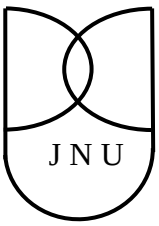
The Fine Structure of Tamil Path Expressions

A dissertation submitted to Jawaharlal Nehru University in partial fulfillment of the requirements for the award of the degree of

Master of Philosophy

by

Gurujegan M



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CERTIFICATE

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*“I see my **Path,** but I do not know where it leads*
Not knowing where I am going is what inspires me to travel”

- Rosalia de castro

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List of Abbreviations

1	First person
2	Second person
3	Third person
ACC	Accusative
ABL	Ablative
CONJ	Conjunction
DAT	Dative
ERG	Ergative
F	Feminine
LOC	Locative
M	Masculine
N	Neutral
NEG	Negation
NOM	Nominative
PRF	Perfective
PRS	Present
PROG	Progressive
PST	Past
SG	Singular

Chapter 1
Introduction

1.1. The Path

The term 'Path' is used by different authors in a wide variety of senses, which can be distinguished into broadly two types - a narrow sense and an extended sense. The use of the narrow sense of Path can be seen in Jackendoff (1983), where prepositions denoting directions like *to* and *from* in (1) are referred to as the Path. The use of the extended sense of Path can be seen in Ramchand[1] (2008), where objects of creation/consumption verbs like *the mango* and *a circle* in (2) are referred to as the Path. These objects of creation/consumption verbs contribute to the measuring scale of the event, which is a property shared by all Paths.

(1) a. The bus rushed *to* the town.
    b. The bus rushed *from* the town.
(2) a. John ate *the mango*.
    b. Mary drew *a circle*.

It is the narrow sense of Path that is used in this dissertation, which deals with the location and movement of a particular entity at a particular point and direction. As the term deals with direction of motion in a natural language, it is also compatible with Talmy's (2000) usage of the term.

1.2. Pantcheva's Path classification[2]

Pantcheva (2011) divides the narrow sense of Path into transition and non-transition Path. In the course of object movement, transition Path involves change in the spatial domain and non-transition Path does not involve any change in the spatial domain. Transition and non-transition Paths are further categorized into Goal, Source and Route Paths. The transitional Goal Path can expressed by preposition like *to* (as in (3a)), which describes the movement trajectory of *the bird* towards the Goal *the tree*. Zwarts (2008) graphically represents this Path

[1] Ramchand (2008) uses both the extended sense and narrow sense of Path.
[2] The discussion of different types of Paths and the graphical representation of Zwarts (2008), in this section, are drawn from Pantcheva (2011).

as in (3b), where the pluses indicate one spatial location and the minuses indicate another spatial location. The points 0 and 1 indicate starting point and end-point respectively.

(3) a. The bird flew to the tree.

b. - - - - - - - - + + + + + +

0 1 (Zwarts, 2008)

The non-transitional Goal Path can be expressed by prepositions like *towards* (as in (4a)), which describes the movement trajectory of *the bird* towards the Goal but without any change in the spatial domain. Zwarts (2008) represents such types of Path as in (4b), where the starting point (0) and end-point (1) fall in the same spatial domain indicated by the pluses. The deeper shade of grey represents a location near to the Goal.

(4) a. The bird flew towards the tree.

b. + + + + + + + + + + + + +

0 1 (Zwarts ,2008)

The transitional Source path is expressed by prepositions like *from* (as in (5a)), which describes the movement trajectory of *the bird* from the Source *the tree.* According to Pantcheva, this path can be conceived as the reverse of transitional Goal Path. Zwarts (2008) graphically represents this path as in (5b), where the pluses indicate one spatial location and the minuses indicate another spatial location. The points 0 and 1 indicate starting point and end-point respectively.

(5) a. The bird flew from the tree.

b. + + + + + + - - - - - - - -

0 1 (Zwarts ,2008)

The non-transitional Source path can be expressed by prepositions like *away from* (as in (6a)), which describes the movement trajectory of *the bird* not exactly from *the tree* but somewhere near to it. According to Pantcheva (2011), this path can be conceived as the reverse of transitional Goal Path. Zwarts (2008) graphically represents this path as in (6b), where the starting point (0) and end-point (1) fall in the same spatial domain indicated by the pluses. The deeper shade of grey represents a location near to Source.

(6) a. The bird flew away from the tree.

b. + + + + + + + + + + + + +

0 1 (Zwarts ,2008)

The transitional Route path is expressed by prepositions like *past* (as in (7a)), which describes the movement trajectory of *the bird*, the middle point of whose Path is *the tree*. Zwarts (2008) graphically represents this type of Path as in (7b), where the pluses indicate the middle point in the movement trajectory.

(7) a. The bird flew past the tree.

b. - - - - + + + + - - - - - -

0 1 (Zwarts ,2008)

The non-transitional Route path is expressed by the preposition like *along* in (8a). This preposition describes the movement trajectory of *the bird* in which *the park* occupies all the points on the Path from the starting point to the end-point. Zwarts (2008) graphically represents this type of Path as in (8b), where the pluses from the starting point (0) to the end-point (1) indicate no change in the spatial domain.

(8) a. The bird flew along the park.

b. + + + + + + + + + + + + +

0 1 (Zwarts ,2008)

1.3. Why Path?

Apart from merely denoting direction, Path has an important role to play in event structure. To illustrate this, let us take the following example, where the verb *run* in (9a) represents the *action of running* without giving any particular reference to the end-point of the action. In (9b), the Goal Path expression *to the house* gives bounded reference to the end-point resulting in the telic interpretation of the event. In (9c), the non-transitional Path expression *towards the house* gives unbounded reference to the end-point resulting in the atelic interpretation of the event. The telic and atelic interpretations are direct outcomes of aspectual interaction between the verb and the Goal Path.

(9) a. John ran.
b. John ran to the house.
c. John ran towards the house.

1.4. Tamil Path and Event structure

In Tamil, the Path expressions are encoded by the case markers. When it comes to Goal Path, the dative case *-ukku* (as in (10)) is syncretic between 'to' and 'towards' meaning, which results in both bounded and unbounded reference to the end-point. As a result of this dative case syncretism, there is both telic and atelic interpretation to the event described by the verb.

(10) banu vitt-ukku o:di-n-a:l
banu house-DAT run-PST-3SG.F
'Banu ran (to/towards) the house'

Further, the manner of motion verb *o:di* 'to run', in the above example, can also be expressed as a sequence of two verbs as in (11), where the first verb (V1) *o:di* 'to run' describes Manner and the second verb (V2) *po:* 'to go' describes Motion; see chapter 2 for detailed discussion.

(11) banu vitt-ukku o:di po:-n-a:l
banu house-DAT run go-PST-3SG.F
'Banu went to the house running'

In this type of (V1 + V2) directional complex predicate, V2 will always be a result verb like *po:* 'to go' or *va:* 'to come' and V1 will be always be a manner of motion verb. Some of the verbs that regularly occur as V1 are given below,

(12)	*o:di*	'to run'	*meɽantu*	'to float'
	parantu	'to fly'	*nadantu*	'to walk'
	u:rntu	'to crawl'	*urundu*	'to roll'

Other manner of motion verbs that do not occur as V1 are given below,

(13) *viɻuntu* 'to fall'

nuɭaintu ‘to enter’
kuṯicu ‘to jump’

Among these verbs in (9), the verb *kuṯicu* ‘to jump’ do not occur as V1 with *po:* ‘to go’ as V2 under normal circumstances but when it is given iterative interpretation, it does occur as V1. Further, when it comes to the interpretation of the event structure of complex predicate, telic interpretation is the only option; see chapter 3 for detailed discussion.

1.5. Research questions

The brief discussion of Tamil path and event structure in the last section raises many questions like the following,

(14) a. How does event structure represent itself with V1 and V2 of Motion component in relation to Path denoting case markers?
b. What exactly is the nature of aspectual interaction between Motion and Path components of a Motion event and how should this interaction be accounted for theoretically?
c. Why is a complex predicate with *po:* ‘to go’ possible only with ‘run’ type verbs in (12) but not with ‘enter’ type verbs in (13)?
d. Why does *kuṯicu* ‘to jump’ behave differently from other manner of motion verbs in (13)?

In pursuit of answer to these questions, I propose a structural analysis based on Ramchand’s (2008) ‘First Phase Syntax’ framework. If such an analysis takes into account of all the questions raised above, then I take that structure to be the Fine Structure of Tamil Path Expressions.

1.6. Organization of Chapters

In Chapter 2, I discuss the general characteristics of case markers and manner of motion verbs in relation to the Motion event of the language. In Chapter 3, I discuss the aspectual interaction between case markers and manner of motion verbs, where the dative case syncretism plays an important role in giving telic/atelic interpretation to event specified by the verb. Further, I discuss the consequence of this dative case syncretism to the Nanosyntax theoretical framework. In Chapter 4, I propose an analysis based on first-phase syntax

framework that would account for aspectual interaction and event structure representation of the Motion event. Chapter 5 is the conclusion, where I discuss some potential problems pertaining to the analysis.

Chapter 2
Motion Events in Tamil

An event that refers to the change of state of an entity in terms of spatial movement can be referred to as a Motion event. The expression of a basic Motion event[1] in a language involves semantic components like Figure (a moving entity), Ground (the landmark), Motion (the movement), Manner (the manner of movement), and Path (the direction of movement). Each language lexicalizes these semantic components of the Motion event through linguistic expressions like Nouns, Verbs, Adpositions, Case markers, etc. The purpose of this chapter is to illustrate the general characteristics of Tamil case markers and manner of motion verb, which lexicalize the Motion event in Tamil.

The chapter is structured as follows: In Section 2.1, I will discuss Talmy's typological classification of languages based on their lexicalization pattern of the Motion Event. In Section 2.2, I will discuss the role played by Tamil case makers in describing the Path component of the Motion event. In Section 2.3, I will discuss the role played by Tamil motion verbs in describing Manner and Motion components of the event. Section 2.4 is the conclusion.

2.1. Talmy's Typological Classification

Talmy (2000) proposes a typological classification of languages based on how they lexicalize Motion events. Accordingly, he refers to 'satellite-framed languages' and 'verb framed languages' based on two predominant patterns shown by languages. In this section, I will discuss the general characteristics of these two types of languages and the differences between them.

2.1.1. Satellite Framed Languages

In satellite-framed languages, Path is lexicalized by non-verbal elements like case markers/ adpositions and Motion is lexicalized by the verb. In the light of example (1) below, English can be considered a satellite framed language because Path is lexicalized by prepositions and Motion is lexicalized by the verb. In (1a), the preposition *to* describes the Goal Path and in

[1] The semantic component of basic Motion event is proposed by Talmy (2000).

(1b), the preposition *from* describes the Source Path. Similarly, the verb *rush* in (1) conflates[2] both Manner and Motion components of the event. The languages that share this pattern include Germanic, Slavic, Celtic and Finno-Ugric.

(1) a. The bus rushed to the town.
b. The bus rushed from the town.

2.1.2. Verb Framed Languages

In verb-framed languages, Path is not encoded by case markers or adpositions but by the verb, which also encodes Motion. Therefore, the verb conflates Path and Motion in this type of language. Spanish can be considered a verb framed languages in the light of example (2), where the verb *entro* 'move-in'(as in (2a)) inherently encodes Goal path motion and the verb *salio* 'move-out'(as in (2b)) inherently encodes Source path motion. Another property of verb-framed languages is that Manner is never expressed by the verb that indicates Motion, it is usually expressed by an independent constituent like *floatando* 'floating' (as in (2)). The languages that share this pattern include Romance, Greek, Semitic, Turkic, Basque, Korean and Japanese.

(2) a. La botello entro a la cueva (floatando)
the botello MOVED-in to the cave (floating)
'The bottle floated into the cave.'

b. La botello salio de la cueva (floatando)
the botello MOVED-out from the cave (floating)
'The bottle floated out of the cave.'

(Talmy, 2000: 49)

2.2. Tamil Path Expressions

In this section, I will illustrate the satellite characteristics of Tamil[3] by discussing the role played by case markers and manner of the motion verb in describing Motion events in the language.

[2] Talmy uses the term 'conflation' to denote single lexical specification of two semantic components.
[3] Talmy lists Tamil as one among those languages that belongs to verb-framed languages. Here, I would like to differ with Tamly because Path is clearly encoded by case markers in Tamil, which is property of satellite-framed languages not the verb framed languages.

2.2.1. Tamil case markers

The Place function is encoded by the locative case *-le* in Tamil. Andronov (2003) suggests that historically there is no locative case in Tamil but only in the later period the place noun *il* began to function as a genuine case suffix. This suffix *-il* is further modified as *-le* in the spoken form. Synchronically, the most basic form of locative construction in Tamil falls in line with Grinevald's (2006) definition of the locative construction as something, which serves as an answer to the question 'where is X' in which X is to be considered a spatial entity. This type of construction in Tamil includes just an NP followed by the locative case suffix *-le* as shown in the following example.

(3) a. maraṯṯ-le 'in the tree'
tree-LOC
b. vitt-le 'in the house'
house-LOC

In addition to (3), the locative construction in Tamil can also occur with the existential copula *iru* as shown in (4); this copula is pleonastic for all practical purpose except to specify the tense and agreement.

(4) a. maraṯ-le iru-nt-atu '*pro* was in the tree'
tree-LOC be-PST-3SG.N
b. vitt-le iru-nt-atu '*pro* was in the house'
house-LOC be-PST-3SG.N

It should also be noted that locative case suffix *-le* does not always encode a spatial entity but it also serves the purpose of locating the event temporally as shown in the following example,

(5) a. ka:lai-le 'in the morning'
morning-LOC
b. oru mani neraṯ-le 'in an hour'
one hour time-LOC

The Goal path is encoded by the dative case *-ukku* in Tamil (as in (6)). Andronov (2003) points out to Ramaswamy Aiyar's (1933) etymological analysis, which relates the origin of the dative case suffix to the noun **kay* 'hand'. Further, Andronov observes that the gemination in the suffix *-u**kk**u* is a common tendency of a word becoming a suffix in Tamil.

(6) a. vitt-ukku 'to the house'
house-DAT

b. kadai-kku 'to the store'
store-DAT

In addition to marking Goal path, dative case performs a host of various other functions in Modern Tamil. Lehmann (1989) lists number of functions of dative case, which includes marking the indirect object (as in (7a)), purpose (as in (7b)), experiencer subject (as in (7c)), proportion (as in (7d)), distributive function, (as in (7e)), standard of comparison (as in (7f)) and reference point (as in (7g)).

