

SIMPLY Malayalam Participials

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This paper analyses three different, though morphologically similar types of constructions, which employ the “participial” form of the verb. The participial marker *-a* is analysed as having the feature description [iφ unvalued]. The differences between these constructions are traced to the differences in the strategies employed to value *-a*. Also, the possibility of an interpretable but unvalued feature surviving at the end of a derivation is explored as a logical possibility of the Pesetsky and Torrego (2004) system.

1. Introduction

This paper looks into nominal modification in Malayalam, a Dravidian language spoken in India. The language has a basic SOV word order. The interesting fact about Malayalam is that, instead of adjectives, it makes elaborate use of relative clause (RelC)-like structures for nominal modification. As Hany Babu (1997) has rightly pointed out, even the few ‘adjectives’ the language has are morphologically similar to RelC-like structures.

- (1) jo:n kan-unn-**a** kutti
John see-PRE-A child
“The child whom John sees”

- (2) velu-TT-**a** patti
white-PST-A dog
“White dog”

However, unlike canonical RelCs, these constructions do not have a discernible relative pronoun¹. The *-a* morpheme that appears on the verb has been treated as a participial marker by Asher and Kumari (1996), henceforth A&K. Due to these facts, this paper starts out by looking at these as Participial constructions, employing the basic definition that a participial is a verb that is used to modify a noun. Participials are treated in Minimalist framework (Chomsky 2004) as lacking person feature (a defective T) which makes it impossible for a participial to assign Nominative Case and thus to license a nominal in the subject position. The construction we

¹ *-a* is not a pronominal form in Malayalam.

examine here, then, does not belong to the category of participials either, because the Subject of the clause can appear in these constructions (1). Hence, the term “participial relative clauses” (PrtRelCs), a term used by A&K, will be retained in this paper to refer to the construction under study.

2. Constructions

The participial is formed by suffixing the morpheme *-a* to the verb inflected for past/non-past time references. Like any RelCs, PrtRelCs in Malayalam can modify any argument and always precede the head noun. A noun can be modified by a series of PrtRelCs.

(3) *Unergative*

- a. kutti innale raatri o:d-i
child yesterday night run.PST
‘The child ran last night’
- b. [innale raatri o:d-i- (y)a] kutti
yesterday night run.PST.A child
‘The child who ran last night (lit., ran child)’

(4) *Unaccusative*

- a. kappal mung-i
ship sink.PST
‘The ship sank’
- b. mung-i-(y)a kappal
sink.PST.A ship
‘The ship that sunk (lit., sunken ship)’

(5) *Agent and patient/theme of transitives*

- a. kutti pu:cca- ye kan-unnu
child cat.ACC see.PRS
‘The child sees the cat’
- b. [kutti kan-nunn-a] puucca
child see.PRS.A cat
‘The cat which the child see (lit., the child seen cat)’
- c. puucca-ye kan-nunn-a kutti
cat.ACC see.PRS.A child
‘The child who sees the cat (lit., cat-seeing child)’

(6) *Arguments of ditransitives*

- a. jo:n me:ri-kku pasu-wine kodu-TTu
John.NOM Mary.DAT cow.ACC give.PST
‘John gave a cow to Mary’
- b. me:ri-kku pasu-wine kodu-tt-a jo:n
Mary.DAT cow.ACC give.PST.A John
‘John who gave a cow to Mary’
- c. jo:n pasuwine kodutt-a me:ri

- John.NOM cow.ACC give.PST.A Mary
 ‘Mary to whom John gave a cow’
 d. jo:n me:ri-kku kodutt-**a** pasu
 John.NOM Mary.DAT give.PST.A cow
 ‘The cow which John gave to Mary’

Like any RelCs, one common feature of all the examples above is that the argument that has been turned into the head noun is absent from the clause. Interestingly, there is a second type of similar constructions where the presence of all the arguments is mandatory i.e., there is no gap within the RelC. These are termed “headless RelCs” by A&K. Elsewhere in the literature they are known as nominalised sentences with *-du* as the nominaliser. For the purposes of this paper, we can call them Type I and Type II.

