

THE DATIVE CASE IN THE MALAYALAM VERB^{*}

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The idea that some lexical categories – what are traditionally called “parts of speech” – are not primitives of Grammar but are generated by category-making operations in the syntax has been put forward in recent linguistics, with variations. Marantz (1997, forthcoming) proposed that lexical roots have no category; a category-less root becomes Noun or Verb by adjoining to “little” *n* or “little” *v*. Marantz in effect separates encyclopedic meaning from “noun-ness” and “verb-ness;” in a sense, the primitiveness of Noun and Verb still survives in this approach (as functional heads). A more radical suggestion is made in Pesetsky (2007, 2012). Pesetsky, studying the case and agreement systems in Russian, suggests that a category-less root becomes a Noun by being suffixed with Genitive, or a Verb by being suffixed with Accusative. He also suggests that Determiner is made by Nominative case and Preposition by Oblique case. This notion of case-incorporation creating a lexical category is central to the present paper (although we won’t generate the category of Noun in this fashion).

A still further variation in the current ferment of ideas on this topic is represented by Kayne (2008). Kayne claims that Noun is the only category capable of denotation; as such, it is the only primitive lexical category, and the only “open class” category. The two other “open classes” of traditional grammar, Verb and Adjective, are derived from Noun by functional affixation.

Amritavalli & Jayaseelan (2003) claimed that the category of Adjective is generated when a nominal root incorporates into a case-head. The main task of this paper is to extend this analysis to Verb: Adjective and Verb, I now claim, arise when a nominal element N^0 incorporates a case, specifically Dative case.

The paper is organized as follows. In § 1, I motivate for Dravidian the Case Hierarchy ‘Dative > Accusative > Genitive’, using the evidence of complex case morphology in Malayalam. In § 2, I propose an algorithm that generates the three cases in that order. In § 3, I

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first summarize the arguments of Amritavalli & Jayaseelan (2003) for the claim that Adjective is a derived category; then I demonstrate that the verb in Malayalam is a derived category that is generated by the incorporation of case. In § 4, I propose a theory about how the case-marking patterns of sentences with intransitive, transitive and ditransitive verbs are generated. In § 5, I resolve some *prima facie* problems for the case-incorporation account of the Malayalam verb; I also very briefly consider how this analysis might apply to English verbs. § 6 (‘Conclusion’) summarizes the main claims of the paper.

1. Introduction: a Case Hierarchy

The Dative case in Malayalam is illustrated in (1):

- (1) a. John Mary-**k’k’ə** oru pustakam koDuttu
 John(NOM) Mary-DAT one book(ACC) give.PAST
 ‘John gave Mary a book.’

The *-k’k’ə* suffix can also be realized as *-kkə*, or simply *-ə*, the choice between the three forms being determined (seemingly) by phonological factors:

- (1) b. John awaL-**kkə** oru pustakam koDuttu
 John(NOM) she-DAT one book(ACC) give.PAST
 ‘John gave her a book.’
 c. John awan-**ə** oru pustakam koDuttu
 John(NOM) he-DAT one book(ACC) give.PAST
 ‘John gave him a book.’

The Dravidian languages are case-stacking languages, a fact which is not obvious on the surface because of an overwriting rule: a later-suffixed case ‘overwrites’ (makes silent) an earlier-suffixed case. (This type of system has been recently made prominent by Pesetsky’s (2007, 2013) study of Russian.) The overwriting is not “perfect,” however, because sometimes an earlier case “shows through.” Typically, it is a Genitive that shows through in this fashion – leading traditional grammarians of Dravidian to in fact say that all Dravidian cases are suffixed to a Genitive stem (Krishnamurti 2003:218ff.).¹ The surfacing of the Genitive is again determined by phonological factors that we shall not go into here. Note how the forms in (2a) contrast with those in (2b) as regards the appearance of the Genitive:²

- (2) a. Mary-k'k'ə aana-k'k'ə vaazha-k'k'ə
 Mary-DAT elephant-DAT banana tree-DAT
- b. John-in-ə pas'u-(w)in-ə teṇṇ-in-ə
 John-GEN-DAT cow-GEN-DAT coconut tree-DAT

The Genitive surfaces also with the Accusative case in Malayalam, again with the same stems as with the Dative case; thus the nouns in (3a) don't let the Genitive surface in the standard language, but the ones in (3b) do:³

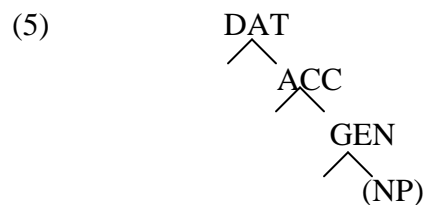
- (3) a. Mary-(y)e aana-(y)e vaazha-(y)e
 Mary-ACC elephant-ACC banana tree-ACC
- b. John-in-e pas'u-(w)in-e teṇṇ-in-e
 John-GEN-ACC cow-GEN-ACC coconut tree-GEN-ACC

Typological studies of case have determined a Case Hierarchy that is universal; it makes implicational predictions: e.g., if a certain language instantiates a particular case on the Hierarchy, it will also have all the cases that are lower on the Hierarchy. Building on the idea of the Case Hierarchy, a challenging claim has been made in the framework of Nanosyntax that all instances of case (with the possible exception of Nominative) are in fact 'layers' of case underlyingly – more explicitly, that when a case is generated on a nominal expression, all the cases lower on the Case Hierarchy are also generated on it (see Caha 2007, 2009; Starke 2005). The case-stacking in Dravidian – the phenomenon of 'another' case "showing through" – can be understood in terms of these ideas: we can say that whenever a Dative or Accusative is generated, a Genitive is also generated – which is sometimes silent and sometimes surfaces.

The data in (2b) and (3b) enable us to determine two sequences of the hierarchical order of cases at least as far as Dravidian is concerned:

- (4) a. $\begin{array}{c} \text{DAT} \\ \swarrow \searrow \\ \text{GEN} \\ \swarrow \searrow \\ (\text{NP}) \end{array}$ b. $\begin{array}{c} \text{ACC} \\ \swarrow \searrow \\ \text{GEN} \\ \swarrow \searrow \\ (\text{NP}) \end{array}$

That is, since the Genitive is closer to the nominal stem than Dative or Accusative, it is generated lower than either of these. (And we may assume that the NP picks up the case-suffixes by moving to the left of them cyclically.) A remaining question is the *inter se* order of Dative and Accusative (assuming that these two cases also are hierarchically ordered). In Dravidian, Dative and Accusative never co-occur on the same nominal form on the surface; so “containment relations” of case morphology will not give us a straightforward cue to resolve this question. But there are languages in which Dative is morphologically based on Accusative (Caha 2010:206); and in the Universal Hierarchy proposed by Blake (1994) and Caha (2007, 2009), Dative is above Accusative. So we shall adopt the following hierarchy:⁴



2. Generating the Hierarchy of Structural Cases

But how is the structure (5) generated? First we ask a more specific question: how does the Dative case come to be, on a nominal expression?

An explicit proposal about the “genesis” of the Dative case was made by Szabolcsi (1983). In a careful study of the Hungarian possessive construction, she demonstrated that the Possessor argument in Hungarian gets the Dative case as a result of movement. The phenomenon she had to account for was a puzzling case alternation on the Possessor, illustrated in (6) (Szabolcsi 1983:89, 91):

- (6)
- | | | | | | | | |
|----|-----|----------|----------------|----|--------------|------|----------------|
| a. | az | én-ø | vendég-e-m | b. | én-nek-em | a | vendég-e-m |
| | the | I-NOM | guest-POSS-1sg | | I-DAT-1sg | the | guest-POSS-1sg |
| | | ‘my | guest’ | | | ‘my | guest’ |
| | a | te-ø | vendég-e-d | | te-nek-ed | a | vendég-e-d |
| | the | thou-NOM | guest-POSS-2sg | | thou-DAT-2sg | the | guest-POSS-2sg |
| | | ‘thy | guest’ | | | ‘thy | guest’ |

- (9) ... [KP $\overset{\text{K}_{\text{dat}}}{\uparrow}$ [DP D [DP_{poss} NP_{theme}]]]

Our assumption was that a Dative KP is optionally generated above the basic predication; and that when it is generated, the K_{dat} “attracts” the nearest nominal phrase to its Spec position.

But there is a small problem about saying this. The generation of the Dative KP is not really optional. If the Hungarian possessive structure is indefinite – i.e. if the structure shown in (7) is headed by an indefinite D (which has a null lexical realization in Hungarian) – the movement of the Possessor argument is obligatory; cf. the sentences of (8), where ‘wine’/ ‘arm’ is indefinite. This movement is also obligatory if the Possessor argument is a *wh*-phrase, cf. (10) (Szabolcsi 1983:91):

- (10) a. * (a) ki- \emptyset vendég-e- \emptyset
 the who-NOM guest-POSS-3sg
 ‘whose guest’
 b. ki-nek a vendég-e- \emptyset
 who-DAT the guest-POSS-3sg
 ‘whose guest’

The movement (then) is triggered by other factors (like indefiniteness or a *wh*-feature); and it would seem that it is the movement that forces the derivation to generate a Dative KP. In other words, the case is a reflex of the movement.

In a recent paper, Kayne (2010) extends Szabolcsi’s analysis of the Hungarian possessor Dative to Datives in general in other European languages, and makes the following claims:

- (11) a. All Datives originate DP-internally.
 b. No Dative is externally merged into its visible position, i.e. all Datives have moved.

He however – like Szabolcsi earlier – stops short of suggesting how the Dative case suffix actually comes to be.

To address this question, we look at two analyses of predicate inversion, proposed in Kayne (1993) and den Dikken (1996, 2006). Kayne (ibid.:109) notes that Hungarian and English have

different strategies in dealing with an indefinite possessive construction: whereas the Possessor DP moves out and receives Dative case in Hungarian, the theme NP moves out in English, cf.

- (12) a. [John's a sister] =>
b. a sister **of** [John's *t*]

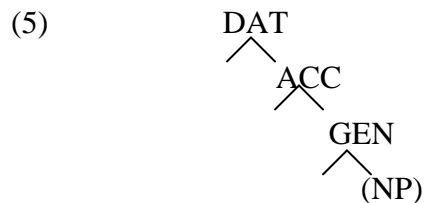
Kayne suggests that the preposition ‘of’ is inserted “to Case-license DP_{poss} .” But actually DP_{poss} already has a case, namely the Genitive. Den Dikken has a different proposal here: he suggests that predicate inversion needs a LINKER. His examples are:

- (13) *Dutch* (den Dikken 2006:2):
- a. een vent als een beer
a bloke as/like a bear
- b. een beer **van** een vent
a bear of a bloke

(13a) is an uninverted structure; in (13b), the predicate has been inverted, necessitating the insertion of a LINKER, *van* ‘of’.

