The Argument Structure of Verbal Alternations in Tamil[1]

Sandhya Sundaresan
University of Pennsylvania

1   Introduction

An important debate concerning alternations in ditransitive structures is whether the two alternants are derived transformationally from a single argument structure (Larson 1988, Baker 1988) or are associated with two distinct argument structures (Marantz 1993, Harley 2002, Miyagawa and Tsujioka 2004, Anagnostopoulou 2003, 2005). In this paper, I investigate the argument structure of Tamil GOAL and BENEFICIARY ditransitives and offer further support for a non-derivational treatment. Specifically, I show that there is a systematic semantic alternation in goal and benefactive ditransitives in Tamil which corresponds to alternations between double-object and *for/to*-PP structures in English (Oehrle 1976, Harley 2002) and other languages[2]. In the double-object alternant, I propose that the oblique argument is introduced by an applicative head whereas, in the *for/to*-PP, it is contained within a P phrase which is a direct complement of the verb (Marantz 1993, Pylkkänen 2002). Finally, I show that the oblique argument introducing applicative in Tamil occurs low and not high (in the sense of Pylkkänen 2002).

2   Verbal alternations in Tamil

Before investigating benefactive and dative alternations in detail, I present a brief excursus on the *kku* marker, which is one of the ways to mark the oblique argument in these alternations. The *kku* marker can occur in a diverse range of contexts: in addition to occurring in ditransitive structures, it can mark purpose, a point in time, proportion, spatial reference, and experiencers - one of these contexts is shown below:

(1)   raman   paṇatt-ukku veelai-senjān (Marking purpose)
      raman.NOM money.DAT work-did

      "Raman worked for money." (Raman is working in order to make money)

Based on the widely disparate set of contexts in which *kku* can occur, I propose that *kku* itself is semantically vacuous: it doesn't indicate a particular syntactico-semantics but is a pure case-marker that can be inserted in various contexts. For the present purposes, this means that it could occur in both double-object and *for/to*-PP structures in Tamil. I later present additional evidence confirming this view of *kku* but for now I present all benefactive and dative alternations in more detail.

3   Benefactive alternation in Tamil
3.1   *Patterns of the benefactive alternation*

The benefactive ditransitive can be represented in the following three ways:

(2)   nān   avan-ukkāga sādatt-ai samachēn (**oblique marker:** *ukkāga*)
      I-NOM he-BEN   rice-ACC cooked

      "I cooked him rice/I cooked rice for him."

[2]Note that the terms "double-object structure" and "*for/to*-PP structure" bear very little real meaning in languages with a richer morphophonology than English, where both types of structures might look very similar on the surface and where a "for" or "to" preposition might be entirely absent. I use these terms as a cover term for argument structures with a specific argument hierarchy and syntactico-semantics.

(3) nān   avan-ukku sādatt-ai samachu-kuḍu-ttēn (**oblique marker:** *kku* **; applicative** *kuḍu*)
     I-NOM he-DAT   rice-ACC cook-BEN-pst.1sg

     "I cooked him rice/I cooked rice for him."

(4) nān   avan-ukku sādatt-ai samachēn (**oblique marker:** *kku*)
     I-NOM he-DAT   rice-ACC cooked

     "I cooked him rice/I cooked rice for him."

While *ukkāga* and *kku* occur on the oblique argument, *kuḍu* occurs on the verb. Following standard analyses of applicative constructions (Baker 1988, Marantz 1993) I assume that *kuḍu* is an overt applicative morpheme that introduces the indirect object (see Lidz 2002, for a similar analysis for Kannada). The *ukkāga* marker on the oblique argument in (2) is standardly treated in the literature (Lehmann 1989, Sarma 1999) as a postposition that is a combination of the dative marker *kku* and the postposition *aaga*. For the purposes of this paper, I remain agnostic about whether *ukkāga* is itself a P or a case-marker. Finally, the *kku* in (4) is a standard dative case marker, as shown above. Note that it is morphologically present in both *ukkāga* and *kuḍu* sentences[3] [4].

