

A temporal semantics for Malayalam Conjunctive Participle Constructions

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ABSTRACT

This paper asks how the semantics of Conjunctive Participle Constructions are obtained in Malayalam. After providing an overview of the syntactic and pragmatic factors governing the use of this construction, the paper points out the similarity of this Malayalam construction to the English absolute construction. It suggests that an account like Stump (1985) might be able to account for the Malayalam data. The main conclusion of the paper is that Malayalam Conjunctive Participle Constructions are semantically underspecified for tense and aspect and also probably structurally small.

1 Introducing the puzzle

This paper focuses on the question of how Malayalam Conjunctive/Adverbial Participle Constructions/Serial Verb Constructions (my ‘multi-verb constructions’) get their temporal semantics. Examples (1)-(3) show why the answer to this question is not obvious. In (1) the *-u/i* morpheme looks like the past tense marker on the main verb (boxed).

(1) a. (innale) njaan pazhum kazhicch-u.
Yesterday I banana take-PST
‘I ate a banana (yesterday).’

b. (innale) njaan palli-yil pooy-i.
Yesterday I church-LOC go-PST
‘I went to church (yesterday).’

In sentences like (2b-c) the *-u/i* in Conjunctive/Adverbial Participles (what I will call ‘non-main’ verbs and mark with a dotted underline) does not seem to encode past semantics. These sentences, respectively, receive a present and future interpretation, despite the fact that the non-main verb has the *-u/i* marker. This suggests that the *-u/i* marker is, in fact, not a past tense marker. At this point, one might think, as Amritavalli & Jayaseelan (2005) have done, that the *-u/i* is a perfective marker, since non-main event precedes the main event in the sentences in (2).

(2) a. vasantha peena kada-yil pooy-i vaang-i.
Vasantha pen shop-LOC go-U/I buy-PST
‘Vasantha went to the shop and bought a pen.’ (Gopalkrishnan 1985 p71: 68a)

b. vasantha peena kada-yil pooy-i vaang-unnu-Ø.
Vasantha pen shop-LOC go-U/I buy- IMPFV-PRS
‘Vasantha goes to the shop and buys (is going to the shop and buying) a pen.’

c. vasantha peena kada-yil pooy-i vaang-um.
Vasantha pen shop-LOC go-U/I buy- FUT
‘Vasantha will go to the shop and buy a pen.’

However, as Hany Babu & Madhavan (2003) have pointed out, when sentences like (3) are added to the data set, a perfective analysis of *-u/i* becomes unlikely. In (3) the main verb is in the present tense and the events denoted by the *-u/i* marked non-main verbs occur simultaneously with the event denoted by the main verb.

- (3) avan padicch-u padippicch-u jooli cheyth-u jeevikk-unnu-Ø
 he study-U/I teach- U/I job do-U/I live-IPFV-PRS
 ‘He lives studying, teaching and working.’

The name Conjunctive/Adverbial Participle comes from the two ways these constructions can be translated, either as participle adjuncts serving an adverbial type function, (3), or as conjoined sentences, (2). While they are sometimes translated using conjunction, they are different than ‘genuinely’ coordinated sentences in the language. These require the conjunctive particle, *-um*, (4a), which is does not appear in most Conjunctive/Adverbial Participle Constructions. In a sentence using *-um* coordination, the light verb *cheyyuka* ‘do’ and non-finite form *-uka* are required because finite clauses cannot be coordinated in Malayalam by simply adding *-um* to each verb, (4b).

- (4) a. raaman var-uka-yum Krishnan pook-uka-yum cheyth-u
 Raman come-INF-CONJ Krishnan go-INF-CONJ do-PST
 ‘Raman came and Krishnan went.’ (Asher & Kumari 1997 p135: 647c)
- b. *raaman vann-u-yum krishnan pooy-i-yum
 Raman come-PST-CONJ Krishnan go-PST-CONJ
 ‘Raman came and Krishnan went.’

I assume that languages have formal, abstract morphosyntactic features, which are used by the interpretive component to assign the proper semantics to a string and are located in the corresponding functional projections. The correspondence between morphemes and features in Malayalam that I assume is given in (5).¹

- | | |
|---|----------------------------------|
| (5) <i>-unnu</i> : [IMPFV] | -Ø: [PRES] |
| | <i>-u/i</i> (main-verbs): [PAST] |
| | <i>-um</i> [FUT-MOD] |
| <i>-u/i</i> (non-main verbs): no feature associated | |

This leads us to a refined version of our focus question: If the *-u/i* in non-main verbs does not have any features associated with it, how are the temporal semantics of multi-verb constructions obtained? This question will guide the rest of the paper. In section 2, I highlight the similarities between English absolutes and Malayalam multi-verb constructions. In section 3, I suggest that an adapted version of Stump’s (1985) analysis might be a way to account for the Malayalam data. Section 4 concludes the paper.

2 The syntactic and pragmatic properties of multi-verb constructions

Let us begin with a brief overview of the syntactic properties of multi-verb constructions. Previous work has identified non-main verbs as being non-finite (Jayaseelan 1984, 2003; Amritavalli & Jayaseelan 2005; Hany Babu & Madhavan 2003, Gopalkrishnan 1985), IP or AspP sized adjuncts (Jayaseelan 2003). Evidence that non-main clauses are at least as big as vPs comes from the fact that they can have separate subjects, (5). Multi-verb constructions can have different, (1), or same objects, (9b).

- (6) [paampu kadicch-u] goopi maricch-u

¹ See Swenson (in preparation) for more details justifying these assumptions.

snake bite-U/I Goopi die-PST
 ‘The snake bit (Gopi) and Gopi died.’ (Gopalkrishnan 1985 p55: 41)

The fact that no tense or viewpoint aspect morphemes² can be added to non-main verbs suggests that they may be even smaller than AspP. Example (7) shows that multi-verb constructions can appear in a variety of places in the sentence, just like the adjuncts in their English translations.³

- (7) a. njaan school-ilekku nadann-u [apple kazhicch-u].
 I school-to walk-PST apple take-U/I
 ‘I walked to school, eating an apple.’
 [school must be reached; apple does not have to be eaten (though it could be)]
- b. njaan [apple kazhicch-u] school-ilekku nadann-u.
 I apple take-U/I school-to walk-PST
 ‘I walked, eating an apple, to school.’
 [school must be reached; apple does not have to be eaten (though it could be)]
- c. [apple kazhicch-u] njaan school-ilekku nadann-u.
 apple take-U/I I school-to walk-PST
 ‘Eating and apple, I walked to school.’
 [school must be reached; apple does not have to be eaten (though it could be)]

Also like their English absolute counterparts, Malayalam multi-verb constructions require pragmatic licensing conditions. According to Gopalkrishnan (1985), multi-verb constructions presuppose that the non-main verb is linked to the main verbs via one of the relationships demonstrated in (8): manner adverbial, (a), sequential part of a larger action, (b), cause and resulting effect, (c), and means used and ends achieved, (d).

² Examples like (3) argue that *-u/i* is not a perfective marker itself. The forms *-ittu* and *-kondu*, which can be added to multi-verb constructions, and which Asher & Kumari (1997) have called perfective and progressive markers, respectively seem to more accurately be telicity markers: *-ittu* signals that the telos has been reached while *-kondu* signals that it has not been reached.

- (i) a. raadha sinimu-kku pooy-**irikk-uka.yaanu**
 Radha cinema-DAT go.U/I-irikk-PROG.PRS
 ‘Radha has gone for a film.’ (Gopalkrishnan 1985 p237: 19)
 [she could be on her way now or sitting in the theater, we don’t know]
- b. raadha sinimu-kku pooy-i-**kond-irikk-uka.yaanu**
 Radha cinema-DAT go-U/I-kond-irikk-PROG.PRS
 ‘Radha has gone for a film.’
 [she is on her way now *but hasn’t reached the theater*]

³ We can be sure what is the non-main vs. main verb here because in non-main forms ending in *-u*, the *-u* is reduced to a schwa in spoken Malayalam and written with the schwa marker, *◌̣*, while the *-u* in past tense main verbs is pronounced as *-u* and written with the *-u* marker, *◌_*. The *-i*, however, is pronounced as *-i* and written the *i* marker, *◌_i*, in both environments.

- (8) a. mani avan-te katha karanj-u paranj-u.
 Mani he-GEN tale cry-U/I tell-PST
 ‘Weeping, Mani told his tale.’
- b. shaantha kanji vecch-u kudicch-u.
 Shantha rice.porridge make-U/I drink-PST
 ‘Shantha made rice porridge and drank it.’
- c. kathaku thurakunna shabdham keett-u annamma unarnn-u.
 door opening noise hear-U/I Annamma wake.up-PST
 ‘Annamma woke up on hearing the sound of the door being opened.’
- d. enikku maranju kudicch-u asukham maar-i.
 I.DAT medicine drink-U/I illness move-PST
 ‘I took the medicine and got well.’
 (Gopalkrishnan 1985 p18: 8, p52: 37a, p17: 3-4)

When such a relationship is lacking, she claims that the sentence becomes bad, (9a). Instead to link these two sentences, *-um* coordination is required, (9b).

- (9) a. #giita pachakkari arinj-u chaaya und-aakk-i.
 Gita vegetables chop-U/I tea exist-CAUS-PST
 ‘Gita chopped vegetables and made tea.’ [doesn’t meet criteria]
 (Gopalkrishnan 1985 p32: 18)
- b. giita [pachakkari ariy-uka-yum] [chaaya und-aakk-uka-yum] cheyth-u
 Gita vegetables chop-INF-CONJ tea exist-CAUS-INF-CONJ do-PST
 ‘Gita chopped vegetables and made tea.’

However, if (9a) is put into the right context, it becomes fine for at least some speakers.

- (10) Context: A line in a suspense novel. Gita is a family servant. Her job is to chop the vegetables. After finishing her work, she always makes herself a glass of tea before going.

ella divasathe poleyum giita pachakkari arinj-u chaaya
 every day other Gita vegetables chop-U/I tea
und-aakk-i. udane, urakkeyulla shabdham keett-u.
 exist-CAUS-PST suddenly loud noise hear-PST
 ‘Just like any other day, Gita chopped the vegetables and made tea. Suddenly, she heard a loud noise.’

Another way in which we can see pragmatic licensing is in a constraint on when different subjects are allowed in main and non-main clauses. According to Gopalkrishnan (1985), different subjects are generally disallowed, except, as in (6), where the subject of the main clause is an argument in the non-main clause.

- (11) a. **shaantha** kanji vecch-u kudicch-u
 Shantha rice.porridge make-U/I drink-PST
 ‘Shantha made rice porridge and drank it.’
- b. #**shaantha** kanji vecch-u **njaan** kudicch-u
 Shantha rice.porridge make-U/I I drink-PST
 ‘Shantha made rice porridge, and I drank it.’ (Gopalkrishnan 1985 p52: 37)

However, according to my fieldwork, for at least some speakers, (11b) is fine in a context where I am sick and Shantha is taking care of me and thus makes kanji for me. It is also ok if I visit Shantha’s house and I drink kanji because she made it especially for me or if Shantha brought kanji to the office especially for me, so I should eat it. The generalization here seems to be that different subjects are allowed only when some type of a connection can be established between the main and non-main clauses.

Another place where the pragmatic restrictions can be seen is in reduplication. Example (12) shows that Conjunctive Participle forms can be reduplicated for emphasis.

- (12) mani chuttum nook-i nook-i nadunn-u.
 Mani around look-U/I look-U/I walk-PST
 ‘Mani walked, looking around’ (intensive)
 [lit. Mani walked around looking, looking] (Gopalkrishnan 1985 p95: 107b)

Gopalkrishnan (1985) claims that in certain contexts reduplication is not possible due to semantic constrains, (13b). This is probably due to the fact that, generally, saris do not tear after only one washing. According to my fieldwork (13b) is acceptable in a context where the speaker is complaining about someone who washed a sari that was supposed to not be washed, and as a result, tore it.

- (13) a. saari nanacch-u nanacch-u kiir-i.
 sari wash-U/I wash-U/I tear-PST
 ‘The sari tore due to repeated washing.’
- b. #saari nanacch-u kiir-i
 sari wash-U/I tear-PST
 ‘The sari tore after washing.’ (Gopalkrishnan 1985 p99: 112)

In this section we learned that multi-verb constructions are syntactically small, can appear in different positions in the sentence and require pragmatic licensing principles.

3 Non-main verbs as Stump (1985)-style adjuncts

In this section I will suggest that the analysis put forth in Stump (1985) for English absolute adjuncts could be extended to Malayalam multi-verb constructions.

3.1 Overview of Stump’s analysis

The adjuncts Stump deals with are those that express relations such as causation, (14a), serve as temporal adverbials, (13b), and conditional clauses, (14c), a.o.

- (14) a. The school is determined to avoid a scandal. The father is equally

- determined to find somebody to blame. The reader, **being more experienced in such things**, knows the truth: it was murder. [causation]
- b. **Grabbing a newspaper from a guard**, Tom went back out, wiped up the dog shit and deposited it and the day's news in a refuse can. [time adverbial]
- c. **Transposed to a trumpet or saxophone**, her creations would probably herald a new school.[conditional clause] (Stump 1985 p2: 2-4)

Stump's general proposal is that these adjuncts, if not serving as an argument of a modal, frequency adverb or generic operator, belong to the same category as Main Tense Adverbs (MTA). He defines MTAs as "functors, [that] join with tense to characterize the interval at which some sentence is true. In this role, time adverbs are regarded as denoting functions from properties of time intervals to sets of time intervals... MTA join with temporal abstracts to produce temporal abstracts" (Stump 1985 p118).⁴ Some examples of MTAs include *at that time, since noon, in the morning, when Mary sang, before Mary sang, after Mary sang*, as well as any adjuncts that are not arguments of modals, frequency adverbs or generic operators.

A key tenant of Stumps proposal is *indeterminacy*, which occurs when, in order to assign an interpretation to a sentence, some type of inference is needed because it constitutes part of the truth conditional meaning. Stump uses the sentence in (15) to illustrate this concept. Here 'Picasso' could refer to a number of things: a painting by Picasso, a man named Picasso, a postage stamp with Picasso's picture, etc. However, for (15) to be true, the speaker/hearer must infer that the two Picassos are of the same category, i.e. two paintings by Picasso not a painting by Picasso and a man named Picasso.

(15) I saw two Picassos today. (Stump 1985 p305: 12)

The claim is that MTA's (i.e. those adjuncts that are not the arguments of a modal, frequency adverb or generalization operator) are semantically indeterminate with respect to the temporal relationship of the two clauses and relevance of the adjunct clause to the main clause. He models this indeterminacy in the semantics using contextual variables.

The obvious question now is, how is this indeterminacy resolved? Stump proposes that the temporal and relevancy relations in MTA's can be derived using information such as event type (instantaneous vs. state of affairs/non-instantaneous), word order/iconicity and world knowledge, a.o. The second two pieces of information are relatively self-explanatory. With respect to event type, there are three possibilities, Figure 1.

Event Type Combinations	Possible Readings
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⁴ MTA are distinct from time adverbs like "yesterday, today, tomorrow, during the past summer" which may function as "the argument of certain expressions...the purpose of such a time adverb is simply to specify a set of time intervals." p116

#1: both verbs describe instantaneous events	sequential reading simultaneous reading
#2: the adjunct describes instantaneous event & main verb non-instantaneous event (or vice versa)	sequential reading proper containment reading
#3: adjunct & main verb both describe non-instantaneous events/ state of affairs	sequential reading simultaneous reading proper containment reading

FIGURE 1 POSSIBLE READINGS FOR DIFFERENT EVENT TYPES

The sentence in (16) can have a simultaneous interpretation where ‘John’ notices the smoke at the same instant as having the realization, or it can have a successive interpretation where ‘John’ notices smoke one instant and the next instance has the realization. It cannot, however, have a proper containment interpretation.

(16) Noticing the smoke, John realized Bill’s house was on fire. (p319: 40)

Example (17) allows a proper containment interpretation where ‘John’ discovers the box while climbing or a successive interpretation where he discovers the box after arriving at the bottom. It cannot, however, have the simultaneousness interpretation of climbing and discovering at same time.

(17) John climbed down the well, discovering a sealed metal box at the bottom. (Stump 1985 p320: 42)

In (18) the singing could occur throughout the interval of walking, a simultaneous interpretation, or the singing could occur at some point during the walking, a proper containment interpretation.

(18) Walking beside the river, John sang. (Stump 1985 p320: 43-44)

3.2 Applying Stump’s analysis to Malayalam multi-verb constructions

Turning back to Malayalam, we have already seen in section 2 that pragmatics factors play a large role in multi-verb constructions. We can see by looking at the sentences in (19)-(21) that event type also plays a role in determining the semantics in Malayalam. In (19) speakers can get the simultaneous (wake up at the same instant as hearing the noise) and successive interpretations (hear the noise one instant and then wake up the next instant), if the opening of the door is viewed as an instantaneous event. A proper containment interpretation is not possible in this case. However, if a speaker assumes that the door is slowly creaking open, i.e. that hearing the noise is not an instantaneous event, a proper containment interpretation is also possible. This is strong evidence for the central claim of this paper, e.g., that non-main verbs in Malayalam are semantically underspecified. It also provides an additional argument against an account where *-u/i* is a perfective marker.

(19) [kathaku thurakunna shabdham keett-u] annamma [unarnn-u].
door opening noise hear-U/I Annamma wake.up-PST
‘Annamma woke up on hearing the sound of the door being opened.’
(Gopalkrishnan 1985 p17: 3)

The sentence in (20a) shows that, when one event is instantaneous and the other is non-instantaneous/a state of affairs, either a successive or a proper containment relationship is possible, as expected. World knowledge rules out the otherwise expected proper containment relationship in (20b).