- (7) a. jo:n me:ri-kku pasu-wine kodu-TT-**a-du**
 John Mary.DAT cow.ACC give.PST.A.SG.NEUT.
 ‘That John gave a cow to Mary’
 b. jo:n me:ri-kku pasu-wine kodu-TT-**a-van**
 John Mary.DAT cow.ACC give.PST.A.SG.MASC.
 ‘That John gave a cow to Mary’
 c. jo:n me:ri-kku pasu-wine kodu-TTu enn-**a-du**²
 John Mary.DAT cow.ACC give.PST COMP.A.SG.NEUT.
 ‘That John gave a cow to Mary’

Another difference between the two types is that only clauses of Type II (which do not have any gap) can be used in cleft constructions. Type I PrtRelCs allows quantifiers, demonstratives and other PrtRelCs to intervene between itself and the head noun. This is absolutely forbidden in the case of Type II. Also, the presence of the complimentiser *ennu* is ungrammatical in type I constructions.

- (8) a. jo:n a:nu me:ri-kku pasu-wine kodu-TT-**a-du**
 John be Mary.DAT cow.ACC give.PST.A.SG.NEUT
 ‘It is John who gave a cow to Mary’
 b. * jo:n a:nu me:ri-kku kodutt-**a** pasu
 John be Mary.DAT give.PST.A cow
 ‘It is John who gave a cow to Mary’
 c. * jo:n me:ri-kku kodu-TTu enn-**a** pasu
 John Mary.DAT give.PST COMP.A cow
 ‘The cow that John gave to Mary’
 d. jo:n me:ri-kku kodu-TT-**a** a: randu pasukkal
 John Mary.DAT give.PST.A that two cows
 ‘Those two cows that John gave Mary’
 e. * jo:n-um ja:kk-um me:ri-kku pasu-wine kodu-TT-**a-randa-van**
 John-and Jack-and Mary.DAT cow.ACC give.PST.A-two-SG.MASC
 ‘That John and Jack gave a cow to Mary’

² Only Sg.Neut. can be used with the complimentiser.

3. What does *-a* do?

Before going in detail into the structure of these two types of *PrtRelCs*, it would be helpful to look into the common feature in all these examples – the suffix *-a*. As mentioned earlier, this is called “participial marker” by A&K. This morpheme is suffixed to the verb inflected for Tense/Aspect/Mood, as shown in the examples above. The defining feature of this morpheme is that it has to be obligatorily succeeded by a nominal element. This can be achieved in two ways: (i) the *PrtRelC* precedes a full-fledged nominal element or (ii) a morpheme denoting the values of ϕ -feature set can be suffixed to *-a*.

- (9) a. kan-unn-**a** kutti
 see.PRS.A child
 ‘The child who sees’
 b. kan-unn-**a-van**
 see.PRS.A.SG.MASC
 ‘One who sees’
 c. kan-unn-**a** *(kutti)
 see.PRS.A child
 ‘The child who sees’

This, in other words, means that *-a* has some feature that seeks validation from a nominal element, which calls for a closer look at the features associated with it. The concepts developed by Pesetsky & Torrego (2004) –henceforth P&T- provide the theoretical basis for this closer examination of the feature composition of *-a*. Departing from the Derivation by Phase/Minimalist Inquiries (Chomsky 1999, 2000) perception of features as interpretable vs. uninterpretable, P&T argue that features can be both [+/- interpretable] and [+/- valued]. This leads to the following four-way distinction:

- (10) uF *val* uninterpretable, valued iF *val* interpretable, valued
 uF [] uninterpretable, unvalued iF [] interpretable, unvalued

Agree is redefined in this system as a sharing of features.

(11) *Agree (feature sharing version)*

- a. An unvalued feature F (a probe) on a head H at syntactic location α (F_α) scans its command domain for another instance of F (a goal) at location β (F_β) with which to Agree.
- b. Replace F_α with F_β , so that the same feature is present in both locations.
- c. When Agree applies between a probe feature F at a syntactic location α and a goal location β , the output is a single feature F shared by two locations.