3.2   Evidence for a benefactive alternation
3.2.1   Oehrle-style Effects

(Oehrle 1976) describes systematic semantic differences between double-object and *for*-PP sentences[5]. These can thus be used as a diagnostic for one type of structure vs. another. Below, I describe the differences between double-object and *for*-PP constructions captured under these generalizations and show that *kuḍu* and *ukkāga* constructions differ from each other in the same ways[6].

Recipient interpretation: The double-object construction carries the implication that BENEFICIARY receives THEME. The *for*-PP construction doesn't carry such an implication. Similarly, *kuḍu* sentences have a strong recipient interpretation but *ukkāga* sentences lack such a reading:

(5) raman   tan manaivi-kkāga dosai-yai vāttān aanaa ad-ai tan   ammā-kiṭṭe
     raman-NOM self's wife-UKKĀGA dosa-ACC baked but   it-ACC self's mother--KIṭṭE
     kuḍuttuṭṭān
     gave

     "Raman baked crepes for his wife but gave them to his mother instead."

(6) * raman   tan manaivi-kku   dosai-yai vāttu-kuḍu-ttān   aanaa ad-ai tan
     raman-NOM self wife-UKKĀGA dosa-ACC toast-kuḍu-pst.3sg.masc but   it-ACC self's
     ammā-kiṭṭe   kuḍu-ttuṭṭān
     mother-KIṭṭE gave

     ??"Raman baked his wife crepes but gave them to his mother instead."

Existence of the beneficiary: The double-object construction necessarily implies the existence of the BENEFICIARY but the *for*-PP construction doesn't. Similarly, *kuḍu* sentences imply the existence of the BENEFICIARY but *ukkāga* sentences do not carry such an implication, as shown below:

(7) raman   manaivi-kkāga dosai-yai vāttān ānā avan-ukku innum   kalyāṇamee
     raman-NOM wife-UKKĀGA dosa-ACC baked but he-DAT   marriage still
     āga-le!
     happened-NEG

---

[3]This is itself significant in supporting the view, made earlier, that it is semantically vacuous and can thus, trivially occur in both double-object and *for/to*-PP structures.

[4]For the rest of this paper, I refer to sentences like (3) as *kuḍu* sentences, to sentences like (2) as *ukkāga* sentences, and to sentences like (4) as *kku* sentences.

[5]Actually, a lot of the unique semantic characteristics of double-objects described in Oehrle (1976) only apply to a particular type of double-object structure, namely double-objects with a low applicative structure. See Pylkkänen (2002) for a detailed classification of double-object structures according to applicative hierarchy and semantics. This caveat, however, doesn't affect my analysis for Tamil.

[6]For reasons of space, I indicate only the relevant Tamil examples to explicate the differences.

"Raman baked crepes for the wife but he's actually not yet married!"

(8)   * raman   manaivi-kku dosai-yai   vāttu-kuḍu-ttān ānā   avan-ukku   innum

       raman-NOM self   wife-UKKĀGA dosa-ACC   toast-kuḍu- pst.1sg.masc but

       kalyāṇamee āga-le!

       he-DAT   marriage still happened-NEG

       Int: "Raman baked the wife crepes but he's actually not yet married!"

Beneficiary as possessor/Animacy effects: In the double-object construction, the BENEFICIARY is interpreted as the possessor of the THEME; in other words, the BENEFICIARY is animate. In the *for*-PP construction, the BENEFICIARY is not necessarily a possessor of the THEME, so can be animate or inanimate. In Tamil, *kuḍu* sentences also require the GOAL be a possible possessor; inanimate goals are infelicitous. However, *ukkāga* sentences do not require this; the GOAL can be inanimate or animate. Thus:

(9)   raman   pariccai-kkāga pustagatt-ai vānginaan

       raman.NOM exam-UKKĀGA book-ACC   bought

       "Raman bought the book for the exam."

