

# Dative Subject Constructions in South-Dravidian Languages

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# Contents

<b>1</b>	<b>Introduction</b>	<b>4</b>
<b>2</b>	<b>South-Dravidian Languages</b>	<b>4</b>
2.1	Malayalam . . . . .	4
2.2	Tamil . . . . .	5
2.3	Kannada . . . . .	6
<b>3</b>	<b>Dative Subject Constructions</b>	<b>6</b>
3.1	Distribution of Dative Nominals in Malayalam . . . . .	7
3.1.1	Experiencer Predicates . . . . .	7
3.1.2	Possession . . . . .	11
3.1.3	Modality . . . . .	11
<b>4</b>	<b>Analyses of the Dative Subject Constructions</b>	<b>12</b>
<b>5</b>	<b>Subjecthood Properties</b>	<b>16</b>
5.1	Coding Properties . . . . .	16
5.2	Behavioral Properties . . . . .	17
5.2.1	Conjunction Reduction . . . . .	17
5.2.2	Reflexivization . . . . .	19
5.2.3	Equi-NP Deletion . . . . .	21
5.2.4	Causativization . . . . .	23
5.2.5	Summary of Behavioral Tests . . . . .	28
<b>6</b>	<b>Analysis</b>	<b>29</b>
6.1	Dative NP as Indirect Object . . . . .	29
6.2	Dative NP as Subject . . . . .	33
<b>7</b>	<b>Conclusion</b>	<b>38</b>
<b>A</b>	<b>Appendix: Malayalam predicates that induce dative case</b>	<b>41</b>

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## List of Abbreviations

1	first person
2	second person
3	third person
ACC	accusative
ALL	allative
CAUS	causative
COMP	complementizer
DAT	dative
F	feminine
FUT	future
GEN	genitive
IMP	imperative
INF	infinitive
INSTR	instrumental
LOC	locative
M	masculine
MOD	modal
N	neuter
NEG	negation
NOM	nominative
PART	participle
PAST	past
PL	plural
PRES	present
SG	singular

# 1 Introduction

Dative subject constructions – sentences in which the logical subject of a clause takes the dative case, rather than the nominative case – are a widespread areal feature of South Asian languages, though also found in other language families, such as Germanic. Because nominative case-marking is typically a coding property of subjects, the subjecthood status of these dative NPs comes into question. As Cole, et al. (1980) have shown, as NPs acquire subjecthood in a language, behavioral properties are traditionally acquired prior to coding properties. Though these dative NPs generally do not have subject coding properties, they often have subject behavioral properties, leading linguists to coin such clauses as “dative subject constructions”. In Dravidian languages, the bulk of the work on dative subject constructions follows the work Sridhar (1979), which shows that the dative NPs in such constructions in Kannada have many behavioral properties characteristic of subjects. Later studies of South-Dravidian dative subject constructions such as Mohanan and Mohanan (1990), have simply assumed that the dative NPs are grammatical subjects and instead focus on the semantic notions that induce dative case marking on the subject. However, in recent years Jayaseelan (2004) and Amritavalli (2004) have questioned the evidence for treating these NPs as subjects and have made the argument that the dative NPs are in fact indirect objects, rather than syntactic subjects. This thesis seeks to re-examine the subjecthood properties of dative NPs in Malayalam, with comparative evidence from Kannada and Tamil, the two other major South-Dravidian languages. With evidence from a range of subjecthood tests, I will argue that the indirect object analysis is limited in its explanation of the behavior of the dative NPs and an analysis that treats the dative NPs as syntactic subjects can more fully account for the data.

## 2 South-Dravidian Languages

### 2.1 Malayalam

Malayalam is a Dravidian language spoken predominantly in Kerala, a southwestern state in India. There are approximately 37 million Malayalam speakers worldwide, with 33,066,392 speakers in India, as of the 2001 census of India. Malayalam belongs to the South-Dravidian group, along with languages such as Tamil and Kannada, and is traditionally seen as an offshoot of Middle Tamil from approximately 600CE. Unlike

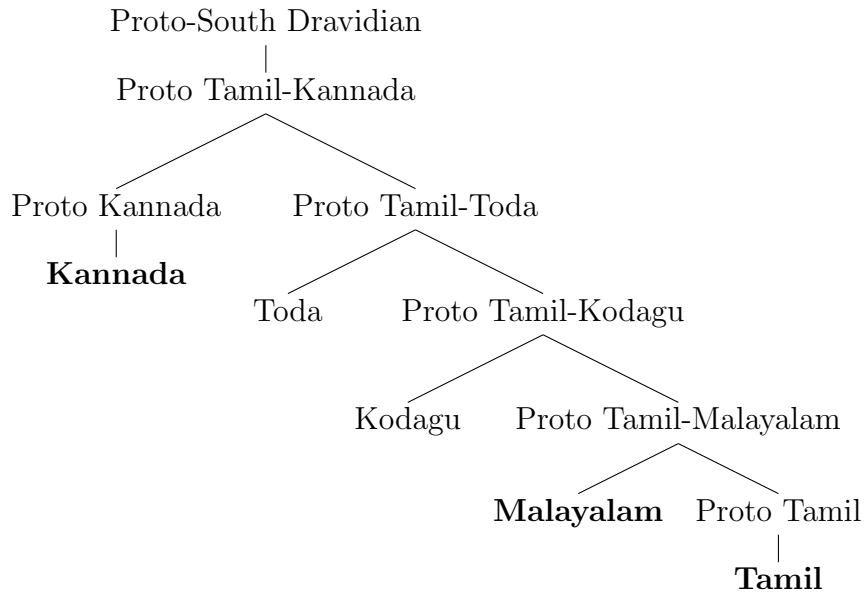


Figure 1: South-Dravidian Languages (adapted from Krishnamurti (2003))

Tamil, its closest related language, Malayalam has borrowed freely from Sanskrit. It also differs from the rest of the Dravidian languages in its absence of verb agreement for person, number and gender. Malayalam has an unmarked SOV word order, yet word order is relatively free. Malayalam features a rich case marking system, with nominative, accusative, dative, sociative, locative, instrumental, and genitive case suffixes. Possibly because of such an extensive case marking system, argument drop is common when the referent is understood from context.

## 2.2 Tamil

Tamil is a South-Dravidian language spoken primarily in the southeastern Indian state of Tamil Nadu, as well as in Pondicherry, Sri Lanka and Singapore. The language is spoken by approximately 66 million speakers worldwide. Like Malayalam, Tamil has an underlying SOV word order and word order is flexible, though there is a fairly strong tendency toward verb-final sentences. Nouns inflect for case, number (singular and plural) and gender. Tamil contains eight cases: nominative, accusative, dative, sociative, genitive, instrumental, locative, and ablative. Gender is based on the referent's natural gender and is restricted to animate arguments. Tamil

contains rich verbal morphology and unlike Malayalam, verbs inflect for person, number and gender of the subject. Tamil also allows for argument drop when referents are accessible through context.

## 2.3 Kannada

Kannada is the third major South-Dravidian language, slightly more distantly related to Tamil and Malayalam, and is spoken by approximately 38 million speakers, predominantly found in the southern Indian state of Karnataka. Nouns in Kannada inflect for case, person, and optionally gender. Like Tamil, Kannada also contains eight cases: nominative, accusative, genitive, dative, locative, instrumental, ablative, and vocative. Verbs agree with the subject for person, number and gender. Like Malayalam and Tamil, word order in Kannada is underlying SOV, but consonant with the extensive case marking and verbal agreement, word order is relatively free and omission of arguments is permitted.

## 3 Dative Subject Constructions

The dative case in Malayalam has a wide range of functions. The dative case markers *-nə* and *-kkə*, which are phonologically conditioned allomorphs, are regularly used for indirect objects and locatives, as illustrated in the examples below.<sup>1</sup> These examples also highlight the fact that nominative arguments in Malayalam take a null case marker and accusative case marking only appears on animate arguments, which accounts for its absence on the argument *pustakam* ‘book’ in example (1) and its presence on *puucca* ‘cat’ in (2).

- (1) *avan-Ø kuttī-kkə pustakam koṭuttu.*  
 3SG.M-NOM child-DAT book give.PAST  
 ‘He gave the child a book.’

- (2) *avan-Ø kuttī-kkə puucca-ye koṭuttu.*  
 3SG.M-NOM child-DAT cat-ACC give.PAST  
 ‘He gave the child a cat.’

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<sup>1</sup>All original data (from the author and other language consultants) presented in this thesis follows the transcription method found in Asher and Kumari (1997). However, the transcription used in data cited from other sources remains unchanged.

- (3) *naan-Ø tiffuur-kkə pooyi*  
 1SG-NOM Trichur-DAT go.PAST

‘I went to Trichur.’

(Asher and Kumari 1997: 225)

However, these usages of the dative case will not be considered further here. Instead, this thesis will focus on those instances in which the dative case appears on the ‘logical subject’ of the sentence. There are three primary domains in which we find this use of the dative case: experiencer predicates, possession constructions, and modal constructions. The following sections will illustrate these for Malayalam. While the first two sections describe constructions that are also found in Tamil and Kannada, the last section presents constructions that are unique to Malayalam.

### 3.1 Distribution of Dative Nominals in Malayalam

#### 3.1.1 Experiencer Predicates

There is a certain class of predicates in South Asian languages, which have generally been characterized as ‘experiencer’ verbs, that take a dative as the logical subject. Such verbs convey semantic notions such as experiencing, feeling, wanting and liking, all of which characterize the subject as nonvolitional. Appendix A provides a list of commonly used experiencer predicates in Malayalam. Within these experiencer predicates, we see two possible constructions. In the first construction, the predicate is a simple verb, illustrated in (4)-(6) below.

