1. Introduction

In this paper, I follow Pantcheva’s (2009) analysis and argue that Tamil Path expressions that are encoded by the case markers can be explained elegantly through Nanosyntax theory. And the appearance of dative case to encode Goal in Tamil poses a problem to the theory and I approach this problem by appealing to the syncretic nature of dative case in Tamil which encodes both ‘to’ and ‘towards’ meaning. The paper is structured as follows: In Section 2, I will introduce the Path expression analysis as proposed by Pantcheva and in Section 3, I will deal with the Tamil Path expressions and in Section 4, I will deal with Nanosyntax framework and the problem posed by the data to the theory. In Section 5 & 6, I give an account of possible solution to the problem by appealing to syncretic nature of dative case and the Section 7 is the conclusion.

2. Pantcheva’s Path Expression Analysis

Pantcheva (2009) discusses four main types of universally available paths and they are given below,

*Goal path:* It is a path where a certain locative condition applies to its end-point like the house in Mary ran into the house.
Source path:* It is a path where a certain locative condition applies to its starting-point like the field in Mary ran out of the field.
*Route path:* It is a path where a certain locative condition applies to its middle-point like the house in Mary ran past the house.
*Place:* It relates to some location in the given path like in the house or at the field.

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1 Jackendoff (1983) proposes that path expression consists of two components namely Path function and Place function, where Path function takes Place function as its argument and Pantcheva follows this analysis for the structure in (1)
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) and each Path corresponds to unique sequence of these heads as shown in the structure (1) and the intuitive idea behind this structure is that an NP can move within this invariant sequence in order to spell-out and this NP movement is in accordance with the parameters that are controlled by the material stored in the lexicon.

(1)

3. Tamil Path Expressions

In Tamil, the path expressions are encoded by the following,

*Place:* The locative case suffix *-le* encodes the spatial location as shown in the example (2)

(2) mani vitt-le iru-nt-a:n
    mani house-LOC be-PST-3SG.M
    ‘Mani was in the house.’

*Goal:* The dative case suffix *-ukku* encodes Goal path as shown in the example (3)

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

*Source:* The ablative case *iruntu* encodes the Source path expression, as shown in example (4), but unlike Place and Goal, it is not a bound form but occurs as separate independent lexical category P.

(4) mani vitt-le iruntu po:-n-a:n
    mani house-LOC from go-PST-3SG.M
    ‘Mani went from the house.’
**Route:** The Route expression in Tamil cannot be expressed by suffixal form nor by lexical P and it is usually expressed by noun compounding\(^2\) as shown in the example (5).

(5) mani vitt valiya po:-n-a:n
mani house way go-PST-3SG.M
‘Mani went via house.’

I leave out the Route expression analysis in our further discussion as it involves no specific case marker and concentrate on other types of path. The case form that represents Place, Goal and Source can be summarized as shown in (6),

(6) \(\begin{array}{ccc}
\text{Path} & \text{Case} & \text{form} & \text{pattern} \\
\text{Place} & \text{LOC} & \text{le} & \text{A} \\
\text{Goal} & \text{DAT} & \text{ukku} & \text{B} \\
\text{Source} & \text{LOC+ABL} & \text{le+iruntu} & \text{A+C}
\end{array}\)

4. Nanosyntax Theory

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, pp.1) and the main assumptions of nanosyntax are summarized below,

a. The terminal nodes of syntactic structure are sub-morphemic.

b. Most morphemes will span several terminals and will therefore correspond to an entire subtree.

c. Syntax is entirely pre-lexical and the lexicon is a way of interpreting syntax.

d. Lexical items are supersets, i.e. the lexical items may have more number of features than the features in the terminal node of syntax.

e. Spanning is a type of spell out mechanism. A lexical item is said to span a syntactic structure if it corresponds to a continuous sequence in that structure.

\(^2\) Noun compounding is mentioned in the sense two independent noun vitt ‘house’ and valiya ‘way’ forming endocentric compound noun. Another argument would be to consider valiya 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.
4.1. Lexicalization of Tamil Path Expressions

Lexicalization is a process by which the lexical items stored in the lexicon would be able to interpret the syntax and each of these lexical items would have three components and they are phonological feature, syntactic structure and conceptual information. These lexical items are supersets and the spell-out happens if their (sub)features matches with the features of syntax (guided by Minimize Junk principle). Given these features, let us assume the lexical entry for each case markers stored in the lexicon as the following,

(8) Locative suffix:
\[
\text{le} \leftrightarrow \langle /le/, \text{PlaceP} \rangle \\
\text{Place}
\]

(9) Goal suffix:
\[
\text{ukku} \leftrightarrow \langle /ukku/, \text{GoalP} \rangle \\
\text{Goal} \quad \text{PlaceP} \\
\text{Place}
\]

(10) Source suffix:
\[
\text{iruntu} \leftrightarrow \langle /iruntu/, \text{SourceP} \rangle \\
\text{Source}
\]
With these lexical entry stored in the lexicon, syntax proceeds in the derivation as shown in (11), where the Place lexical entry in (8) would move the given NP to the position A to lexicalize Place and the Goal lexical entry in (9) would move the NP to the position B to lexicalize Goal.

