

A UNIFIED ANALYSIS OF THE SLAVE PARTICLE *GHA* *

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This paper provides an analysis of the grammaticalization of the Slave postposition *gha* within a Minimalist framework (Chomsky, 1995). The particle *gha* has a wide variety of functions in Slave: as a postposition, a future tense marker, a modal particle, and a complementizer. This paper proposes a single underspecified lexical entry for *gha*, with its various meanings arising primarily from its structural position and the semantics of its complement.¹

1. The Data

1.1 The Postposition *gha*

Like many Slave postpositions, *gha* can have a variety of meanings, as illustrated below. This postposition can: mark passage through empty space (1); mark duration in time (2); mark the recipient (3); mark the experiencer (4); mark purpose (5); and mark a topic of discussion (6).

(1) sasónéwoleho gha déhfa
pipe through 3.crawled
'S/he crawled through the pipe' (Rice 289:77a) (Hr)

(2) tai dzine gha akejá
three day for 3p.stay
'They will stay for three days.' (Rice 294:95a)

(3) ʔevéh segħa náéhdí
hide 1sg.for 3.bought
'S/he bought a hide for me.' (Rice 299:117e) (Mt)

(4) segħa góđəhwé
1sg.for 2sg.scared
'You scared me.' (Rice 308:149a) (Hr)

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¹ In the following analysis, all data is taken from Rice's (1989) *Grammar of Slave*. The references which follow each example refer to the page number and example number in the original source. In most cases, the dialect of each example is also indicated (Hr = Hare; Sl = Slavey; Bl = Bearlake; and Mt = Mountain).

- (5) ʔeyɪ gha derɪ néné k'e gots'edí
 that for this earth on unspec.live
 'That is why we live on this earth.' (Rice 297:113a) (B1)
- (6) gogha sánídagodéʔa
 area.about 3.places well by means of the mouth
 'They are discussing the best way.' (Rice 307:144)

1.2 The Future Particle *gha*

The word *gha* is also used in Slave as a future tense particle; in these cases, the main verb occurs in the unmarked imperfective mode. As shown in examples (7)-(9), most commonly, *gha* marks the immediate future, without any connotation of modality.

- (7) tu ʔerehxo gha
 water 3.boils.imp PART
 'The water will boil.' (Rice 417:114) (B1)
- (8) kó nehkwɪ gha
 fire 3.goes out.imp PART
 'The fire is going out.' (Rice: 417:110) (B1)
- (9) ʔabá ʔehdzoo gháeda gha
 father trap 3.sees.imp PART
 'Father is going to check the traps.' (Rice 417:113) (B1)

1.3 The Modal Particle *gha*

While Rice (1989) does not analyze *gha* as a modal particle (although she notes its modal qualities in Rice, 2000), the examples below show that a modal reading is often superimposed on the future reading, particularly when *gha* is followed by a negative, past tense, or other modal particle.

- (10) 6 hours gots'ǿ shéhtɿ gha íle
 6 hours area.to 1sg.eat.imp PART NEG
 'I cannot eat for six hours.' (Rice 294:96a) (B1)
- (11) dágújá k'éodíyǿ gha íle
 what happened 1pl.know.imp PART NEG
 'We won't know what happened.' (Rice 423:iib) (B1)
- (12) satsónéwole yǿ déwa gha ilé
 stovepipe to here 3.carried.pl.O.imp PART PAST
 'She was supposed to bring a stovepipe here.' (Rice 341:14) (B1)

- (13) bé heht'ée gha lé
 meat 1sg.cook PART PAST
 'I had to cook the meat.' (Rice 424:iiid) (Bl)
- (14) hídoó xay let'ó denila ʔadehtí gha sóŋ
 next year double 3.costs.imp PART uncertainty
 'Next year it might cost double.' (Rice 413:82) (Bl)

1.4 The Purposive Complementizer *gha*

The particle *gha* may also be used to introduce subordinate purposive clauses. In these clauses, the action specified in the root clause is carried out to achieve the purpose stated in the subordinate clause. In this use, the verb in the embedded clause is typically in the optative mode. In its function as a purposive complementizer, *gha* cannot be deleted; as a marker of non-purposive clauses (see 1.5 below, it is optional (Rice 1989: 1268).