- (4) *eni-kkə vifakkunnu*  
 1SG-DAT be.hungry.PRES

‘I am hungry.’

- (5) *eni-kkə talaveedanikkunnu*  
 1SG-DAT have.headache.PRES

‘I have a headache.’

- (6) *kutti-kkə panikunnu*  
 child-DAT have.fever.PRES

‘The child has a fever.’

The second type of construction involves a complex predicate, in which the first element is a noun, adjective or non-finite verb, while the second element is a verb

lacking its typical semantic content, which Mohanan and Mohanan (1990: 47) characterize as a ‘light verb’. These light verbs generally have meanings such as ‘be’, ‘have’, ‘become’, ‘feel’, ‘come’, etc. and when they combine with a noun, adjective, or non-finite verb, the complex predicate induces dative case on the logical subject.

- (7) *ava|-kkə dukkham vannu.*  
 3SG.F-DAT sadness come.PAST  
 ‘She became sad.’ (Lit. ‘Sadness came to her.’)

- (8) *ava|-kkə bhayam aayə.*  
 3SG.F-DAT fear be.PRES  
 ‘She is afraid.’

- (9) *ava|-kkə santoosam toonunnu.*  
 3SG.F-DAT happiness feel.PAST  
 ‘She feels happiness.’

The first element in these complex predicates, which provides the semantic meaning, is often morphologically related to another simple verb, which has essentially the same meaning. However, when using the related simple verb, the subject can only take the nominative case, rather than the dative and when using the light verb, the subject can only be dative, not nominative. This is illustrated in (10)-(11) below.

- (10) (a) *ava|-Ø santoosiccu.*  
 3SG.F-NOM be.happy.PAST  
 ‘She became happy.’  
 (b) *\*ava|-kkə santoosiccu.*  
 3SG.F-DAT be.happy.PAST  
 ‘She became happy.’
- (11) (a) *ava|-kkə santoosam aayi.*  
 3SG.F-DAT happiness become.PAST  
 ‘She became happy.’  
 (b) *\*ava|-Ø santoosam aayi.*  
 3SG.F-NOM happiness become.PAST  
 ‘She became happy.’

In (10a) the simple verb *santooṣikkuka* ‘be happy’ takes a nominative subject and the usage of a dative subject in (10b) appears ungrammatical. Conversely, in (11a) the dative subject is grammatical with the complex predicate *santooṣam* ‘happiness’+ *aakuka* ‘to become’, while in (11b) we see that it cannot take a nominative subject.

Despite the fact that the two constructions are generally considered to be semantically equivalent, there is evidence to suggest that the nominative-marked NP can be interpreted with a greater degree of volition than the corresponding dative NP. Jayaseelan (2004a: 231) notes that the nominative construction is grammatical with the imperative mood, while the dative construction is not.

- (12) (a) (*nii-Ø*) *santooSik’k’-uu*  
 2SG-NOM be.happy-IMP  
 ‘(You) be happy!’
- (b) \**nin-akkə* *santooSam* *aak-uu*  
 2SG-DAT happiness become-IMP  
 \*‘You become happy!’

(Jayaseelan 2004a: 231)

However, there are certain predicates in which both the simple verb form and the corresponding light verb form both trigger the dative case and the nominative usage is ungrammatical. Jayaseelan (2004) identifies the distinction between mental and physical experience as key to explaining this behavior. For predicates involving physical experience, such as *vifakkuka* ‘be hungry’ and *veedanikkuka* ‘feel pain’, the corresponding light verb predicates using the nouns *vifappə* ‘hunger’ and *veedana* ‘pain’ can only occur with a dative-marked subject.

- (13) (a) *eni-kkə* *vifappə* *uŋtə*.  
 1SG-DAT hunger be.PRES  
 ‘I am hungry.’
- (b) \**paan-Ø* *vifappə* *uŋtə*.  
 1sg-NOM hunger be.PRES  
 \*‘I am hungry.’
- (14) (a) *eni-kkə* *talaveedana* *uŋtə*.  
 1SG-DAT headache be.PRES  
 ‘I have a headache.’

- (b) \**ɲaan-Ø talaveedana uŋtə*.  
 1SG-NOM headache be.PRES  
 \*‘I have a headache.’

Mental experience predicates, however, illustrate an alternation between nominative and dative case, as seen in in examples (10) and (11), where the simple verb *santooşikkuka* ‘to be happy’ can only take a nominative-marked subject while the complex predicate *santooşam* ‘happiness’ and the light verb *aakuka* ‘to be/become’ only occurs with a dative-marked subject.

	Simple Predicate	Complex Predicate
Physical Experiencer	Dative Case	Dative Case
Mental Experiencer	Nominative Case	Dative Case

Table 1: Case Marking for Experiencer Verbs

One notable exception to this pattern occurs with the simple verb *iştappetuka* ‘to like’ and the related complex predicate *iştam* ‘liking’ + *aakuka* ‘to be/become’. Because ‘to like’ deals with mental experience, we would expect that the simple predicate requires nominative case, while the complex predicate requires dative case. While the complex predicate does indeed use only dative case, both the dative and nominative forms are grammatical with the simple verb.

- (15) (a) *ava|-kkə aa kaseera iştam aayi*.  
 3SG.F-DAT that chair liking become.PAST  
 ‘She liked that chair.’
- (b) \**ava|-Ø aa kaseera iştam aayi*.  
 3SG.F-NOM that chair liking become.PAST  
 \*‘She liked that chair.’
- (16) (a) *ava|-Ø aa kaseera iştappettu*  
 3SG.F-NOM that chair like.PAST  
 ‘She liked that chair.’
- (b) *ava|-kkə aa kaseera iştappettu*  
 3SG.F-DAT that chair like.PAST  
 ‘She liked that chair.’

Although this has been mentioned in a footnote in Jayaseelan (2004a: 242), this exceptional behavior has not been given much attention in previous studies. This

thesis does not elaborate on this exception further, but merely includes in it the interest of providing a comprehensive overview.

### 3.1.2 Possession

The second major domain where we find dative subjects is in possession constructions using the copula *uŋtə*, in which the possessor is marked by the dative case. This construction encompasses both alienable and inalienable possession, with examples illustrating concrete possession (17), quality possession (18) and kinship and social relations (19) given below.

- (17) *eni-kkə valiya viitə uŋtə.*  
 1SG-DAT big house be.PRES  
 ‘I have a big house.’
- (18) *aval-kkə bhangii uŋtə.*  
 3SG.F-DAT beauty be.PRES  
 ‘She is beautiful.’ (lit. ‘She has beauty.’)
- (19) *avar-kkə muunnə kutti-kal uŋtə.*  
 3PL-DAT three child-PL be.PRES  
 ‘They have three children.’

In contrast, NP-internal possessors take the genitive case, as illustrated in (20) below.

- (20) *aval-tə kutti-kal evide aaŋə?*  
 3SG.F-GEN child-PL where be.PRES  
 ‘Where are her children?’

### 3.1.3 Modality

There are two modal suffixes on infinitival verbs with which the use of nominative or dative case on the subject plays a key role in the meaning of the sentence. The modal suffix *-aam* has an epistemic meaning of possibility when used with a nominative subject and a root meaning of permission when used with a dative subject.

- (21) *avar-Ø naa[e pook-aam.*  
 3PL-NOM tomorrow go-may  
 ‘They may go tomorrow.’ (It is possible that they will go tomorrow.)

- (22) *nina-kkə naa|e pook-aam.*  
 2PL-DAT tomorrow go-may  
 ‘You may go tomorrow.’ (You have permission to go tomorrow.)

While the case alternation in the examples above could possibly be attributed to the epistemic-root distinction in the meaning of modals, the second modal suffix alternates between two root meanings. The suffix *-aṇam* is a cliticized form of the modal *veeṇam* and has a meaning of external demand with a nominative subject and internal need with a dative subject (Mohanana and Mohanana 1990).

- (23) *ṇaan-Ø naa|e skuul-ileekkə pook-aṇam.*  
 1SG-NOM tomorrow school-ALL go-MOD  
 ‘I must go to school tomorrow.’

- (24) *eni-kkə naa|e sinima kaaṇ-aṇam.*  
 1SG-DAT tomorrow film see-MOD  
 ‘I want to see a film tomorrow.’

Thus, the meaning difference correlated with nominative versus dative case cannot be reduced to an epistemic versus root distinction. Hereafter, the experiencer predicates, possession and modality constructions described above will be collectively referred to as dative subject constructions. The next section will explore how these dative subject constructions have been previously treated by linguists.

## 4 Analyses of the Dative Subject Constructions

The previous discussion implicitly assumed that the dative NPs were in fact subjects. However, the status of whether or not such dative nominals are subjects rests upon the analysis of the function of case in a language. Using the example of case alternations in Urdu/Hindi, Butt and Holloway (2004: 154-156) reject the classic division in Case Theory between structural Case and inherent Case, in which structural Case identifies the subject and object and interacts with agreement, while inherent Case encompasses all other types of case marking, whether regular (e.g. dative case on indirect objects) or quirky case marking. Instead they propose a three-way distinction between *structural*, *semantic*, and *quirky* case. Structural case is the case assigned on the basis of syntactic information, often serving as the default case. Semantic case

is assigned predictably based on generalizations across predicates and constructions in the language and can be subject to various syntactic restrictions, such as which grammatical function it can appear on. Quirky case is reserved for when no regularity can be generalized and the usage is truly exceptional.