Any unvalued feature can, in this system, act as the probe. Returning to the case at hand, the feature description that would fit *-a* is [$i\phi$ unvalued], which acts as a probe to get valued. Pesetsky (2005) has, in fact, argued that the C-layer of *RelCs* has unvalued ϕ -features. It differs from declarative *C* (but resembles adjectives) in lacking valued ϕ -features of its own. This is exactly what happens in the case of *PrtRelCs* in Malayalam; *-a* is the morphological manifestation of [$i\phi$ unvalued]. If the unvalued ϕ -features remain unvalued, the derivation crashes as the ungrammaticality of (9c) shows. This further explains the inability of so-called adjectives in Malayalam to appear in positions where, for example, English type adjectives can

appear. Malayalam adjectives, as mentioned earlier, are morphologically similar to *PrtRelCs* in that all of them carry the *-a* suffix. They broadly belong to two categories: root plus *-a* (12a) or frozen forms of *PrtRelCs* (12b).

- (12) a. *nal(l)-a pe:na*
 good pen
 ‘Good pen’
 b. *karu-tt-a pe:na*
 black.PST.A pen
 ‘Black pen’

Neither of these classes can be used without a nominal succeeding it. When these are used in the complement position of copular constructions, just like the examples of Type II *PrtRelCs* that we saw in (8a), (8b), and (9), these adjectives appear with morphemes denoting Number and Gender suffixed to them.

- (13) a. *idu vali-y-a mi:n a:nu*
 this big fish be
 ‘This is big fish’
 b. * *mi:n vali-y-a a:nu*
 fish big be
 ‘Fish is big’
 c. *mi:n vali-y-a-du a:nu*
 fish big.ASg.Neut. be
 ‘Fish is big’

These facts can be explained only if *-a* has a feature description [*iφ* unvalued] that acts as a probe that seeks valuation. Moreover, Malayalam explicitly shows the resemblance between adjectives and *RelCs* that Pesetsky (2005) talks about by using the same morpheme *-a* in both the cases. The argument above is further substantiated by what is known in the literature as the “future participle”. A&K notes that *PrtRelCs* can appear in Past, Present and Future tenses. While the past and present participles take the participial marker *-a*, the future relative participle is homophonous with the future participle form *-um*. Even though this participle is morphologically in future tense, the reading is mostly of a generic nature. An example is given below.

- (14) *pu: viri-yum ka:lam*
 flower bloom-FUT time
 ‘The time when flowers (will) bloom’

A&K further note that “this future participle is, however, very rarely used, particularly in the spoken language, reference to future time in a relative clause usually indicated by a present tense participle.” Apart from the fact that the use of the future participle is not all productive in the language, the restrictions on the already minimal use of this construction are of interest here. As we have seen in the beginning of this paper, a Type I *PrtRelC* can be used to modify any argument and a series of Type I *PrtRelCs* can be used to modify the same noun. However, this is not at all true as far as the future participle is concerned. Also, these constructions cannot appear in Type II *PrtRelC* or modify Proper nouns.

- (15) a. * *jo:n ka:n-um kutti*

- John see.FUT child
‘The child whom John will see’
- b. jo:n va:ngi-ya me:ri vitt-a vi:du
John bought.A Mary sold.A house
‘The house that John bought and Mary sold’
- c. * pu: viri-yum puzha ozhug-um ka:lam
flower bloom.FUT river flow.FUT time
‘The time when flowers will bloom and river will flow’
- d. * jo:n ka:n-um-du
John see.FUT.SG.NEUT
‘That which John will see’
- e. * jo:n ka:n-um me:ri
John see.FUT Mary
‘Mary whom John will see’

These facts will follow straightforwardly if we take the absence of *-a* into account. There is no unvalued element which can act as a probe in these constructions and hence the difference.

4. Analysis

The analysis pursued in this paper is based on the framework given in Chomsky (2001, 2004)³. Specifically, Type I *PrtRelCs* are pair-merged structures while Type II *PrtRelCs* are not. Set-Merge takes two objects α and β and creates the set $\{\alpha, \beta\}$. The asymmetric operation of adjunction takes two objects β and α and forms the ordered pair $\langle \alpha, \beta \rangle$, α adjoined to β (Chomsky 2004). This is the operation Pair-Merge. The adjoined element α is spelt out where β is. A pair-merged element is not visible to the Narrow Syntax (NS), so β (to which α is adjoined) behaves in the NS as if it were a simple structure. The operation SIMPL converts the ordered pair $\langle \alpha, \beta \rangle$ to $\{\alpha, \beta\}$. As Chomsky (2004) argues, “since SIMPL applies at the point of the derivation at which Spell-Out applies, it is also in effect part of Spell-Out [...] that is part of the operation TRANSFER”. Overt and covert movement is, then, defined on the basis of the ordering of TRANSFER and Move. For covert movement TRANSFER is ordered before Move.