(7) a. kumar appa-**ukku** oru paɖaṯ-ai ka:ʈi-n-a:n
kumar father-DAT one picture-ACC show-PST-3SG.M
'Kumar showed father a picture'

b. kumar ṯan uɖamb-**ukku** ta:nik sa:piɖu-kir-a:n
kumar his body-DAT tonic eat-PRS-3SG.M
'Kumar takes tonic for his health'

c. appa-**ukku** kumar-ai ṯe:ri-um
father-DAT kumar-ACC know-3SG.N
'Father knows Kumar'

d. maruntu oru naal-**ukku** mu:nru ve:lai sa:piɖu
medicine a day-DAT three time eat
'Take the medicine three times a day'

e. a:l-**ukku** oru ti: po:ɖu
person-DAT one tea put
'Make a tea for each one (each person)'

f. kumar-**ukku** ivan nallav-an
kumar-DAT he good-3SG.M
'He is better than Kumar'

g. matra:s-**ukku** nu:ru mail-il pa:ɳɖice:ri
madras-DAT hundred mile-LOC Pondicherry
'Pondicherry is one hundred miles from Madras'
(Lehmann, 1989: 30-35)

The source path in Tamil is encoded by the combination of locative case *-le* and ablative case *iruntu* (as in (8)). Andronov (2003) traces the historical development of ablative case to the combination of place noun *il* and the verbal participle of the verb *-ir* 'to be'. This combination evolved into a genuine ablative case marker.

(8) a. vitt-le-iruntu 'from the house'
house- LOC-ABL
b. kadai-le-iruntu 'from the store'
store- LOC-ABL

The Route path in Tamil cannot be expressed by suffixal form nor by lexical Postposition. It is usually expressed by noun compounding[4] as shown in the example (9), where *vitt* 'house' and *valiya* 'way' forms the noun compounding.

(9) a. mani vitt vaɭiya po:-n-a:n
mani house way go-PST-3SG.M
'Mani went via the house'

2.2.2. Place Nouns

In addition to case markers encoding Path, there are certain place nouns that can encode Path in Tamil. The locative case marker *-le* forms part of these nouns. They encode Place and Goal Path without the addition of any further case markers as shown in (10a&b).

(10) a. mani vitt-ukku **ulle** iru-nt-a:n
mani house-DAT inside be-PST-3SG.M
'Mani was inside the house' (Place)

[4] Noun compounding is mentioned in the sense two independent noun *vitt* 'house' and *vaɭiya* 'way' forming endocentric compound noun. Another argument would be to consider *vaɭiya* as a special postposition to give route expression but I am reluctant to consider it as a postposition because it takes all the nominal case declension form and behaves more like a noun.

b. mani vitt-ukku **ulle** po:-n-a:n
mani house-DAT inside go-PST-3SG.M
'Mani went inside the house' (Goal)

Some of the place nouns[5] that regularly occur to encode Path functions are given below,

(11)

me:le	'above'	*pakaṯle*	'near'
ki:le	'below'	*adile*	'beneath'
ulle	'inside'	*naduvle*	'in between'
ethirle	'in front'	*ve:liyile*	'outside'

These place nouns can also be considered as AxParts in the sense of Svenonius (2006, 2007). According to Svenonius (2006), AxPart is a category, whose primary semantic function is to identify a region or points in the space based on the Ground element. The place noun *me:le* 'above', in the following example, identifies a region or space above the Ground element *ka:r* 'car'.

(12) ka:r-ukku me:le
car-DAT above
'above the car'

Further, Svenonius (2006) distinguishes Axparts from Parts in the light of following example, where the *front* in (13a) gives the Part reading by referring to the actual front part of the car and the *front* in (13b) gives the AxPart reading by referring to the 'space' in front of the car.

(13) a. There was a kangaroo in the front of the car.
b. There was a kangaroo in front of the car.

(Svenonious, 2006: 1-2)

The distinction between AxPart and Part reading in Tamil depends on the choice of case marker that marks the Ground element. If the Ground is marked by the genitive case (as in

[5] These place nouns are morphologically defective. They do not occur with all the case markers. It is quite unclear whether to consider these place nouns as postpositions considering the fact that historically there are no postpositions in Tamil. Even if we assume that these place nouns have undergone a historical change to become morphologically defective, the question that remains is why such a change should naturally ensure category change.

(14a)), there is a Part reading. On the other hand, if the Ground is marked by the dative case (as in (14b)), there is an AxPart reading.

(14) a. kangaroo ka:r-o:de me:le iru-nt-atu
kangaroo car-GEN above be-PST-3SG.N
'Kangaroo was on top of the car' (Part)

b. kangaroo ka:r-ukku me:le iru-nt-atu
kangaroo car-DAT above be-PST-3SG.N
'Kangaroo was above the car' (AxPart)

Thereby the encoding of Path by non-verbal elements like case markers and place nouns clearly indicate the satellite characteristics of Tamil.

2.3. Tamil Motion Verbs

Another property of satellite-framed languages is the lexicalization of Motion and Manner by the verb. In Tamil, Manner and Motion components are lexicalized either by a single verb or by a sequence of two verbs, where the first verb (V1) describes Manner and the second verb (V2) describes Motion. In this section, I will discuss these two lexicalization patterns.

2.3.1. Manner of Motion Verbs

As already mentioned, Manner and Motion components in Tamil are lexicalized either by a single verb or by a sequence of two verbs as shown in (15). In (15a), the verb *o:di* 'to run' lexicalizes both Manner and Motion. In (15b), V1 *o:di* 'to run' lexicalizes Manner and V2 *po:* 'to go' lexicalizes Motion.

(15) a. mani vitt-ukku o:di-n-a:n
mani house-DAT run-PST-3SG.M
'Mani ran to the house'

b. mani vitt-ukku o:di po:-n-a:n
mani house-DAT run go-PST-3SG.M
'Mani went to the house running'

It should be noted that these two lexicalization patterns are not substitutes of each other. The difference between them becomes apparent in an expression that involves AxPart (as in (16)). In the first type of lexicalization pattern (as in (16a)), where Manner and Motion are

lexicalized by a single verb *o:di* ‘to run’, the reading is ambiguous between transition and non-transition motion. The transition motion reading indicates change in the spatial domain and the non-transition reading indicates no change in the spatial domain. In the second type of lexicalization pattern, where Manner is lexicalized by V1 *o:di* ‘to run’ and Motion is lexicalized by V2 *po:* ‘to go’(as in (16b)), the reading is unambiguously transition motion.

(16) a. mani vitt-ukku ulle o:di-n-a:n
mani house-DAT inside run-PST-3SG.M
‘Mani ran (to) inside the house’ (ambiguous)

b. mani vitt-ukku ulle o:di po:-n-a:n
mani house-DAT inside run go-PST-3SG.M
‘Mani went inside the house running’

In the second type of lexicalization pattern, V2 will always be a result verb like *po:* ‘to go’ or *va:* ‘to come’ and V1 will be always be a manner of motion verb. Some of the verbs that regularly occur as V1 are given below,

(17)	*o:di*	‘to run’	*me̱ntu*	‘to float’
	parantu	‘to fly’	*nadantu*	‘to walk’
	u:rntu	‘to crawl’	*urundu*	‘to roll’

Other manner of motion verbs that do not occur as V1 are given below,

(18)	*vi̱luntu*	‘to fall’
	nu̱laintu	‘to enter’
	ku̱ticu	‘to jump’

Among these verbs in (18), the verb *ku̱ticu* ‘to jump’ do not occur as V1 with *po:* ‘to go’ as V2 under normal circumstances (as in (19a)) but when it is given an iterative interpretation[6], it does occur as V1 (as in (19b)).

[6] The iterative interpretation is seen in the form of reduplication in (19b).

(19) a. ??mani vitt-ukku kuṯicu po:-n-a:n
mani house-DAT jump go-PST-3SG.M
'Man went to the house jumping'

b. mani vitt-ukku kuṯicu kuṯicu po:-n-a:n
mani house-DAT jump jump go-PST-3SG.M
'Mani went to the house jumping and jumping'

Therefore, the verbal sequence is possible only with the 'run' type verbs in (17) but not with the 'enter' type verbs in (18). In this scenario, the verb *kuṯicu* 'to jump' behaves differently from rest of the motion verbs. This raises the question of why such differences among manner of motion verbs and what makes 'run' type verbs different from 'enter' type verbs. I assume that there is an aspectual reason for such differences among the verbs, which clearly predicts what sort of combination among the verbs is possible. I will take up this question in detail in chapter 4 after introducing aspectual interaction of motion verbs in chapter 3.

2.3.2. Light Verb Analysis of *po:*

So far, I have been referring to the second type of lexicalization pattern as a verbal sequence. The question that remains is whether they are complex predicates or serial verbs[7]. In this section, I will show that the verbal sequences in Motion events show more similarity with complex predicates than with serial verbs.

Authors like Zubizaretta & Oh (2007) and Jayaseelan (2007) do not distinguish between complex predicate and serial verbs. They go by Collins' (1997) definition of Serial Verb Construction (SVC), which is given below,

(20) A serial verb construction is a succession of verbs and their complements (if any) with one subject and one tense value that are not separated by any overt marker of coordination or subordination. (Collins, 1997: 462)

However, other authors like Basu & Wilbur (2010) distinguish between the two complex predicate and serial verbs. They use the term Verbal Compounds (VC) to denote complex

[7] It can be argued that serial verbs are also type of complex predicate. For the sake of clarity, I refer to V1 V2 complex as complex predicate only when there is a light verb otherwise I would simply refer to them as serial verbs.

predicate and Serial Verb Construction (SVC) to denote serial verbs. Their definition of these terms is fiven below,

(21) VCs, which are two-verb (V1 V2) structures coding a single event, and SVCs, two (or more) verb (V1 V2) structures representing two or more events…..In the case of VCs representing one single event, the core semantic content of the second verb in the series is bleached and the V2 contributes to the aspectual meanings like initiation, completion, benefaction and others. In SVC structures, all the verbs in the series retain their core meanings and the events denoted by the verbs follow each other sequentially.

(Basu & Wilbur, 2010: 1-2)

Given these definitions, let us compare Motion event verbal sequence (as in (22c) with other types of two-verb sequence, which also has *po:* as V2 (as in (22a&b))

(22) a. mani ʈuːŋgi-ʈʈʉ po:-n-aːn
mani sleep-PRF go-PST-3SG.M
'Mani slept and then he left'

b. mani seʈʉ po:-n-aːn
mani die go-PST-3SG.M
'Mani was dead'

c. mani oːdi po:-n-aːn
mani run go-PST-3SG.M
'Mani went running'

If we analyze these verbal sequences in terms of Collin's (1997) definition, then all the two-verb sequences in (22) can be considered as serial verbs because there is just one subject and one tense value. Further, V1 and V2 are not separated by any overt marker of coordination and subordination.

On the other hand, if we analyze them in terms of Basu & Wilbur's (2010) definition, then the two-verb sequence in (22a) would correspond to the serial verbs because V1 and V2 have retained their core lexical meaning. Further, they represent two events sequentially.

When it comes to the verbal sequence in (22b), it would correspond to the complex predicate because V1 *seʈʉ* 'to die' and V2 *po:* 'to go' represent just one event. Further, V2 has its meaning bleached.

When it comes to the verbal sequence in (22c), it is not clear whether to consider it as complex predicate or serial verbs because V1 *o:di* 'run' and V2 *po:* 'go' represents just one event like the complex predicate. Further, V1 and V2 have retained their core lexical meaning like serial verbs.

In the remainder of this section, I will show, using some diagnostics, that the Motion event verbal sequence in (22c) exhibits more similarity with the complex predicate in (22b) rather than with the serial verbs in (22a). One caveat is in order here: In the following diagnostics, I will use (a) examples to refer to serial verbs, (b) examples to refer to complex predicate and (c) examples to refer to Motion event verbal sequence.

At the level of Morphology

As shown in (23), (a) cannot occur without the perfective morpheme '*-ʈʈʉ'* but (b) and (c) can never occur with the perfective morpheme.

(23) a. *mani ʈuːŋgi poː-n-aːn
b. *mani seʈʉ-ʈʈʉ poː-n-aːn
c. *mani oːdi-ʈʈʉ poː-n-aːn

Temporal interpretation

As shown in (24), (a) can be interpreted as two distinct temporal events but (b) and (c) cannot have such interpretation.

(24) a. mani ka:laile ʈuːŋgi-ʈʈʉ maʈija:nam poː-n-aːn
mani morning sleep-PRF afternoon go-PST-3SM
'Mani slept in the morning and then he left in the afternoon'
b. *mani ka:laile oːdi maʈija:nam poː-n-aːn
c. *mani ka:laile seʈʉ maʈija:nam poː-n-aːn

Aspectual scope

As shown in (25), (a) can have different aspectual scope, where the perfective morpheme *-ʈʈu* takes scope over V1 and the progressive marker *-kondiru* takes scope over V2. In case of (b) and (c), the perfective morpheme *-ʈʈu* takes scope over both V1 and V2.

(25) a. mani ʈuːŋgi-ʈʈu po:yi-kondiru-nt-aːn
mani sleep-PRF go-PROG-PST-3SM
'Mani slept and then he was leaving'(Perfective & Prog)

b. mani seʈu po:yi-(vi)ʈʈ-aːn
mani die go-PRF-3SM
'Mani was dead'(Perfective)

c. mani oːdi po:yi-(vi)ʈʈ-aːn
mani run go-PRF-3SM
'Mani went running' (Perfective)

Negation scope

As shown in (26), (a) allows for the negation of the event specified only by the V1 and (b) allows for the negation of the whole event and (c) is ambiguous between negation taking scope over the event specified only by the V1 and the whole event.

(26) a. mani ʈuːŋgi-ʈʈu po:kalai
mani sleep- PRF go (NEG)
'Mani left without sleeping'

b. mani seʈu po:kalai
mani die go (NEG)
'Mani did not die at all'

c. mani oːdi po:kalai
mani run go (NEG)
'Mani went not by running'(but by some other means)
'Mani did not go at all'

Interference of PPs

As shown in (27), (a) can have two overtly expressed PP's *viit-le* 'in the house' and *kadai-ukku* 'to the store' whereas (b) and (c) cannot have two overtly expressed PP's.