(10) * raman   pariccai-kku pustagatt-ai vaangi-kuḍu-ttaan

       raman.NOM exam-DAT   book-ACC   buy-KUḌU-pst.sg.masc

       Int: "I bought the book for the exam."

The above data show: *ukkāga* sentences behave just like *for*-PP structures in languages such as English (Oehrle 1976, Harley 2002) and the related Dravidian language, Kannada (Lidz 2002, Lidz and Williams 2005). *kuḍu* sentences, on the other hand, behave like double-objects in these languages. The above data is compatible with the idea that *kku* can alternate between double-object and *for*-PP structures.

3.2.2 Distribution of ukkāga and kuḍu with Levin(1993)'s benefactive verb classes

The following table shows how Tamil ditransitives with *kuḍu* and *ukkāga* behave with verb-classes for English from Levin (1993).

Table 1: Behavior of *ukkāga* and *kuḍu* with Levin (1993)'s verb-classes

VERB TYPE	Alternating verb	*ukkāga*	*kuḍu*
BUILD **verbs**	suḍu (bake)	yes	yes
	kaṭṭu (build)	yes	yes
CREATE **verbs**	tōṇḍu (dig)	yes	yes
Verb Type	**Non-Alternating *for*-PP verb**	*ukkāga*	*kuḍu*
OBTAIN **verbs**	ēttukkoḷ (accept)	yes	no
	kuvi (accumulate)	yes	no
SELECTION **verbs**	terivey (indicate)	yes	no
	tērndeḍu (prefer)	yes	no

The above table shows that *ukkāga* can occur both with alternating and non-alternating *for*-PP verbs; but *kuḍu* can only occur with alternating verbs, not with non-alternating *for*-PP verbs. This is what we expect if *kuḍu* can only occur in double-object structures and *ukkāga* can only occur in *for*-PP structures. Significantly, and though it is not shown in the above table, *kku* can occur both with alternating verbs and with verbs that are classified as only appearing in *for*-PP structures. This is again what we expect if *kku* can appear in both double-object and *for*-PP structures.

3.2.3 More evidence: interaction of kuḍu and ukkāga

If *kuḍu* sentences have a different argument structure from *ukkāga* sentences, then we expect that a single beneficiary can't be associated with both *kuḍu* and *ukkāga*. This is indeed the case:

(11) ?? nān raman-ukkāga   dōsai-yai vāttu-kuḍu-ttēn
      I raman-UKKĀGA dosa-ACC baked-KUḍU-pst.1sg
      "I baked Raman a crepe (for him)."

As for *kku* , it *can* occur with *kuḍu* sentences; this is in fact the standard way to express a *kuḍu* ditransitive. If *kku*, like *ukkāga*, were only able to appear in a *for*-PP structure, this should not be possible.

But in a sentence with multiple beneficiaries, both *kuḍu* and *ukkāga* should theoretically be possible: one beneficiary would be associated with the *kuḍu* argument structure and the other with the *ukkāga* structure. This is also confirmed[7]:

(12) nān raman-ukkāga   seetha-vukku pustagatt-ai vāngi-kuḍu-ttēn
      I raman-UKKĀGA seetha-DAT   book-ACC   buy-KUḍU-pst.1sg
      "I baked Seetha a cake for Raman."

Based on all the above evidence, I propose the following: *kuḍu* sentences occur in double-object structures; *ukkāga* sentences occur in *for*-PP structures.*kku* sentences can occur in both double-object and *for*-PP structures.

3.3 Previous analyses: double-object and for/to-PP structures in Marantz (1993) and Pylkkänen (2002)

Marantz (1993) observes that c-command and semantic asymmetries between applicative constructions and *for/to*-PP constructions in languages like Chicheŵa and other languages systematically mirror asymmetries between double-object and *for/to*-PP sentences , respectively (Barss and Lasnik 1986, Oehrle 1976). According to Marantz (1993)'s proposal, double-object and applicative sentences have the same structure. The oblique argument is introduced by an applicative head in both cases. In English, German etc, the applicative head is not overt, whereas in languages like Chicheŵa, they are overt. A *for/to*-PP structure has no applicative head introducing the oblique argument.