Adopting den Dikken's idea of a LINKER, let us say that what Szabolcsi observed in Hungarian was the insertion of a LINKER. In other words, the Dative case suffix has the function of a LINKER.⁵

Now recall that there are two other cases on the Case Hierarchy that we motivated in § 1; we reproduce it below:



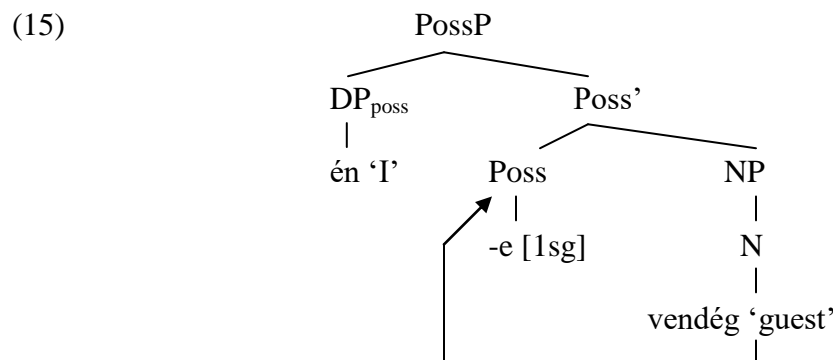
Viewed in the light of Caha's (2007, 2009) proposal that we outlined earlier, this hierarchy in effect says that Accusative and Genitive are generated before Dative on a nominal, when the latter has the Dative case. Now if we combine this with the idea of the DP-internal origin of Datives (Szabolcsi 1983, Kayne 2010), we are pushed towards some very interesting questions (or conjectures): Do Accusative and Genitive also have a DP-internal origin? Are these two cases too, LINKERS triggered by movement?

Consider the Malayalam forms of (2b), e.g. *John-in-a* ‘John-GEN-DAT’. We have overt evidence here of a Genitive “within” a Dative, arguing that the Genitive marking happened “prior” to the Dative marking. So the Genitive must have been generated DP-internally. In the case of the Genitive, this conclusion is not difficult to concede, because the traditional analysis of Genitive is that it is a case assigned to the specifier of an NP (Chomsky 1981).

In Jayaseelan (2007a), I proposed an analysis of the Hungarian possessive construction that departed in some respects from Szabolcsi’s (1994) structure shown earlier in (7). Note that in a form like (14) (see (6a)):

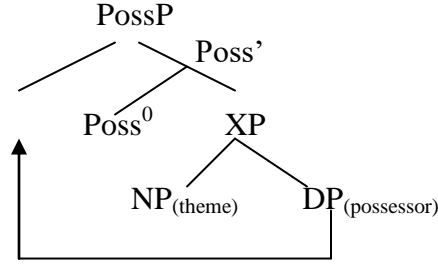
- (14) az én-ø vendég-e-m
 the I-NOM guest-POSS-1sg
 ‘my guest’

the NP ‘guest’ has two suffixes: a possessive marker *-e*, followed by an agreement morpheme. I proposed that the possessive marker is the head of the small clause, which takes the theme NP as its complement and DP_{poss} in its Spec position; and that the AGR element is just an agreement matrix on this head, cf. English (finite) T. In Hungarian, the theme NP adjoins to the head:⁶



But possibly, (15) itself is a structure generated by movement. In the initial structure, the theme NP (the possessee) and the possessor DP could be in a hierarchically equal relation in violation of antisymmetry, “requiring” one of the terms to move (Moro 2000). The Genitive marker could then be the LINKER triggered by the movement:

(16)



Consider the double case-marking on the subject in the following possessive construction in Malayalam:

- (17) John-in-ə oru naaya uNDə
 John-GEN-DAT one dog be.PRES
 ‘John has a dog.’ (Lit. ‘To-John is a dog.’)

If our Case Hierarchy (5) is right, there must be an unpronounced Accusative in the Possessor DP of (17), whose proper underlying representation should be (18). (-e is the Malayalam Accusative marker.)

- (18) John-in-[e]-ə ‘to John’
 John-GEN-[ACC]-DAT

We can derive this sequence as follows, if we may assume that these cases are LINKERs generated by predicate-argument inversion:⁷

- (19) a. [XP [oru naaya] John] (by merge of predicate and argument)
 b. [PossP John -in_{poss} [XP [oru naaya] t_{John}]] (by “escape” of argument from predication structure, triggering LINKER)
 c. [YP [XP [oru naaya] t_{John}] Y⁰ [PossP John -in_{poss} t_{XP}]] (by inversion of predicate with argument)
 d. [AccP [PossP John -in_{poss} t_{XP}] -e_{acc} [YP [XP [oru naaya] t_{John}] Y⁰ t_{possP}]] (by “escape” of argument from predication structure, triggering LINKER)
 e. [ZP [YP [XP [oru naaya] t_{John}] Y⁰ t_{possP}] Z⁰ [AccP [PossP John -in_{poss} t_{XP}] -e_{acc} t_{YP}]] (by inversion of predicate with argument)
 f. [DatP [AccP [PossP John -in_{poss} t_{XP}] -e_{acc} t_{YP}] -ə_{dat} [ZP [YP [XP [oru naaya] t_{John}] Y⁰ t_{possP}] Z⁰ t_{accP}]] (by “escape” of argument from predication structure, triggering LINKER)

The advantage of postulating an “invisible” Accusative case immediately below the Dative case will become clear in analyses we propose in Section 4.

3. Adjective and Verb as Derived Categories

3.1. Amritavalli & Jayaseelan (2003) – also Amritavalli (2007), Jayaseelan (2007b) – argued that Adjective is a derived category which is generated when Noun adjoins to Case. We presented both distributional and morphological evidence in support of this claim.

The distributional argument was that we could account for a three-way alternation in the way languages express the Experiencer notion or the Possessor notion; cf. (20) and (21). (The (a) sentences are Malayalam data.)

- (20) a. John-in-ə santooSam uNDə
 John-GEN-DAT happiness be.PRES
 Lit. ‘To-John is happiness.’
 b. John is happy.
 c. John has happiness.
- (21) a. John-in-ə paNam uNDə
 John-GEN-DAT money be.PRES
 Lit. ‘To-John is money.’
 b. John is wealthy.
 c. John has wealth.

In each set, the Malayalam sentence (a) has a Dative subject, the English sentences (b) and (c) have a Nominative subject. But there are other contrasts. In the English sentences, there is a ‘be’/ ‘have’ alternation of the verb, with ‘be’ taking an adjectival complement and ‘have’ a nominal complement. The Malayalam sentence has a copular verb like English (b) but a nominal complement like English (c). How do we account for this complex set of contrasts?