(27) a. mani vitt-le ʈuːŋgi-ʈʈu kadai-kku poː-n-aːn
mani house-LOC sleep- PRF store-DAT go-PST-3SM
'Mani slept in the house and then he went to the store'

b. mani vitt-le seʈʉ *(kadai-kku) poː-n-aːn
mani house-LOC die store-DAT go-PST-3SM
'Mani was dead in the house'

c. mani *(vitt-le) oːdi kadai-kku poː-n-aːn
mani house-LOC run store-DAT go-PST-3SM
'Mani went running to the store'

From these diagnostics, it is clear that (c) examples exhibit more similarity with (b) examples rather than with (a) examples. Therefore, the proper treatment of Motion event verbal sequences is in terms of complex predicates rather than serial verbs. In chapter 4, I will motivate a structural analysis that takes into account of Motion event verbal sequence and complex predicate.

2.4. Conclusion

In this chapter, I have discussed the satellite characteristics of Tamil, where the case markers and place nouns encode the Path component of the Motion event. Further, I have discussed the manner of motion verbs, which encode Manner and Motion component either as a single verb or as a sequence of two verbs. When it comes to the two-verb sequence, I have shown that only 'run' type verbs can occur as V1 but not the 'enter' type verbs. I have also shown that this two-verb sequence patterns more like complex predicate rather than serial verbs.

Chapter 3
Aspectual Interaction and Dative Case Syncretism

The purpose of this chapter is twofold: first, to give an account of aspectual interaction that arises as a result of the syncretic nature of dative case *-ukku* in Tamil (Section 3.1). Second, in the light of this dative case syncretism, to explain Tamil Path expressions based on Nanosyntax theory (Section 3.2). Works in the framework of Nanosyntax (Starke 2009, Caha 2009, Fabregas 2007, 2009, Taraldsen 2010, Lundquist 2008, Pantcheva 2011, etc) assume that building blocks of syntax are not morphemes but sub-morphemic. Another important assumption of this framework, which departs from conventional views, is that the lexicon as a component in the architecture of Language comes after syntax in order to interpret the tree structure built from the sub-morphemes. Based on this framework, Pantcheva (2011) proposes an analysis to account for directional expressions. Following Pantcheva's analysis, in this chapter, I seek to explain Tamil dative case syncretism.

3.1. Motion Verb and Path Expression- Aspectual Interaction

In this section, I focus on telic and atelic interpretations that arise as a result of aspectual interaction between a Motion verb and a Path expression. Section 3.1.1 gives a general account of telic interpretation of events. Section 3.1.2 focuses on Tamil dative case syncretism and its effect on the event structure interpretations.

3.1.1. Telic interpretation

Tenny (1989) suggests that an indirect internal argument[1] may delimit the event specified by the verb. In (1), the indirect internal object *to New York* delimits the event or indicates an endpoint to the event of pushing.

(1) a. push the cart to New York.

(Tenny, 1989: 6)

The delimitedness indicates that there is a logical culmination to the event described by the verb. As a result, there is telic interpretation to the event. On the other hand, if there is no logical culmination to the event, then the event has an atelic interpretation. Telic and atelic

[1] The indirect internal argument refers to the Goal argument of the verb

events are extensively discussed by many authors including Dowty (1979), Verkuyl (1989) and Vendler (1967). The common picture that emerges from all the discussions is that telic or atelic interpretations can arise either from the default nature of the verb or from the aspectual composition of verbal predicates and its internal arguments. A reliable method widely used in the literature to find out whether the given verb is inherently telic or atelic is to use Dowty's diagnostics, which predict the culmination of the event by using two types of adverbials. One is a 'temporal adverbial' like in an hour, in a year, etc and the other is 'durative adverbial' like for an hour, for a year, etc. The temporal adverbial can be used only with telic events and the durative adverbial can be used only with atelic events.

To explain this adverbial diagnostic, let us take the following example, where the verb *build* in its transitive use is inherently telic. As a result, the temporal adverbial *in one year* is acceptable (as in (2c)) but not the durative adverbial *for one year* (as in (2b)).

(2) a. John built a house.
b. *John built a house for one year.
c. John built a house in one year.

Similarly, in (3), the verb *walk* is inherently atelic. As a result, the durative adverbial *for an hour* is acceptable (as in (3b)) but not the temporal adverbial *in an hour* (as in (3c)).

(3) a. John walked
b. John walked for an hour.
c. *John walked in an hour.

In (4), the verb is inherently atelic but event described by the verb gets telic interpretation through aspectual interaction with the PP *to the house.* As a result, the temporal adverbial is acceptable (as in (4c)) but not the durative adverbial (as in (4b)).

(4) a. John walked
b. *John walked to the house for an hour.
c. John walked to the house in an hour.

3.1.2. Telic interpretation in Tamil

The adverbial diagnostic presents a useful strategy to predict the telic or atelic nature of events in Tamil as well. As shown in (5) & (6), the temporal adverbial is acceptable with telic events (as in (5b)) but not with atelic event (as in (6c)). Similarly, the durative adverbial is acceptable with an atelic event (as in (6b)) but not with a telic event (as in (5c)).

(5) a. banu vitt-ai kaʈʈi-n-a:l
banu house-ACC build-PST-3SG.F
'Banu built a house'

b. banu vitt-ai oru varusaṯ-le kaʈʈi-n-a:l
banu house-ACC one year-LOC build-PST-3SG.F
'Banu built a house in a year'

c. ??banu vitt-ai oru varusam-a kaʈʈi-n-a:l
banu house-ACC one year-for build-PST-3SG.F
'Banu built a house for a year'

(6) a. banu nada-nt-a:l
banu walk-PST-3SG.F
'Banu walked'

b. banu oru mani neram-a nada-nt-a:l
banu one hour time-for walk-PST-3SG.F
'Banu walked for an hour'

c. ??banu oru mani neraṯ-le nada-nt-a:l
banu one year-LOC walk-PST-3SG.F
'Banu walked in an hour'

When it comes to the aspectual composition of motion verb *nada* 'to walk' and path expression *vitt-ukku* 'to the house' (as in (7)), there are both telic and atelic interpretations to the event. This fact can be confirmed by using adverbial diagnostics as shown in (7), where the acceptability of the sentence with both the durative adverbial *oru mani neram-a* 'for an hour' (as in (7a)) and the temporal adverbial *oru mani neraṯ-le* 'in an hour' (as in (7b)) indicates that there are both telic and atelic interpretations to the event.

(7) a. banu oru mani neram-a vitt-ukku nada-nt-a:l
banu one hour time-for house-DAT walk-PST-3SG.F
'Banu walked to the house for an hour'

b. banu oru mani nera**ṯ**-le vitt-ukku nada-nt-a:l
banu one year-LOC house-DAT walk-PST-3SG.F
'Banu walked to the house in an hour'

The reason for telic and atelic interpretations in the above example lies in the syncretic nature of dative case *-ukku,* which gives both bounded and unbounded reference[2] to the end-point. The bounded reference contributes to the telic interpretation of the event and the unbounded reference contributes to the atelic interpretation of the event as shown in the example below.

(8) banu vitt-ukku nada-nt-a:l
banu house-DAT walk-PST-3SG.F
'Banu walked to the house'(bounded-telic)
'Banu walked towards the house' (unbounded-atelic)

This syncretic nature of dative case can be further attested in the light of following example, where the dative marked Goal path can be used both with perfective meaning and with refutation. The perfective meaning in (9a) indicates that the Path denoted by the dative case is a transition path. The refutation in (9b) indicates that the Path denoted by the dative case is a non-transition path.

(9) a. *with perfective:*
mani ba:nu-o:de vitt-ukku o:di-(vi)**ṯṯ**-a:n
mani banu-GEN house-DAT run-PRF-3SG.M
Mani had run to Banu's house

b. *with refutation:*
mani ba:nu-o:de vitt-ukku o:di-n-a:n a:na:l
mani banu-GEN house-DAT run-PST-3SG.M but
innum po:i seralai
still go reach (NEG)
'Mani ran towards Banu's house but has not yet reached'

[2] Bounded and unbounded reference correspond to transition and non-transition Path respectively. The transition Path indicates that there is a change in the spatial domain of movement trajectory and non-transition Path indicates that there is no change in the spatial domain.

Further, when it comes to the aspectual composition of V1 and V2 of the Motion event complex predicate, telic interpretation is the only option. The telic interpretation of the event can again be confirmed using adverbial diagnostics, where the temporal adverbial is acceptable (as in (10a)) but not the durative adverbial (as in (10b)).

(10) a. ba:nu oru mani ne:raṯ-le vitt-ukku o:di po:-n-a:l
banu one hour time-LOC house-DAT run go-PST-3SG.F
'Banu went running to the house in an hour'

b. *ba:nu oru mani ne:ram-a vitt-ukku o:di po:-n-a:l
banu one hour time-for house-DAT run go-PST-3SG.F
'Banu went running to the house for an hour'

In this type of complex predicate, as we had already seen in Section 2.3.1, only 'run' type verbs can occur as V1 but not the 'enter' type verbs. The difference between these two types of verbs lies in their inherent aspectual specification. According to Vendler (1967), 'run' type verbs are 'activity' verbs, which are aspectually specified for [- stative + durative - telic] and 'enter' type verbs are 'achievement' verbs, which are aspectually specified for [- stative - durative + telic]. Given this aspectual specification, now we can deduce that only those verbs which are aspetually specified with the features [- stative + durative - telic] can occur as V1 with *po:* as V2. Based on this aspectual insight, in chapter 4, I will build a theoretical proposal to account for the Motion event complex predicate.

3.2. Nanosyntax theory

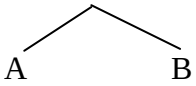
Given the fact that dative case is syncretic in Tamil, in this section, I turn to Nanosyntax theory, which makes strong predictions about syncretisms and Path expressions. Section 3.2.1 gives a general account of the theory. Section 3.2.2 discusses the implication of dative case syncretism to the theory.

3.2.1. Theoretical background

Starke (2009) notes that 'Nanosyntax is a novel approach to the architecture of language, designed to make (better) sense of the new empirical picture emerging from recent years of syntactic research' (Starke, 2009, p.1). Nanosyntax operates on a theoretical assumption that terminal nodes of syntax are features, which are smaller than morphemes. For example, if

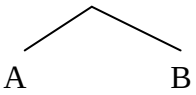
there is a morpheme X with the morphosyntactic features AB, then A would occupy one terminal node and B would occupy another terminal node as shown in the structure below,

(11)



These morphosyntactic features are spelled-out as particular morpheme if and only if they match with the features of any particular lexical item in the lexicon. In this framework, lexicon as a component in the architecture of Language comes after syntax in order to interpret the tree structure built from the sub-morphemes. Further, each lexical item is assumed to be composed of three components: phonological information, syntactic trees and conceptual information. For example, if there is a lexical item X with the morphosyntactic features AB, then its corresponding lexical entry would be as in (12)

(12) X ⇔ < /*x* /, X, X >



Given the assumption that the lexical item also contains a syntactic tree, spell-out can happen if there is match between the features represented in the terminal nodes of the syntactic tree and that of the lexical entry. However, it should be noted that it is not necessary to have a perfect match of features because the **superset principle** allows spell-out even if the sub-features of lexical tree match with the features of the terminal node in the syntax. This allows the lexical entry to be a superset by having greater number of features than the terminal nodes in the syntax. The process by which the lexical item is able to interpret the terminal nodes of syntax is referred as **Lexicalization**.

If there is more than one lexical item in the lexicon matching with the terminal nodes of syntax, then **minimize junk principle** allows for the lexical item with fewest number of unused features to win over the other lexical items. This minimize junk principle is strongly a reminiscence of Paul Kiparsky's 'Elsewhere condition'.

Further, the lexical item also predicts the syncretism between entities. Hypothetically, if dative case and accusative case of language X are syncretic, then Nanosyntax framework

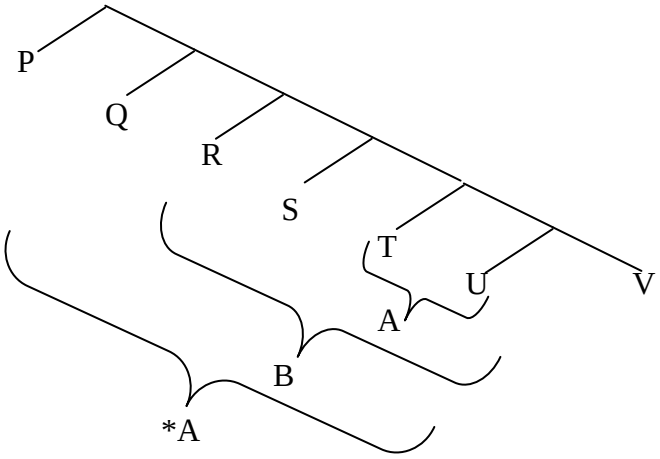
predicts this syncretism by having the same lexical entry Y for both dative and accusative case as shown below,

(13) Y ⇔ < /y/, DAT , >

ACC

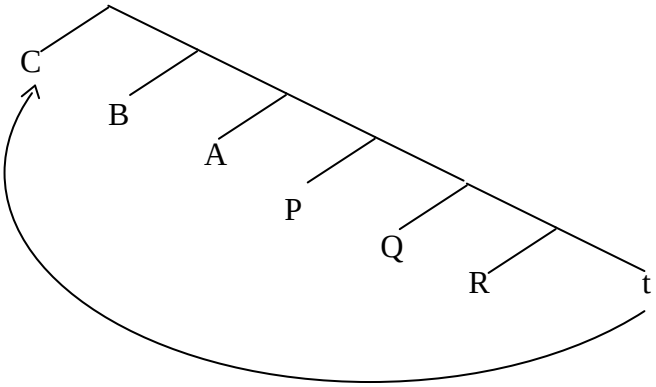
Another prediction of the theory is *ABA theorem, which states that if a given set features is lexicalized by A and a slightly bigger set of features are lexicalized by B, then it is impossible for A to lexicalize any features which are bigger than B. The *ABA theorem is graphically represented as in (14), where T and U are lexicalized by A and R,S,T,U, are lexicalized by B and therefore, it impossible for A to lexicalize Q,R,S,T,U.