Recall that we sub-divided the constructions classified under *PrtRelCs* into two types – Type I and Type II. Type I *PrtRelCs* can be stacked (15b), have a gap in the clause (3-6), can let quantifiers and other *PrtRelCs* intervene before the head noun (cf. 8d) and do not instantiate suffixation of bare number/gender marking. Type II *PrtRelCs*, on the other hand, cannot be stacked, do not permit gaps (cf. 8a, b), do not allow any element to intervene between the clause and the head noun (cf. 8e), and can be valued by bare number/gender markers (cf. 8a).⁴ Thus, of the two types, it is Type I that is similar to Relative Clauses.

³ Notice that, unlike Pesetsky (2005), the analysis pursued here is not a raising analysis.

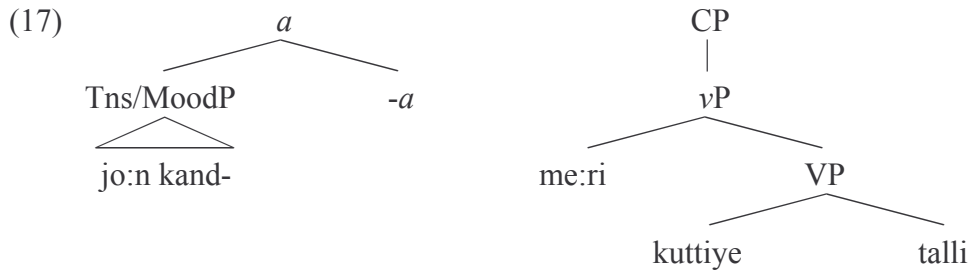
⁴ Malayalam is a language which is said to have only two persons: first and second. The so-called third person is derived by combining distal/proximal demonstrative and the morpheme that denotes number and gender. The morpheme *a* is the distal marker and *i* is the proximal one. The following morphemes, in this sense, function as number/gender markers.

(i)	an	al	du	ar	va	
	MASC.SG.	FEM.SG.	NEUT.SG.	HUMAN.PL	NON-HUMAN.PL.	
(ii)	a-van	a-val	a-du		iii) i-van	i-val i-du
	he	she	it	(distal)	he	she it (proximal)

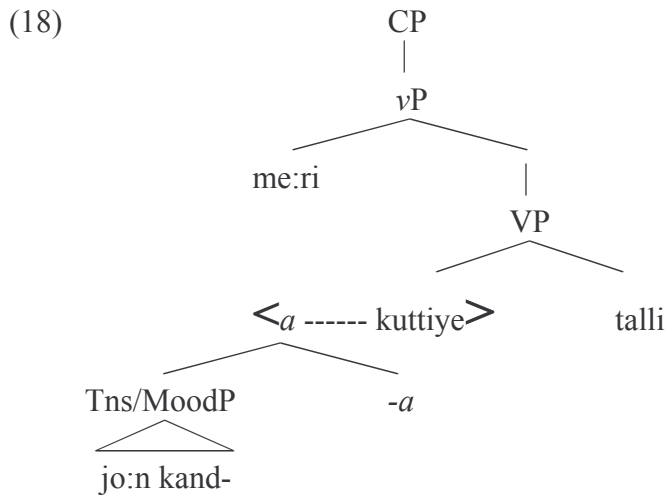
4.1 Type I *PrtRelCs*

Adopting the standard adjunction analysis for *RelCs* (Chomsky 1977), I take them to be pair-merged to the head noun. Assuming parallel computation, the matrix clause and the *PrtRelC* are built in parallel.

- (16) jo:n kan-d-a kutti-ye me:ri talli
 John see.PST.A child Mary slapped
 ‘Mary slapped the child whom John saw’



By the time a strong phase is reached and Spell-Out is to be applied, all the syntactic objects (SO) in the work space have to be turned into a unique SO, with all other SOs integrated into the matrix SO through applications of Merge. A type I *PrtRelCs* lacks full argument structure and hence counts as a weak phase. Therefore, the strong phase in the workspace is the matrix CP. Once the derivation reaches the matrix CP, Spell-Out/TRANSFER has to apply. However, the *PrtRelC* still has unvalued ϕ -features, survival of which can result in a deviant derivation. Therefore, the *PrtRelC* is pair-merged to the head noun *kutti* in the matrix clause by the time the strong phase is reached.



The operation SIMPL applies at TRANSFER, simplifying the pair-merged structure $\langle \alpha, \beta \rangle$ into $\{\alpha, \beta\}$. The unvalued features are valued at this point and the derivation converges.

An interesting fact about Type I *PrtRelCs* is that, unlike their English-type counterparts, they allow for wide scope of *wh*- elements inside the participial clause. Consider the following English example.

(19) ?? You saw the man who killed whom?

In (19), the embedded *wh*- element does not get a wide scope interpretation at all; the sentence with a *wh*- element inside the RelC is, in fact, ungrammatical. However, Malayalam tells a different story, where RelCs with an embedded *wh*- are not only grammatical, but receive only a wide scope interpretation.

- (20) A: ni: a:re konn-a a:le kandu?
 you who.ACC killed.A person.ACC saw
 ‘You saw the person that killed who?’
 B: me:ri-ye.
 Mary.ACC
 ‘Mary’
 B’: nja:n me:riye konn-a a:l-e kandu
 I Mary.ACC killed.A person.ACC saw
 ‘I saw the person who killed Mary’

I deviated from subscribing to a raising analysis of RelCs because it is unclear how wide scope can be obtained in this type of analysis. On the contrary, a pair-merge analysis of RelCs directly provides an explanation for wide-scope of *wh*- elements embedded in *PrtRelCs*. Malayalam is a *wh*- *in situ* language, which means that movement of *wh*- elements to their scope positions is covert. This, in turn, suggests that Malayalam is a language that orders Move after TRANSFER. The implication of this conclusion for a pair-merged structure is that Move applies only *after* the pair-merged SO is integrated into the matrix clause by SIMPL. This leaves the *wh*- element inside the *PrtRelC* amenable for extraction, resulting in an obligatory wide-scope reading.

4.2 Type II *PrtRelCs*

As opposed to Type I *PrtRelCs*, Type II clauses do not resemble relative clauses at all. The most important characteristic of these clauses is that the ϕ -features of *-a* are valued by suffixing the gender/number markers. In fact, these markers appear exactly the way they appear in subject-verb agreement contexts. Though Malayalam does not show subject-verb agreement in finite clauses, its sister languages in the Dravidian family (e.g., Tamil) do exhibit overt agreement.

In Type II *PrtRelCs*, there seems to be at least one case of overt agreement. This is the one mentioned in (8) earlier, and reproduced below as (21). This case can also be interpreted as a copula-less sentence to mean *John is someone who gave Mary a cow*. Only the subject can be clefted in this construction.

- (21) a. jo:n me:ri-kku pasu-wine kodu-TT-a-van
 John Mary.DAT cow.ACC give.PST.A.SG.MASC
 ‘It is John who gave Mary a cow’
 b. jo:n a:nu me:ri-kku pasu-wine kodu-TT-a-van
 John be Mary.DAT cow.ACC give.PST.A.SG.MASC
 ‘It is John who gave a cow to Mary’
 c. * me:ri-kku a:nu jo:n pasu-wine kodu-TT-a-van
 Mary.DAT be John cow.ACC give.PST.A.SG.MASC
 ‘It is to Mary that John gave a cow’

This paradigm suggests that the valuation of the ϕ -features of *-a* is carried out by the subject. The marker *-a* acts as a probe and the subject moves higher to value its features. This explains why it is ungrammatical to place any element before the subject in these constructions – an unexpected restriction given the high degree of scrambling that the language exhibits.

- (22) * innale jo:n vann-a-van a:nu
 yesterday John came.A.SG.MASC be
 ‘It is John that came yesterday’

The construction becomes grammatical once the adverb is placed after the subject.