Pylkkänen (2002) observes that double-objects don't behave the same across languages. Some double-object structures (e.g. English) have a necessary recipient reading between BENEFICIARY and THEME; others, like Venda don't. Also: Venda-like double-objects can appear with stative and unergative predicates and have depictive secondary modification of the oblique argument; English-like double-objects cannot. According to Pylkkänen (2002)'s proposal, English-like double-objects and Venda-like double-objects differ in where the applicative head attaches in the structure. In the former, they attach low and in the latter, they attach high. All semantic and distributional differences between double-objects crosslinguistically are shown to follow directly from this structural difference.

For *kuḍu* and *ukkāga* sentences, I assume a version of the double-object and *for/to*-PP structures, respectively, proposed in Marantz (1993). For *kuḍu* sentences, I propose a further modification based on a classification of high vs. low applicatives in Pylkkänen (2002).

3.4 Analysis of the Tamil benefactive alternation
3.4.1 Do Tamil benefactives have high or low applicatives?

Depictive secondary predicate modification: Consider the following benefactives with *kuḍu*:

(13) naan   raman-ukku dosai-yai   tūkkamā vāttu-kuḍu-tteen (AGENT depictive)
      I.NOM raman-DAT crepes-ACC tired   bake-KUḍU-tteen
      "*I* baked Raman the crepes *tired*."
(14) naan   raman-ukku sādatt-ai paccaiyā samachu-kuḍutteen (THEME depictive)
      I.NOM raman-DAT rice-ACC raw   cooked-KUḍU-tteen
      "I cooked *the rice raw* for Raman"

---

[7]The details of the overall structure, specifically, how the *ukkāga* structure and *kuḍu* structure are put together needs to be precisified: but what is important for our current purposes is that such a structure should be possible, and it is.

(15) * naan raman-ukku dosai-yai   tūkkamā vāttu-kuḍutteen (BENEFICIARY depictive)
       I.NOM raman-DAT crepes-ACC tired   bake-KUḍU-tteen
       "I baked *Raman* the crepes *tired*"

The above data shows: AGENT and THEME depictives are possible with *kuḍu*. With BENEFICIARY depictives, however, the *kuḍu* structure is strongly ungrammatical. This is one of the diagnostics for a low applicative structure (Pylkkänen 2002) and suggests that *kuḍu* is a low and not a high applicative.

Predicate licensing with statives and unergatives: if *kuḍu* is a low applicative, it should be ungrammatical with statives and unergatives (Pylkkänen 2002). This is also confirmed below:

(16) * nān   raman-ukku ōḍi-kuḍu-ttēn   (Unergatives)
       I.NOM raman-DAT work-KUḍU-tteen
       Int: "I ran for Raman."
(17) * naan   avan-ukku   koḍatt-ai tūkki-kuḍu-tteen   (Statives)
       I.NOM he-UKKĀGA pot-ACC held-KUḍU-PST.1SG
       Int: "I held the pot for him."

Based on tests with depictive predicate modification, predicate licensing with statives and unergatives, and the recipient interpretation of *kuḍu* structures mentioned previously, I propose that *kuḍu* occurs in a low applicative double-object structure; *ukkāga* sentences have the structure of a *for*-PP.