(14)



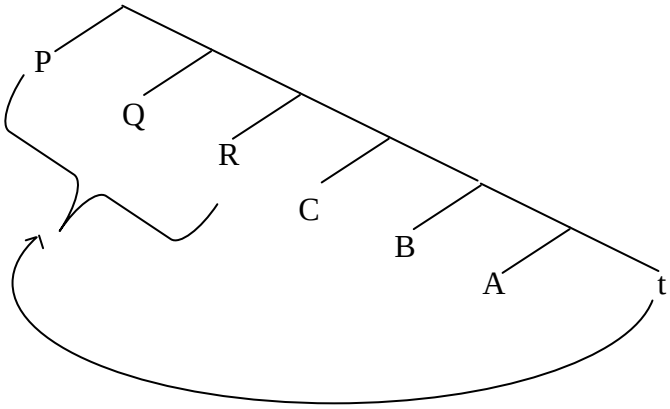
In this framework, movement can happen in order to create a right matching configuration between the terminal nodes of syntax and that of the lexicon. For example, if a lexical entry contains a feature CBA but the terminal nodes of syntax contains only BA, then the lexical entry can trigger the movement of C from its initial position in the syntax to a new position in order to create a right matching configuration CBA, as shown in the structure below,

(15)



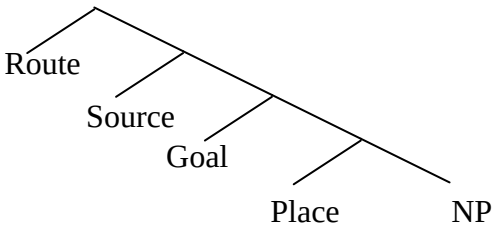
Pied-piping is an another type of movement of whole chunks of features, as shown in the structure below,

(16)



Based on this framework, Pantcheva (2011) proposes the following structure for Path expressions,

(17)



In Pantcheva's analysis, there is no unique Path head in the syntax of directional expressions. Rather there are up to four heads (Route, Source, Goal and Place), where each Path

corresponds to a unique head in the functional sequence of Path structure. The intuitive idea behind this structure is that an NP can move within this invariant sequence in order to spell-out, where the NP movement is controlled by the matching requirement of feature stored in the lexical entry.

3.2.2. Nanosyntax approach to Tamil Path Expressions

As we have already seen in Section 2.2, in Tamil, locative case encodes Place, dative case encodes Goal and ablative case encodes Source as shown in the examples below,

(18) a. banu vitt-le iru-kir-a:l
banu house-LOC be-PRS-3SG.F
'Banu is in the house' (Place)

b. banu vitt-ukku o:di-n-a:l
banu house-DAT run-PST-3SG.F
'Banu ran to the house' (Goal)

c. banu vitt-le iruntu o:di-n-a:l
banu house-LOC from run-PST-3SG.F
'Banu ran from the house'(Source)

In accordance with the Nanosyntax framework, now let us assume the lexical entry for each of these case markers as the following,

(20) Locative suffix:

le ⇔ < /le/, PlaceP >

Place

(21) Goal suffix:

ukku ⇔ < /ukku/, GoalP >

Goal PlaceP

Place

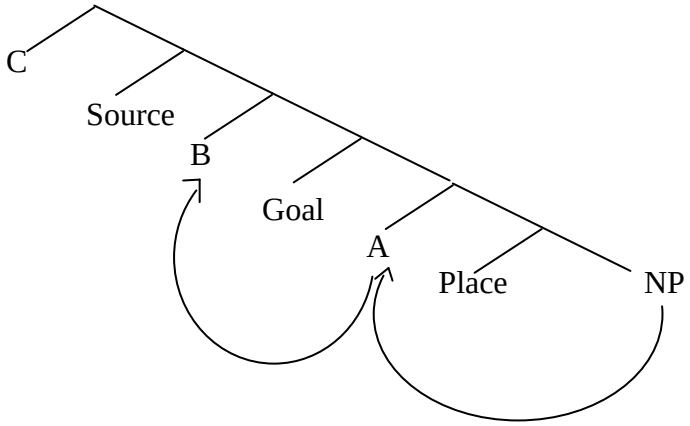
(22) Source suffix:

iruntu ⇔ < /iruntu/, SourceP >

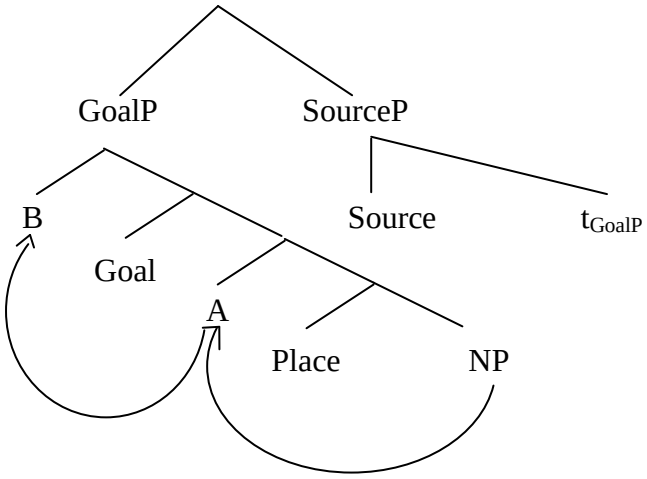
Source

With these lexical entries stored in the lexicon, syntax would proceed in the derivation as shown in (23). The lexical entry in (20) would move the given NP to the position A in order to lexicalize Place. The lexical entry in (21) would move the NP to the position B in order to lexicalize Goal. Finally, to lexicalize source, the lexical entry in (22) would move the whole Goal constituent to the position C as shown in structure (24).

(23)



(24)



The movement of the Goal constituent in (24) would yield a spell-out of locative and dative case encoding the source expression (as in (25a)), whereas the actual Source path is encoded by locative and dative case (as in (25b)).

(25) a. vitt-le-ukku
houe-LOC-DAT

b. vitt-le-iruntu
houe-LOC-ABL

The reason for the wrong sequence of spell-out lies in the sequence of Path expressions in Tamil, which is a clear instance of *ABA violation as shown in (26).

(26)

Path	*Case*	*form*	*Pattern*
Place	LOC	le	A
Goal	DAT	ukku	B
Source	LOC + ABL	le+iruntu	A+C

The same issue can be observed from Tamil AxPart[3] except that there is no *ABA violation here. As we had seen in Section 2.3.1, Tamil AxParts can also encode Paths as shown in the examples below,

(27) a. mani vitt-ukku ulle iru-nt-a:n
mani house-DAT inside be-PST-3SG.M
'Mani was inside the house' (Place)

b. mani vitt-ukku ulle po:-n-a:n
mani house-DAT inside go-PST-3SG.M
'Mani went inside the house' (Goal)

c. mani vitt-ukku ulle iruntu po:-n-a:n
mani house-DAT inside from go-PST-3SG.M
'Mani went from inside the house' (source)

The case forms that encode Path in AxParts can be represented as shown below,

(28)

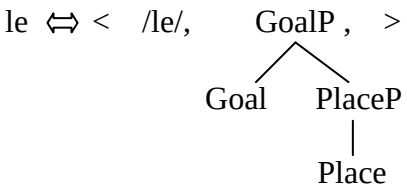
Path	*postposition phrase*	*Pattern*
Place	NP-DAT inside-LOC	A
Goal	NP-DAT inside-LOC	A
Source	NP-DAT inside-LOC + ABL	A+C

[3] See section 2.3.1 for Tamil AxPart reference.

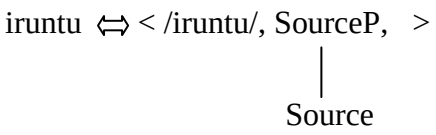
The pattern in (28) demonstrates an AA(A+C) pattern and there is a no *ABA violation. Now if we compare the pattern in (28) with the pattern in (26), then we find that there is a mismatch in the case form that represents Goal in (26). I assume that this mismatch is due to special function ‘X’ of dative case in (26). Avoiding this special function ‘X’ of dative case for the moment, I assume that the lexical entries for rest of the case markers that encode Path in AxParts as the following,

.

(29) Locative and Goal suffix:

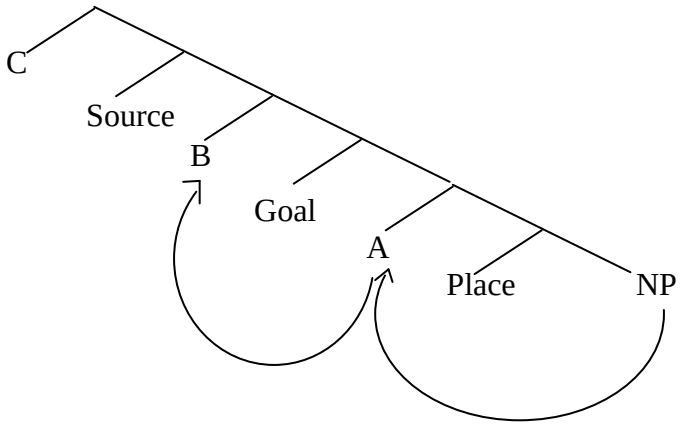


(30) Source suffix:

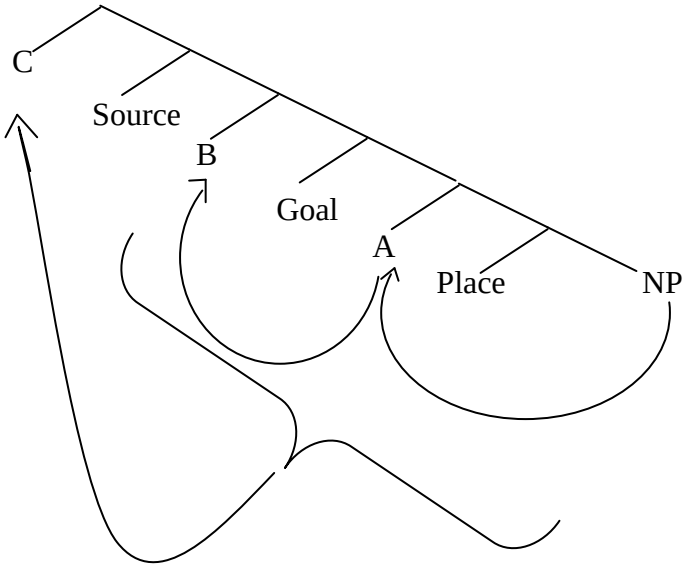


Now with these lexical entries stored in the lexicon, the derivation would proceed in the syntax as shown in (31). The lexical entry in (29) would move the NP to the position A in order to lexicalize Place. The same lexical entry would again move the NP to the position B in order to lexicalize Goal. Finally, to lexicalize Source, the lexical entry in (30) would pied-pipe the whole constituent to the position C as shown in (32).

(31)



(32)

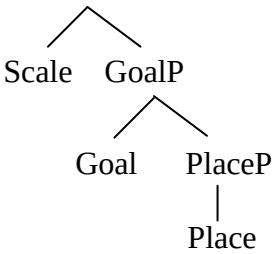


In this derivation, the movement of the Goal constituent to the position C would yield the correct sequence of the Source expression. This correct sequence of spell-out lies in the A A (A+C) pattern of case markers that marks the Path expressions of AxParts.

Now to explain the mismatch between the ABA pattern in (26) and A A A+C pattern in (28), I pointed out that this mismatch is due to special function X of dative case *-ukku*. I reason out that special function X is nothing but the syncretic nature of dative case, which encodes both transition Goal path and non-transition Goal path. In Pantcheva's analysis, non-transition Path has a higher projection than transition Goal Path as shown in the lexical entry in (33)[4].

(33) Dative case:

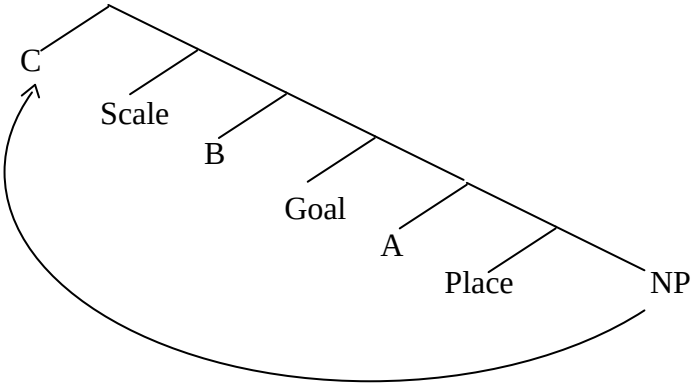
ukku ⇔ < /ukku/, ScaleP, >



[4] Pantcheva (2011) uses the term 'scale' to refer to non-transition Path.

When it comes to the derivation of non-transition Path, syntax would proceed in the derivation as shown in (34). The lexical entry in (33) would move the NP to the position C to lexicalize the non-transitional Path structure.

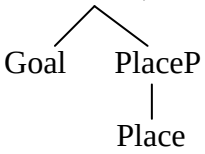
(34)



Thereby the dative case syncretism could explain the mismatch in the Goal Path expression between (26) and (28). A caveat[5] is in order here: Although dative case syncretism could explain the mismatch, it is not a solution to the ABA lexicalization problem. The solution to the problem lies with the lexical entry assumed in (29) (repeated as (35) below).

(35) Locative and Goal suffix:

le ⇔ < /le/, GoalP , >



What this lexical entry essentially shows is that there is a syncretism between Place and Goal, which is encoded by the locative case. The possibility of locative case encoding the Goal Path is possible only in the case of AxParts but not with the case markers in Tamil. Thereby the consequence of dative case syncretism to the nanosyntax theory could only explain the additional non-transitional Path function of dative case and the problem of *ABA lexicalization remains unsolved at the moment.

[5] I would like to thank Marianna Pantcheva for pointing out this to me.

3.3. Conclusion

In this chapter, the syncretic nature of dative case is approached from two perspectives: One from the perspective of aspectual interaction and the other from the perspective of nanosyntax. When it comes to the aspectual interaction, the syncretic nature of dative case *-ukku* contributes both telic and atelic interpretations to the event structure. In the case of a Motion event complex predicate, the 'result' nature of V2 *po:* makes telic interpretation the only option. When it comes to the nanosyntax theory, I had reasoned that dative case syncretism to be the reason for mismatch in the pattern of path expressions between the case markers and AxParts. I leave the question of nanosyntax at this point to focus more on the theoretical aspect of aspectual interaction, which is the subject of discussion in the next chapter.

Chapter 4
The Event Structure

Over the course of this thesis, I have pointed out a few aspectual interaction generalizations (AIG) concerning Goal Path and its impact on event structure without giving any theoretical explanation for them. In this chapter, I will provide a theoretical account for these generalizations, which will eventually characterize the fine structure of Tamil Path expressions.

The generalizations discussed in Chapter 3 are given below,

(1) Aspectual Interaction Generalization 1, (AIG1):
The aspectual interaction between Goal Path and an activity verb yields both telic and atelic interpretation.

(2) Aspectual Interaction Generalization 2, (AIG2):
The telic interpretation is the only option in the case of a Motion event complex predicate.

The AIG1 is a direct consequence of the syncretic nature of dative case *-ukku* in Tamil, which encodes both transition and non-transition Goal Path. As a result of this syncretism, the aspectual composition yields both telic and atelic interpretations. The AIG2 is due to the 'result' nature of V2, which enables the aspectual composition to encode only the transition Path. As a result, telic interpretation is the only default option for a Motion event complex predicate.

The generalizations discussed in Chapter 2 are given below,

(3) Aspectual Interaction Generalization 3, (AIG3):
po: can occurs as V2 only with 'run' and 'die' type verbs but not with 'enter' type verbs

(4) Aspectual Interaction Generalization 4, (AIG4):
The verb *kuṭicu* 'to jump' cannot occur as V1 with *po:* as V2 unless it is given an iterative interpretation.

The AIG3 and AIG4 are due to different behaviors[1] of manner of motion verbs, when they occur as Motion event complex predicates.

To account for AIGs, in this chapter, I review some of the theoretical accounts available in the literature, that of Levin & Rappaport-Hovav (1998) (Section 4.1) and Zubizarreta & Oh (2007) (Section 4.2). The reason for choosing these two accounts lies in their approach to event structure being exactly opposite to each other. The former is a lexicalist approach and the latter a syntactic approach. After reviewing these two theoretical accounts, in Section 4.3, I propose an analysis based on another syntactic account of event structure, Ramchand's (2008) 'First Phase syntax' framework.

4.1. Levin & Rappaport-Hovav (1998)

Levin & Rappaport-Hovav (henceforth, L&R) discuss the variation in the meaning of the verb in (5), where *sweep* occurs with different types of argument expressions. This type of variation poses a problem to the notion that syntactic realization of arguments is projected from the lexical properties of the verb; this would warrant six different occurrences of *sweep* in the lexical entry.

(5) a. Terry swept.
b. Terry swept the floor.
c. Terry swept the crumbs into the corner.
d. Terry swept the crumbs off the sidewalk.
e. Terry swept the floor clean.
f. Terry swept the leaves into pile.

(L&R, 1998:97)

Further, L&R points out that the variation in the meaning of the verb is not random but constrained in a more predictable ways. To illustrate this point, consider the verb *break* in the following example in comparison to the verb *sweep* in (5)

(6) a. *Kelly broke the dishes off the table
(meaning: Kelly removed the dishes from the table by breaking the table)

[1] I had posited that the aspectual reason is the reason basis for such differences among verbs. See section 3.1.2.

b. *Kelly broke the dishes off the table

(meaning: Kelly broke the dishes and as a result they went off the table)

c. *Kelly broke the dish into a pile

(meaning: Kelly broke the dish and made into a pile)

(L&R, 1998:97)

Comparison between (5) and (6) clearly shows that *sweep* is more flexible to variation than *break.* The reason for the flexibility of *break* and rigidity of *sweep* lies in their inherent aktionsart properties. The verb *sweep* is a manner verb, whose aktionsart property is that of an activity and the verb *break* is a result verb, whose aktionsart property is that of an accomplishment. Therefore, L&R posit that activity verbs like sweep ,whistle, run, jog and swim exhibit more variation than accomplishment verbs like come, go, arrive and widen.

Having made the distinction between two types of verbs, L&R point out to two aspects in the meaning of a verb, which are referred to as ‘constants’ and ‘primitive predicates’. Constants refer to the idiosyncratic aspects of the verb meaning which is relevant to distinguish a particular verb from other members of the same class. Primitive predicates are lexical semantic templates proposed in the literature (Dowty, 1979, Parsons, 1990, Pustojvsky, 1991), which refer to the structural aspect of the verb meaning. The lexical semantic templates for different aktionsart properties of verbs are given below,

(7) *Lexical semantic template:*

a.	State	[x <STATE>]
b.	Activity	[x ACT]
c.	Accomplishment	[[x ACT] CAUSE [BECOME [y <STATE>]
d.	Achievement	[BECOME [x <STATE>]]

The set of lexical semantic templates in (7) is fixed set and they are the only set available. On the other hand, the set of constants is open ended, not fixed. Each verb gets its name through its association with constants. Given these two factors, basic verb meaning is derived through the association of constants with anyone of a lexical semantic template. This pairing of constants and primitive predicates gives what L&R call ‘event structure’ and is governed by fundamental canonical realization rules, given below,

(8) a. manner → [x ACT <*MANNER*>]
(eg. jog, run, creak, whistle)

b. instrument → [x ACT <*INSTRUMENT*>]
(eg. brush, hammer, saw, shovel)

c. placeable object → [[x ACT] CAUSE [BECOME [y <*THIING*>]
(eg. butter, oil, tile, wax)

d. internally caused state → [x <*STATE*>]
(eg. bloom, bossom, rot)

e. externally caused state → [[x ACT] CAUSE [BECOME [y <*STATE*>]
(eg. dry, break, widen)

(L&R, 1998: 109)

Further, L&R posits two well-formedness conditions on the syntactic realization of the event structure and they are given below,

(9) *Well- formedness conditions:*

a. Sub event identification condition: Each subevent in the event structure must be identified by the lexical head (V,A or P) in the syntax.

b. Argument realization condition: There must be an argument XP in the syntax for each structure participant in the event structure and each argument XP in the syntax must be associated with an identified subevent in the event structure.

(L&R , 1998: 112-113)

Along with this well-formedness condition, it is also assumed that both constant and primitive predicate can have corresponding participants associated with them. The argument realization condition in (9b) makes the participant of primitive predicate mandatory to participate in the event structure but not the participant of constant.

Finally, to account for the variable behavior of manner of motion verbs that take an optional goal argument, L&R posit a lexical internal process called ‘template augmentation’. This process allows a resultative element to built on the activity template to derive the accomplishment template, as shown below,

(10) *Template augmentation:*

a. [x ACT]

(eg: *John ran*)

b. [[x ACT] [CAUSE [BECOME [y <PLACE>]]]

(eg: *John ran to the house*)

The theory proposed by L&R predicts the variation in the meaning of the verb in a principled way by appealing to the notion of the event structure template. Now, to illustrate its implication in Tamil, let us take the following example,

(11) a. banu nada-nt-a:l
banu walk-PST-3SG.F
'Banu walked'

b. banu vitt-ukku nada-nt-a:l
banu house-DAT walk-PST-3SG.F
'Banu walked to the house'

According to the theory, the verb *nada* 'to walk', in (11a), will get its name from its Manner constant and the participant associated with this constant is *banu.* The primitive predicate of this verb will be that of an activity semantic template given in (7b) (repeated as (12) below)

(12) [x ACT]

The participant associated with (12) will again be *banu* and hence there is a perfect match between the constant participants and the structure participants. Therefore, the verb will realize its basic aspectual meaning through the canonical realization rule given in (8a) (repeated as (13) below).

(13) manner ⟶ [x ACT <*MANNER*>]

In (13), the association of constant with the primitive predicate is modification, where *nada* describes and modifies the way in which activity of motion being carried out. Further, there is no violation to the well-formedness condition: the sub-event identification condition is satisfied by having verb *nada* 'to walk' identifying the sub-event of *walking* and the argument realization condition is satisfied by having an argument XP *banu* associated with the event of

walking. This argument XP is contributed by the participants of both the constant and the primitive predicate and thus making it compulsory to participate in the event structure.

Similarly, to derive (11b), where there is a Path expression, the meaning of the verb is derived in a similar way except that the activity template is augmented to accomplishment lexical semantic template as shown below,

(14) a. manner ⟶ [x ACT <*MANNER*>]

b. manner ⟶ [[x ACT] CAUSE [BECOME [y <*STATE*>]

In (14b), the event associated with the accomplishment lexical semantic template is complex one, involving two events: one is an activity and other is an accomplishment. According to the sub-event identification of the well-formedness condition, both these events have to be identified by a lexical head. Therefore, the activity event is identified by the Manner verb *nada* 'to walk' and the accomplishment event is identified by the dative case *-ukku.* Further, in line with the argument realization condition, there are argument XP's associated with these events, the first argument XP (associated with *nada*) is *banu* and the second argument XP (associated with the dative case *–ukku*) is *vitt* 'house'.

Now, with these background assumptions, let us see how the theory can account for AIGs,

To account for AIG1: The theory fails in capturing telic and atelic interpretation derived out of syncretic nature of dative case because the accomplishment lexical template in (14b) can only give the telic interpretation, it cannot give the atelic interpretation.

To account for AIG2: The Motion event complex predicate in Tamil allows for two lexical heads (V1 & V2) identifying one sub-event. This fact poses a problem to the theory because this would lead to the violation of sub-event identification condition, which does not allow two lexical heads to identify one sub-event. Even if we assume that one sub-event can be identified by two lexical heads, then the event structure template cannot capture the 'manner' nature V1 of 'result' nature of V2 under one category label.

To account for AIG3&AIG4: The theory cannot account for AIG3&AIG4 because it fails to explain AIG2.

Since none of the AIG's can be captured by appealing to the notion of event structure template, I believe the fundamental assumptions of a theory that rests within the lexicon are not on the right track to explain the different dynamics of event structure.

4.2. Zubizarreta & Oh (2007)

Zubizarreta & Oh's (Z&O's) theory can be considered as an extension of the theory initially proposed by Hale & Keyser (2002). The basic assumption in this approach is that event structure is directly represented in syntax in terms of relation between specifier-head and head-complement.

One of the main assumptions of Z&O's theory is given below,

(15) a. CP or *v*P (or VP in the absence of *v*) are phases and phases constitute the domain of the spell-out.

b. If VP (given below) is a phase and its head V is lexically unspecified, the V is spelled out as *go/come*.

$[_{VP}$ D [V [P [P [D]]]]]

(Z&O, 2007: 22)

The assumption in (15a) suggests that CP or the highest verbal phrase in the VP domain constitutes the spell-out domain. The assumption in (15b) suggests that verbs *go* and *come* do not actually belong to the part of lexicon of the language but are default V's in the context of directed-motion PP, when no other lexical V is available. In the background of this assumption, Z&O deal with manner of motion constructions by proposing language specific parameter for satellite-framed and verb-framed languages along with serial verb languages.

In their proposal, the Grammar of serial verb languages makes use of the following 'Generalized transformation' rule,

(16) *Generalized Transformation (GT):*

a. Merge a verbal l-structure with the head of another verbal l-structure.

b. Merge a verbal lexical item with the head of verbal l-structure

(Z&O, 2007:34)

The Grammar of satellite-framed languages like Germanic makes use of the following syntactic compound rule,

(17) Merge two lexical categories of same type.

(Z&O, 2007:45)

The Grammar of verb-framed languages like Romance cannot make use of the compound rule because they are lexically restricted and its output is semantically frozen.

Therefore, the theory proposed by Z&O deals with manner of motion constructions by having language specific rules for satellite-framed, verb-framed and serial verb languages. Now, I will illustrate its implication in Tamil.

As I had already shown in section 2.3.1, the manner of motion construction in Tamil can be expressed either by a single verb or by a sequence of two verbs as shown in (18). In (18a), the verb *o:di* 'to run' expresses both Manner and Motion and in (18b), V1 *o:di* 'to run' expresses Manner and V2 *po:* 'to go' expresses Motion.

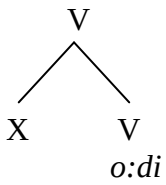
(18) a. banu vitt-ukku o:di-n-a:l
mani house-DAT run-PST-3SG.F
'Banu ran to the house'

b. banu vitt-ukku o:di po:-n-a:l
banu house-DAT run go-PST-3SG.F
'Banu went to the house running'

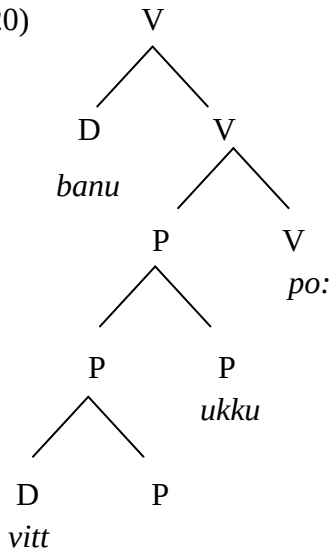
Given the fact that these two types of motion event constructions are possible in Tamil, the Grammar of language should able to make use of both (16) and (17) to derive (18b) and (18a) respectively.

First, to explain the derivation of (18b), the V1 *o:di* 'to run' will have an unergative lexical conceptual structure[2] (LCS) (as in (19)). Further, in accordance with the assumption in (15b), V2 will be spelled-out as *po:* in the context of direction PP *vitt-ukku* 'to the house' (as in (20))

(19)



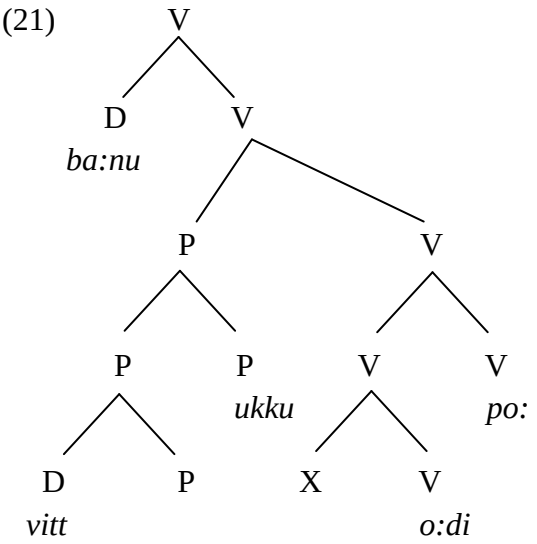
(20)



The structure in (19) and (20) would constitute two different spell-out domains. Therefore, the grammar of the language would make use of GT in (16a), which would merge the LCS in (19) with the head of verbal LCS in (20). The result of this merge would yield a structure given in (21), which would account for Motion event complex predicate in (18b).

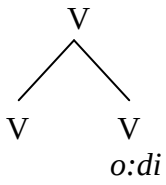
[2] The unergative LCS is in accordance with Hale&Keyser's (2002) model.