- (15) bé rákeyuhdí gha kóé rakezee
 food 3pl.opt.buy PART town 3pl.returned by boat
 'They returned by boat to buy food.' (Rice 1259:1) (Hr)
- (16) sedá newozq gha sesqdá dawehya
 1s.eye 3.opt.be good PART 1sg.glasses 1.sg.have located
 'I wear glasses to protect my eyes.' (Rice 1260:6) (Hr)

1.5 The Non-Purposive Complementizer *gha*

The particle *gha* also functions as a subordinator in Slave. In this use, *gha* patterns with the complementizer *gú* as the non-presuppositional complementizer, in contrast to the complementizer *ŋj*, which indicates that its complement is either presupposed or has contextual reference (Rice 1989: 1243). When *gha* is used as a non-purposive complementizer, the verb in the complement is in imperfective mode.

- (17) ʔeghálahnda gha nínehti
 1sg.work.imp PART 1sg.be tired
 'I am tired of working.' (Rice 1261:23) (Sl)
- (18) ts'ets'ée gha goʔq whekq
 unspec.drinks.imp PART very 3.is hot
 'It is too hot to drink.' (Rice 1262:26) (Bl)
- (19) sets'é náts'edí gha kodqshq
 1sg.to unspec.help.imp PART 3.know.area
 'He knows I need help.' (Rice 1262:29) (Hr)

2. Grammaticalization

The complementizer *gha*, in both its purposive and non-purposive variations, as well as the future tense marker *gha*, is historically related to the postposition *gha* (Rice 1989:43,1265). The reanalysis of adpositions as complementizers is common crosslinguistically, as seen, for example, in the reanalysis of the English preposition *to* as a marker of infinitival clauses (Roberts & Roussou, 2003) and the French preposition *de* as a complementizer (Kayne 1999, 2000). At the lexical level, the role of adpositions in expressing links between elements in space and time leads naturally to their reanalysis, at the functional level, as linkers of clauses (Cristofaro, 1998). Below I present morphological evidence for the grammaticalization of *gha*, and outline syntactic and semantic motivation for the reanalysis of *gha*.

2.1 Morphological Evidence of Grammaticalization

The limited distribution of *yi-*, an anaphoric prosentence marker that is no longer productive, but historically associated with postpositions, demonstrates *gha*'s origins as a postposition (i.e., grammaticalization was clearly the route to multifunctionality, rather than some other process, cf. Lefebvre (2001)). The examples below show *gha* co-occurring with *yi-* with future (20), modal (21), and purposive (22) readings.

- (20) tu ʔerehxo yigha
 water 3sg.boil.imp PART
 'The water will boil.' (Rice 423:i) (Hr)
- (21) neráídí h̥hshu yigha góʔq
 2sg.medicine 2sg.take.imp PART NEC
 'You must take your medicine.' (Rice 416:104) (Hr)
- (22) desh̥ta kedudée yigha sorígokeyéʔa
 bush 3pl.opt.go PART 3pl.get ready
 'They are getting ready to go to the bush.' (Rice 1269:75) (Hr)

2.2 Syntactic Motivation for Grammaticalization of *gha*

In addition to the crosslinguistic factors noted above, the fact that Slave postpositions take sentential complements (see examples (23)-(25) below) adds syntactic motivation for their upwards reanalysis within the C domain.