3.4.2 Structural representations for kuḍu, ukkāga and kku benefactives

Structure for *ukkāga* benefactives:

(18) *ukkāga* benefactive (*for*-PP structure)
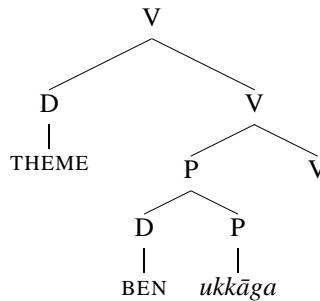
The following points are to be noted concerning the above structure. *ukkāga* + BENEFACTIVE argument is a PP. The oblique argument is not introduced by an applicative head. This is responsible for the systematic semantic differences between *for*-PP and double-object structures (Oehrle's Generalizations) (see Marantz 1993, for a detailed analysis of this distinction).

Although not indicated in the tree above, the *kku* marker is compatible with the above structure. I propose that it attaches to the BENEFICIARY DP within the P projection which has a null P head.

Now I present the structure for *kuḍu* ditransitives:

(19) *kuḍu*-benefactive: low-applicative double-object structure
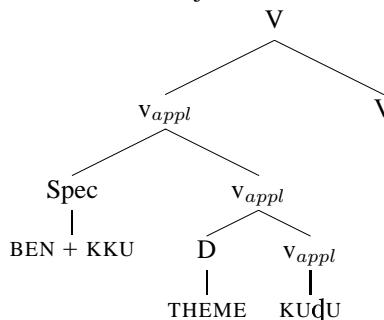
The indirect object is introduced by an applicative head which is spelled-out as *kuḍu* during the course of the derivation. I assume that the *kuḍu* raises from v_{appl} to V in a case of head movement and incorporates with the verb (Baker 1988, Marantz 1993). The systematic differences between *kuḍu*-benefactives and *ukkāga*-benefactives noted above are directly related to the presence of the applicative head in this structure and the lack of such an applicative head in the *ukkāga* structure. Other distinctions, such as the recipient interpretation, animacy effects, implying the existence of a beneficiary and so on, in *kuḍu* ditransitives, are directly related to the semantics of the applicative head, specifically to its properties as a low applicative head. The *kku* marker is also compatible with the double-object structure above. I propose that *kku* attaches to the BENEFICIARY argument as above; however, the applicative head is not overtly realized.

I now move on to the dative alternation in Tamil and show that here too, there is evidence for two distinct argument structures.

4   Dative alternation in Tamil

4.1   Patterns of the dative alternation

Tamil has two morphosyntactic ways of representing the GOAL ditransitive:

(20)   Goal ditransitive

    a.   nān   raman-ukku korenday-ai kuḍuttēn
        I-NOM raman-DAT book-ACC   gave

        "I gave Raman the book"/ "I gave the book to Raman"

    b.   nān   raman-kiṭṭe korenday-ai kuḍuttēn
        I-NOM raman-KIṭṭE book-ACC   sent

        "I gave Raman the book"/"I gave the book to Raman"

kku **marker** : as described earlier, the -*kku* marker is considered a standard dative case-marker in Tamil (Lehmann 1989) and can appear in a wide range of contexts.

kiṭṭe **marker** : The postposition *kiṭṭe* is normally treated as a locative postposition (Lehmann 1989, Schiffman 1995).

4.2   Evidence for a dative alternation in Tamil

4.2.1   Evidence from Levin's verb classes

The following table shows the behavior of *kiṭṭe* and *kku* with English verb-classes from Levin (1993)[8]. Crucially, we see that *kiṭṭe* doesn't occur with any of the double-object verbs. It is important to note that *kku is* allowed with non-alternating double-object verbs, with or without the applicative *kuḍu* .

Behavior of *kiṭṭe* and *kku* with Levin (1993)'s verb-classes

VERB TYPE	Alternating verb	kiṭṭe	kku
GIVE **verbs**	kuḍu (give)	yes	yes
	viyyu (sell)	yes	yes
Verb Type	**Non-Alternating *to*-PP verb**	**kiṭṭe**	**kku**
MANNER OF SPEAKING **verbs**	monagu (moan)	yes	yes
	alaru (hoot)	yes	yes
Verb Type	**Non-Alternating double-object verb**	**kiṭṭe**	**kku**
Misc. verbs	maru (deny)	no	yes
	nīkku (forbid)	no	yes

The data from the above table is compatible with the idea that *kiṭṭe* occurs in *to*-PP structures and that *kku* can alternate between double-object and *to*-PP structures.