(11)

Finally, to lexicalize Source, the lexical entry in (10) would move the whole Goal constituent to the position C as shown in the structure (12) below,

(12)

The problem becomes acute in the lexicalization of Source. The Source expression comes with the overt locative suffix -le along with the ablative suffix -iruntu but whereas the movement of Goal constituent structure to the position C (as in (12)) would yield a spell-out where the overt Goal suffix -ukku occurring along with the ablative suffix -iruntu and this poses a problem to the theory. Note that this problem is unique to the A B A+C pattern and we wouldn’t expect such problem in the cases of A A A+C, ABB, ABC or A A+B A+C
pattern. I will keep the solution to this problem as the climax of the paper and now let us see the same problem from the light of Tamil AxPart\(^3\) construction which also involves path expression.

### 4.2. Tamil AxPart Construction

Tamil AxPart constructions involves postposition and these postpositions are mostly derived from the nouns and the locative case marker `-le` forms a part of these postpositions as shown in the set below,


Noun typically takes a dative case when it occurs along with these postpositions. The following AxPart example (13.a) and (13.b) express Place and Goal meaning and (14) gives the Source meaning respectively.

(13) a. mani vitt-ukku ul-le tu:ngi-n-a:n
    mani house-DAT inside-LOC sleep-PST-3SG.M
    ‘Mani slept inside the house.’ (Place)

b. mani vitt-ukku ul-le po:-n-a:n
    mani house-DAT inside-LOC go-PST-3SG.M
    ‘Mani went inside the house.’ (Goal)

(14) mani vitt-ukku ul-le iruntu po:-n-a:n
    mani house-DAT inside-LOC from go-PST-3SG.M
    ‘Mani went from inside the house.’ (Source)

If we abstract just the PP from the above example (13) and (14), then we get the following pattern,

<table>
<thead>
<tr>
<th>Path</th>
<th>Postpositionphrase</th>
<th>pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place</td>
<td>NP-DAT inside-LOC</td>
<td>A</td>
</tr>
<tr>
<td>Goal</td>
<td>NP-DAT inside-LOC</td>
<td>A</td>
</tr>
<tr>
<td>Source</td>
<td>NP-DAT inside-LOC+ABL</td>
<td>A+C</td>
</tr>
</tbody>
</table>

\(^3\) AxPart is mentioned in sense of Svenonious (2006), which are specialized adpositions to express spatial meanings.
There are two things to be noted from (15). The first one is that there is a syncretism between Place and Goal and the second one is that the presence of dative case doesn’t denote Goal but rather it functions as a genitive case in establishing the link between NP and Postposition and there is ample evidence from Malayalam, sister language of Tamil, for the presence of genitive case instead of dative case as shown in the Malayalam examples below,

(16) a. mani  vi:d-inte  ul-il  urang-i
    mani  house-GEN  inside-LOC  sleep-PST
    ‘Mani slept inside the house.’ (Place)
b.  mani  vi:d-inte  ul-il  po:-yi
    mani  house-GEN  inside-LOC  go-PST
    ‘Mani went inside the house.’ (Goal)

(17) mani  vi:d-inte  ul-il  ninnu  po:-yi
    mani  house-GEN  inside-LOC  from    go-PST
    ‘Mani went from inside the house.’ (Source)

Now if we compare the pattern in (15) (repeated as (18.a)) with the pattern in (6) (repeated as (18.b)), we find that there is a mismatch in the case form that represents Goal.

(18) a.  Path   Postposition phrase  pattern
       Place   NP-DAT inside-LOC  A
       Goal    NP-DAT inside-LOC  A
       Source  NP-DAT inside-LOC+ABL  A+C

b.  Path   Case   form  pattern
    Place   LOC    le   A
    Goal    DAT    ukkü   B
    Source  LOC+ABL    le+iruntu   A+C

What is interesting in this mismatch is that it has again to do with the dative case appearing instead of locative case in (18) which is similar to the occurrence of dative case instead of genitive case in the AxPart constructions (13) and (14).
5. An alternative analysis

Now taking cue from Tamil AxPart construction, I propose that there is a syncretism between Place and Goal both in the cases of expression that involve AxPart and those that do not involve AxPart and this form is to be represented as *le* and the path expression pattern is uniformly A A A+C. Again the evidence for this syncretism pattern comes from Malayalam, where the presence of locative case indicates both Place and Goal as shown in the examples below,

(19) a. njaːn viːd-il aːŋu
    1SG house-LOC be-PRS
    ‘I am in the house.’ (Place)

   b. njaːn viːd-il poːk-unnu
    1SG house-LOC go-PRS
    ‘I am going to the house.’ (Goal)

And the presence of dative case in Tamil (as in (3) repeated as (20) below) is due to some special function X.