The idea that ‘have’ is underlyingly ‘be + to’ – i.e. ‘be’ into which a Preposition/Case has incorporated – is now a well-known and widely accepted analysis; the original insight was that of Benveniste (1966:197): ‘*avoir* n’est rien autre qu’un être-à inversé’ (‘*avoir* is nothing other than an inverted être-à’). Kayne (1993), comparing Hungarian and English possessives, suggested that it is the same Dative case that shows up on the subject in the Hungarian

possessive construction – cf. (8) – that gets incorporated into ‘be’ to yield the English ‘have’.
(See also Freeze 1992, Hoekstra 1993.)

But there is a gap left by this explanation (as it stands). How do we generate an English sentence like the (b) sentence? And what is its relation to (a) and (c)? In (b), the Dative preposition (or case) neither incorporates into ‘be’ to yield ‘have,’ nor shows up on the subject. What has happened to it? In Amritavalli & Jayaseelan (2003) we claimed that a bare Noun (here denoting the Experience or the Possessum) can incorporate into Preposition/Case and yield an Adjective. This explains the (b) sentence, and we now have a complete account of the three-way alternation shown in (20) and (21).

This account also explains why ‘have’ cannot take an adjectival complement, a fact which should be surprising if ‘have’ is derived from ‘be.’ The explanation is that there is only one Dative case here, which can incorporate to yield either ‘have’ or an Adjective but not both.

Now coming to the morphological evidence that Adjective is ‘Noun + Case,’ we first note that Dravidian has hardly any adjectives; indeed it has been argued not to have Adjective as a lexical category (see Zvelebil 1990 for a discussion). But there are a few forms that are functionally adjectival, although transparently denominal. These yield an interesting pattern, cf. the following Kannada examples (Amritavalli & Jayaseelan 2003:29):

(22) *Kannada*

- a. raaman-**ige** udda ide
Rama-DAT height be.3n
‘Rama is tall.’ (Lit. ‘To-Rama is height.’)
- b. raama udda-**kke** idd-aane
Rama(NOM) height-DAT be-3msg
‘Rama is tall.’ (Lit. ‘Rama is to-height.’)

When the Dative case does not show up on the subject, it is suffixed to the nominal complement, yielding a form which is clearly adjectival in function.

3.2. Now we shall argue (on similar grounds) that the Verb in Malayalam is a derived category. The two claims – about Adjective and Verb – can be seen to converge on the Kaynean claim

(Kayne 2008) that the only “open class” lexical category is Noun, and that the other seemingly open classes are derived by the incorporation of Noun into functional heads.

We begin by noting that most Malayalam verb forms end in *-k’k’ə* or *-kkə*:

- (23)
- | | | | |
|---------------|-----------|-------------|---------|
| a. kaDi-k’k’ə | ‘bite’ | b. koDu-kkə | ‘give’ |
| c. iri-k’k’ə | ‘sit’ | d. naDa-kkə | ‘walk’ |
| e. we-k’k’ə | ‘put’ | f. noo-kkə | ‘look’ |
| g. ciri-k’k’ə | ‘laugh’ | h. nil-kkə | ‘stand’ |
| i. cila-k’k’ə | ‘chatter’ | j. keeL-kkə | ‘hear’ |

When Sanskrit roots are borrowed to form Malayalam verbs, it is a completely regular process to suffix *-k’k’ə* / *-kkə* to it; so that all Sanskrit-derived verbs end in *-k’k’ə* / *-kkə*:

- (24)
- | | | | |
|-----------------|----------|----------------|----------|
| a. sneehi-k’k’ə | ‘love’ | b. mari-k’k’ə | ‘die’ |
| c. paDhi-k’k’ə | ‘study’ | d. dhari-k’k’ə | ‘wear’ |
| e. moohi-k’k’ə | ‘desire’ | f. daahi-k’k’ə | ‘thirst’ |

It must be noted that there are also many verb forms in the language that do not end in *-k’k’ə* / *-kkə*:

- (25)
- | | | | |
|-----------|--------|----------|--------|
| a. paaDə | ‘sing’ | b. ooDə | ‘run’ |
| c. caaDə | ‘jump’ | d. kaaNə | ‘see’ |
| e. paRayə | ‘say’ | f. aRiyə | ‘know’ |

But what is interesting is that when any one of these verbs is causativized, the *-k’k’ə* / *-kkə* suffix is the “causativizer”:

- (26)
- | | | | |
|-----------------|-------------|----------------|-------------|
| a. paaD-ik’k’ə | ‘make sing’ | b. ooD-ik’k’ə | ‘make run’ |
| c. paRay-ik’k’ə | ‘make say’ | d. aRiy-ik’k’ə | ‘make know’ |

When a verb form which ends in *-k'k'ə* / *-kkə* is causativized – adding another *-k'k'ə* / *-kkə* to it – there is a “dissimilation” process in morphology whereby the first *-k'k'ə* / *-kkə* becomes *-ppə*:

- (27) a. koDu-pp-ik'k'ə ‘make give’
 b. paDhi-pp-ik'k'ə ‘teach’
 c. ciri-pp-ik'k'ə ‘make laugh’

See Madhavan (2006) for a detailed study of this *-k'k'ə* / *-kkə* suffixation process; he argues that *-k'k'ə* / *-kkə* is only a verbalizer and not a causativizer per se. (See also Killimangalam & Michaels 2006.)

What has not been noticed hitherto is that this verbalizer is homophonous with the Dative case in Malayalam, cf. (28) (= (1a)):⁸

- (28) John Mary-**k'k'ə** oru pustakam koDuttu
 John(NOM) Mary-DAT one book give.PAST
 ‘John gave a book to Mary.’