---

[8]For a full list of verb classes in Tamil, see Sundaresan (2006).

4.2.2 Evidence for different hierarchical positions of kku DPs

Evidence that *kku* can occur high: experiencer subject constructions Verbs that occur in experiencer constructions have been argued to have applicative structures in languages like Icelandic and German (McFadden 2004, McIntyre to appear, and others). In Tamil, experiencers can only be marked with *kku* and never with *kiṭṭe*, as shown in the following sentences:

(21)　raman-ukku/*-kiṭṭe koovam　　vandudu
　　　 raman-DAT　　　 anger.NOM came
　　　 "Raman became angry."

Independent subjecthood tests such as binding of the reflexive[9] show that such experiencers are subjects, as shown below:

(22)　raman-ukku$_i$ tann-ōḍa$_i$ pudu vīṭṭ-ai　　puḍichudu
　　　 raman-DAT　 self-GEN　 new　house-ACC pleased
　　　 "Raman$_i$ liked his$_i$ new house."

The above evidence shows that *kku* datives can occur high in the structure and are hierarchically above other arguments in the structure. *kiṭṭe* DPs are crucially not allowed in this high position. In the following section, I present more evidence that suggests that *kku* can also appear low - in *to*-PP structures.

4.2.3 More evidence from verb classes

Below, I present evidence that shows that *kiṭṭe* and *kku* behave like the English preposition *to*. First, verbs denoting instant causation of motion (e.g. *throw*), unlike verbs of continuous causation of motion by an external agent (e.g. *pull*) are only licit in *to*-dative structures in English (Pesetsky 1995) (thus: "I pushed the truck to John" but *"I pushed John the trunk"). This same distinction is also found in Tamil. Note that both *kiṭṭe* and *kku* are felicitous:

(23)　seetha　　　 raman-kiṭṭe poṭṭi-yai taḷḷinā
　　　 seetha-NOM raman-KIṭṭE trunk　　 pushed
　　　 "Seetha pushed the trunk to Raman"
(24)　seetha　　　 vīṭṭu-kku poṭṭi-yai　taḷḷinā
　　　 seetha-NOM house-DAT trunk-ACC pushed
　　　 "Seetha pushed the trunk to the house."

Second, English *to*-PPs can create accomplishments by combining with activity verbs. This is also true with Tamil *kiṭṭe*. This is shown below:

(25)　* raman　　　 oru maṇṇarattu-le naḍandān
　　　 raman-NOM one hour-LOC　　 walked
　　　 Raman walked in an hour.
(26)　raman　　　 en-kiṭṭe　oru maṇṇarattu-le naḍandān (with *kiṭṭe*)
　　　 raman-NOM me-KIṭṭE one hour-LOC　　 walked
　　　 "Raman walked to me in an hour."
(27)　raman　　　 vīṭṭ-ukku　oru maṇṇarattu-le naḍandān (with *kku*)
　　　 raman-NOM house-DAT one hour-LOC　　 walked
　　　 "Raman walked to the house in an hour."

The above examples clearly support the idea that *kiṭṭe* is like the English preposition "to". That *kku* can also occur in such sentences is hardly surprising, is indeed to be expected, given my claim that it can alternate between *to*-PP and double-object structures.

Based on the evidence, presented above, with verb classes, experiencer subject constructions, and the similarity of the behavior of *kiṭṭe* (and also *kku*) to the English preposition *to*, I propose that *kiṭṭe*

---

[9]Reflexive binding in Tamil is purely subject-oriented.

occurs in *to*-dative structures with a locative semantics, and that *kku* can occur in both high and low positions: that is, it can occur in both double-object and *to*-PP structures. Below, I present the details of the structures for *kiṭṭe* and *kku* .