- (20) a. saari nanacch-u kiir-i
 sari wash-U/I tear-PST
 ‘The sari tore after washing.’ (Gopalkrishnan 1985 p99: 112)⁵
- b. njaan oru maanga pootticch-u thinn-u
 I one mango pluck-U/I eat-PST
 ‘I plucked and ate a mango.’
 (Amritavalli & Jayaseelan 2005 p199: 37a, my glosses)

When both events are non-instantaneous, all three interpretations are possible, as predicted, (21).

- (21) avan paatu keett-u paper ezhuth-i
 he song sing-U/I paper write-PST
 ‘Listening to music, he wrote a paper.’

An example of the role of iconicity in determining temporal relations can be seen in (22), where switching the order of the clauses results in a different temporal interpretation. Gopalkrishnan considers sentences like (22b) to be semantically infelicitous because, according to Hindu etiquette, one should always bathe before going to a temple. If a speaker assumes that not everyone follows temple etiquette, then there is nothing wrong with (22b). This is simply another example of the role of world knowledge.

- (22) a. asha raavile kulicch-u ambalat-il pooy-i
 Asha morning bathe-U/I temple-LOC go-PST
 ‘Having bathed in the morning, Asha went to the temple.’
- b. asha raavile ambalat-il pooy-i kulich-u
 Asha morning temple-LOC go-U/I bathe-PST
 ‘Asha went to the temple in the morning and then came home and bathed.’
 [lit. ‘Having gone to the temple in the morning, Asha bathed.’]

Turning back now to the puzzle from the introduction about multi-verb constructions with present imperfective, (24a), or future main verbs, (24b), we see that Stump’s proposal works with things we already know about Malayalam to straightforwardly provides an explanation. John (1987) and Hany Babu (1997) have argued that the future maker *-um* is a modal, and Hany Babu (2006) has argued that *-unnu* in its generic reading involves a generic operator. A modal progressive entry like that in (23) is needed on independent grounds to account for the imperfective paradox. As such, in (23), the contextual variables in non-main clauses would be bound, not via pragmatic factors as in MTAs, but by the modal and generic operators taking scope over them, causing the interpretation of the non-main clause to vary with that of the main clause.

- (23) [[progressive aspect]] = $\lambda w.\lambda t.\lambda P_{<s,vt}. \forall w' [w \text{ INERT}_t w' \rightarrow$
 $\exists t' [t \text{ is a non-final part of } t' \ \& \ \exists e [\tau(e) \subseteq t' \ \& \ P(w')(e)]]]$
 (Beck & von Stechow 2015, cf. Dowty, 1979)

⁵ Gopalkrishnan says this sentence is semantically infelicitous. However, according to my consultants, (19a) is fine when complaining about someone who washed a sari that was supposed to not be washed, and as a result, tore it.

- (24) a. njaan oru maanga pootticch-u thinn-**unnu**-Ø
 I one mango pluck- U/I eat-IPFV-PRS
 ‘I pluck and eat (or am plucking and eating) a mango.’
 (Amritavalli & Jayaseelan 2005 p199: 38a, my glosses)
- b. njaan oru maanga pootticch-u thinn-**um**
 I one mango pluck- U/I eat-FUT
 ‘I will pluck and eat a mango.’ (Jayaseelan 2003 p68: 2b, my glosses)

4 Summary

This paper has shown that Malayalam multi-verb constructions are semantically underspecified for tense and aspect and also probably structurally small. They share many properties with English absolute adjuncts, such as the ability to appear in different positions in the sentence, are subject to pragmatic licensing conditions, describe temporal relations, causes and manners, and interact with modal and generic operators. As a result, I suggest that the analysis proposed by Stump (1985) for English absolutes might be able to be extended to Malayalam multi-verb constructions.

This paper also has bearing on a larger controversy in Malayalam. The data presented here argue against the tenseless account put forth by Amritavalli & Jayaseelan (2005, et. seq.) where *-u/i* is the perfective marker. Amritavalli & Jayaseelan argue that the *-u/i* in both main and non-main verbs is a perfective marker. The data in (24), above, is one piece of evidence for their tenseless account. They argue that since *-u* cannot be a past tense marker, given its non-past meaning in sentences like (24), it is a perfective marker. However, the availability of simultaneous readings in multi-verb clauses serve as evidence against their account. Additionally, a Stump (1985) based account is compatible with a tensed language. This suggests, that multi-verb constructions actually aren’t evidence for Malayalam being tenseless. See Hany Babu & Madhavan (2003), Menon (2011), and Swenson (in preparation) for further arguments for a tensed account for Malayalam.

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