As we said in § 1, the Dative case has three allomorphs: *-k'k'ə*, *-kkə*, and *-ə* :

- (29) a. Mary-k'k'ə ‘to Mary’
 b. awaL-kkə ‘to her’
 c. awan-ə ‘to him’

The Malayalam verb forms that do not end in *-k'k'ə* / *-kkə* – illustrated in (25) – could very well have the third allomorph *-ə* in their composition; this *-ə* would be easily elided or assimilated when other suffixes are added to the verb. In other words, the Malayalam verb forms could be completely regular in being formed with the help of the Dative case.⁹

If both adjectives and verbs are nominal roots that have incorporated the Dative case, a natural question to ask is: what constitutes their difference? While I shall not provide anything like an adequate answer here, let me make an initial observation: A salient difference between the two categories is that adjectives are forms that do not raise to Tense, while verbs are forms that do. It must be the raising to Tense that gives a verb an event reading. In a parallel fashion, adjectives may raise to the head of a Degree Phrase, giving them the possibility of degree modification. Whether a form will raise to Tense or Degree Phrase seems to be partially determined by its meaning: it seems correct to say that event-denoting predicates, if they ‘exit’

out of the predication structure and incorporate case (see next section), invariably raise to Tense. Most stative predicates (on the other hand) do not raise to Tense, although a few do. But a full investigation of this question is beyond the scope of this paper.¹⁰

4. The Process of Verb Formation in Malayalam

We discussed in § 2 how an argument in Malayalam gets suffixed with three cases, namely Genitive, Accusative, and Dative (in that order) in the course of exiting the predication structure it is merged in. The example we discussed was (17) (repeated below):

- (17) John-in-ə oru naaya uNDə
 John-GEN-DAT one dog be.PRES
 ‘John has a dog.’ (Lit. ‘To-John is a dog.’)

In this example, the predicate nominal *oru naaya* ‘a dog’ is a complex nominal expression – as it typically is, in the possessive construction. But if we take an experiencer predicate, the NP denoting the experience is always (or nearly always) a simple nominal element, N^0 . In this case, an alternative derivation is possible in Malayalam: the predicate nominal can “absorb” the Dative case of the experiencer DP, and become a verb.¹¹ We get sentence pairs like the following:

- (30) a. en-**ik**’**k**’ə dukham uNDə
 I.GEN-DAT sorrow be.PRES
 ‘I am sorry.’ (Lit. ‘To-me is sorrow.’)
 b. ñaan dukh-**ik**’**k**’-unnu
 I.NOM sorrow-DAT-PRES
 ‘I am sorry.’ (Lit. ‘I sorrow.’)

The Dative case is on the experiencer argument in (30a) and on the verb in (30b).

If the verb removes the Dative case from the experiencer DP, we expect it to surface with the Accusative case. But this is not what we see in (30b). I explain it in terms of the following claim:

- (31) Finite INFL absorbs all the structural cases on the highest argument in the sentence (prior to agreeing with it) – because finite INFL is a case-absorber like Verb and Adjective.¹²

As a consequence, in (30b), the single argument of the intransitive predicate surfaces with Nominative case (no case).

However the Accusative case surfaces when we have a transitive predicate, cf.

- (32) naaya kuTTi-(y)e kaD-ik’k’-um
 dog.NOM child-ACC bite-DAT-FUT
 ‘The dog will bite the child.’

When we have a ditransitive predicate, we get a sentence like the following:

- (33) awan awaL-kkə oru kuTTi-(y)e koDu-kk-um
 he.NOM she-DAT one child-ACC give-DAT-FUT
 ‘He will give her a child.’

This traditionally-recognized case-marking pattern can now be given a non-traditional explanation. The verb formation process absorbs the Dative case from the first argument that the predicate merges with, which therefore surfaces with the Accusative case (direct object). The finite INFL absorbs all the cases of the highest argument, which exhibits no case, i.e. Nominative case. The middle argument (indirect object) preserves all the structural cases that it acquires in the course of exiting the predication structure it is merged in, and therefore surfaces with the Dative case.

Let us now make explicit an assumption underlying our discussion of (32) and (33). The Dative case is generated not merely on the Possessor or Experiencer argument of the possessive/experiencer construction. Every argument (we are assuming) is merged with a predicate in a predication structure at the point when it enters the derivation; and if it exits the predication structure – essentially in the way described by Szabolcsi (1983) –, it must acquire the Dative case in the process. This implies the following claim:

- (34) The Dative case is the default case of every argument which is “outside” the predication structure it is merged in.¹³

We shall see some support for this large claim in the next section.¹⁴

We note at this point that our analysis of the Accusative case in (32) and (33) is dependent on two of our early postulates in the paper: firstly, our adoption of Caha’s (2007, 2009) claim that the visible case on a nominal expression is only the top layer of what is underlyingly multiple ‘layers’ of case; and secondly, our Case Hierarchy (5), which has Accusative

immediately below Dative. Many intriguing alternations of Dative and Accusative in languages can be explained in terms of these hypotheses.¹⁵

5. Some Problems and Extensions

In this section we try to answer some of the obvious questions that arise with respect to our proposal about verb formation in Malayalam.

One problem is the appearance of two Datives in what is seemingly a one-argument clause; cf.

- (35) a. en-**ik**'k'ə wis'a-**kk**-unnu
 I-DAT hunger-DAT-PRES
 'I am hungry.'

If the verb formation takes away a Dative case, how does the subject surface with its Dative case intact? There is also an ancillary question: since this is a finite clause, where is the Nominative NP that INFL agrees with?

Other predicates denoting physical experience also exhibit the same pattern as (35a), cf.

- (35) b. en-**ik**'k'ə weedan-**ik**'k'-unnu
 I-DAT pain-DAT-PRES
 'I have pain.'
- c. en-**ik**'k'ə paṇi-**k**'k'-unnu
 I-DAT fever-DAT-PRES
 'I have fever.' (Or 'I am feverish.')

But predicates denoting mental experience do not have this pattern. Thus the sentences of (30) have no alternative realization like (36):

- (36) * en-**ik**'k'ə dukh-**ik**'k'-unnu
 I-DAT sorrow-DAT-PRES
 (Intended meaning: 'I am sorry.')

Why should physical and mental experience predicates diverge in their syntax in this puzzling fashion?

The answer to this problem, argued in Jayaseelan (2004:239-240), is that there is an underlying *pro*, marked Nominative, which is the "syntactic subject" of the sentences of (35); more generally, the 'dative construction' in Dravidian always has a Nominative NP. We can

now say that this *pro*, which is the first argument of the predicate, yields up a Dative case for verb formation; and INFL removes its other structural cases and agrees with it.¹⁶ The *pro* seems to denote a body part (or the body); in fact, it can sometimes be replaced by an overt nominal denoting a body part, cf.

- (37) en-ik’k’a kaalə weedan-ik’k’-unnu
 I-DAT leg pain-DAT-PRES
 ‘I have pain in the leg.’ (lit. ‘To me, leg pains.’)

The difference in the mental experience predicate (then) is that there is no corresponding covert nominal denoting a mind part.¹⁷

Note how the above explanation depends on the covert argument *pro* in (35), or the overt argument *kaalə* in (37), having a Dative case that it can yield up for verb formation. This follows if every argument gets Dative case by default, as per our proposal (34). Also note that if we had treated the homophony of the Dative case-suffix and the verbalizer in Malayalam as merely an accident of morphology, we would not have had an explanation of the contrast in grammaticality between (35) and (36).

I wish to suggest a solution along the same lines for another possible problem for our claim that verb formation requires a Dative case from an argument, specifically its first argument: what happens when the verb takes a clausal complement? Cf. (38):

- (38) [awan miDukkan aaNə ennə] ñaan wis’was-ik’k’-unnu
 he.NOM clever person is COMP I.NOM believe-DAT-PRES
 ‘I believe that he is a clever person.’

Where does *wis’was* – from Skt. *wis’waas* ‘belief’ – get its Dative case from?

Rosenbaum (1967) had an account of English complementation which claimed that English clausal complements are associated with an underlying ‘it’ (which is mostly deleted but can sometimes surface). This analysis has been revived and generalized by Kayne (2008) in the context of a proposal that all clausal complementation should be reanalyzed as covert relativization. We can (in line with this proposal) assume that the nominal predicate *wis’wa(a)s* takes a clausal complement with an associated covert pronoun; and that this pronoun acquires Dative case as a result of movement, which it yields up to turn the nominal predicate into a verb.

If we wish to conclude this section on a more ambitious note by trying to see if our analysis of Malayalam clausal complementation can be extended to other languages, I suggest that an interesting case to look at is the English nonfinite complement; for it gives us overt evidence of the Dative case on the clausal argument. Consider (39):

(39) I believe him to be clever.

The infinitival ‘to’ has been variously analyzed, e.g. as a prepositional complementizer (Kayne 1999); but I give below a derivation that makes it simply the Dative preposition, the same as the preposition on the second argument in ‘give a book to Mary.’

The initial steps of the derivation of (39) will be as follows:

- (40) (i) [[clever]_N he] (by merge of predicate and argument)
(ii) he-GEN-ACC-DAT ... [[clever]_N ~~(he)~~] (by movement of argument out of predication structure)
(iii) [[clever]_N -DAT]_{ADJ} [he-GEN-ACC-~~(DAT)~~ ... [~~(clever)~~ ...] (by movement of predicate and absorption of Dative case)

At this stage we have an adjective that takes an Accusative argument, ‘clever him’.

- (iv) be [clever him] (by merge of ‘be’)
(v) [it] [be clever him] (by “twinning” of ‘it’ with clausal argument)
(vi) [belief]_N [[it] [be clever him]] (by predication of clausal argument to ‘belief’)

We shall assume that both parts of the “twinned” structure – ‘it’ and the clause – are separately marked Dative (strictly, ‘GEN-ACC-DAT’, but we indicate only ‘DAT’ here) when they together exit the predication structure:

- (vii) [[[it]-DAT [be clever him]-DAT] ... [belief]_N ...] (by movement of argument out of predication structure)
(viii) [[belief]_N-DAT]_V [[[it]-~~(DAT)~~ [be clever him]-DAT] ... [~~(belief)~~ ...] (by movement of predicate and absorption of Dative case)

We are assuming that only the Dative of the “silent” ‘it’ is absorbed by the predicate, and that the clause ‘be clever him’ retains the Dative case. In English the Dative case is realized as the preposition ‘to’.¹⁸

The derivation at this point yields the string ‘believe to be clever him’ (assuming ‘it’-deletion). We must postulate two further movements: ‘him’ raises to a position above the VP headed by ‘believe’ (possibly the object shift position); and ‘believe’ raises still higher, to the position of its inflection.

6. Conclusion

The main claim of this paper is that the Malayalam Verb is a non-primitive lexical category, which is derived when a predicate which is N^0 “absorbs” the Dative case of the first argument that it merges with. This can be seen as an extension of the claim about the genesis of Adjective made in Amritavalli & Jayaseelan (2003). It has an interesting similarity-and-difference relation to Pesetsky’s (2013) proposal that Verb originates when Accusative case is affixed to a category-less root; and it is in agreement with Kayne’s (2008) claim that two of the major lexical categories, Verb and Adjective, originate by functional affixation to the primitive category of Noun.

Some ancillary ideas also came up in the course of pursuing the main claim, none of them (however) crucial for the adoption of the latter. I suggested that the three cases, Genitive, Accusative and Dative, which form a sequence in a universal Case Hierarchy, are all generated as LINKERS in the course of an argument ‘exiting’ the predication structure in which it is initially merged. The three cases are generated in that order on the argument, with Genitive as the innermost and Dative as the outermost case; and Accusative case is “revealed” when verb formation “absorbs” the argument’s Dative case. This idea breaks the traditional link between a verb’s transitivity and its ability to determine Accusative case on its first argument (known in generative grammar as Burzio’s Generalization). In my system, I appeal to finite INFL’s ability (or need) to remove all structural cases from an argument, to explain the Nominative case shown by the single argument of intransitive/unaccusative verbs in finite clauses.

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FOOTNOTES

¹ Another case that “shows through” is Locative, as in:

- (i) wazhi-(y)il-uuDe ‘through the way’ (lit. ‘through in the way’)
way-in-through
- (ii) London-il-eeek’k’ə ‘to London’ (lit. ‘to in London’)
London-in-to

² The Genitive case suffix is either *-in(te)* or *-(u)Te*, as in:

- | | | | |
|-----------------------|------|-------------------|------|
| pas’u-in(<u>t</u> e) | paal | aana-(yu)Te | vaal |
| cow-GEN | milk | elephant-GEN | tail |
| ‘cow’s milk’ | | ‘elephant’s tail’ | |

(The form *-in(te)* could be bimorphemic, *-in* and *-te*, and the *-te* could be a phonologically conditioned variant of *-Te*; in which case the form *-inte* is an instance of “double case-marking.”)

³ In the colloquial speech of certain parts of Kerala (or of certain social classes), the Genitive in fact surfaces invariably with the Accusative case. Thus the forms of (3a) are realized as: ‘Mary-in-e’, ‘aana-(y)in-e’, ‘vaazha-(y)-in-e’.

⁴ We note that (5) differs from the Blake/Caha hierarchy in one respect: Genitive is above Accusative in their proposal but below Accusative in (5). Caha (2007) appeals to an adjacency theory of Case Syncretism to support his DAT > GEN > ACC order: apparently, in some languages, Dative and Genitive can be syncretic, *excluding Accusative*. On the other hand, we are – as we indicated above – crucially depending on the Dravidian order of case-stacking: ‘Stem – GEN – ACC.’

⁵ Den Dikken’s LINKER is a meaningless element which is inserted purely for a structural reason. The Dative case (then) – if our analysis is right – belongs to the class of structural cases. Regarding the other structural cases, namely Nominative, Accusative and Genitive, there is perhaps general agreement that they are not linked to any particular thematic role; but the Dative case is widely believed to have the meaning of Goal. However see Jayaseelan (2009), Caha (2007, 2009) for an account of how the Dative comes to be associated with a null Path head in directional PPs – which could be the basis for this common impression.

⁶ As a matter of fact, Szabolcsi's earlier paper, Szabolcsi (1983), represents (the rule that generates) the structure of the possessive construction as in (i) (see p. 92):

- (i) NP → NP' INFL N' where INFL = [+/- poss, (AGR)]

This is meant to bring out the analogy between the possessive marker in NP structure and the INFL in clause structure. (This analysis is apparently abandoned in the later paper.)

The inflection on the theme NP can also contain a plural marker (for the plurality of the theme NP):

- (ii) az én kalap-ja-i-m
the I(NOM) hat-POSS-pl-1sg
'my hats' (Szabolcsi 1994)

We can accommodate this marker as a second agreement matrix on the possessive-marker head.

⁷ The inversion in (19b) can be motivated by the argument that the structure in (19a) is too symmetric, but this explanation cannot be extended to the other inversions. I must leave a better understanding of these movements to later research. (Some DP-internal functional heads can be merged in the course of these inversions and may indeed be correlated to them in yet unclear ways, cf. the merge of D⁰ in Szabolcsi's structure (7) just prior to the inversion that generates the Dative LINKER.)

⁸ Tamil – which is the language closest to Malayalam among the Dravidian languages – also exhibits the same homophony: *-k'k'a / -kkə* does duty both as verbalizer and as Dative case. However, Kannada and Telugu show no such homophony, cf.

- | | | |
|--------------|--------------------|---------------|
| (i) | <u>Kannada</u> | <u>Telugu</u> |
| Dative case: | <i>-ige / -kke</i> | <i>-ku</i> |
| Verbalizer: | <i>-isu</i> | <i>-inchu</i> |

R. Amritavalli and Rahul Balusu (personal communication) inform me that Telugu *-inchu* is the Ablative case suffix in the contemporary language. I have not investigated whether it was also the Dative suffix in an earlier stage of the language.

⁹ Now in retrospect, the analysis of 'have' as 'be + to' stops being just a "one off" instance; the absorption of the Dative case could be a very general process in verb formation. If in the case of 'have', what absorbs the Dative case is the copula, in the case of other verbs (at least in Malayalam) it is a nominal element that absorbs the Dative case.

¹⁰ Another important difference appears to be that adjectives are obligatorily unaccusative, in the sense that adjectives take only one argument. I have no account at present of this limitation.

¹¹ We can think of the process in either of two ways: the predicate nominal “preempts” the experiencer DP’s movement into Spec,DatP by moving into that position first:

- (i) [DatP N Dat [DP D⁰ [AccP DP_{exp}-Gen Acc ... [NP t_N]]]]

Or, the experiencer DP gets all its three cases, but the predicate nominal moves up higher and “attracts” the Dative case from it:

- (ii) [N]-Dat [DatP DP_{exp} -Gen-Acc t_{Dat} [AccP ... [NP t_N]]]

¹² See Bittner and Hale (1996) for the idea that Nominative case is the absence of case; but this absence of case (we are claiming) comes about because of the absorption of structural cases by finite INFL. Caha (2007, 2009) proposes a “peeling” analysis to account for the absence of case on the Nominative NP: an NP that moves to the Spec of finite INFL “peels away” its cases. Pesetsky (2013) has a system wherein V automatically marks its argument Accusative; then he must (I guess) appeal to the device of ‘overwriting’: finite INFL, identified as D, bearer of Nominative case, overwrites the Accusative case on the single argument of the unaccusative verb. (As regards languages which apparently have an overt Nominative case-suffix, we could perhaps say that the morphological marking is a realization of Agreement with finite Tense as proposed by Pesetsky & Torrego (2001). In Standard Arabic, the Nominative marker is identical with the indicative mood marker on the verb (Al-Balushi 2011).)

¹³ An argument that does not move completely out of the predication structure will not get Dative case. An example would be the Possessor argument in the Hungarian possessive phrases in (6a), one of which we reproduce below:

- (i) az én-ø vendég-e-m
the I-NOM guest-POSS-1sg
‘my guest’

In our analysis, the Possessor argument here has undergone one movement and acquired the Genitive case; but the Genitive is incorporated into the theme NP, leaving it without any case, i.e. with Nominative case (see (15) and (16)).

¹⁴ Cf. van Riemsdijk’s (2007, 2012) claim that Dative is the default case in German in oblique contexts (i.e. PPs).

¹⁵ I note just one example, a well-known fact in German: the Dative complement of a locative preposition becomes Accusative when the sentence acquires a directional meaning, cf. (i) (Zwarts 2006, cited in Caha 2007):

- (i) a. Alex tanzte in dem Zimmer.
 Alex danced in the.DAT room
 ‘Alex danced in the room.’ (locative)
- b. Alex tanzte in das Zimmer.
 Alex danced in the.ACC room
 ‘Alex danced into the room.’ (directional)

This can be explained if we may assume that a null Path⁰ attracts Dative case from the prepositional object, revealing the underlying Accusative (Jayaseelan 2009; but see van Riemsdijk 2007, Caha 2007 for different solutions).

¹⁶ Malayalam has no overt subject-verb agreement; but other Dravidian languages do. In these languages, the verb shows 3rd person, singular agreement (what is often called “default agreement”).

A question remains: why does finite INFL remove structural cases from *pro*, rather than from *enik’k’ə* ? Experiencer predicates are unaccusatives (Shibatani 1994, Amritavalli 2004); possibly the predicate treats *pro* as its only argument and the Experiencer DP as an adjunct.

¹⁷ The same explanation carries over to an interesting pair of sentences noted in Mohanan & Mohanan (1990):

- (i) a. caaya / *caaya-k’k’ə taNutt-u
 tea (NOM) tea-DAT be.cold-PAST
 ‘The tea became cold.’
- b. kuTTi-k’k’ə taNutt-u
 child-DAT be.cold-PAST
 ‘The child was cold.’

There is a *pro* in (ib), but not in (ia).

A further interesting fact – which supports our ‘default Dative’ thesis – is that the nominal denoting the body part in a sentence like (37) can itself be Dative, giving rise to a “double dative

construction”. (This construction is pointed out in Subbarao (2012:34-35).) In this case, the predicate remains a nominal (marked Nominative), and the verb is the copula. Cf.

- (i) en-ik’k’ə kaal-in-ə veedana uNTə
 I-DAT leg-GEN-DAT pain be.PRES
 Lit. ‘To me, to (the) leg, pain is.’

¹⁸ A question arises: why doesn’t the finite clause in the corresponding sentence *I believe that he is clever* have the preposition ‘to’? The fact is that universally, finite clauses never show overt case. The reason could be that when inversion of argument with predicate takes place, the finite clause itself does not move – only the associated “silent” ‘it’ moves. Therefore the clause does not acquire case. But in the case of a nonfinite clause, both the clause and the associated ‘it’ move, and they separately acquire case.

The small clause in *I believe him clever* also must have a silent ‘it’ that yields up its Dative case for the generation of the matrix verb. Kayne (2010) posits a silent BE in the small clause; and the silent BE appears to make the preposition ‘to’ also silent – a dependency for which I have no account at present.

Note that in our account of ECM, the embedded subject’s case is not determined by the matrix verb but by the embedded predicate. This appears to be supported by the following French data (from Kayne 2010):

- (i) a. Je le croyais intelligent
 I him.ACC believed intelligent
 ‘I thought that he was intelligent.’
 b. Je lui croyais beaucoup d’amis
 I him.DAT believed many of friends
 ‘I thought that he had many friends.’

In (ia) the adjective absorbs the Dative case of its argument, which therefore shows up with Accusative case; but in (ib) the nominal predicate absorbs no case and therefore its argument keeps its Dative case intact.

The embedded subject’s case is affected also by the transitivity of the embedded verb, cf. (ii) (from Kayne 2004):

- (ii) a. Jean a fait manger Paul

Jean has made eat-INF Paul

‘Jean made Paul eat.’

- b. Jean a fait manger la tarte à Paul

Jean has made eat-INF the pie to Paul

‘Jean made Paul eat the pie.’

When ‘Paul’ is the first argument of ‘eat’, it loses its Dative case to the verb and surfaces with Accusative case; but when it is the verb’s second argument, it retains its Dative case (realized as the preposition *à*).

The English data in (iii) discussed by Lasnik (2004:270) represents the classic argument for the infinitival subject’s dependency on the matrix predicate for its case:

- (iii) a. * It is believed her to have convinced Bill.

- b. * It is likely her to convince Bill.

But Lasnik also notes (*ibid.*, p.271) that “[t]here are Accusative-Infinitive constructions in some other languages where the accusative subject does not display this dependence on the matrix verb;” and cites from Rouveret and Vergnaud (1980) the following Latin sentences which are fine:

- (iv) a. Dicitur Petrum uenisse

it-is.said Peter-ACC come.PAST.INFINITIVE

‘It is said that Peter came.’

- b. Certum est Petrum uenisse

certain is Peter-ACC come.PAST.INFINITIVE

‘It is certain that Peter came.’

In view of such data, we can account for the ungrammaticality of (iii a, b) in English as follows: Let us say that the pleonastic ‘it’ of (iii a, b) is the ‘it’ “twinned” with the embedded clause; and that English moves this ‘it’ to the matrix subject position only as a last resort. When the embedded clause is finite, nothing can be moved out of it by A-movement, forcing ‘it’ to move; but there is no such prohibition with a nonfinite complement, so the embedded subject moves.