4.3 Structures for *kiṭṭe* and *kku*

Based on the above evidence, I present the following structures for *kiṭṭe* and *kku* ditransitives. As with benefactive ditransitives, I assume that double-objects and *to*-PPs have the structures in Marantz (1993). The structure for *kiṭṭe* and ditransitives is as follows:

(28) *kiṭṭe*/*kku* ditransitive;
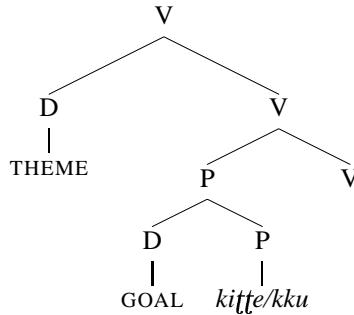
The following points are observed with respect to the above structure. First, the GOAL + *kiṭṭe* /*kku* is in a P phrase. The idea that the GOAL can occur either with *kiṭṭe* or *kku* reflects the proposal, made here, that *kku* can occur in both *to*-dative and double-object structures. Second, the GOAL is not introduced by an applicative head; but is contained within a P phrase which is the direct complement of the verb. The lack of an applicative above is one of the main differences between *kiṭṭe* and *kku* double-object structures. Third, the THEME asymmetrically c-commands the GOAL, reflecting the idea of asymmetric c-command relations between THEME and GOAL in *to*-PP structures crosslinguistically (Barss and Lasnik 1986, Larson 1988, Marantz 1993).

The structure of *kku* in double-objects is as follows:

(29) *kku* double-objects (introduced by a null applicative):
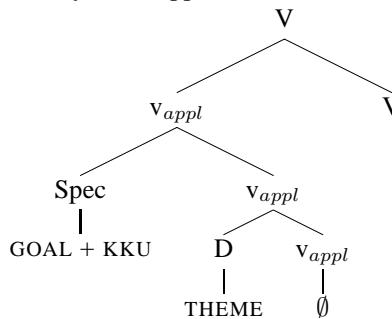
The GOAL argument in the structure above is introduced by a v_{appl} head. Unlike in benefactive ditransitives where there's an overt applicative *kuḍu* , this applicative is non-overt. Second, the applicative in this structure is a low applicative. The recipient-like interpretation of double-objects with *kku* is directly due to the presence of the applicative and the fact that it occurs low. Other semantic restrictions such as the animacy of the GOAL in double-object structures also follow from the semantics of the applicative introducing the GOAL and the nature of its semantic composition with the THEME, GOAL and the verb (Pylkkänen 2002). Finally, the GOAL asymmetrically c-commands the THEME, thus accounting for c-command asymmetries in ditransitives (Barss and Lasnik 1986), noted above.

5 Conclusion

In this paper, I have shown the following. First, I have shown that there is a systematic dative and benefactive alternation in Tamil ditransitives. The argument structure for one alternant is a double-object

structure with an applicative head introducing the oblique argument. This applicative is low and not high. The argument structure for the other alternant is that of a *for/to*-PP. Here, the oblique argument is contained within a P phrase which is a direct complement of the verb. This paper thus provides argument structures for benefactive and dative ditransitives in Tamil and, in doing so, provides additional support for a non-derivational treatment of verbal alternations crosslinguistically.

Several points need to be clarified and further developed. For instance, it is crucial to understand the nature of scrambling in Tamil so that it is possible to disambiguate surface order from the base order and perform hierarchical tests such as binding and Weak Crossover tests to further confirm our proposal here. It would also be interesting to investigate the argument structures for other types of verbal alternations in Tamil (e.g. causative alternation) to see whether a non-derivational treatment is viable for them. These are issues for future research.

References

Anagnostopoulou, Elena (2003). *The Syntax of Ditransitives: Evidence from Clitics*. Berlin: Mouton de Gruyter.