- (23) beghálaỵda gots'é yá nuh̥za góʔq
 2sg.work on.3 area.toTOP 1sg.opt.force.2sg FUT
 'I'm going to make you work hard.' (Rice 1264:42) (Hr)
- (24) h̥úchu gha gots'é nuh̥za góʔq
 3 opt.marry PART area.to3pl.forced 4
 'They forced her to marry.' (Rice 1264: 43) (B1)

- (25) yinesée k'ǵ nodat'ı
 2sg.cried like area.appears of.2sg.
 'You look like you've been crying.' (Rice 1265: 48) (Hr)

Also, postpositional phrases have the widest distribution of any phrase category in Slave, occurring as topics (to the left of the subject), following the subject, or sentence-finally (Rice 1989:1196). This relative freedom, combined with the option of taking sentential complements, may have lent syntactic motivation for the upwards reanalysis of *gha*.

2.3 Semantic Motivation for Grammaticalization of *gha*

While syntactic factors may have contributed to the upwards reanalysis of *gha*, it is unclear why this process has affected *gha* at the expense of other postpositions. While other postpositions have multiple meanings depending on context, the postposition *gha* seems to have a particularly wide distribution, and some of its meanings are quite abstract. These factors may have contributed to the grammaticalization of *gha*.

For example, the use of the postposition *gha* to mark duration in time may, in combination with syntactic factors, have lent itself to reinterpretation as a tense marker. Similarly, the use of *gha* to denote purpose seems naturally related to the development of the purposive complementizer *gha*. The use of the postposition *gha* to mark a topic of discussion—the most abstract of the many uses of this postposition—seems semantically compatible with the use of *gha* as a non-purposive complementizer, the most abstract of the instances of *gha*. Furthermore, the use of *gha* as a non-presuppositional complementizer seems semantically compatible with the related use of *gha* as a future tense marker, given that the future is not “established.” Thus, many of the uses of the postposition *gha* are semantically compatible with notions that are given expression in functional heads within C.

3. Towards a Unified Analysis of *gha*

3.1 Overall Proposal

The many meanings association with the particle *gha* at the functional level and the evidence of their historical relationship to the postposition *gha* clearly suggest that we are dealing with a case of grammaticalization. However, it is still necessary to determine the synchronic status of *gha*. By the monosemy principle, a single lexical entry for *gha* would be preferable, given that the many uses of *gha* are obviously inter-related (Cowper, 1995; Lefebvre, 2001). The lexical entry must be sufficiently underspecified at the semantic and syntactic levels to allow for all possible instances of *gha* in Slave.

Overall, *gha* is seen as a functional element with [+ mode] operator-like features that triggers movement and a Spec-head checking relation, ensuring wide or narrow scope. In cases where *gha* takes a DP complement, then *gha* acts as a postposition, triggering a conversion of *gha*P to PP. The specific

postpositional meaning of *gha* will then depend on the lexical content of the DP complement. When *gha* takes an IP complement, *ghaP* becomes a CP. The syncretic functional meanings associated with *gha* within C are then a function of its complement and/or a higher head that attracts it, triggering upwards leftward movement of the IP-*gha* string within the C domain, either by head-to-head movement, or to the specifier position of another functional head.

3.2 The Structure of the Periphery of the Clause

As shown in (26) below, Rizzi (2002) includes a modification of his (1997) cartography of the left periphery.

(26) Force Top* Int Top* Focus Mod Top* Fin IP

Within Rizzi's theory, languages differ in the types of features to be checked in Fin. I argue that Slave has the parametric setting for modality checking within Fin, an argument that is consistent with analyses of the Modern Greek future/modal particle *tha* (see Roussou, 2000). The different readings associated with a particle in this head are then determined by its complement and/or other heads of which it is a complement. (Significantly, neither Modern Greek nor Slave have infinitives, so it is logical that this head would be used to check a feature such as modality.)

There is another location within C where a variety of functional heads relating to tense, mood/modality, and aspect may occur: within Mod. Within Rizzi's model, Mod incorporates the universal hierarchy of functional heads proposed by Cinque (1999, 2004) to account for the relative order of sentential adverb phrases. These functional heads are shown in (27) below.

(27) MoodP_{speech act} > MoodP_{evaluative} > MoodP_{evidential} > ModP_{epistemic} > TP_{past} > TP_{future} > MoodP_{irrealis} > TP_{anterior} > ModP_{alethic} > AspP_{habitual} > AspP_{repetitive(I)} > AspP_{frequentative(I)} > ModP_{volition} > AspP_{celerative(I)} > AspP_{terminative} > AspP_{terminative} > AspP_{continuative} > AspP_{perfect} > AspP_{retrospective} > AspP_{proximative} > AspP_{durative} > AspP_{progressive} > AspP_{prospective} > AspP_{inceptive(I)} > ModP_{obligation} > ModP_{ability} > AspP_{frustrative/success} > ModP_{permission} > AspP_{conative} > AspP_{completive(I)} > VoiceP > AspP_{repetitive(II)} > AspP_{frequentative(II)} > AspP_{celerative(II)} > AspP_{inceptive(II)} > AspP_{completive(II)}

According to the Mirror Principle (Baker, 1985), in a right-headed language like Slave, the surface order of the functional heads will be the reverse of that shown above, with higher-level evaluative and evidential morphemes following tense and negation. In Cinque's (1999) analysis, sentential adverbs occupy the specifier positions of these functional projections. In my analysis, postverbal particles relating to tense, mood, modality, aspect, and negation may occupy the heads of these positions, thereby attracting complements (including IP-*gha* strings) to the specifier positions. To better determine the status of *gha* within the cartographic framework sketched above, it is necessary to return to the data and examine the position of *gha* relative to other tense, modal, and negative

particles, and the position of other complementizers with respect to these particles.

4. The Right Edge of the Slave Clause

It is striking that other the order of other complementizers with respect to past and negative particles differs from that of *gha*. As shown in (28) below (repeated from above for ease of exposition), *gha* precedes the past tense particle. By contrast, the complementizer *i* follows the past tense particle, as shown in (29). These examples suggest that the complementizer *i* is base-generated in a higher position in the syntactic tree than *gha* (Force); and furthermore, that in root clauses, *gha* does not rise to Force, but is moved leftwards to the specifier of a higher functional projection.

- (28) satsónéwole yę déwa gha ɲlé
 stovepipe to here 3.carried.pl.O.imp PART PAST
 ‘She was supposed to bring a stovepipe here.’ (Rice 341:14) (Bl)
- (29) ʔeyɪ dene sɲshwɪ yɲle ɪ ʔónéradéhɪa
 the man 3.bothers.1sg PAST COMP 3.went away
 ‘The man who was bothering me went away.’ (Rice 25:40a) (Hr)

Similarly, as illustrated in example (30), the negative particle consistently follows *gha*, while, as shown in examples (31), it consistently precedes the complementizer *gú*. These examples suggest that *gú* is base-generated in a higher position (Force) than *gha*, and that in some subordinate clauses, *gha* does not rise to Force.

- (30) neghánayehda gha íle enehwhę ɲlé níanjja nọ
 1sg.see.2sg.again PART NEG 1sg.think PAST 2sg.returned evid.
 ‘I didn’t expect to see you again and yet you’ve returned.’ (Rice 408:44) (Bl)
- (31) w’á k’arázerehsɪ yíle gú ʔasɲhwę
 dish 1sg.wash NEG COMP 3.allows 2.sg
 ‘He never lets me wash dishes.’ (Rice 1248:46) (Hr)

Examples (32) – (33) show the position of *gha* in relation to additional postverbal particles.

- (32) ʔeyɪ ʔaeyht’ɪ nɲdé natsɲowɪ gha íle ɲlé sónɲ
 there 1sg.was if 3.occur PART NEG PAST DUB
 ‘If I’d been there, it might not have happened.’ (Rice 1053:30) (Bl)
- (33) bebí kahwhále gúhlee gha góʔo
 baby soon 3opt.be born PART FUT
 ‘The baby will be born soon.’ (Rice 348: 50) (Bl)

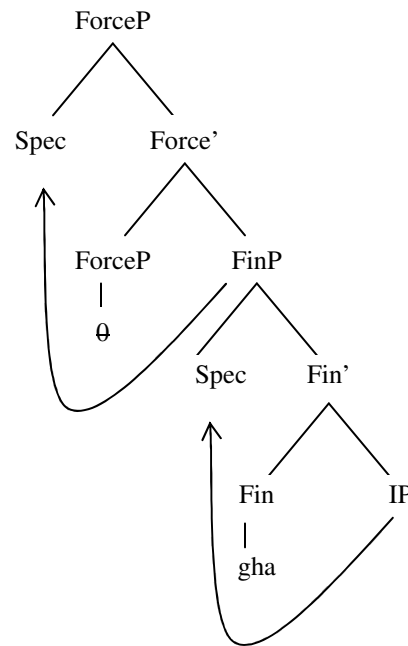
5. Syntactic Analysis

This section of the paper provides a syntactic representation of the position of *gha* in a range of different contexts discussed in this paper, illustrating that the range of different meanings attributed to *gha* are primarily associated with its position(s) within C.

5.1 Future Particle Reading

When *gha* is base-generated in Fin, triggering the movement of its IP complement leftwards, a periphrastic future is formed. The future reading (as opposed to the type of modal reading associated with the purposive complementizer) is a function of the imperfective verb form in the complement of *gha*. In these cases, the Force head is assumed to be filled with the null complementizer, and no intervening Mod heads attract IP-*gha*.

(34)

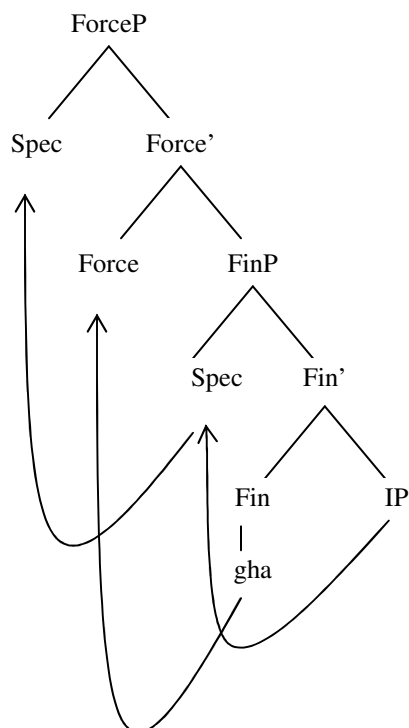


5.2 Purposive and Non-Purposive Complementizer Reading

The syntactic positions occupied by *gha* as a purposive and non-purposive complementizers are considered to be the same, with the different meanings associated with each form attributable to the verb form of the complement

associated with each reading: imperfective for non-purposive, and optative for purposive. As illustrated in (35) below, in these cases, *gha* is base-generated in Fin, triggering the movement of its IP complement leftwards to the specifier position of FinP. However, unlike the bare future reading, *gha* in this cases moves from Fin to Force, and IP then moves to the specifier position of ForceP.

(35)