(21)

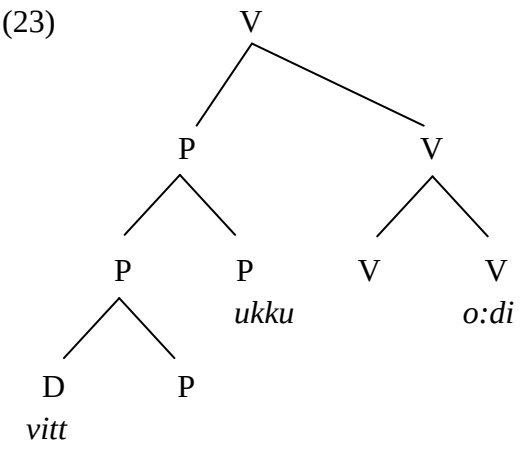


Now, to explain the derivation of (18a), where the verb *o:di* 'to run' expresses both Manner and Motion, the grammar of the language would make use of (17). Accordingly, the verb *o:di* merges with an empty V as in (22). Further, this structure in (22) is merged with the PP *vitt-ukku* 'to the house' to form the structure in (23). Now, the resulting structure (23) is again merged with the specifier *banu* to get the structure in (24), which would constitute a spell-out domain on its own. Moreover, the head of the structure (24) that has been encircled is not empty for the assumption in (15b) to apply and insert *po:*. Therefore, Manner and Motion would be expressed by the same verb *o:di.*

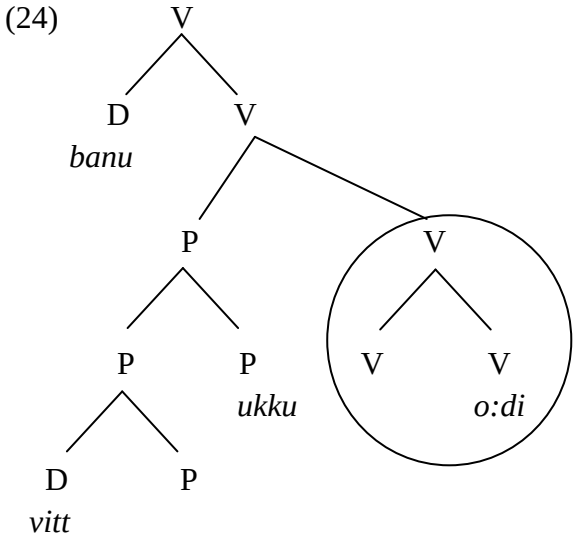
(22)



(23)



(24)



Given these structures for the manner of motion construction, let us see its implications in explaining the AIG's

To account for AIG1: According to the theory, the aspectual and event structure meanings are represented in syntax in terms of specifier-head and head-complement relations. This assumption would capture the telic and atelic interpretations that arise as a result of dative case synceritism by deducing it from existing structure. Thereby the theory could explain AIG1.

To account for AIG2: Since the aspectual meanings are directly represented in syntax, we can deduce that LCS of V2 *po:* gives a telic interpretation to the aspectual composition of Motion event complex predicate. Thereby the theory could explain AIG2.

To account for AIG3: The theory fails particularly in this aspect because there is nothing in the mechanism that prevents 'enter' type verbs and allows 'run' type verbs to form Motion event complex predicates. To explain this phenomenon, let us take the verb *kuṭicu* 'to jump', which is one of the 'enter' type verbs. In Z&O's theory, there is no specific mechanism that prevents the unergative structure of *kuṭicu* from undergoing Generalized Transformation to form a Motion event complex predicate with *po:*. Thereby the theory fails to explain AIG3.

To account for AIG4: The theory cannot explain AIG4 as it fails to explain AIG3.

To conclude this section, I have shown that Z&O's framework could explain AIG1 and AIG2 but it fails to explain AIG3 and AIG4. The only way to account for AIG3 and AIG4 within this framework is to make a further division in the class of unergative verbs that allows only certain verbs to form Motion event complex predicate. However, this would add an addition burden and requirement on the part of the grammar of the language. Another problem with the approach is the fact that *po:* in Tamil can occur in a context where there is no directional PP. This contradicts the fundamental assumption of the theory in (15b), which assumes that verbs like *po:* are the spell-out of V in the context of directional PP. Since I do not know whether it is possible to reconcile this fact with the theory, I leave the matter open here.

4.3. Ramchand (2008)

In this section, I will show that AIGs can be elegantly explained using Ramchand's (2008) 'First Phase syntax' framework, which decomposes event structure into three event projections. As a result of this event structure decomposition, the first phase syntax framework has a default mechanism and more space to deal with complex predicates, which was lacking in the L&R and Z&O' models.

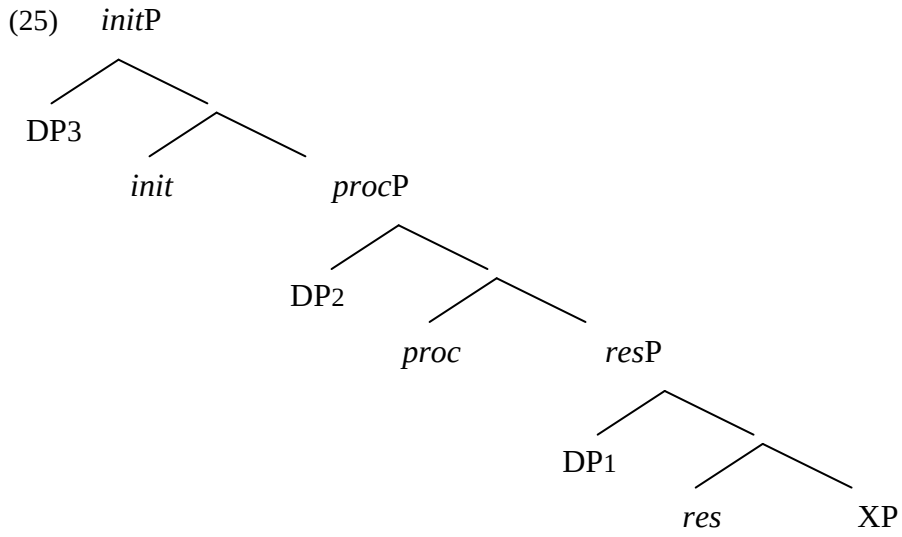
In Section 4.3.1, I will briefly summarize[3] the theoretical nuances of Ramchand's (2008) 'First Phase Syntax' framework. In Section 4.3.2, I will propose an analysis based on this framework, which will account for all AIGs.

4.3.1. First Phase Syntax

The first phase syntax framework shares an important insight with Hale & Keyser (1993) in considering event structure and event participants as a part of syntax. The specificity of this proposal lies in the decomposition of event structure into three event projections, *init*P, *proc*P and *res*P (as in (25)). According to Ramchand, these three projections are the only event projections required to represent all possible combinations of event structure in natural language. The corresponding event structure is given below,

[3] Section 4.3.1 is not an in-depth summary; I have only described details that are needed for the analysis.

(25)



In this structure, *init*P introduces the causation event and the *init* head licenses different types of external arguments in the DP3 position. The *proc*P specifies the nature of change or process and the *proc* head licenses the entity undergoing change or process in the DP2 position. The *res*P gives the 'telos' or 'result state' of the event and the *res* head licenses the entity that comes to hold the result state in the DP1 position.

In addition to *res*P giving telos or the result state, the bounded-path complement of *proc* head can also give a telic or the result state to the event. This happens through a process called homomorphic unity, which unifies the scalar structure of the complement with the scalar structure of the head. Similarly, if the path complement of the *proc* head is an unbounded path then homomorphic unity gives an atelic state to the event.

The three projections of event structure *init*P, *proc*P and *res*P are thematically relevant event projections, which contribute to the aspectual composition of event structure. Further, those elements that do not contribute the aspectual meaning of the event structure are assumed to occupy a particular position in the event structure called 'Rheme'. This position is meant for those DP objects, APs and PPs, which do not have any aspectual role.

Further, when it comes to the lexicon, it is assumed that each lexical item is specified for categorical features like *init, proc* and *res.* A lexical item with *init, proc* and *res* features can merge in the structure as *init ,proc* and *res* head. A lexical item with only *init* and *proc* features can merge in the structure only as *init* and *proc* head but not as the *res* head. Similarly, a lexical item with only *init* features can merge in the structure only as *init* head but

not as *proc* or *res* head. Whenever there are two lexical items with overlapping categorical features, one of the lexical items will underassociate its overlapping features. This underassociation plays an important role in explaining the complex predicate, where V1 and V2 have overlapping categorical features. However, Ramchand notes that underassociation is not a free process but can happen only under the following conditions,

(26) *Underassociation*

If a lexical item contains an underassocciated category feature,

i. that feature must be independently identified within the phase and linked to the underassociated feature, by Agree;

ii. the two category features so linked must unify their lexical-encyclopedic content.

(Ramchand, 2008: 110)

Before concluding this part of the section, let me also illustrate how the system had been used in the literature to account for complex predicate. Butt & Ramchand (2005) exploits this system to account for the light verbs in Hindi. To explain, let us take the following Hindi example, where the V1 *lik*^{h} 'to write' is the main verb and V2 *liya* 'to take' is the light verb.

(27)

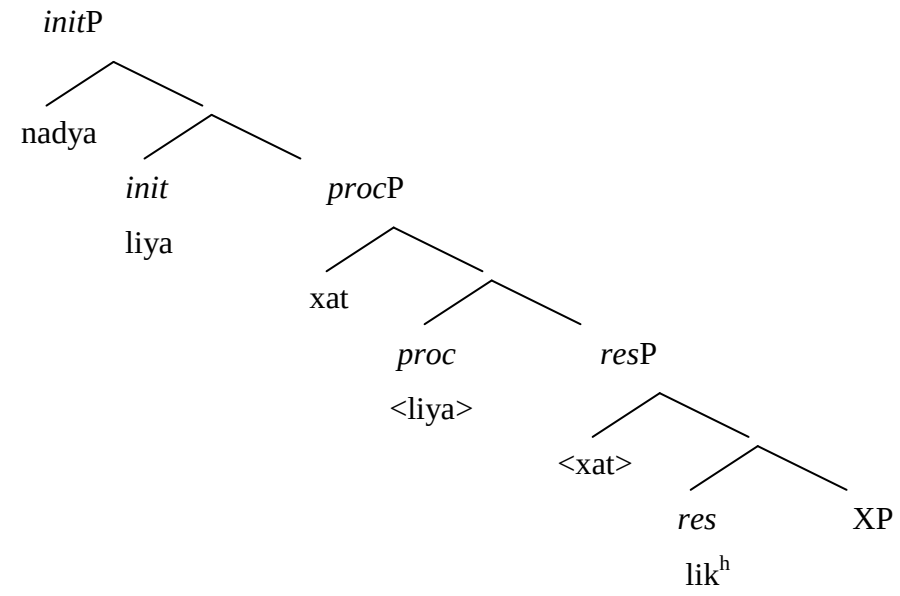
nadya-ne	xat	lik^{h}	li-ya
nadya.F-ERG	letter.M.NOM	write	take-Perf.M.SG

'Nadya wrote a letter (completely)'

(Butt&Ramchand, 2005:18)

In terms of first-phase syntax, Butt & Ramchand considers the V1 *lik*^{h} to be lexically specified for *res* feature, which licenses the DP *xat* 'letter' and the V2 *liya* 'to write' to be lexically specified for both *proc* and *init* features. As a *proc* head, V2 licenses the DP *xat* and as an *init* head, the same V2 licenses the DP *nadya.* The reason for assuming *res* feature with V1 lies in the event semantics of *lik*^{h} , which describes the final state *letter comes to be written* and the reason for assuming *proc* feature with V2 lies with the event semantics of *liya* , which has the role of *process descriptor*. Similarly, the reason behind *init* feature of V2 lies with its case assignment role to the DP *nadya*. The corresponding event structure is given below,

(28)



Butt & Ramchand thus argue that the first phase syntax framework can explain light verbs and the complex predicate associated with them through its event decomposition analysis.

4.3.2. Analysis

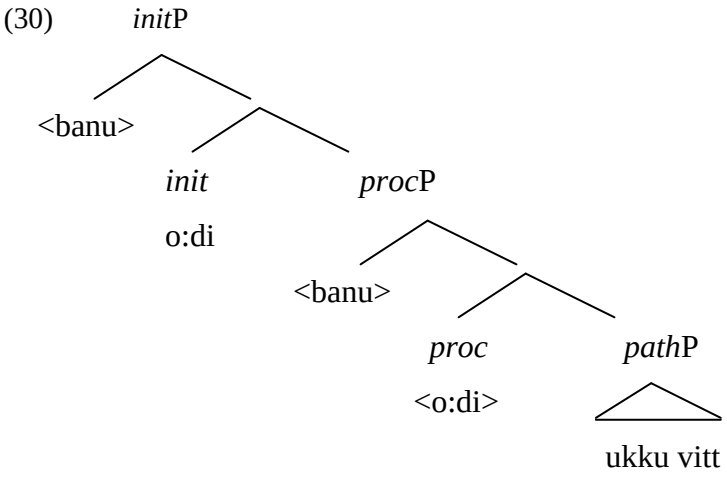
In this section, I will take up each of the AIGs and propose an analysis based on the first phase syntax framework, which will eventually characterize the fine structure of Tamil Path expressions.

AIG1 can readily be accounted through the process of homomorphic unity. To illustrate this, let us take the example in (18a) (repeated as (29) below), where the verb *o:di* 'to run' suggests activity and the dative case *-ukku* encodes both 'to' and 'towards' meaning.

(29) banu vitt-ukku o:di-n-a:l
mani house-DAT run-PST-3SG.F
'Banu ran to/towards the house'

In terms of first phase syntax, the verb *o:di* 'to run' can be considered to be lexically specified for [*init,proc*] and the PP *vitt-ukku* 'to the house' can be considered the Path complement of the *proc* head as shown in the structure (30) below,

(30)



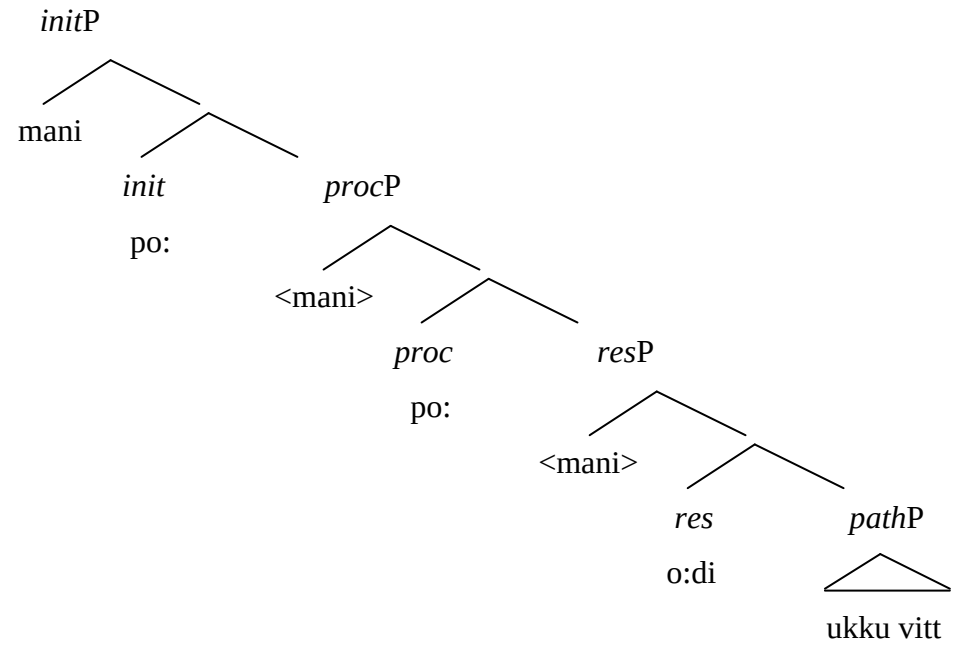
In this structure, the PathP complement gives telic and atelic interpretation to the event specified by the *proc* head through the process called homomorphic unity. This process unifies the bounded and unbounded nature of PathP scalar structure with the scalar structure of *proc* head to give telic and atelic interpretation to the event. Therefore, the process of homomorphic unity would account for AIG1.

Now to account for AIG2, let us takes the example (18b) (repeated as (31) below), where the V1 is *o:di* 'to run' and V2 is *po:* 'to go'.

(31)	banu	vitt-ukku	o:di	po:-n-a:l
	banu	house-DAT	run	go-PST-3SG.F
	'Banu went to the house running'			

In terms of first phase syntax and taking a cue from Butt&Ramchand's (2005) analysis of Hindi complex predicates, we can analyze that the event structure for complex predicate in (31) with V1 *o:di* occupying the *res* head and V2 *po:* occupying the *init* and *proc* head as shown in the structure below,

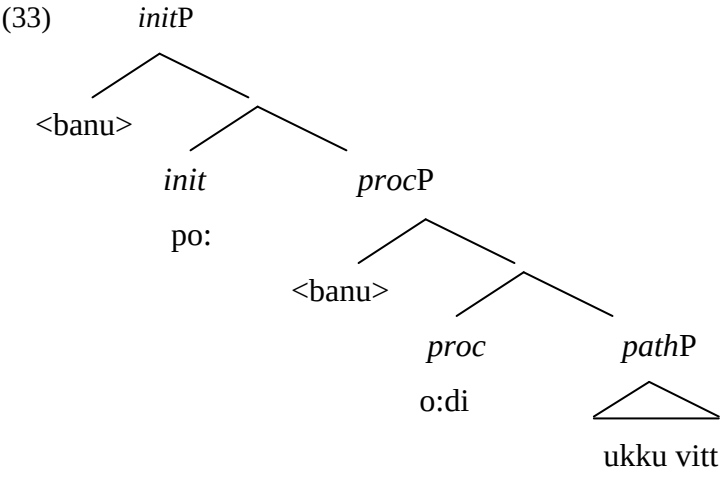
(32)



Although the structure of a similar type yields the correct prediction about complex predicate in Hindi (as in (28)), the structure proposed here for Tamil may not be on the right track because of the structural position of V1 *o:di*. In the case of the complex predicate in Hindi, V1 *lik*^{h} 'write' occupies the *res* head because it clearly describes the final state of *letter comes to be written* but in the case of Tamil, the V1 *o:di* 'to run' merely describes an activity and does not describe any final state. Therefore *o:di* cannot be posited to occupy the *res* head (as in (32)).

In order to address this issue, we can assume that there is no result projection in the structure, and *path*P occurs as a complement of *proc*P with V1 *o:di* occupying the *proc* head and V2 *po:* occupying the *init* head as shown in the structure below,

(33)



In this structure, we can deduce that the telic interpretation of the event is due to the bounded PathP complement[4]. However, this postulation would not explain telic interpretation of Motion event complex predicate where there is no PathP complement. Therefore, I assume that this structure (34) is also not the right one.

At the outset, the problems with the structure in (32) and (33) revolve around the lack of theoretical motivation to assume the structural position of V1 and V2 of Motion event complex predicates. In terms of first-phase syntax framework, the structural positions of the verbs are dependent on their lexical specification. Accordingly, I assume that the verb *po:* to be lexically specified for [*init, proc, res*], 'run' type verbs to be lexically specified for [*init, proc*] and 'enter' type verbs to be lexically specified for [*init, proc, res*]

In addition, to determine the structural position V1 and V2 of Motion event complex predicate in the event structure, I propose a principle called 'Structural Principle' (SP). The formulation of the principle is given below,

(34) Structural Principle (SP):

a. *po:* as V2 will always occupy that particular position in the first phase syntax, which is left unspecified by the V1, and the features specified by V1, will be underassociated.

b. If there is no position that is left unspecified by the V1, a complex predicate with *po:* is not possible.

According to (34a) of SP, if V1 is lexically specified for [*init, proc*], then *po:* as V2 would occupy the *res* head in the event structure by underassociating its [*init*] and [*proc*] features. Similarly, if V1 is lexically specified for [*proc, res*], then *po:* as V2 would occupy the *init* head in the event structure by underassociating its [*proc*] and [*res*] features.

According to (34b) of SP, *po:* can occur as V2 only with V1, lexically specified for [*init, proc*] or [*proc, res*]. If V1 is lexically specified for [*init, proc, res*], then a complex predicate with *po:* is not possible.

[4] The bounded PathP complement gives telic interpretation to the event through the process of homomorphic unity.

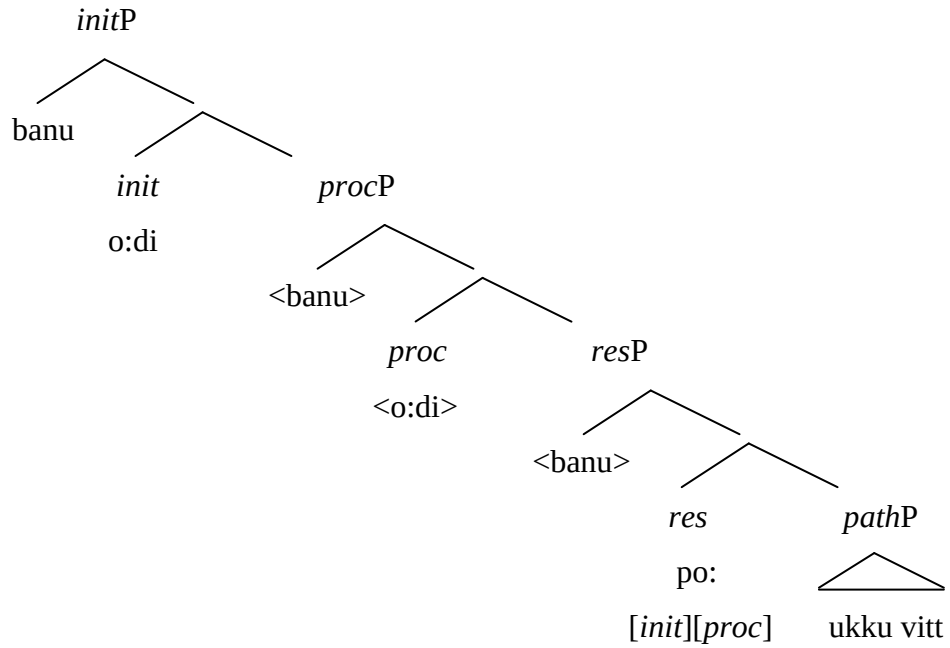
Given this proposal, we can analyze the complex predicate in (31) (repeated as (35) below) with V1 *o:di* 'to run' to be lexically specified for [*init, proc*] and V2 *po:* 'to go' to be lexically specified for [*init, proc, res*]. As a result of this lexical specification, the head that is left unspecified by the V1 is the *res* head. According to (34a) of SP, *po:* will occupy this *res* head by underassociating its *init* and *proc* features. The corresponding structure is given in (36).

(35)

banu	vitt-ukku	o:di	po:-n-a:l
banu	house-DAT	run	go-PST-3SG.F

'Banu went to the house running'

(36)



Further, from this structure, we can deduce that the *res*P projection of the event structure contributes to the telic interpretation. This would account for AIG2, which deals with the telic interpretation that arise as a result of aspectual interaction between V1 and V2 of a Motion event complex predicate.

Now to account for AIG3, let us take the following example, where 'run' and 'die' type, but not the 'enter' type verbs can form a complex predicate with *po:*,

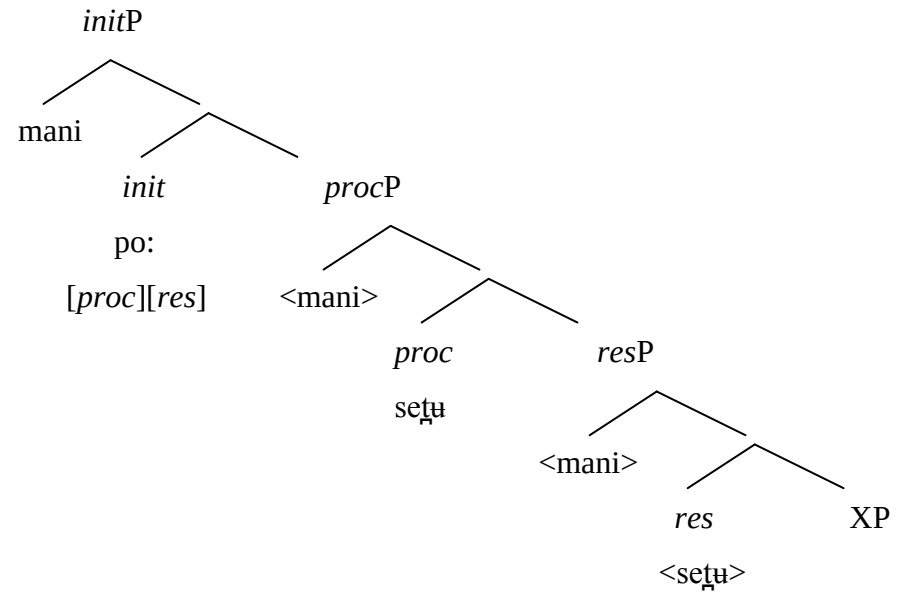
(37) a. mani o:di po:-n-a:n
mani run go-PST-3SG.M
'Mani went running'

b. mani seʈu po:-n-a:n
mani die go-PST-3SG.M
'Mani died'

c. *mani *nuɭaintu* po:-n-a:n
mani enter go-PST-3SG.M
intended meaning: 'Mani entered'

The reason for 'run' and 'die' type verbs forming complex predicates (as in (37a&b)) but 'enter' type verbs not doing so (as in (37c)) falls naturally from (34b) of SP. As I illustrated above, 'run' type verbs can form complex predicates with *po:* because there is one position in the event structure that is left unspecified by V1, which is that of the *res* head. As a result, *po:* would occupy this *res* head. Similarly in the case of 'die' type verbs, I assume the lexical entry of these verbs as [*proc,res*]. Here, the position that is left unspecified by V1 is the *init* head, which will be occupied by *po:* by underassociating its *proc* and *res* features (as shown in the structure (38)). As a result, complex predicate is possible with 'die' type verbs. However, in the case of 'enter' type verbs, a complex predicate is not possible because they are lexically specified for [*init, proc, res*], which leaves no room for *po:* to occur as V2.

(38)



Therefore, the SP analysis elegantly accounts for AIG3, which deals with ‘run’ and ‘die’ type verbs forming complex predicates with *po:* but not the ‘enter’ type verbs.

Now to account for AIG4, let us take the following example, where the verb *kuṯicu* with the iterative interpretation can form a complex predicate with *po:* (as in (39a)) but with the non-iterative interpretation cannot form a complex predicate with *po:* (as in (39b)).

(39) a. mani vitt-ukku kuṯicu kuṯicu po:-n-a:n
mani house-DAT jump jump go-PST-3SG.M
‘Mani went to the house jumping and jumping’

b. ??mani vitt-ukku kuṯicu po:-n-a:n
mani house-DAT jump go-PST-3SG.M
‘Man went to the house jumping’

Following Ramchand (2008), here I would assume that when the verb is interpreted as multiple jump, it is lexically specified for [*init, proc*] and when it is interpreted as single jump, it is lexically specified for [*init, proc, res*]. In the case of multiple jump interpretation, there is a *res* head left unspecified in the event structure for the verb *po:* to occur as V2 and in the case of single jump interpretation, there is no position left in the event structure for the verb *po:* to occur as V2. As a result,the former can form complex predicate but not the latter.

Therefore, SP, which governs the relative positions of V1 and V2 proves to be useful in explaining all the AIGs within the first phase syntax framework. The apparent counter example for this analysis would be those instances of complex predicates where V1, lexically specified for [*init, proc, res*], occurrs along with V2 *po:*. Such type of verbal sequence is possible with the verbs like *ko:du* ‘give’ and *edu* ‘take’ occurring as V1 along with *po:* as V2 (as in (40)). However, in this type of verbal sequence, *po:* is not a light verb but a main verb long with V1. Further, they do not represent a homogenous complex event but two events in sequence, with *po:* retaining its core lexical meaning. In other words, they do not form a complex predicate of light verbs. They form a complex predicate of serial verbs[5]. Jayaseelan (2004) considers such type of verbal sequences to be biclausal in Malayalam.

[5] See section 2.3.2. for detailed analysis on how complex predicate of light verb is different from that of serial verbs.

(40) mani e:duth -ʈʈu po:-n-a:n
mani took-PRF go-PST-3SG.M
'Mani took and went'

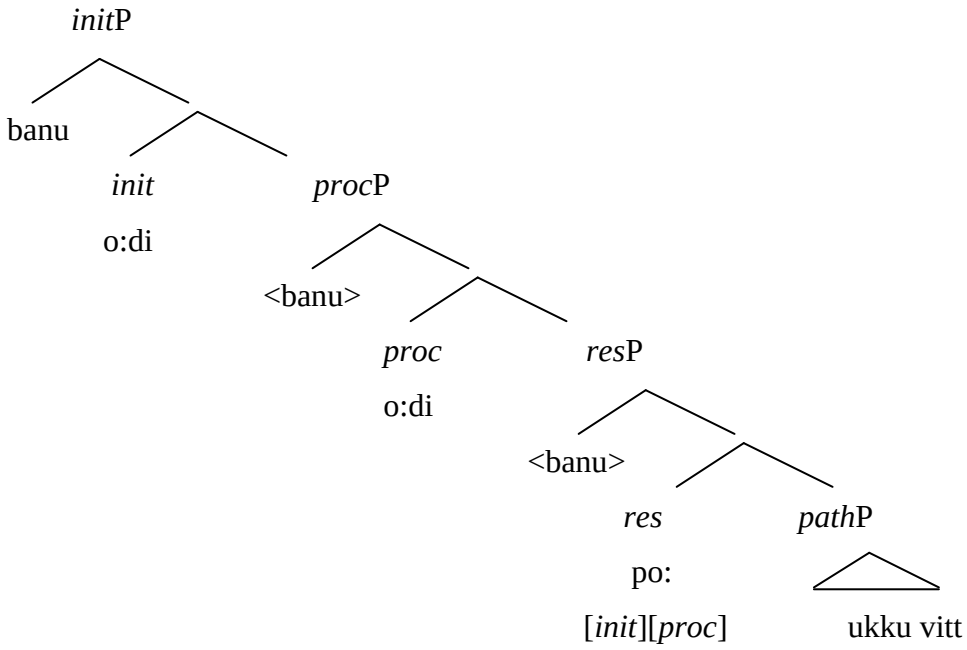
Given the fact that *po:* is not a light verb in (40), this particular instance of verbal sequence does not qualify as counterexample. Therefore, actual counter examples would only be those instances of complex predicates where *po:* occurs (as a light verb) along with V1, which is lexically specified for [*init, proc, res*]. In the absence of such a complex predicate, the SP analysis holds still at least for those cases, where *po:* occurs as V2.

4.4. Conclusion

In this chapter, I have shown that the aspectual interaction that underlies the motion event can be accounted for using Ramchand's first-phase syntax framework. Following this framework, I have proposed the Structural Principle (SP) analysis that governs the relative positions of V1 and V2 in the event structure syntax. Accordingly, the structure for following (41), Motion event complex predicate is given in (42), where SP governs the position of V1 and V2.

(41) banu vitt-ukku o:di po:-n-a:l
banu house-DAT run go-PST-3SG.F
'Banu went to the house running'

(42)



The structure proposed here takes into account all AIGs. Therefore, I conclude this chapter by proposing that this structure in (42) is the fine structure of the Tamil path expression for the Motion event complex predicate in (41).

Chapter 5
Conclusion

In this thesis, I have proposed an analysis based on first phase syntax to account for the Aspectual Interaction Generalizations (AIGs) of Motion events. AIG1, which deals with dative case syncretism was accounted through the process of homomorphic unity. This process unifies the bounded and unbounded nature of dative case *-ukku* to the scalar structure of the verb resulting in telic and atelic interpretation to the event structure. AIG2, which deals with the telic interpretation of V1 and V2 complex predicate, was accounted through the SP analysis. AIG3 and AIG4, which deals with different behavior of manner of motion verbs, were also shown to be the natural consequences of SP. Although the SP analysis accounts for AIGs, it is not without problems. In this chapter, I discuss some potential problems to the analysis and possible solutions to them.

5.1. The Tense and Word-order problem

The SP, which remains core to the analysis has two main problems to immediately deal with. These are given below,

(1) If V2 occurs in a position in a event structure which is hierarchically lower than that of V1, then
   a. How does tense overlook V1 and indentify V2?
   b. How to account for the correct word-order?

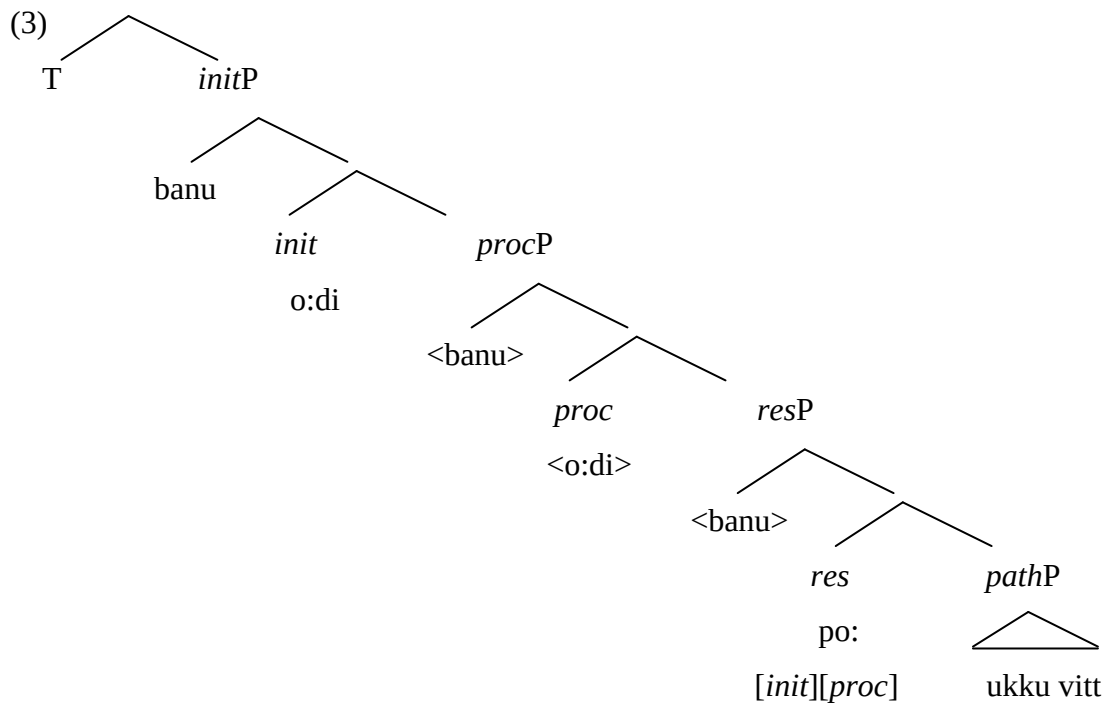
To explain these problems, let us take the following example,

(2)

banu	vitt-ukku	o:di	po:-n-a:l
banu	house-DAT	run	go-PST-3SG.F

'Banu went to the house running'

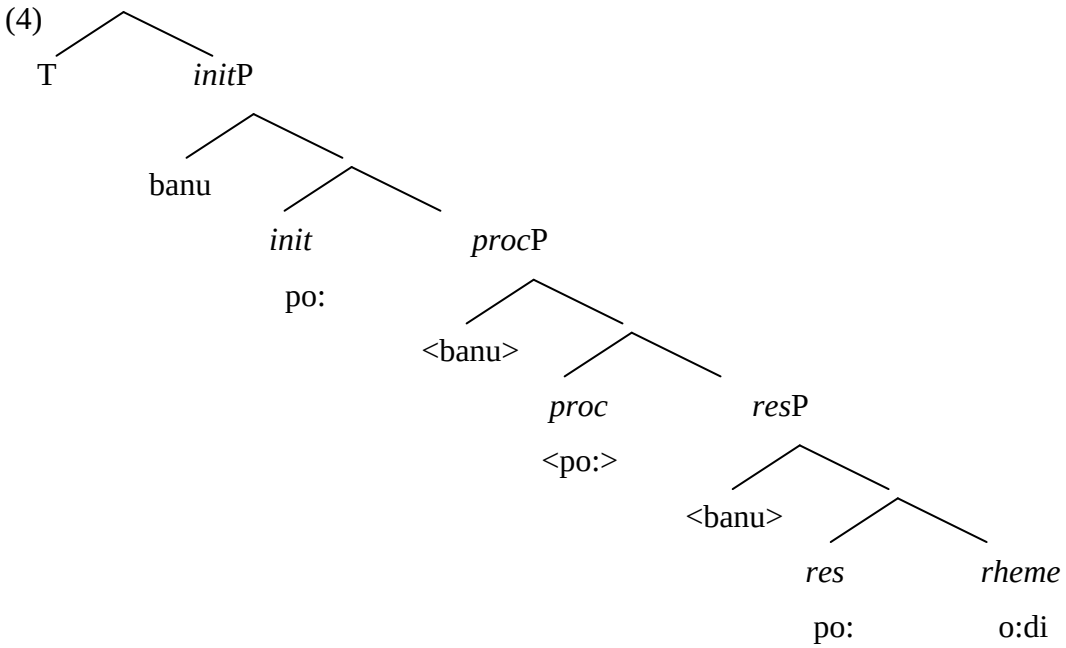
According to SP, the V1 *o:di* would occupy *init* and *proc* head by leaving the *res* head unspecified. As a result, the V2 *po:* would occupy the *res* head by underassociating its *proc* and *res* features. The corresponding event structure, which is merged with the tense projection, is given below,



In this structure, the nearest verb to T is V1 *o:di,* making it impossible for the V2 *po:* to bear tense inflection. This poses a problem to the SP analysis that governs the position of V1 and V2. I will call this problem the 'Tense problem'. Similarly, the structure in (3) yields a linear word-order, where *po:* precedes *o:di* contrary to the actual word-order, where *o:di* precedes *po:* (as in (2)). This again poses a problem to the SP analysis. I will call this problem the 'Word-order problem'.

Before attempting to propose solutions to these problems, it is imperative to establish that (2) is not an adjunct, because an adjunct analysis, unlike SP analysis, would not encounter the tense and word-order problems. In order to prove that sentence in (2) is not an adjunct, let us wrongly assume that it is an adjunct, where V1 (*o:di*) plays the role of an adverbial adjunct in modifying and giving manner attributes to V2 (po:). In terms of first phase syntax, the adjunct would occupy the *rheme* position. Thus V1 occupies the *rheme* position and V2 occupies the *init, proc* and *res* position in the event structure as shown in (4). In this structure, the nearest verb to T is V2, which makes it the bearer of tense inflection. Similarly, in terms of linear word-order, V1 would precede V2. As a result, there is no tense and word-order problem if we consider the motion event verbal sequence as an adjunct.

(4)



Although the structure in (4) does not encounter tense and word-order problem, I assume that the fundamental assumption behind this structure that considers the motion event verbal sequence as an adjunct is not the right one. This can be proved by comparing the word-order of V1 *o:di* with the genuine modifier adverb *vekama:ka* 'fast'. As shown in (5) & (6), the adverb *vekama:ka* 'fast' exhibits free word-order compared to the fixed word-order of V1 *o:di.*

(5) a. banu ve:kamaka po:-n-a:l
banu fast go-PST-3SG.F
'Banu went fast'

b. ve:kamaka banu po:-n-a:l
fastly banu go-PST-3SG.F
'Banu went fast'

c. banu po:-n-a:l ve:kamaka
banu go-PST-3SG.F fast
'Banu went fast'

(6) a. banu o:di po:-n-a:l
banu run go-PST-3SG.F
'Banu went running'

b. *o:di banu po:-n-a:l
run banu go-PST-3SG.F

c. *banu po:-n-a:l o:di
banu go-PST-3SG.F run

This difference in the word-order proves that (2) is not an adjunct. In addition, the adjunct analysis structure in (4) cannot explain the reason for 'run' type verbs occupying the *rheme* position but not the 'enter' type verbs. Given these reasons, I would assume that SP analysis is in right track except for the tense and word-order problem.

5.2. The solution

The solution to the tense problem becomes apparent once we place things in the broader Minimalist framework (Chomsky 2000, 2001). The *init*P of first phase syntax framework would correspond to *v*P , which constitutes a phase. Similarly, the *init* head, which merges as a head of *init*P, would correspond to little *v*. The corresponding phase is given below,

(7) [$_{initP}$ init [$_{procP}$ proc [$_{resP}$ res PathP]

In accordance with the structure in (3), V1 *o:di* would merge in the structure as *init* and *proc* head and V2 *po:* would merge as *res* head as shown in the structure below,

(8) [$_{initP}$ V1 [$_{procP}$ <V1> [$_{resP}$ V2 PathP]

In this structure, V1 would correspond to little *v* but when it comes to 'big' V, it is not clear which verbal head would correspond to it because there are two verbal heads apart from V1 in (8). The two verbal heads are copy of V1 in the *proc* head position, and V2 in the *res* head position. Here, I would assume that 'big' V can either be the *proc* head or the *res* head depending on which of these two heads does not carry a copy of another head. In (8), the *proc* head is a copy of the *init* head and the *res* head is not a copy of any other head. Therefore, the *res* head would correspond to 'big' V. According to standard assumptions[1], the 'big' V raises

[1] Adger (2002) notes that the movement of big V to little *v* is a type of head movement which is necessary to reconcile with UTAH and the surface word order.

and adjoins to little *v*. In the case of (8), the V2, which corresponds to 'big' V, would move[2] and adjoin to V1, which is in the *init* position (as shown in (9)).

(9) [$_{initP}$ V2 V1 [$_{procP}$ <V1> [$_{resP}$ t_{V2} PathP]

Another standard assumption in the Minimalist framework is the assumption that little *v* contains an uninterpretable tense feature. Adger (2002) refers to the uninterpretable tense feature on little *v* as uninterpretable inflectional feature [*u*Infl]. This feature will enter into AGREE relation when Tense (T) merges into the structure. The interpretable tense feature on T will check and value the uninterpretable inflectional feature on little *v* through the AGREE relation. The corresponding derivation is given in (10), where the uninterpretable inflectional of V1 would enter into AGREE relation with interpretable feature of T and get valued as the 'past'.

(10) a. [$_{initP}$ V2 V1 [$_{procP}$ <V1> [$_{resP}$ V2 PathP]
[*u*Infl]

b. [T [$_{initP}$ V2 V1 [$_{procP}$ <V1> [$_{resP}$ t_{V1} PathP]
[past] [~~*u*Infl.~~ past]

In the final derivation (10b), both V1 and V2 are at equal distance to T because both Vs are part of the same node. Given this, I assume that tense inflection applies not to any particular verb but to the compound of V1 and V2, which ensures that both Vs are interpreted for same tense. Therefore, this account would solve the tense problem. When it comes to the word-order problem, left adjoining V2 to V1 again yields an incorrect linear word order, where V2 precedes the V1. Here, I take a naïve view by assuming that some sort of post-syntactic operation or the PF component of the grammar decides in which linear order the verbs can occur.

[2] In the movement of V2 to V1, the copy of V1, in the *proc* head position would not count as intervening head because of the fact that it is a copy of another head.

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