and relevant to grammatical processes, those classes should be characterized by features of the sort proposed here for the flavours of $v_{\mathrm{GO}}$. Parsimony predicts that a language should not have distinct sets of features of $v$, one set that distinguishes among auxiliary verbs and another set that serves to classify the lexical verbs of the language.

## References

Arad, Maya. 1996. A minimalist view of the syntax-lexical semantics interface. UCL Working Papers in Linguistics 8.
Arad, Maya. 1999. VP-structure and the syntax-lexicon interface. MIT Occasional Papers in Linguistics 16.
Comrie, B. 1985. Tense. Cambridge: Cambridge University Press.
Copley, Bridget. 2002. The semantics of future. Ph.D. Thesis, M.I.T., Cambridge, MA.
Cowper, Elizabeth. 2005. The geometry of interpretable features: Infl in English and Spanish. Language 81:10-46.
Cuervo, Maria Cristina. 2003. Datives at large. Ph.D. Thesis, Massachusetts Institute of Technology, Cambridge, MA.
Folli, Raffaella, and Heidi Harley. 2005. Flavors of $v$ : Consuming results in Italian and English. In Aspectual Inquiries, eds. Paula Kempchinsky, and Roumyana Slabakova. Dordrecht: Springer.
Glougie, Jennifer. 2007. Aspect in St'át'imcets future expressions. In Proceedings of the 42nd International Conference on Salish and Neighboring Languages, eds. Kristin M. Jóhannsdóttir, and Martin Olberg, 220-235.

Halle, Morris, and Alec Marantz. 1993. Distributed morphology and the pieces of inflection. In The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger, eds. Kenneth Hale, and Samuel Jay Keyser, 111-176. Cambridge, MA: MIT Press.
Harley, Heidi. 1995. Subjects, events, and licensing. Ph.D. Thesis, Massachusetts Institute of Technology, Cambridge, MA.
Harley, Heidi. 2005. Bare phrase structure, acategorial roots, one-replacement and unaccusativity. In Harvard Working Papers in Linguistics, Vol. 9, eds. Slava Gorbachov, and Andrew Nevins.
Harley, Heidi, and Rolf Noyer. 1999. State-of-the-article: Distributed morphology. GLOT 4:3-9.
Harley, Heidi, and Elizabeth Ritter. 2002. Person and number in pronouns: a feature-geometric analysis. Language 78:482-526.
Hayashi, Midori. 2011. The structure of multiple tenses in Inuktitut. Ph.D. Thesis, University of Toronto.
Levin, Beth. 1993. English Verb Classes and Alternations: A Preliminary Investigation. Chicago, IL: University of Chicago Press.
Marantz, Alec. 1997. No escape from syntax: Don't try morphological analysis in the privacy of your own lexicon. In Proceedings of the 21st Annual Penn Linguistics Colloquium, ed. Alexis Dimitriadis et.al., vol. 4.2, 201-225. Penn Working Papers in Linguistics.
Pylkkänen, Liina. 2008. Introducing Arguments. MIT Press.
Rizzi, Luigi. 1997. The fine structure of the left periphery. In Elements of Grammar: Handbook in Generative Syntax, ed. Liliana Haegeman, vol. 1, 281337. Dordrecht: Kluwer Academic Publishers.

Schmitt, Cristina. 2005. Semi-copulas. In Aspectual Inquiries, eds. Paula Kemchinsky, and Roumyana Slabakova, 121-146. Springer.
Thomas, Earl W. 1969. The Syntax of Spoken Brazilian Portuguese. Nashville, TN: Vanderbilt University Press.
Wolvengrey, Arok. 2006. êkosi wî-ispayin. (kwayâciho!): Prospective aspect in the western dialects of Cree. International Journal of American Linguistics 72:397-407.


[^0]:    *I am very grateful to Ricardo Sternberg for help with the data, and Daniel Currie Hall, Diane Massam, Alana Johns, and the members of the University of Toronto Syntax Group for comments on earlier versions of this work.
    ${ }^{1}$ Data marked with T69 are taken from Thomas (1969).
    ${ }^{2}$ Data marked with S05 are taken from Schmitt (2005).

[^1]:    ${ }^{3}$ There may be other projections in the clause (e.g., Voice, Aspect, etc.) Unless these bear on the points at issue, they are omitted for clarity, and to save space.

[^2]:    ${ }^{4}$ Thanks to Ricardo Sternberg for this example.