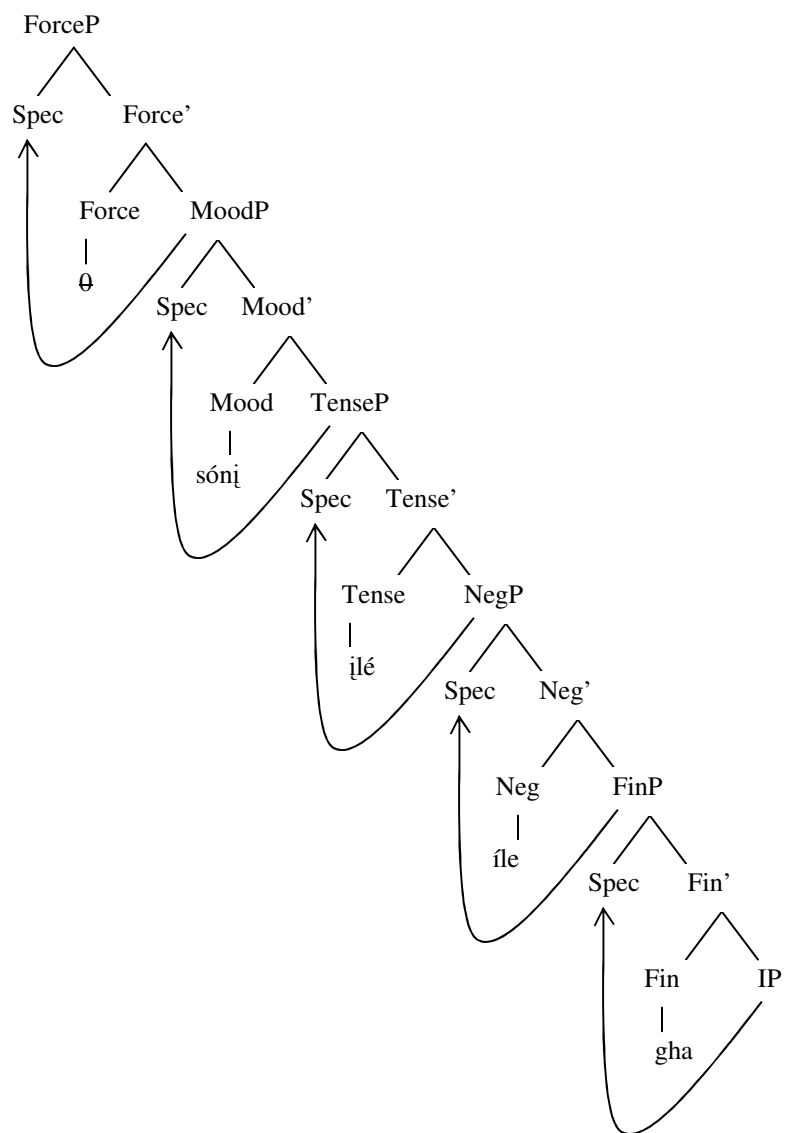


5.3 Modal Readings

As with the future reading, with modal readings, *gha* is base-generated in FinP, and its IP complement moves upwards and leftwards to the specifier position of FinP. As with the future tense reading, it is assumed that the Force head is filled with the null complementizer. In these instances, however, one or more Mod heads intervenes between Force and Fin. The particles in these heads attract the IP-*gha* complement to their specifier positions (as many as apply), yielding the various modal readings associated with *gha*, depending upon which ModP(s) have scope over it. The structure in (37) below is meant to account for a sentence like (32), repeated as (36) below for convenience, in which a series of particles follow *gha* at the right edge of the phrase.

- (36) ʔeyɪ ʔaeyht'ɪ nɪdɛ natsɔwɪ gha ɪle ɪlé sóŋɪ
 there 1sg.was if 3.occur PART NEG PAST DUB
 'If I'd been there, it might not have happened.' (Rice 1053:30) (B1)

(37)



6. Conclusion

In this paper, I have provided a unified analysis of the Slave particle *gha* within a Minimalist framework, drawing primarily on the work of Rizzi (1997, 2002) and Cinque (1999, 2004). The development of *gha* from postposition to future/modal particle and complementizer may be viewed in terms of grammaticalization (Roberts & Roussou, 2003; Tabor & Traugott; Traugott, 2001), where a member of a lexical category is reinterpreted in terms of one or more functional categories higher up in the syntactic tree. This analysis may be extended to account for the characteristics of other Slave particles that combine features of tense, modality, and aspect.

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