Anagnostopoulou, Elena (2005). Cross-linguistic and cross-categorial variation of datives. In *Advances in Greek Generative Syntax*. Amsterdam: John Benjamins, pages 61–126.

Baker, M.C. (1988). *Incorporation: a Theory of Grammatical Function Changing*. Chicago, IL: University of Chicago Press.

Barss, Andrew and Howard Lasnik (1986). A note on anaphora and double objects. *Linguistic Inquiry* 17:347–354.

Harley, Heidi (2002). Possession and the double object construction. *Linguistic Variation Yearbook* 2:29–68.

Larson, Richard (1988). On the double object construction. *Linguistic Inquiry* 19(3):335–391.

Lehmann, Thomas (1989). *A Grammar of modern Tamil*. Pondicherry Institute of Linguistics and Culture.

Levin, Beth (1993). *English verb classes and alternations*. Chicago: The University of Chicago Press.

Lidz, Jeffrey (2002). Two structures for Kannada ditransitives. Talk presented at SALA 2002.

Lidz, Jeffrey and Alexander Williams (2005). On the absence of reflexive benefactives in Kannada. In Tanmoy Bhattacharya Rajendra Singh, ed., *The Yearbook of South Asian Languages and Linguistics*. Berlin: Mouton de Gruyter, pages 237–254.

Marantz, Alec (1993). Implications of asymmetries in double object constructions. In Sam Mchombo, ed., *Theoretical aspects of Bantu grammar*. Stanford: CSLI Publications.

McFadden, Thomas (2004). *The position of morphological case in the derivation: a study on the syntax-morphology interface*. Ph.D. thesis, University of Pennsylvania.

McIntyre, Andrew (to appear). German high datives and morphemes meaning have. In Daniel Hole and André Meinunger, eds., *Datives and similar cases*. Amsterdam: John Benjamins.

Miyagawa, Shigeru and Takae Tsujioka (2004). Argument structure and ditransitive verbs in Japanese. *Journal of East Asian Linguistics* .

Oehrle, Richard T. (1976). *The grammatical status of the English dative alternation*. Ph.D. thesis, Massachusetts Institute of Technology, Cambridge.

Pesetsky, David (1995). *Zero Syntax: Experiencers and Cascades*. Cambridge, Mass.: MIT Press.

Pylkkänen, Liina (2002). *Introducing Arguments*. Ph.D. thesis, Massachusetts Institute of Technology.

Sarma, Vaijayanthi M. (1999). *Case, Agreement, and Word Order: Issues in the Syntax and Acquisition of Tamil*. Ph.D. thesis, Massachusetts Institute of Technology, Cambridge.

Schiffman, Harold (1995). Online grammar of spoken Tamil.

Sundaresan, Sandhya (2006). *On verbal alternations in Tamil ditransitives*. Master's thesis, University of Pennsylvania, Philadelphia, PA.

Proceedings of the 25th West Coast Conference on Formal Linguistics

edited by Donald Baumer, David Montero, and Michael Scanlon

Cascadilla Proceedings Project   Somerville, MA   2006

Web access and citation information

This entire proceedings can also be viewed on the web at www.lingref.com. Each paper has a unique document # which can be added to citations to facilitate access. The document # should not replace the full citation.

This paper can be cited as:

Sundaresan, Sandhya. 2006. The Argument Structure of Verbal Alternations in Tamil. In *Proceedings of the 25th West Coast Conference on Formal Linguistics*, ed. Donald Baumer, David Montero, and Michael Scanlon, 390-398. Somerville, MA: Cascadilla Proceedings Project.

or:

Sundaresan, Sandhya. 2006. The Argument Structure of Verbal Alternations in Tamil. In *Proceedings of the 25th West Coast Conference on Formal Linguistics*, ed. Donald Baumer, David Montero, and Michael Scanlon, 390-398. Somerville, MA: Cascadilla Proceedings Project. www.lingref.com, document #1472.