Under the assumption that dative logical subjects are indeed syntactic subjects and that dative case-marking is semantic, Mohanan and Mohanan (1990) argue that all uses of the dative case have two underlying semantic roles: *goal* and *possession*. While the role possession is clear in possessive constructions in section 1.2.2, it also accounts for some of the experiencer complex predicates which use the copula *untə*, as seen in (13)-(14), where the structure is essentially the same form as the possessive constructions. These constructions would be understood as the subject possessing hunger or a headache. The semantic notion of goal can account for other experiencer predicates that have different light verbs. Using the light verb *varuka* ‘come’, Mohanan and Mohanan analyze the dative NP in complex predicate constructions as being the target of a movement of the first element.

- (25) (a) *baalan-ø dukkhiccu / santooficcu.*  
 boy-NOM be.sad.PAST be.happy.PAST  
 ‘The boy became sad/happy.’
- (b) *baalan-ə dukkham / santoofam vannu.*  
 boy-DAT grief happiness come.PAST  
 ‘The boy became sad/happy.’ (Lit: To the boy came sadness/happiness)
- (Mohanan and Mohanan 1990: 47)

Mohanan and Mohanan characterize sentences like (25b) as conveying movement of grief or happiness toward the subject of the sentence. This movement makes the subject a goal, and thus triggers dative case assignment on the subject. One of the benefits of such an analysis is the way in which dative subjects are unified with the indirect objects and other obliques that take dative case (as seen in examples (1)-(3)) as goals. It also accounts for the case contrast seen among simple experiencer predicates that denote mental experience, as opposed to physical experience. The simple verbs that convey mental experience describe a change of state within an individual, while the verbs that convey physical experience describe the advent of a new state to an individual. As such, the individual is the goal of the advent of a state with verbs of physical experience, and the subject should correspondingly take

the dative case. Because the experiencer of mental experiencer verbs is not a goal, it does not take dative case and only appears with nominative case.

However, this account fails to provide a sufficient analysis for the datives appearing in modality constructions. Mohanan and Mohanan themselves characterize the suffix *veṇam* as having two distinct meanings depending on the case of the subject: a nominative subject has a notion of external demand - resulting in an interpretation of ‘must’ - while a dative subject has a notion of internal need - resulting in the meaning ‘want’ (Mohanan and Mohanan 1990: 45). Although they identify this construction as a source for dative subjects, they fail to describe how it is accounted for under the semantic notions of goal or possession. Using their reasoning with the notion of goal in experiencer predicates, it would seem far more likely that the meaning of external demand should occur with the dative case, as the subject would be the goal of an external force or desire, while the meaning of internal need would appear with the nominative case, as it occurs within an individual. One could argue that with the meaning of internal need, the subject is the possessor of a need, but external demand seems to suggest a notion of movement, similar to the account of physical experiencer verbs. Yet because external demand does not induce the dative case, at best the analysis does not fit as well with modality constructions, while at worst, this seems to contradict the pattern established for distinguishing mental and physical experience predicates.

However, if we assume Mohanan and Mohanan’s semantic analysis is adequate, under Butt and Holloway’s analysis of case, dative case in Malayalam would be classified as a combination of structural case and semantic case. It is an instance of structural case when used on indirect objects and locatives and semantic case when used on subjects. The dative case cannot be understood as quirky case (or Inherent case) because there are coherent semantic generalizations that capture its usage (Butt and Holloway 2004: 164).

Although most linguists who work on South Asian languages have assumed that dative subjects are in fact grammatical subjects, Jayaseelan (1995, 2004a) makes the case that the dative subject construction is in fact a misnomer and argues that dative subjects are the result of a misanalysis facilitated by pro-drop and scrambling rules in Malayalam. He argues that all of these constructions contain a nominative argument NP, which can either be overt, as in the complex predicate examples in section 3.1.1 or it can be a phonetically null pleonastic pronoun, and this nominative

argument is the syntactic subject. He cites an instance where the dative case can alternate with the instrumental case and notes that this alternation is only possible with certain verbs with particular semantics. This is illustrated below in examples (26) and (27). Because the case-marking of oblique arguments is considered to be purely semantically determined, Jayaseelan uses this as evidence that the dative NP is actually an oblique argument, rather than the subject (Jayaseelan 2004: 241).

- (26) (a) *en-ik'k'ə kazhiy-illa, ninn-e nookk-aan.*  
 1SG-DAT be.able-NEG 2SG-ACC look.after-INF  
 'I cannot look after you.'
- (b) *enn-ekkoNDə kazhiy-illa, ninn-e nookk-aan.*  
 1SG-INSTR be.able-NEG 2SG-ACC look.after-INF  
 'I cannot look after you.'
- (27) *en-ik'k'ə / \*enn-ekkoNDə ninn-e iSTam illa*  
 1SG-DAT I-INSTR 2SG-ACC liking NEG  
 'I don't like you.'

(Jayaseelan 2004: 240)

Amritavalli (2004) makes a parallel argument for dative NPs in Kannada largely following Jayaseelan's analysis. However, although both Jayaseelan and Amritavalli reject some of the subjecthood tests traditionally used in Dravidian languages as not being characteristic solely of subjects, they do not adequately address all the subjecthood tests in which the dative NPs do appear to act as syntactic subjects. (This will be discussed in detail in section 5.) While the dative NPs may indeed behave like oblique arguments, this particular analysis does not account for the full behavior of these NPs.

Whether or not the dative NPs in dative subject constructions are actually subjects, all the analyses described thus far seek to unite these datives with the datives of indirect objects and other oblique arguments. However, there is evidence from childhood language acquisition studies that suggests that the mental representation of dative NPs in the dative subject constructions is distinct from other datives. Lakshmi Bai's (2004) studies of children's speech in Tamil indicate that once children begin using datives in speech, they clearly differentiate between dative NPs functioning as a 'subject' and datives arising from indirect objects, locatives, etc. Although

their particular behavior varied, all the children showed a distinct separation between subject and non-subject functions in their usage of the dative case (Lakshmi Bai 2004: 261). There was also a tendency to overextend the dative case to subjects in constructions that do not license it, which illustrates that children perceive the dative as marking a subject function and extend it to other subjects that should be nominative. Lakshmi Bai also notes interesting evidence from the bilingual acquisition pattern of one child, who learned Tamil and Telugu, a Central-Dravidian language, simultaneously. In the child's initial stages of language acquisition, he exclusively used the Telugu first-person dative form *naa-ku* in dative subject construction, while using the Tamil (colloquial) form *nee-kku* for indirect objects, regardless of the language of the utterance (Lakshmi Bai 2004: 265). This supports the claim that speakers understand the dative NPs in dative subject constructions as clearly distinct from dative case-marked indirect objects and locatives, despite the identical case morphology.

## 5 Subjecthood Properties

### 5.1 Coding Properties

There are three main coding properties to identify subjects in a language: case, agreement, and word order (Keenan 1976). Subjects are generally characterized by nominative case, but as we are questioning whether dative case NPs are subjects, clearly they will fail this criterion. Unlike the majority of Dravidian languages, Malayalam has lost all forms of agreement, and as a result, agreement cannot be used to determine subjecthood in the language. Tamil and Kannada, however, have both retained verb agreement in number, person and gender. Yet, in dative subject constructions, verbal agreement is always with the nominative NP, and never with the dative NP. However, the last coding property - word order - does seem to favor the dative NP in the dative subject constructions. Word order is flexible within all these languages, but the subject does occupy a sentence-initial position in unmarked sentences. In Malayalam, the dative NP rarely occurs outside of this position, a fact which is also true of Kannada (Sridhar 1979). Although dative NPs meet the word order criterion for subjecthood, in general coding properties suggest that these NPs in the dative subject construction are not in fact subjects. The bulk of the evidence for treating these datives as subjects thus comes from syntactic behavioral evidence, which will

be the focus of this thesis.

Coding Property	Malayalam	Tamil	Kannada
Case	Nominative NP	Nominative NP	Nominative NP
Verb Agreement	N/A	Nominative NP	Nominative NP
Word Order	Dative NP	Dative NP	Dative NP

Table 2: Coding Properties: Which NP is the Subject?

## 5.2 Behavioral Properties

### 5.2.1 Conjunction Reduction

Conjunction reduction provides us a means to test subjecthood. In Dravidian languages, when conjoining two or more clauses which all share the same subject, the verb of the last clause appears in finite form, while the other main verbs appear as participles. In this construction, only one instance of the subject (either in the first or last clause) is overt, and the other subjects are deleted. The null subject has been shown to be obligatorily controlled by a subject (Jayaseelan 2004b). An example is illustrated for Malayalam below. The subject is overtly expressed in the first clause and controls the null subjects in the second and third clauses.

- (28) [*aval-Ø<sub>i</sub> kaḍa-yil pooyi*] [*---<sub>i</sub> ari vaangiyuttu*] [*---<sub>i</sub> viitt-il vannu*].  
 3SG.F-NOM store-LOC go.PART rice buy.PART house-LOC  
 come.PAST  
 ‘She went to the store, bought rice, and came home.’

In Malayalam, the dative NPs in dative subject constructions are also able to serve as the controller of the null subject. Examples (29)-(30) each conjoin two clauses, one which takes a dative subject and one which takes a nominative subject. In (29) the nominative subject of the verb *ootuka* ‘run’ is the controller of the subject of the verb *daahikkuka* ‘be thirsty’, which takes a dative subject. Similarly in sentence (30), the dative subject of *daahikkuka* can be the controller of the null nominative subject of *kuṭikkuka* ‘drink’.

- (29) [*ava]-Ø<sub>i</sub> oru manikkoor odiyittu*] [*---<sub>i</sub> daahiccu*].  
 3SG.F-NOM one hour run.PART be.thirsty.PAST  
 ‘She ran for one hour and became thirsty.’

- (30) [*ava*]-*kkə*<sub>i</sub> *daahichittu*] [<sub>---i</sub> *vellam kuṭiccu*].  
 3SG.F-DAT be.thirsty.PART water drink.PAST  
 ‘She became thirsty and drank water.’

It is important to note the distinction here between the dative subjects and dative NPs that are indirect objects. The latter crucially does not behave as the datives above, resulting in the ungrammaticality of sentences such as (31), where a recipient dative NP attempts to control a nominative subject.

- (31) \**[ava]*-*Ø* *kutti-kkə*<sub>i</sub> *paisa koṭitittu*] [<sub>---i</sub> *kada-yil pooyi*].  
 3SG.F-NOM child-DAT money give.PART store-LOC go.PAST  
 Intended: ‘She gave the child money and the child went to the store.’

This works similarly in Tamil and Kannada as well. The dative subject can both control a null nominative subject and be the null element controlled by a nominative subject. This is illustrated for Tamil (32) and Kannada (33) below. Examples (32a) and (33a) show that an indirect object cannot control a subject, while (32b) and (33b) show a dative subject controlling a nominative subject and (32c) and (33c) show a nominative subject controlling a dative subject.<sup>2</sup>

- (32) (a) \**[---i viiTT-ukku pooy-ii]* [*naan avan-ukku poon paN-r-een*].  
 home-DAT go-PART 1SG.NOM 3SG.M-DAT phone do-FUT-1SG  
 Intended: ‘He will go home and I will make a telephone call to him.’
- (b) [*avan-ukku<sub>i</sub> veelai kaTay-ttu*] [<sub>---i</sub> *pattu aayiram ruupaay*  
 3SG.M-DAT job get-PART ten thousand rupees  
*sampaati-kkar-aan*].  
 earn-PRES-3M.SG  
 ‘He got a job and is earning ten thousand rupees.’
- (c) [*avan-Ø<sub>i</sub> kiiZaa viZu-ntu*] [<sub>---i</sub> *kaal oTai-nc-utu*].  
 3SG.M-NOM down fall-PART leg break-PAST-3N.SG  
 ‘He fell down and broke his leg.’

(Lakshmi Bai 2004: 247)

<sup>2</sup>Examples (32a) and (32c) are based on data from Lakshmi Bai (2004) but modified on the consultation of a Tamil native speaker. The variants seen in (32) and (33) in which the controller follows the gap is grammatical in all three languages and is not relevant to this discussion.

- (33) (a) *\*[rāmanu ---i hana kottu] [shyāmanu<sub>i</sub> angadige hodanu.]*  
 Rama.NOM money give.PART Shyam.NOM store.DAT go.PAST  
 Intended: ‘Rama having given [him] money, Shyam went to the store.’
- (b) *[---i bisilinalli tirugi] [surēsha<sub>i</sub>-nige bāyārike āyitu].*  
 sun-LOC wander.PART Suresha-DAT thirst happened  
 ‘Having wandered in the sun, Suresha became thirsty.’
- (c) *[---i hendatiya jnāpaka bandu] [rāma<sub>i</sub>*  
 wife.GEN remembrance come.PART Rama.NOM  
*vihvalanādanu].*  
 go.berserk.PAST  
 ‘Remembering his wife, Rama went berserk.’

(Sridhar 1979: 109)

As such, the conjunction reduction subjecthood test suggests that these dative NPs are true subjects. However, it is important to note that the construction is only able to test of subset of the dative subject constructions identified in section 3.1, particularly experiencer predicates. The modality alternations outlined in 3.1.3 are inherently semantically incompatible with conjunction reduction, as the construction requires a series of sequential actions and modal verbs denote states, not actions. Additionally, the morphology of the modal suffixes cannot combine with the participle form required for the construction. As a result, this test says nothing about the subjecthood of the dative NP in modal constructions. Similarly, the copula *untə*, used in possessive clauses, belongs to a defective verb paradigm and does not inflect for aspect. As such *untə* does not have the perfective participle form required to occur in the initial clauses of the conjunction reduction construction and semantically, the possessive construction, like modals, represents a state, rather than an action. Therefore, this subjecthood test only gives evidence for the dative NPs in experiencer predicates to be subjects and cannot speak to the dative NPs in possessive and modal constructions.

### 5.2.2 Reflexivization

The Dravidian 3rd person reflexive anaphor *taan* ‘self’ is often considered to be an anaphor which can only be bound by a subject (Sridhar 1979). As such, many have cited the ability of the dative NP in the dative subject construction to control this

anaphor as evidence for subjecthood. Unlike conjunction reduction, this subjecthood test can be used not only with experiencer predicates, but also with possessive and modal constructions. Below are examples for each construction from Malayalam.

- (34) (a) *ava[-kkə<sub>i</sub> tan-rē<sub>i</sub> kuttī-kal-e iftam aaṇə.*  
 3SG.F-DAT self-GEN child-PL-ACC liking be.PRES  
 ‘She<sub>i</sub> likes her<sub>i</sub> children.’
- (b) *kuttī-kkə<sub>i</sub> tan-rē<sub>i</sub> pustakam uṇṭə*  
 child-DAT self-GEN book be.PRES  
 ‘The child<sub>i</sub> has his<sub>i</sub> book.’
- (c) *ava[-kkə<sub>i</sub> naa|e tan-rē<sub>i</sub> kuttī-kal-e kaaṇ-aṇam*  
 3SG.F-DAT tomorrow self-GEN child-PL-ACC see-MOD  
 ‘She<sub>i</sub> wants to see her<sub>i</sub> children tomorrow.’

However, Jayaseelan notes that it is incorrect to describe *taan* as subject-oriented, and cites the following examples as evidence that the anaphor need not be bound by a subject, but instead can be bound by a possessor NP within the subject or a direct object (Jayaseelan 2004: 236).

- (35) *John-inte<sub>i</sub> vicaaram [Mary<sub>j</sub> tan-ne<sub>i/\*j</sub> sneehik’k’unn-illa ennə] aaṇə.*  
 John-GEN thinking Mary self-ACC love.PRES-NEG COMP be.PRES  
 ‘John’s<sub>i</sub> thinking (impression) is that Mary does not love self<sub>i</sub>.’
- (36) *[tan-te<sub>i</sub> makaL-uDe vivaaha-kaaryam] John-ine<sub>i</sub> alaTTi.*  
 self-GEN daughter-GEN marriage-matter John-ACC bother.PAST  
 ‘(The question of) self’s<sub>i</sub> daughter’s marriage bothered John<sub>i</sub>.’

Jayaseelan instead argues that these anaphors can either be bound by a subject or a logophoric center and the only restraint is that the antecedent of *taan* must be the most prominent argument in the clausal domain. As such, the ability for the dative NP to antecede *taan* may not be indicative of the subjecthood of the dative NP, but rather the fact that it is a logophoric center. Gary Holland (p.c.) suggests the anaphor may behave in a similar manner to the Sanskrit anaphor *sva-*, which notoriously attracts topics, rather than subjects. Reflexive binding could potentially be salvaged as a subjecthood test if a sentence could be constructed in which the dative NP of the dative subject construction is not a logophoric center, yet is still the most prominent argument in the clause. However, in the absence of such an example, the reflexivization test provides evidence neither for nor against the treatment of the dative NP as a subject.

### 5.2.3 Equi-NP Deletion

The next test I will consider is equi-NP deletion, also known as control. In this construction, the subjects of embedded clauses are deleted under identity with subjects or objects of the matrix clause. With Equi verbs in which the subject of the matrix clause controls the subject of the embedded clause, the dative NPs we are considering seem to behave as true subjects. In Malayalam, if the embedded clause takes a dative subject, it can be deleted under identity with a nominative subject in the matrix clause. In example (37), the verb *toonukka* ‘feel’ takes a dative subject, as illustrated in (37a). However, in (37b), the dative subject is deleted under identity with the nominative subject of the verb *sramikkuka* ‘try’ and the result is grammatical.

- (37) (a) *ava[-kkə] santoosam toonunnu.*  
 3SG.F-NOM happiness feel.PRES  
 ‘She feels happiness.’
- (b) *ava[-Ø]<sub>i</sub> [---<sub>i</sub> santoosam toonan] sramiccu.*  
 3SG.F-NOM happiness feel.INFN try.PAST  
 ‘She tried to feel happiness.’

Conversely, a dative subject construction can take an embedded clause and the matrix dative subject can control a nominative subject in the embedded clause.

- (38) (a) *ava[-Ø] America-yil pookunnu.*  
 3SG.F-NOM America-LOC go.PRES  
 ‘She is going to America.’
- (b) *ava[-kkə]<sub>i</sub> [---<sub>i</sub> America-yil pookan] aghraaham illa.*  
 3SG.F-DAT America-LOC go.INFN wish NEG  
 ‘She does not wish to go to America.’

This is possible in both Tamil and Kannada as well. This is illustrated for Kannada in (39b), where the nominative matrix subject controls an embedded dative subject, and in (40b), where the dative matrix subject controls an embedded nominative subject.

- (39) (a) *avan-ige koppa-kke varga āyitu.*  
 he-DAT Koppa-to transfer happened  
 ‘He was transferred to Koppa.’

- (b) *avanu-Ø<sub>i</sub> [---<sub>i</sub> koppa-kke vargavāgula] ishtapaduvudilla.*  
 he-NOM Koppa-to be.transferred wish.not  
 ‘He doesn’t wish to be transferred to Koppa.’

(Sridhar 1979: 114)

- (40) (a) *ava[u-Ø olage ho-da]u.*  
 3SG.F-NOM outside go-PAST.3SG.F  
 ‘She went outside.’
- (b) *aval-ige<sub>i</sub> [---<sub>i</sub> olage ho-galu] ishta illa.*  
 3SG.F-DAT outside go-INF desire not  
 ‘She does not wish to go outside.’

While equi-NP deletion provides a useful test for experiencer predicates, it is incompatible with the clausal possession and modality constructions. For possession constructions, sentences with a semantic meaning of “try to have X” or “wish to have X” are more readily expressed through constructions like “try to get X” or “want X”, neither of which induce dative case on the logical subject. Additionally, the control constructions also require the embedded verb to be in the infinitive. As such, the modal suffixes cannot occur in embedded clause and we cannot test whether it can be controlled by a matrix subject. Therefore, this test is only applicable to experiencer predicates.

However, while the data above suggests that the dative NP of at least experiencer predicates is indeed a subject, the dative NP does not as clearly behave as a subject in control constructions in which the embedded subject is controlled by a matrix object. The Malayalam sentence below illustrates that with an embedded dative subject construction, the dative NP cannot be controlled by the matrix object.

- (41) (a) *aval-Ø vellam kuṭiccu.*  
 3SG.F-NOM water drink.PAST  
 ‘She drank water.’
- (b) *avan-Ø aval-ootə<sub>i</sub> [---<sub>i</sub> vellam kuṭikkan] paraṅṅu.*  
 3SG.M-NOM 3SG.F-SOC water drink.INFN tell.PAST  
 ‘He told her to drink water.’

- (42) (a) *aval-kkə aaparefan uṅṭaayirunnu.*  
 3SG.F-DAT operation be.PAST  
 ‘She had an operation.’

- (b) \**avan-Ø*    *ava[-ootə<sub>i</sub>]*    [*---<sub>i</sub>*    *aapareefan*    *uṅtaakan*]    *paraṅṅu*.  
 3SG.M-NOM    3SG.F-SOC                    operation    be.INFN    tell.PAST  
 \*‘He told her to have an operation.’

The same construction is ungrammatical in Tamil and Kannada as well, illustrated with Kannada below.

- (43) \**avaru*    *shīla-lige<sub>i</sub>*    [*---<sub>i</sub>*    *āparēshan*    *āgalu*]    *hēlidaru*.  
 they-NOM    shila-DAT                    operation    to.become    told  
 ‘They told Sheela to have an operation.’

This data provides mixed evidence toward whether or not the dative NP is a considered a subject with respect to equi-NP deletion. The dative NPs in experiencer predicates only partially behave like true subjects, in that they can control embedded subjects and be controlled by matrix subjects, but they cannot be controlled by matrix objects.

#### 5.2.4 Causativization

Though it is not traditionally considered a subjecthood test, causativization also sheds light on the subjecthood of NPs. The causativization pattern in Malayalam can be summarized as follows (Asher & Kumari 1997)<sup>3</sup>:

- The subject of an intransitive sentence becomes a direct object in the corresponding causative sentence.

- (44) (a) *kutti-Ø*    *uranni*.  
 child-NOM    sleep.PAST  
 ‘The child slept.’
- (b) *amma-Ø*    *kutti-ye*    *urakki*.  
 mother-NOM    child-ACC    sleep.CAUS.PAST  
 ‘The mother put the child to sleep.’

- The subject of a transitive clause becomes either a direct object or an instrumental noun phrase in the corresponding causative sentence. The difference between

<sup>3</sup>The verbal morphology of causativization can be rather complex and the discussion here will largely ignore it, focusing on grammatical relations instead. For a more detailed description, see (Asher & Kumari 1997: 272-285).

becoming a direct object or an instrument is related to a distinction between direct causation and indirect causation, where the former takes accusative case and the latter takes instrumental case. This distinction is illustrated below with the verb *tinnuka*.

- (45) (a) *pafu-kka[-Ø pullə tinnu.*  
 cow-PL-NOM grass eat.PAST  
 ‘The cows ate grass.’
- (b) *naan-Ø pafu-kka[-e pullə tiirri.*  
 1SG-NOM cow-PL-ACC grass eat.CAUS.PAST  
 ‘I fed the cows grass.’ [direct causation]
- (c) *naan-Ø pafu-kka[-ekkoŋtə pullə tiirriccu.*  
 1SG-NOM cow-PL-ACC grass eat.CAUS<sub>1</sub>.CAUS<sub>2</sub>.PAST  
 ‘I made the cows eat grass.’ [indirect causation]

When we look at the causativization of dative subject constructions, the dative NP does appear to pattern with the behavior of the nominative subjects above. The simple experiencer predicate *talaveedanikkuka* ‘have a headache’ is an intransitive verb, and when the verb is causativized, the dative subject of the original sentence appears in the accusative case.

- (46) (a) *ava[-kkə talaveedaniccu.*  
 3SG.F-DAT have.headache.PAST  
 ‘She had a headache.’
- (b) *avan-Ø ava[-e talaveedanippiccu.*  
 3SG.M-NOM 3SG.F-ACC have.headache.CAUS.PAST  
 ‘He caused her to have a headache.’

Indirect objects notably do not change in causative structures, as illustrated in sentence (47), where the recipient of the verb *koṭukkuka* ‘give’ remains in dative case in both the ditransitive and causative versions of the sentences.

- (47) (a) *raaman-re bhaarya-Ø pafu-kka[-kkə pullə koṭuttu.*  
 Raman-GEN wife-NOM cow-PL-DAT grass give.PAST  
 ‘Raman’s wife gave grass to the cows.’
- (b) *raaman-Ø bhaarya-yekoŋtə pafu-kka[-kkə pullə koṭuppiccu.*  
 Raman-NOM wife-INSTR cow-PL-DAT grass give.CAUS.PAST  
 ‘Raman got his wife to give grass to the cows.’

Because the dative in (46a) does not remain in the dative case in the causative version (46b), as it does in (47a) and (47b), this suggests that the dative NP in dative subject constructions is distinct from traditional datives and the causativization pattern suggests that these are true subjects.

Like conjunction reduction and equi-NP deletion, this test is also restricted to the experiencer predicates. Regarding possessive constructions, the notion of “cause to have X” cannot be expressed through causative morphology, but rather simply using the verb *koṭukkuka* ‘give’. Modal constructions are also incompatible with this construction, as the causative verb morphology cannot co-occur with the modal suffixes. Therefore, this test can only give evidence toward the subjecthood of dative NPs in experiencer constructions.

However, despite the fact that causativization in Malayalam appears to treat the dative NP as a subject, this behavior is not shared by Tamil and Kannada. The causativization patterns for Kannada differ slightly. Sridhar (1979: 110) outlines them as follows:

- The subject of an intransitive complement sentence becomes the direct object of the causative sentence.
- The subject of a transitive complement sentence becomes the instrumental object of the causative sentence.
- The subject of a sentence with an ‘ingestive’ verb becomes the indirect object of the causative sentence.

It is this last point that is crucial to the analysis of dative subject constructions. Sridhar follows Masica (1976) in defining ‘ingestive’ verbs as sharing the “semantic feature of taking something into the body or mind (literally or figuratively)” (Sridhar 1979: 111). His examples of such verbs are given below.

- (48) (a) *magu-Ø hālu kudiyitu.*  
child-NOM milk drank  
‘The child drank milk.’

- (b) *tāyi-Ø magu-vige hālannu kudisidalu.*  
 mother-NOM child-DAT milk-ACC drink.CAUS.PAST  
 ‘The mother made the child drink milk’ (= The mother fed the child milk.)
- (49) (a) *magalu-Ø adige kalitalu.*  
 daughter-NOM cooking learn-PAST  
 ‘The daughter learned cooking.’
- (b) *tāyi-Ø magal-ige adige-yannu kalisidalu.*  
 mother-NOM daughter-DAT cooking-ACC learn-CAUS.PAST  
 ‘The mother caused the daughter to learn cooking.’ (= The mother taught [her] daughter cooking.)

The ingestive verb pattern becomes relevant when looking at dative subject constructions. Sridhar gives the an example of an experiencer complex predicate below (Sridhar 1979: 111).

- (50) (a) *nanage talenōvu bantu.*  
 1SG.DAT headache came  
 ‘I got a headache.’
- (b) *ninu nanage talenōvu (-annu) bariside.*  
 2SG 1SG.DAT headache (-ACC) come.CAUS.PAST  
 ‘You made me get a headache.’

With the three causativization patterns outlined above, there are two possible ways of interpreting the causatives of dative subject constructions. If one uses the intransitive verb analysis, the NP that gets the accusative marking in the causativized sentence, *talenōvu* ‘headache’ is the true subject, rather than the dative NP *nanage* ‘I’. However if one uses the ingestive verb analysis, the NP that gets the dative marking in the causativized sentence is the underlying subject, which points to *nanage* rather than *talenōvu*.

Analysis	Case Marking Change Original → Causative	Subject of Original DSC
Intransitive Verb	Nominative → Accusative	Nominative NP
Ingestive Verb	Nominative → Dative	Dative NP

Table 3: Possible Analyses of Causativization in Kannada

Sridhar does not provide a definitive answer to which of these analyses is most appropriate, but he does note that there is particular evidence for the ingestive verb analysis in Malayalam and Tamil. The ingestive verb analysis would have to consider the NP with null case marking to be an object. In Malayalam and Tamil, however, these can appear with overt accusative case marking in parallel constructions when the object is animate. This is illustrated for Malayalam below.

- (51) *enikkə aval-e iṣṭam aanə.*  
 1SG.DAT 3sg.FEM-ACC liking be.PRES  
 ‘I like her.’

In Tamil, the morphological causative is no longer productive, having been replaced by a periphrastic causative (Steever 2005: 106). The periphrastic causative is formed by combining a causative verb, *ceyya* ‘do, make’, *panna* ‘make’, or *vaikka* ‘place, put’, with the infinitive of the verb of the caused event.

- (52) (a) *kumar-Ø va-nt-aan*  
 Kumar-NOM come-PAST-2SG.M  
 ‘Kumar came.’  
 (b) *raajaa-Ø kumar-ai var-a vai-tt-aan*  
 Raja-NOM Kumar-ACC come-INF put-PAST-3SG.M  
 ‘Raja made Kumar come.’

(Lehmann 1989: 219)

In example (52), the subject of the original intransitive clause, marked by nominative case, takes the accusative case in the causative version in (52b). However, the behavior of dative NPs in the dative subject construction seems to differ from nominative subjects.

- (53) (a) *kumaar-ukku it-ai puri-nt-atu*  
 Kumar-DAT this-ACC understand-PAST-3SG.N  
 ‘Kumar understood this.’  
 (b) *raajaa-Ø kumaar-ukku it-ai puriy-a vai-tt-aan*  
 Raja-NOM Kumar-DAT this-ACC understand-INF put-PAST-3SG.M  
 ‘Raja made Kumar understand this.’

In (53), the dative NP and logical subject of the original sentence, *kumaar*, remains in the dative case in the causativized version. This would suggest that the dative NP is not a subject, as it does not take the accusative case in the causative sentence like in (52b). However, Lehmann (1989: 221) suggests that this may be a result of case assignment restrictions rather than grammatical relations. He argues that in (52b), the causative verb *vaikka* ‘put’ assigns accusative case to *kumaar* because the intransitive verb *vara* is unable to assign case to its argument (which then takes the default nominative case). In (53), however, the verb *puriya* is able to assign dative case to its argument, which blocks the causative verb from assigning case. As a result, the fact that the dative NP does not behave like the nominative NP in (52) may not be a result of the subjecthood of the NPs, but rather the ability of their verbs to assign case.

Thus, the behavior of dative NPs with respect to causativization is slightly more nuanced. In Malayalam, there is strong evidence to support the argument that the dative NP is a subject. Kannada also provides such evidence, but there is another possible analysis in which the nominative NP in dative subject constructions is the true subject. Dative NPs in Tamil do not appear to behave as subjects in causative constructions, but this behavior may be a result of case-assignment restrictions on the verb, rather than grammatical relations.

### 5.2.5 Summary of Behavioral Tests

In sum, the subjecthood tests illustrated above provide mixed evidence as to whether or not the dative NP in dative subject constructions is a syntactic subject. Conjunction reduction provides strong evidence in all three languages to consider the dative NP a subject. The dative NP behaves like a subject in equi-NP deletion when there is a matrix subject controller, but not when there is a matrix object controller. Causativization in Malayalam suggests that the dative NP is a subject, and while there is evidence in Kannada and Tamil that it could be a subject, the data is open to other interpretations. Reflexive binding proved to be a poor test for subjecthood, and the dative NP’s ability to antecede the anaphor can neither support nor refute its status as a subject. Table 4 summarizes these results.

The following section will explore how to interpret these mixed results.

Dative NP	Subjecthood Test
Subject	Conjunction Reduction Equi-NP Deletion with Subject Controller Causativization in Malayalam
Non-Subject	Equi-NP Deletion with Object Controller
Ambiguous	Causativization in Kannada and Tamil
Inapplicable	Reflexivization

Table 4: Behavior of Dative NP in Subjecthood Tests

## 6 Analysis

Having considered the previous subjecthood tests, there are two main approaches that linguists have taken toward the treatment of the dative subject constructions. The first, seen in the work of Sridhar (1979), Mohanan and Mohanan (1990) and Umarani (2005), among others, considers the dative NP to be a syntactic subject, though somewhat less subject-like than nominative subjects reflecting the mixed behavioral evidence. The second approach has been taken by Jayaseelan (2004a) and Amritavalli (2004) and considers the dative NP to be an indirect object. I will now consider each of these approaches in light of the data presented in section 5 and ultimately argue for an analysis that treats the dative NP as a subject.

### 6.1 Dative NP as Indirect Object

Under Jayaseelan’s analysis of the dative subject construction in Malayalam<sup>4</sup>, which he terms the possessor-experiencer dative construction, the dative NP is an indirect object, and the construction contains a null (in the case of simple experiencer predicates) or overt (in the case of complex experiencer predicates and possession constructions) nominative NP that is the true syntactic subject of the clause (Jayaseelan 2004). An example of such an overt nominative NP would be the noun *santooṣam* ‘happiness’ in the complex predicate *santooṣam aaṇə* ‘be happy’. The benefits of such an analysis are readily apparent, as it unites the dative case marking under a

<sup>4</sup>Amritavalli (2004a) extends Jayaseelan’s analysis to Kannada and the arguments are similar. Because of this and the general emphasis on Malayalam in this thesis, I will only look at Jayaseelan’s arguments for Malayalam in depth.

unique grammatical relation, analogous to the way that Mohanan and Mohanan’s (1990) analysis unites the semantic notions that induce dative case. In order to advance his argument Jayaseelan considers four traditionally applied subjecthood tests – subject-verb agreement, word order, antecedent of anaphors, and control of PRO – argues that none of these are adequate tests to prove that the dative NP is a subject.

Subject-verb agreement proves to be an inapplicable test in Malayalam, as there is no agreement in the language. However, if we consider Kannada and Tamil as well, this test would suggest that the dative NP is not a subject, as the verb always agrees with the nominative NP (and if there is no nominative argument, the verb takes neuter agreement). As a result, this test shows nothing in Malayalam but points against treating the dative NP as a subject.

Jayaseelan notes that the second test, word order, may be the strongest evidence in support of analyzing the dative NP as a subject, as it consistently appears in the sentence-initial position, as is characteristic of the subject in unmarked word order. However, he demonstrates that this behavior may be a result of definiteness and specificity effects, rather than grammatical relations. In the dative constructions where there is a nominative NP, the nominative NP, which is generally an abstract noun, is indefinite and non-specific, while the dative NP is definite. Jayaseelan argues that there is a process of IP-internal topicalization, which allows definite and specific NPs to move to the sentence-initial position. His examples below show this topicalization, with a dative NP in (54) and with a locative NP in (55).

(54) (a) *avan-ə raNDə peNkuTTi-kaL-Ø uNDə*  
 3SG.M-DAT two girl-PL-NOM be.PRES  
 ‘He has two girls.’

(b) *\*raNDə peNkuTTi-kaL-Ø avan-ə uNDə*  
 two girl-PL-NOM 3SG.M-DAT be.PRES  
 Intended: ‘He has two girls.’

(55) (a) *ii viiTT-il raNDə peNkuTTi-kaL-Ø uNDə*  
 this house-LOC two girl-PL-NOM be.PRES  
 ‘There are two girls in this house.’

(b) *\*raNDə peNkuTTi-kaL-Ø ii viiTT-il uNDə*  
 two girl-PL-NOM this house-LOC be.PRES  
 Intended: ‘There are two girls in this house.’

He argues that because we would not consider the locative NP in (55) to be a subject, there is no reason to consider the dative NP as one as well, because it is likely the same mechanism that results in the ungrammaticality of (54b) and (55b).

The third test Jayaseelan considers, antecedence of anaphors, has already been discussed in section 5.2.2. I will only mention again that although the Dravidian anaphor *taan* was originally considered to only allow a subject antecedent, Jayaseelan has shown that the anaphor is also sensitive to logophoric binding and non-subject arguments can grammatically serve as antecedents as well.

Jayaseelan also shows that the dative NP can control PRO (discussed in section 5.2.3 as equi-NP deletion) yet notes that this is not particularly indicative of subjecthood as non-subject NPs can also control PRO. He mentions that a better test would be a construction where the dative NP is PRO, as PRO can only occur as the subject of an infinitival clause (Jayaseelan 2004a: 235). Yet he dismisses such a construction, which could be formed with a verb like *sramikkuka* 'try' as impossible to construct, as the embedded subject must have agentivity, which the dative construction inherently lacks. Yet, example (37) presented in section 5.2.3, seems to refute this claim. This example, reproduced below, shows the nominative matrix subject controlling the embedded dative NP of the complex predicate.

- (56) (a) *ava[-kkə santonam toonunnu.*  
 3SG.F-NOM happiness feel.PRES  
 'She feels happiness.'
- (b) *ava[-Ø<sub>i</sub> [---<sub>i</sub> santonam toonan] sramiccu.*  
 3SG.F-NOM happiness feel.INFN try.PAST  
 'She tried to feel happiness.'

I argue that certain dative subject constructions can be construed with a minimal degree of volition to allow for the grammaticality of sentences like (56b). This issue will be revisited in section 6.2 and discussed in greater detail. Example (56b) not only questions Jayaseelan's conception of the dative construction, but also provides crucial evidence in support of treating the dative NP as a subject.

The second hole in Jayaseelan's proposal comes from his failure to analyze conjunction reduction in Malayalam. In Jayaseelan (2004b), he characterizes this construction, which he terms the serial verb construction, as sensitive to the notion of

subjecthood and only identical subjects can be deleted. Yet his discussion of subjecthood tests makes no mention of this test, despite the fact that in Malayalam, as well as in Tamil and Kannada, the dative NP of experiencer predicates behaves as a subject, as illustrated in section 5.2.1. Under Jayaseelan’s analysis, sentences like (29) and (30), reproduced below, should not be grammatical because the dative NP is an indirect object and there is a null pleonastic pronoun that is the syntactic subject.

(57) *ava[-Ø<sub>i</sub> oru manikkooṟ oḍiyittu ---<sub>i</sub> daahiccu.*  
 3SG.F-NOM one hour run.PART be.thirsty.PAST  
 ‘She ran for one hour and became thirsty.’

(58) *ava[-kkə<sub>i</sub> daahiccittu ---<sub>i</sub> vellam kuṭiccu.*  
 3SG.F-DAT be.thirsty.PART water drink.PAST  
 ‘She became thirsty and drank water.’

Yet these sentences clearly illustrate that the dative NP can both control and be controlled by a nominative NP. The grammaticality of these sentences presents a problem for Jayaseelan’s analysis, particularly as (31) shows that indirect objects cannot control the subject of a sequential clause.

Finally, the indirect object analysis fails to explain the behavior of causativization in Malayalam. Example (47) in section 5.2.4 shows that indirect objects remain in the dative case when a sentence is causativized, but in (46) the dative NP of a dative subject construction clause takes the accusative case when causativized. This behavior is parallel to the behavior of nominative subjects, which take the accusative case in causative sentences. Though it is likely that Jayaseelan did not consider this because causativization is not a traditional subjecthood test, the grammatical process does show sensitivity to the notion of subject, and the indirect object analysis of the dative NP cannot account for its behavior in Malayalam.

In sum, the indirect object analysis of the dative NP successfully accounts for the coding properties - subject-verb agreement, case, and word order - but it does not seem to adequately address the behavioral properties discussed in section 5.2. While reflexive binding is an admittedly poor test, conjunction reduction, equi-NP deletion with an subject controller and causativization, particularly in Malayalam, are not accounted for in this analysis. As such, I will now turn to the subject analysis of the dative NP and examine its strength with respect to the data from the subjecthood tests.

## 6.2 Dative NP as Subject

The dative NP largely fails the coding properties of subjecthood, particularly if one adopts Jayaseelan’s explanation of word order. However, Cole, et al. (1980) show that cross-linguistically behavioral properties are acquired prior to coding properties. As a result, this discussion will mainly consider the extent to which the subject analysis accounts for the behavioral subjecthood properties shown in section 5.2. The benefit of the subject analysis is that it easily explains the dative NPs behavior in conjunction reduction, equi-NP deletion with a subject controller, and causativization in Malayalam. It is also consistent with the causativization patterns in Kannada and Tamil, if one adopts the appropriate analysis. As mentioned previously, reflexivization can neither support nor reject the subject hypothesis, as it was shown to not be a true subjecthood test. Thus, the only data that does not support the subject analysis is equi-NP deletion with an object controller, where the dative NP of the dative subject construction cannot be controlled by a matrix object.

When considering the Malayalam data, this exception could potentially have a morphosyntactic explanation. The verb *parayuka* ‘tell’ assigns nominative case to its subject and sociative case to its object. Thus, the matrix object controller is sociative case-marked. The logical subject of the embedded clause can either have nominative case or dative case. As seen in (42), the sociative matrix object can only control an embedded subject in the nominative case. Similar to Lehmann’s interpretation of case marking in Tamil causatives, one could argue that nominative, the null case, appears when the verb does not assign any other case to the argument. When this happens, the sociative-marked object of the matrix verb is able to override the nominative case marking of the embedded subject, resulting in a grammatical control construction. However, with dative subject constructions, the embedded verb assigns dative case marking to the logical subject of the embedded clause. Because this case marking is overt, the sociative object is unable to override the case marking on the embedded subject, resulting in a case marking mismatch, which prevents the grammaticality of control constructions with an embedded dative subject construction. Extending this to constructions with a subject controller, the nominative matrix subject can control the embedded dative subject because only one of the arguments has overt case marking. If both arguments had overt case and different case marking, then we would expect the sentence to be ungrammatical.

However, this analysis does not hold up for all three languages. In Tamil, the

object of verbs like ‘tell’ takes the accusative case, rather than the sociative case, shown in example (59). Like Malayalam, the ungrammaticality of the dative subject construction in equi-NP deletion with an object controller can be explained by the fact that the overt case marking of the object (in this case, accusative) cannot override the overt case marking of the embedded subject (dative). However, this analysis cannot be extended to Kannada, in which the dative case is used on the matrix subject, as shown in (60).

- (59) *naan-Ø kumaar-ai<sub>i</sub> [---<sub>i</sub> var-a] con-n-ee<sub>n</sub>*  
 1SG-NOM Kumar-ACC come-*INFN* say-PAST-1SG  
 ‘I told Kumar to come.’

(Lehmann 1989: 259)

- (60) *madhura-Ø ansi-ge<sub>i</sub> [---<sub>i</sub> pa:tre toLeyalu] he:LidaLu*  
 Madhura-NOM Ansi-DAT dishes wash-*INFN* say.PAST.3SG.F  
 ‘Madhura told Ansi to wash the dishes.’

(Sridhar 1990: 43)

This data from Kannada presents a problem for the morphosyntactic account of this behavior, because the ungrammaticality of equi-NP deletion with an object controller cannot be attributed to a misalignment of case marking. With both the matrix object controller and embedded subject appearing in dative case, there is no reason to expect that such constructions would be ungrammatical, as there is no case marking mismatch.

Instead, I propose that the restriction against object control of dative subjects is semantic in nature. Jackendoff and Culicover (2003) argue for a semantic basis of control in English, rather than a syntactic basis. They establish that unique control – traditionally described as obligatory control – is determined by the thematic roles that a head assigns to its arguments (Jackendoff and Culicover 2003: 536). Object control with verbs like *tell* fall under unique, or obligatory, control. Verbs can either select situational infinitival complements, which denote any type of state or event, or actional infinitival complements, defined as a subset of situational complements that denote voluntary actions. Jackendoff and Culicover identify *tell* in English as a verb that selects an actional complement. Thus, the embedded verb in such a control construction must have an agentive subject. This results in the ungrammaticality of a sentence such as (61b), where *to grow taller* is not a volitional action.

- (61) (a) Fred<sub>i</sub> told Louise<sub>j</sub> ---<sub>j</sub>/<sub>\*i</sub> to run the race.  
 (b) \*Fred<sub>i</sub> told Louise<sub>j</sub> ---<sub>\*j</sub>/<sub>\*i</sub> to grow taller.

(Jackendoff and Culicover 2003: 527)

Assuming such a semantic restriction on control, this would seem to explain the ungrammaticality of equi-NP deletion with an object controller. Example (42), repeated below, attempts to have the object of *parayuka* ‘tell’ control a dative NP. However, because the dative NP inherently lacks volition (as discussed in section 3.1.1), the verb cannot select a dative subject construction because it is not an actional complement. Note that in (62), the predicate *aapareefan untaakan* ‘have an operation’ must not be interpreted as an actional complement in Malayalam, as its counterpart in English is.<sup>5</sup>

- (62) (a) *ava[-kkə aapareefan untaayirunnu.*  
 3SG.F-DAT operation be.PAST  
 ‘She had an operation.’
- (b) \**avan-Ø ava[-ootə<sub>i</sub> [---<sub>i</sub> aapareefan untaakan] parappu.*  
 3SG.M-NOM 3SG.F-SOC operation be.INFN tell.PAST  
 Intended: ‘He told her to have an operation.’
- (63) (a) *ava[-kkə santooṣam toonunnu.*  
 3SG.F-NOM happiness feel.PRES  
 ‘She feels happiness.’
- (b) \**avan-Ø ava[-ootə<sub>i</sub> [---<sub>i</sub> santooṣam toonan] parappu.*  
 3SG.M-NOM 3SG.F-SOC happiness feel.INFN say.PAST  
 Intended: ‘He told her to feel happiness.’

Therefore, the inability of the dative subject constructions to participate in equi-NP deletion with object control can be explained by semantic, rather than syntactic, reasons. The verbs that allow for object control necessarily select for actional complements, which eliminates the dative subject constructions as possible complements.

However, such a semantic basis of control highlights another problem with the data. Like *tell*, the verb *try* also selects an actional complement. As a result, constructions like (64), should not be grammatical because the predicate *santooṣam toonuka*, which induces dative case on its argument, is not an actional complement.

<sup>5</sup>This analysis is indebted to Clara Cohen and participants of the UC Berkeley Syntax and Semantics Circle (March 5, 2010).

- (64) (a) *ava[-kkə santonam toonunu.*  
 3SG.F-NOM happiness feel.PRES  
 ‘She feels happiness.’
- (b) *ava[-Ø<sub>i</sub> [---<sub>i</sub> santonam toonan] sramiccu.*  
 3SG.F-NOM happiness feel.INFN try.PAST  
 ‘She tried to feel happiness.’

I suggest that such a construction is grammatical because of an ability to construe volitionality for the dative NP based on the nature of the controller. In (62b), the nonvolitional object of *parayuka* ‘tell’ is attempting to control the embedded dative NP, while in (64b), the controller of the dative NP has an agentive role. The grammaticality of a sentence like (64b) may be due to the fact that the deleted dative NP can be construed with a certain degree of volitionality based on the agentivity of its controller. However, if the embedded dative NP is not controlled by an argument that has agentivity, the construction cannot be grammatical, as seen in (62b). Though this is somewhat speculative, such an analysis successfully accounts for the discrepancy found in equi-NP deletion, where constructions with a matrix subject controller are grammatical, but those with a matrix object controller are not.

With this semantic explanation for the behavior of equi-NP deletion, the subject analysis of dative NPs seems to be stronger than the indirect object analysis, which cannot account fully account for equi-NP deletion, conjunction reduction, and causativization. Treating the dative NP as a syntactic subject is consistent with all the behavioral properties explored in this thesis. However, this study is limited in its scope. The subjecthood tests were only able to successfully target the experiencer predicates, as possession constructions and modality alternations were unable to participate in the tests due to syntactic and semantic constraints on the constructions.

There is particular evidence to consider clausal possession constructions as separate from experiencer predicates. As mentioned in section 6.1, Jayaseelan’s discussion of the role of definiteness highlights the similarities in behavior between the dative NP in possessive constructions and a locative NP in an existential copular clause. Additionally, there is stronger evidence for experiencer predicates to suggest that the argument without dative case marking is not a subject, because when the argument is animate, it appears with overt accusative case marking in Malayalam and Tamil. However, with possession constructions the non-dative case-marked argument cannot take accusative case if it is animate, which suggests that it is not an object.

- (65) (a) *eni-kkə aa pustakam iṣtam aanə.*  
 1SG-DAT that book liking be.PRES  
 ‘I like that book.’
- (b) *eni-kkə aval-e iṣtam aanə.*  
 1SG-DAT 3sg.FEM-ACC liking be.PRES  
 ‘I like her.’
- (66) (a) *eni-kkə oru kutti-Ø unṭə*  
 1SG-DAT one child-NOM be.PRES  
 ‘I have one child.’
- (b) *\*eni-kkə oru kutti-ye unṭə*  
 1SG-DAT one child-ACC be.PRES  
 Intended: ‘I have one child.’

However, the inability to have an accusative-marked argument may be a result of the use of a copula, and its ability to assign case, rather than grammatical relation. Consider the copula *aanə*, which when used in a copular sentence with a nominal complement requires both the subject and predicate noun to take the nominative case.<sup>6</sup> The use of accusative case on the noun *ṭiiccar* ‘teacher’ is ungrammatical, parallel to the ungrammaticality of accusative marking in (66b). As such, it may be that the differing behavior between experiencer predicates and possessive constructions is a result of the inability of the copula to assign accusative case.

- (67) (a) *avan-Ø ṭiiccar-Ø aanə*  
 3SG.M-NOM teacher-NOM be.PRES  
 ‘He is a teacher.’
- (b) *\*avan-Ø ṭiiccar-e aanə*  
 3SG.M-NOM teacher-ACC be.PRES  
 Intended: ‘He is a teacher.’

(Asher and Kumari 1997: 97)

Regarding modality alternations, the tests examined in this thesis do not provide evidence for or against treating the dative NP as a subject. Jayaseelan (2004a: 234) provides an account for the difference in case realization on the subject the suffixes

<sup>6</sup>For further discussion on the differences between the two copulas, *aanə* and *unṭə*, see Asher and Kumari (1997: 96-105)

*aam* and *aṅam*. When the suffixes induce dative case, they are realized as full verbs and take two arguments, theme and goal. The theme argument is clausal, while the goal is marked by dative case (which is consistent with Mohanan and Mohanan’s (1990) semantic account of dative case marking). However, when the suffixes induce nominative case, the suffix has a syntactic realization as a modal taking a VP complement. The difference in case lies in the fact that when the suffix co-occurs with nominative case, it is merely a modal, and case is assigned by the verb it is suffixed to. The contrasts with the sentences where the suffix co-occurs with dative case, as it is the suffix that is assigning case.

Jayaseelan’s analysis of modals naturally accounts for his interpretation of the dative NP as an indirect object, rather than a subject. In the nominative case versions, the subject raises out of the VP node into SPEC,IP position, while in the dative case versions, the dative-marked NP remains within the VP. It would be possible to extend Jayaseelan’s underlying understanding of modals to a syntactic structure that treats both the nominative and dative NPs as subjects. However, given the lack of behavioral evidence to suggest treating the dative NP in modal constructions as a subject, it remains to be seen whether such a structure would be more appropriate.

To summarize, the work presented in this thesis cannot definitively account for the subjecthood status of dative NPs in clausal possession constructions and modal constructions. Further research on these types of dative subject constructions would be required to effectively unite or distinguish them from the experiencer predicate constructions.

## 7 Conclusion

This thesis has shown that attempts to characterize the dative NP of the dative subject constructions as an indirect object fail to capture the full syntactic behavior of these NPs. On the other hand, treating the dative NP as a syntactic subject accounts for all the behavioral subjecthood tests. I have also argued for a unified account of equi-NP deletion that appeals to notions of volitionality, rather than grammatical relations. Table 5 provides a revised summary of the results of the behavioral subjecthood tests, taking the semantic analysis of equi-NP deletion into account.

However, the results of this study can only effectively be applied to dative NPs that arise in experiencer predicate constructions. Further work must be done on the

Dative NP	Subjecthood Test
Subject	Conjunction Reduction Equi-NP Deletion with Subject Controller Causativization in Malayalam
Ambiguous	Causativization in Kannada and Tamil
Inapplicable	Reflexivization
Semantically Inapplicable	Equi-NP Deletion with Object Controller

Table 5: Revised Summary of the Behavior of Dative NP in Subjecthood Tests

possession and modality constructions to definitively argue that dative NPs in such constructions are true subjects.

## References

- [1] Amritavalli, R. (2004). Experiencer datives in Kannada. In P. Bhaskararao and K.V. Subbarao (Eds.), *Non-nominative Subjects, Volume 1*. pp. 1-24. The Netherlands: John Benjamins Publishing Company.
- [2] Asher, R.E. and T.C. Kumari (1997). *Malayalam*. London: Routledge.
- [3] Butt, M. and T.H. King (2004). The Status of Case. In V. Dayal and A. Mahajan (Eds.), *Clause Structure in South Asian Languages*. pp. 152-198. The Netherlands: Kluwer Academic Publishers.
- [4] Cole, P., W. Harbert, G. Hermon, and S.N. Sridhar (1980). The Acquisition of Subjecthood. In *Language*. Vol. 56, No. 4. Linguistic Society of America.
- [5] Jayaseelan, K.A. (1999). The dative subject construction in parametric syntax. In K.A. Jayaseelan, *Parametric Studies in Malayalam Syntax*. pp. 1-13. New Delhi: Allied Publishers Limited.
- [6] Jayaseelan, K.A. (2004). The possessor-experiencer dative in Malayalam. In P. Bhaskararao and K.V. Subbarao (Eds.), *Non-nominative Subjects, Volume 1*. pp. 227-244. The Netherlands: John Benjamins Publishing Company.

- [7] Jackendoff, R. and P.W. Culicover (2003). The Semantic Basis of Control in English. In *Language*. Vol. 79, No. 3. pp. 517-556. Linguistic Society of America.
- [8] Jayaseelan, K.A. (2004). The Serial Verb Construction in Malayalam. In V. Dayal and A. Mahajan (Eds.), *Clause Structure in South Asian Languages*. pp. 152-198. The Netherlands: Kluwer Academic Publishers.
- [9] Keenan, E. (1976). Towards a Formal Definition of ‘Subject’. In Li, C., *Subject and Topic*. New York: Academic Press.
- [10] Krishnamurti, B. (2003). *The Dravidian Languages*. New York: Cambridge University Press.
- [11] Lakshmi Bai, B. (2004). Acquisition of dative subject in Tamil. In P. Bhaskararao and K.V. Subbarao (Eds.), *Non-nominative Subjects, Volume 1*. pp. 245-268. The Netherlands: John Benjamins Publishing Company.
- [12] Lehmann, T. (1989). *A Grammar of Modern Tamil*. Pondicherry, India: Pondicherry Institute of Linguistics and Culture.
- [13] Mohanan, K.P and T. Mohanan (1990). Dative Subjects in Malayalam: Semantic Information in Syntax. In M.K. Verma and K.P. Mohanan (Eds.), *Experiencer Subjects in South Asian Languages*. pp. 43-57. Stanford: CSLI Publications.
- [14] Steever, S.B. (2005). *The Tamil auxiliary verb system*. Routledge.
- [15] Sridhar, S.N. (1979). Dative Subjects and the Notion of Subject. In *Lingua*. Vol. 49. pp. 99-125. North-Holland Publishing Company.
- [16] Sridhar, S.N. (1990). *Kannada*. London: Routledge.

## A Appendix: Malayalam predicates that induce dative case

This appendix provides a list of commonly used simple and complex predicates in Malayalam that require dative case marking on the logical subject on the clause. Predicates are listed in alphabetical order based on the Malayalam writing system. Among the complex predicates, the choice of light verb is often variable and can change to achieve on subtle semantic differences or stylistic effects. The list here will only provide predicates with the copulas *aaṇə* and *uṇṭə*, though the reader should be aware that other light verbs may be possible with the same noun.

Simple Predicates	Gloss	Complex Predicates	Gloss
iṣappetuka	‘like’	asuuya uṇṭə	‘be jealous’
uṣṇikkuka	‘be hot’	asukham aaṇə	‘be unwell’
kuḷirakkuka	‘be cold’	iṣṭam aaṇə	‘like’
daahikkuka	‘be thirsty’	oorma uṇṭə	‘remember’
panikkuka	‘have fever’	kuḷirə aaṇə	‘be cold’
booraṭikkuka	‘be bored’	talaveedana uṇṭə	‘have headache’
viṣakkuka	‘be hungry’	daaham uṇṭə	‘be thirsty’
veedanikkuka	‘feel pain’	dukkham aaṇə	‘be sad’
		dveeṣyam aaṇə	‘be angry’
		dhṛti uṇṭə	‘be in a hurry’
		peetṭi aaṇə	‘fear’
		bhayam aaṇə	‘be frightened’
		viṣappə aaṇə	‘be hungry’
		viṣvaasam uṇṭə	‘believe’
		viṣamam aaṇə	‘to have difficulty’
		veruppə aaṇə	‘dislike’
		ṣraddha uṇṭə	‘pay attention’
		sukham aaṇə	‘be well’