- (23) jo:n innale vann-a-van a:nu
 John yesterday came.A.SG.MASC be
 ‘It is John that came yesterday’

The *-du* form of Type II *PrtRelCs* (cf. 8a), on the other hand, behaves differently from the above one. As mentioned elsewhere, it is this construction that is widely used for clefting. In this construction, any element in the *PrtRelCs* can be brought to be the focus of the cleft. Example (8a) is reproduced below as (24a), along with other examples that show that any element inside the *-du* clause can be clefted.

- (24) a. jo:n me:ri-kku pasu-wine kodu-TT-a-du
 John Mary.DAT cow.ACC give.PST.A.SG.NEUT
 ‘That John gave a cow to Mary’
 b. jo:n a:nu me:ri-kku pasu-wine kodu-TT-a-du
 John be Mary.DAT cow.ACC give.PST.A.SG.NEUT
 ‘It is John who gave a cow to Mary’
 c. me:ri-kku a:nu jo:n pasu-wine kodu-TT-a-du
 Mary.DAT be John cow.ACC give.PST.A.SG.NEUT
 ‘It is to Mary that John gave a cow’
 d. jo:n me:ri-kku pasu-wine kodu-TT-a-du a:nu
 John Mary.DAT cow.ACC give.PST.A.SG.NEUT be
 ‘John did give a cow to Mary’

More over, *-du* clauses do not ban other elements from preceding the subject. Thus, a sentence like (25) is perfectly grammatical as opposed to (22).

- (25) innale jo:n vann-a-du a:nu
 yesterday John came.A.NG.NEUT be
 ‘It is John that came yesterday’

It appears from these data that there is no movement of any element to a higher position to value *-a*. Therefore, *-du* is to be considered as the default valuation of the ϕ -features *-a*. In fact this is not a strange operation for Dravidian languages. Tamil, which has an overt agreement system, provides evidence for default agreement when the arguments are unavailable for agreement.

- (26) avan- ϕ niRaiya cinimaa naTikarkaL-ai terint-irunt-aan
 he.NOM many cinema actors.ACC knew.has.PST.SG.MASC
 ‘He knew/has known many cinema actors’

However, in the presence of a dative subject, the verb agrees with the object. In these cases, the object surfaces with nominative case (marked with a \emptyset morpheme), and not with the regular accusative.

- (27) niRaiya cinimaa naTikarkaL- \emptyset avan-ukku terint-iru-nt-aarkaL
 many cinema actors.NOM he.DAT knew.has.PST.PL
 ‘Many cinema actors were known/have been known to him’

When both the subject and the object carry case markings, the verb surfaces with default agreement. Such default agreement is always singular neuter.

- (28) avan-ukku niRaiya cinimaa naTikarkaL-ai(t) terint-iru-nt-a-du
 he.DAT many cinema actors.ACC knew.has.PAST.SG.NEUT
 ‘Many cinema actors were known/have been known to him’

It is this option of default valuation of agreement that the Type II clauses exercise to value the ϕ -features on *-a*. Recall that *-a* corresponds to the feature description [*i*F unvalued]. A derivation can crash if an uninterpretable feature survives at the interfaces. But, under P&T’s system, it is possible for an interpretable feature to remain unvalued. Since the feature is interpretable, it is unlikely that the derivation would crash, although the presence of unvalued features may result in a deviant derivation. The easiest solution would be to take *-a* as having a default value, that is to say, to assign a uniform value to all the interpretable but unvalued occurrences of a feature. This is exactly what I have claimed happens in the examples above. The unvalued but interpretable ϕ -features on *-a* are assigned the default value singular neuter, which is spelled out as *-du*.

5. Conclusion

Three seemingly different construction types in Malayalam –adjectives, RelCs and nominalised sentences– have been given a uniform explanation. All these constructions are headed by a morpheme with the feature description [*i* ϕ unvalued]. The constructions differ on the strategies employed to value this element. Also, the analysis brings to light an interesting consequence of P&T’s proposal of four-way distinction of the feature system –namely, cases where an interpretable feature remains unvalued. The solution given here is based on the assumption that only uninterpretable features make a derivation crash. By virtue of the fact that they are interpretable, unvalued interpretable features can be assigned a default value.

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