(20) mani vitt-ukku poː-n-aːn
    mani house-DAT go-PST-3SG.M
    ‘Mani went to the house.’

Avoiding this X question for the moment, I assume that the lexical entries for other types of paths would be the following,

(21) Locative and Goal suffix:
    le ⇔ < /le/, GoalP, >
      Goal
    le ⇔ < /le/, GoalP, >
      PlaceP
      |  
      Place

(22) Source suffix:
    iruntu ⇔ < /iruntu/, SourceP, >
      Source
Now with these lexical entries stored in the lexicon, the derivation would proceed in the syntax as shown in (23), where the lexical entry in (21) would move the NP to the position A to lexicalize Place and the same lexical entry would again move the NP to the position B to lexicalize Goal and the lexical entry in (22) would pied-pipe the whole constituent to the position C in order to lexicalize Source (as shown in (24)).

Note that in this pied-piping movement NP remains a part of a constituent and the Goal structure that has been already lexicalized is the overt locative case marker *-le* not the dative case marker *-ukku*. Therefore the pied-piping would result in a structure where NP followed by locative case which is again followed by ablative case. This would account for the example of the type (4) and (14).
6. What Exactly is this X and Where does it Come in the Structure?

I had argued so far that the presence of dative case in a Goal path expression involves an additional function X and this additional function X becomes clearer once we take into account of following Malayalam example, where the presence of locative suffix in (25.a) gives the meaning ‘to the house’ and the presence of locative and dative suffix in (25.b) gives the meaning ‘towards the house’

(25) a. nja:n vi:d-il po:k-unnu
    1SG house-LOC go-PRS
    ‘I am going to the house.’

   b. nja:n vi:d-il(e)-kku po:k-unnu
    1SG house-LOC-DAT go-PRS
    ‘I am going towards the house.’

Pantcheva (2011) considers ‘towards’ type of path as non-transitional path because the locative condition specified by the Place does not apply at a particular point in a path. Another independent evidence to show that dative case in Tamil encodes a non-transitional path ‘towards’ comes from the example (26), where the durative time adverbial oru mani neramma ‘for one hour’ can go with the dative encoded path giving an activity interpretation rather than accomplishment interpretation, which clearly shows that dative case involves an additional function as that of non-transitional path.

(26) mani oru mani neram-a vitt-ukku o:di-n-a:n
    mani one hour time-for house-DAT run-PST-3SG.M
    ‘Mani ran towards the house for an hour.’

Given this argument, now we can deduce that dative case suffix is non-transitional Goal path head and it takes transitional Goal Path as its complement in Tamil and Malayalam. The lexical entry for the dative case is given in (27) where ‘Scale’ is the term used by Pantcheva to denote non-transitional Path head. And in order to lexicalize this non-transitional Goal path expression, syntax would proceed in the derivation as shown in (28), where the lexical entry in (27) would move the NP to the position C and there by the structure ScaleP gets lexicalized.
7. Conclusion

To summarize the discussion, I proposed that the presence of dative case in the expression that involves Goal path is due to the presence of additional function X, which is the non-transitional Path and I have also argued that path expression pattern in Tamil is uniformly A A A+C pattern both in the construction that involves AxPart and those which do not. And this A A A+C pattern is an expected pattern in nanosyntax theory.

One caveat is in order here: The dative case syncretism, discussed in the section 5, could solve just one part of the problem of the theory in explaining the mismatch of the Goal path expression between (18.a) and (18.b) and the other part of the problem, which is bigger than this mismatch problem lies in the lexical entry assumed in (21) (repeated as (29) below).

(29) Locative and Goal suffix:

\[ \text{le} \leftrightarrow \langle \text{/le/}, \text{GoalP}, \rangle \]

\[
\begin{aligned}
\text{Goal} & \quad \text{PlaceP} \\
\text{Place} &
\end{aligned}
\]
What this lexical entry essentially suggest is that there is a syncretism between Place and Goal, which is encoded by the locative case but the possibility of locative case encoding the Goal path is possible only in the case of postposition 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 lexicalization remains unsolved at the moment.

References: