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Résumé de l'article

Cet article présente une étude de la sémantique des suffixes dérivationnels
verbaux qui changent de valence en nandi (une langue nilo-saharienne de
l'Afrique de l'Est). Deux cas de polysémie et un cas d'homonymie ont été
trouvés et considérés par rapport à la théorie générale des cas (DeLancey 2000,
Jakobson 1936, 1990) et à la théorie générale de la formation des concepts
(Rosch et Mervis 1996).

THE SEMANTICS OF PARTICIPANT TYPES
IN DERIVED VERBS IN NANDI

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1. Introduction[1]

The Nandi language is spoken in the highlands of western Kenya and belongs to the Nilotic branch of the Nilo-Saharan language family. Its basic word order is VSO with VOS a freely occurring variant. There are two tonally-distinguished cases, nominative and oblique. The former will be identified in transcription with the label (NOM)[2]. All nouns not marked with NOM are oblique-case forms.

(1) a. kè:réy la:kwe:t   te:tà
     see   child+NOM cow
     "The child sees the cow."

   b. kè:réy te:tà   la:kwe:t
     see   cow   child+NOM
     "The child sees the cow."

(2) a. kè:réy la:kwé:t   te:ta
     see   child   cow+NOM
     "The cow sees the child."

   b. kè:réy te:ta   la:kwé:t
     see   cow+NOM child
     "The cow sees the child."

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1 I would like to thank Jane Tapsubei Creider for help with the data dealt with in this paper and Iver Larsen, Doris Payne, Mechthild Reh, and three RQL reviewers for suggestions for its revision.

2 The orthography is phonemic except that an [ATR] distinction among vowels is not indicated. /ng/ and /ny/ are velar and palatal nasals respectively. /n/ before /k/ is velar. Tones are /á/ high, /â/ high-falling, /à/ low-falling, /a/ (unmarked) low. See Creider and Creider 1989 for additional details.

Nouns are inflected for number. Verbs are inflected for subject (generally only non-3rd person), object, negation, tense (3 degrees of past tense), mood and aspect (perfective/imperfective). Verbal derivation is a typical feature of the languages of East Africa. Although perhaps best known in the Bantu languages, it is also found in many, if not most, of the Nilotic languages. Nandi (Southern Nilotic) is not an exception, and there exist derived verbs of Ventive, Itive, Dative, Instrumental, Stative, Associative, Reciprocal, Causative, Detransitive, etc. types. As the names imply, these processes are associated with semantic (e.g. directional) and grammatical (valency-changing) meanings. What the names do not imply, however, is the multifunctionality and polysemy/homonymy of verbs derived with a given element. For example, the Instrumental is often found with a valency-changing role which cannot possibly be instrumental, and the Itive sometimes has a comitative meaning[3]. I have never forgotten the first time I experienced the shock that comes when a totally unexpected meaning appears out of nowhere. In this case the morpheme /-ta/ had been entirely associated in my experience with the sense 'Motion away' (see 4.1 below) when I encountered the following example of a totally different sense:

(3) a. ke:-ám
         INF-eat
         "to eat"

     b. am   kímyé:t
         eat   polenta
         "Eat polenta!"

     c. ke:-am-ta   kímye:t   ínkwê:k
         INF-eat-ITV polenta   vegetables
         "to eat polenta with vegetables"

In this paper I shall look in detail at the semantics associated with verbs formed by means of three derivational suffixes. All three can result in the addition of a single argument to the argument structure of a verb. As labels I shall use initially the traditional terms used in Creider and Creider 1989, Rottland 1982, Tucker 1964, and Tucker and Bryan 1966. Sometimes as well it will be convenient to refer to the morphemes by their shapes. It should be understood that these are fairly abstract representations. An additional goal will be to investigate the implications that this semantics has for the classification of semantic participant types or roles. The three suffixes are:

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3 Terms with an initial upper-case letter, e.g. "Instrumental", are labels for derived verb types. Terms entirely in lower-case, e.g. "instrumental", are concepts.

(4)   Dative /-ci/
      Instrumental /-e:/
      Itive /-ta/ [4]

2. Dative /-ci/

2.1 Dative proper

The first class of meanings to consider may be termed instances of what in traditional grammar is termed the 'dative proper'. "The dative proper denotes that to or for which something is or is done." (Smyth 1956: 338).

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4 To the best of my knowledge this is the first time that such an investigation has been undertaken for any Nilotic language. I would like to emphasize the productivity of these derivational processes: all meanings illustrated in this paper occur with many other verbal roots (see Creider and Creider 2001 for additional examples). At the same time, although it is too far afield from the main topic of this article to discuss in detail, I wish to claim that these derived verbs are separate, although related, lexical items with respect to corresponding underived verbs. In support of that claim, here are some examples of very idiomatic usages of the suffixes. If the suffixes were available only for combinatorial use, then these frozen meanings would presumably not develop (in the same way that inflections do not generally develop idiosyncratic, unpredictable meanings when combined with specific lexical items):

(i)   a.   ke:-nam-cí   b.   ke:-nam-ci   kà:t
           INF-hold-DAT   INF-hold-DAT   neck
           "to hold close to"   "to spoil"

      c.   kí:-ko-nam-ci   kà:t   la:kô:k
           PAST3-3-hold-DAT   neck   children
           "(S/he) spoiled the children."

(ii) a.   ke:-tep-é: b.   ke:-tep-e: kò
           INF-sit-INST   INF-sit-INST   home
           "to sit on"   "to have a baby"

      c.   kó:-tâ-ko-tep-é: kâ:t
           PAST2-JUST-3-sit-INST   house
           "(She's) recently given birth."

(iii) a.   ke:-(y)áy   b.   ke:-ay-tà
           INF-do   INF-do-ITV
           "to do"   "to sleep with"

      c.   kó:-ay-ta   kè:y   pi:c-à:
           PAST2-do-ITV refl   people-those
           "Those people slept together."

(5) a. ki:-ka:-cì
   INF-give-DAT
   "to give to, dedicate, grant"

   b. mé:-ka:-cín   cî:
   NEG-give-DAT   person
   "(S/he) doesn't give (it) to anyone."

(6) a. ké:-le   nè:
   PAST1+2SG-say   what
   "What did you say?"

   b. ká:-lé:n-cí:n   ib-ú: kikô:mpé:t
   PAST1+1SG-say-DAT   bring-VENT   cup
   "I said to you to bring the cup."

Benefactives are very typical instances:

(7) a. íu:ni   sà:ni:syèk   la:ko:k
   wash   plates   children+NOM
   "The children are washing the plates."

   b. ma-kí:-u:n-cin   e:y   múren
   NEG-IMP.PASS-wash-DAT   hand   man
   "No one can wash the hand for a man (a man is never grateful)."

Malefactives also occur:

(8)   ka-rér-cí   ce:ka   cesí:lû:t
   PAST1-be scarce-DAT   milk   Jesilut (woman's name)
   "The milk has run out on Jesilut."

2.2 Locative dative

Note that in the previous examples, the 'indirect object' or 'benefactee' was human. In the following examples, the added valent is semantically a location:

(9) a. kó:-ko-lìs   ci:ta
   PAST2-3-vanish   person+NOM
   "The person has vanished."

   b. ká:-ko-lís-cí   ci:ta   aynâ:-ni
   PAST1-3-vanish-DAT   person+NOM   river-this
   "The person has vanished at this river."

(10) a. imomô: la:kwé:t   sí   ma-ngè:t
      hold   child   so   NEG-waken
      "Hold the child delicately so it doesn't waken."

    b. imomò:-cí: la:kwé:t   kitâ:nta
      hold-DAT   child   bed
      "Put the child gently to bed."

(11) a. ko-pek
      3-be.finished
      "to be finished (of a supply of s.t.)"

    b. ká:-ko-pék-cí   pe:k   kímáî:k
      PAST1-3-be.finish-DAT   finger.millet+NOM   food
      "The flour has been finished on food."

(12) a. ke:-ti:m   kérí:nkê:t
      INF-plug   hole
      "to plug a hole"

    b. ka-tì:m-cí   pa:nté:k   kwinîé:t
      PAST1-plug-DAT   maize   gunny.sack
      "(S/he) stuffed the maize into the gunny sack."

Here is an example where the same verb illustrates both dative proper and locative meanings:

(13) a. ki:-tu
      INF-lower
      "to take down, put down"

    b. itú:-cí   kwe:nìk   ce:pe:t
      put.down-DAT   firewood   Jebet
      "(S/he) is setting the firewood down for Jebet."

    c. ki:-tu:-cì   kwe:n-ìk   ngecerê:t
      INF-put.down-DAT   firewood   chair
      "to set the firewood on the chair"

3. Instrumental /-e:/

3.1 Instrumental proper

The conventional term for derivation with this affix is highly appropriate in a large number of cases:

(14)   ka-tì:m-é: pa:nté:k   kwinîé:t
       PAST1-stuff-INST   maize   gunny.sack
       "(S/he) stuffed the gunny sack with the maize." (cf. 12)

(15)   ke:-si:l-é: pé:k   kikô:mp-é:t
       INF-dip.up-INST   water   cup
       "to dip up water with a cup"

(16) a.   ká:-wí:r   sê:sé:t
          PAST1+1SG-throw   dog
          "I threw.at/hit the dog."

   b.   ká:-wí:r-ê: ké:tít   sê:sé:t
        PAST1+1SG-throw-INST   stick   dog
        "I threw a stick at the dog / I hit the dog with a stick."

(17) a.   ke:-síc
          INF-bear
          "give birth, bear a child"

   b.   ki:-sík-é: la:kwé:t   tá:rá:ytîc
        PAST3-bear-INST   child   Toroitich
        "She had a child by Toroitich (i.e. T. fathered the child)."

3.2 Non-instrumental meanings

In addition to the foregoing clearly instrumental examples, however, there are a very large number of non-instrumental meanings associated with this suffix. In all cases these can be translated with an English preposition.

3.2.1 'from'

(18) a. ka-církwín   tá:lámwé:t
        PAST1-escape   grasshopper+NOM
        "The grasshopper escaped."

   b. ka-cirkwin-ê: tá:lámwé:t   la:kwé:t
        PAST1-escape-INST   grasshopper+NOM   child
        "The grasshopper eluded the child."

3.2.2 'on'

(19) a. ílenkei   inkórye:t
        loose   dress+NOM
        "The dress is loose-fitting."

   b. ílenke-ê: inkórye:t   ce:be:t
        loose-INST   dress+NOM   Jebet
        "The dress is loose on Jebet."

3.2.3 'in'

(20)   um-e: kè:t-í:n
        take.shelter+INST   tree-that
        "Take shelter in that tree!"

3.2.4 'for (the amount of)'

(21) a. ke:-al-tá   la:kwé:t
        INF-buy-ITV   child
        "to sell a child (for food in time of famine)"

   b. ka-ál-ta-ê: kikô:mpé:t   sílíng   sómok
        PAST1.1SG-buy-ITV-INST   cup   shillings   three
        "I sold the cup for three shillings."

3.2.5 'to'

(22) a. ke:-e:t   pé:k
        INF-refuse   water
        "to refuse water"

   b. ke:-e:t-e: pé:k
        INF-refuse-INST   water
        "to refuse water to (s.o.)"

3.2.6 'of, with respect to'

(23) a. â:-ntó:í:
        1SG-lead
        "I'm leading."

   b. ínto:-ê: kípe:t   kipro:no
        lead-INST   Kibet+NOM   Kiprono
        "Kibet is going ahead of Kiprono."

3.2.7 'over'

(24) a. ísyeli   kú:tik
        swarm   maggots+NOM
        "The maggots are swarming."

   b. kó:-ko-syel-é: kâ:tu:tyét a:p   a:rtê:t kú:tik
        PAST2-3-swarm-INST tail   of   sheep   maggots+NOM
        "Maggots have swarmed over the sheep's tail."

3.2.8 'for'

(25) a. rì:réy   la:kwe:t
        cry   child+NOM
        "The child is crying."

   b. rì:r-ê:y   la:kwe:t   mó:ytâ
        cry-INST   child+NOM   calf
        "The child feels sympathy for the calf."

3.2.9 'around'

(26) ki-nere:r-e: ínkoráí:k   kâ:t
      INF-spread-INST clothes   house
      "to spread the clothes around the house"

The following example gives both senses, one a non-instrumental sense of the preposition 'with':

(27) a. ke:-lá:ny   tulwé:t
         INF-climb   mountain
         "to climb the mountain"

   b. ko:n-u   ínká:sît   a-la:ng-e: ké:tît
       give-VEN   ladder   1SG-climb-INST tree
       "Give me the ladder to climb the tree with."

   c. ka-là:ng-é: kirkit   te:tà
       PAST1-climb-INST bull+NOM   cow
       "The bull copulated with (climbed onto) the cow."

This extremely wide range of prepositional senses is perplexing both because of its breadth and because it seems to include the locative prepositional senses found with the Dative suffix and even (25) the dative proper sense. The first phenomenon has a natural and interesting explanation in the diachronic development of the suffix. The /-e:/ suffix is etymologically related to an independent preposition, /e:ng/. Since this is almost the only preposition in the language (/àk/ 'with, and' and /a:p/ 'of' are the only others), it of necessity expresses a large number of senses which are distinguished in English:

(28) ke:-ku:t   ínkwê:k   e:ng teré:t
      INF-scrape vegetables   from pot
      "to scrape the vegetables *from* the pot"

(29) tínyey mo:é:t né   o: e:n kú:tî:t se:se:t
      has   wound   REL large on   mouth   dog+NOM
      "The dog has a large wound *on* the mouth."

(30) mì: inkwe:k   ce:pú:nkû:t e:n tábû:t
      be   vegetables+NOM   pot   in   attic
      "The vegetables are in the pot *in* the attic."

(31)   ímermè:r-u   así:sta   é:n   ke:tí:k
        shine-VEN   sun+NOM   through   trees
        "The sun is shining *through* the trees."

(32)   ki:-nere:r   ínkoráî:k   e:n   kâ:t
        INF-spread   clothes   around   house
        "to spread the clothes *around* the house" (cf. 26)

The preposition may also be used in an instrumental sense, although this usage seems to be more marked:

(33) a. ké:-wí:r   nê: e:ng   koytà?
         PAST1+2SG-throw.at   what   with   stone
         "what did you throw at with the stone?"

    b. ká:-wí:r   sê:s-é:t
        PAST1+1SG-throw.at   dog
        "I threw at a dog"

4. Itive /-ta/

4.1 Itive proper

Verbs derived with this suffix may have a 'thither' directional sense. Its former name was 'Motion away'. Note that the directional use does not change the valency of a verb.

(34) a. ki:-pú:c   kâ:t
         INF-sweep   house
         "to sweep the house"

    b. ké:-pu:k-tá   mákapárú:k
        PAST1-sweep-ITV   rubbish
        "(S/he) swept the rubbish away."

(35)   ká-wi:r-tá   ko:ytà
        PAST1-throw-ITV   stone
        "(S/he) threw away the stone."

In many cases, the Itive contrasts with the Ventive, a suffix with a 'hither' directional component which was formerly known as 'Motion towards'[5].

(36) a. ke:-mang
INF-emerge+VEN
"to emerge, come out of"

b. máng-ú   iyyeta
emerge-VEN   smoke-NOM
"The smoke is coming out."

c. ke:-man-tá
INF-go.out/in-ITV
"to go out (when inside), to go in (when outside)"

d. ke:-man-ta   sà:ng
INF-go.out/in-ITV   outside
"to go outside"

(37) a. ke:-ro:p
INF-divide+VEN
"to divide out amongst, distribute (including speaker)"

b. ko:-kí-ro:p   rapi:ník
PAST2+IMP.PASS-divide+VEN   money
"The money was distributed."

c. ke:-ro:p-tá
INF-divide-ITV
"to distribute (excluding speaker)"

4.2 Comitative Itive

The Itive suffix also occurs as a valency-changing suffix where the added argument is glossed as 'with'. It is unlike a typical comitative because in all cases that I know of the added argument is inanimate. Although certain uses might appear to be instrumental, this is due to the polysemy of English 'with'. None of the following examples have an instrumental participant except those derived with /-e:/.

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5 The abstract shape of this suffix may be given as /-u/, but with infinitives there is only a tonal (and sometimes an [ATR]) contrast to be seen. With verbs which have /ke:-/ infinitival prefixes, the stem vowel tone is low (in contrast to high); with verbs which have a /ki:-/ infinitive, the stem vowel is high toned (in contrast to high-falling tone).

(38) a. ke:-nám
      INF-grasp
      "to grasp, take hold of, hold, seize, catch"

  b. nám   la:kwé:t
      grasp   child
      "Catch the child!"

  c. ke:-nam-tá
      INF-grasp-ITV
      "to hold together with (at same time as), delay together with"

  d. nam-té: sapúryé:t   ínkoryê:t si ma-pé:l-în
      grasp-ITV pot   cloth   so NEG-burn-2SG
      "Hold the pot together with a cloth so it doesn't burn you!"

Compare the instrumental:

(39)   nam-é: sapúryé:t   ínkoryê:t si ma-pé:l-în
      grasp-INST pot   cloth   so NEG-burn-2SG
      "Hold the pot with a cloth so it doesn't burn you!"

(40) a. ki:-ngu
      INF-smell
      "to smell (tr.)"

  b. ki:-ngu:-tà
      INF-smell-ITV
      "to smell (tr.) together with"

  c. iná:k-â: tù:tukin ce:kà a:-ngu:-tá   kímyé:t
      give-1SG little   milk   1SG-smell-ITV polenta
      "Give me a little bit of milk to smell the polenta together with!"

(41) a. ke:-rát   e:í:k
      INF-tie   oxen
      "to yoke oxen"

  b. ke:-rat-ità
      INF-tie-ITV
      "to tie with"

  c. á-rat-ítáí: ni   ná:
      1SG-tie-ITV this   that
      "I'm tying (this) together with that."

(42) ke:-ru-ta   ínkoráî:k
      INF-sleep-ITV   clothes
      "to sleep with clothes on"

(43) a. ilá:c   ínkoryê:t
       wear   dress
       "Wear the dress!"

   b. ma-kí:-la:k-tá:y   ínkor   ce:pu:t
      NEG-IMP.PASS-wear-ITV   garment   caterpillar
      "One doesn't put on a garment with a caterpillar in it."

(44) ke:-am-ta   kímye:t   ínkwê:k
      INF-eat-ITV   polenta   vegetables
      "to eat polenta with vegetables"

5. Analysis and Summary

The vast majority of verbs in Nandi are monovalent or bivalent. Monovalent verbs include both the 'unaccusative type' and the 'unergative type' although these distinctions are not formally marked and both verb types have nominative subjects.

(45) a. ka-ìl   kirókta
       PAST1-break   cane-NOM
       "The cane broke."

   b. lápati kípca:ke   arà:p   kéyno
      run   Kipchoge-NOM   Arap   Keino
      "Kipchoge Arap Keino (famous Nandi runner) is running"

Bivalent verbs include both result type transitives and non-result transitives (Fillmore 1971, DeLancey 2000) but the distinction is again not marked formally.

(46) a. ka-kér   kúrké:t   kípro:no
       PAST1-close   door   Kiprono+NOM
       "Kiprono closed the door"

   b. ker-á:t   kurke:t
      close-PTCPL   door+NOM
      "The door is closed"

c. ka-wì:r   koyta   sè:sé:t
    PAST1-hit   stone-NOM   dog
    "The stone hit the dog"

d. *wi:r-á:t   se:se:t[6]
    hit-PTCPL   dog+NOM
    "The dog is hit"

Most interestingly, trivalent verbs (ditransitives) are almost non-existent. One example has a theme and a locative role (in addition to an agentive role):

(47) ù:ley   kú:t   kímáî:k
     stuff   mouth   food
     "S/he's stuffing food into (his/her) mouth."

In some cases diathetic alternations (Levin 1993) allow the same verb to express more than two roles (although not in the same expression of course):

(48) a. ká:-wi:r   sè:sé:t
         PAST1+1-throw   dog
         "I threw at the dog."

b. ka-wì:r   koyta   sè:sé:t
    PAST1-throw   stone+NOM   dog
    "The stone hit the dog."

But in most cases, resort must be had to derivational suffixation to obtain a trivalent verb. In the classic trivalent verb for English 'give', it is interesting that as expected /-ci/ is used (/ki:ka:-cì/), and there is no underived verb form.

Since the majority of monovalent and bivalent verbs are associated with agent and theme roles, the contrast between underived and derived verbs is also very much a contrast between these two roles as opposed to all other roles. This matter is discussed below in 5.1 and 5.4.

5.1 /-ci/

Derivation with /-ci/ has the effect of adding a participant to the set of participants associated with a verb. Although this additional participant must therefore be added in any classification of participant types, what is most salient is that this participant does not in fact participate in the event or action denoted by the verb. Both 'dative proper' and 'locative' share this semantic

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6 This form is grammatical with the meaning 'the dog is stuffed' (i.e. has eaten so much that its stomach is severely bloated). Cf. /ke:-wi:rèn/ 'to be bloated from overeating'.

characteristic of being the non-participant end-point or **terminus** of the event or action[7]. If the added participant is human, then a dative proper meaning is found, one which shades very quickly over into the reason for the action or event. With inanimate objects or locations, the added entity is simply the locus for the action/event. It does not seem appropriate to analyze this division in terms of a single prototype (basically one or the other of the two) because there is no evidence that one is more basic than the other. Rather, this is a case of equal polysemy – two different but related senses.

Since a location can be spoken of as in some sense receiving an action, one could perhaps use the term 'recipient' as a label for the abstract sense, but I feel that this usage gives an undue priority to the 'dative proper' sense. Similarly the term 'goal' unduly emphasizes the teleological sense, which I think is secondary. Hence I shall use the term **terminal** as a label for the abstract sense of what this derivation adds to the semantics of verbs.

In work on basic semantic roles done by Larsen 1979, verbs are seen as having one, two or three valencies which are related to the semantic roles of agent, patient and beneficiary/locative. Recently this same claim has been made again (independently) in the context of universals of case (DeLancey 2000). DeLancey claims that there are three universal semantic case roles: Agent, Theme (= Patient) and Location. These roles are defined in relation to basic predicate types and hence are equivalent to thematic roles (DeLancey 2000: 3). There is strong support for the first two roles from Nandi, but very little for the Location role. This, however, is in terms of basic predicate types. When we turn to derived verbs, we note immediately that verbs derived with /-ci/ add precisely beneficiary/locative roles (or Location in DeLancey's terminology).

5.2 /-e:/

If we analyze the examples in 3.2 in terms of semantic roles, there is an astounding variety:

(49) a. source   e. path
     b. goal   f. means
     c. location   g. instrument
     d. beneficiary   h. amount

These participants are neither agents nor patients, and there is no clear general term for this collection of participant-types in the literature, a fact

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7 Cf. Jakobson 1990: 358: "...the D[ative] denotes the existence of its referent as independent of the action."

bemoaned by Talmy 1985 specifically for Fillmore's 1977 location, source, goal and path, and also illustrated by thematic hierarchies such as that of Jackendoff 1972: 43 (50) and Grimshaw 1990: 7-8 (51):

(50) 1. Agent
  2. Location, Source, Goal
  3. Theme

(51) Agent > Experiencer > Goal/Source/Location > Theme.

In an effort to rectify this situation, Talmy 1985: 139 proposed the term Ground for these classes of participants with motion verbs; however, Ground does not include instrument.

Croft 1991 used the term 'intermediate thematic roles' for a collection of roles including comitative, instrument, manner, means, benefactive/malefactive. Croft's term 'intermediate' is not particularly felicitous for those roles which are endpoints, and 'oblique' is probably best left as a syntactic term, so we must invent a term of our own for non-agents (and non-experiencers) and non-patients. There is a subtle difference between participants added via /-e:/ and those added via /-ci/. The former are typically not end-points but rather seem to be involved in the further (with respect to the sense of the underived verb) specification of the action or event. Thus they have an adverbial sense, and therefore I suggest the label **peripheral**[8]. Note that with source roles, although the result of the action is that the patient is removed from the source participant, the function of the derivation is to add this removed participant to the argument structure of the verb and the action/event frame. In all other cases, the participant is added to and remains in the context of the action.

In view of the diversity of roles, we should consider whether the overall semantic category associated with /-e:/ is best understood as an instance of definition by family resemblance (AB, BC, CD, DE) where "each item has at least one, and probably several, elements in common with one or more items, but no, or few, elements are common to all items" (Rosch and Mervis 1996: 443). It is clear that certain roles have more in common with each other than they do with other roles, e.g. means, instrument and amount; or source, goal,

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8 Cf. the Concise Oxford Dictionary's example, "(of equipment, etc.) used with a computer but not an integral part of it". In every instance, the added participant is involved in the action but not in a central way. Jakobson 1936 uses the term **Randkasus** (**Rand** = 'edge, margin') to characterize the Russian dative and instrumental cases as opposed to the nominative and accusative cases, for which he uses the term **Vollkasus** (**Voll** = 'full'). In the English translation of his article: "A peripheral case indicates that its referent occupies a peripheral status in the overall semantic content of the utterance (1990: 352)."

location, beneficiary, path (all sharing a locative element), and this suggests a hierarchical sense tree with senses related by hyponymy (*isa*). This can be thought of as a refinement of the notion of a flat 'family' of senses.

(52)

PERIPHERAL					
LOCATION (DEFAULT = LOCATION)				INSTRUMENTAL (DEFAULT = INSTRUMENT PROPER)	
SOURCE	GOAL	BENEFICIARY	PATH	MEANS	AMOUNT

5.3 /-ta/

It is very difficult to see a connection between the itive and the comitative senses, and I presume that the suffix represents a conflation of two separate suffixes (as is the case, for example, with the dative case of Ancient Greek, which conflates formerly separate dative, instrumental and locative cases). Strong support for this separation comes from the fact that itive /-ta/ never changes valency[9] whereas comitative /-ta/ always does. There is then homonymy within the range of meanings associated with the suffix.

The fact that the comitative participant is never human provides a clue to the analysis of the semantics of the derived verb. The added element is never agentive; it is also not peripheral or terminal. Rather it is a **co-theme**.

With Itive /-ta/, we have a clear case of homonymy in that the directional use of this suffix is unrelated to its role in providing a new, non-animate participant. In addition, we have a type of participant which does not appear in any of the literature I have referred to. The role, however, is very clear. Defined negatively, it is non-agentive, non-terminal and non-peripheral. Defined positively, it is a **co-theme**.

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9 Itive /-ta/ can, however, participate in diathetic alternations with underived forms:

(i)   a.   ke:-wi:r   sè:sé:t
                 INF-throw.at   dog
                 "to throw at the dog"

          b.   *ke:-wí:r   koytà
                 INF-throw.at   stone
                 "to throw the stone at"

          c.   ke:-wi:r-tá   koytà
                 INF-throw-ITV   stone
                 "to throw the stone thither"

5.4 Summary and discussion

Here is a brief summary of the analyses which have been proposed: for Dative /-ci/ it was found that there were two distinct types of participant: human recipients and inanimate locations. Both were action or event end-points, and the term **terminal** was proposed for the semantic role which the added participant played.

These data, rather than providing evidence for a single dimension of participant-type (as with Jackendoff and Grimshaw), seem to suggest a more complex hierarchy. Participants fall into two categories, core and non-core. Core participants (agents and patients) are typically directly represented in the semantics of simplex (non-derived) verbs. Non-core participants of considerable semantic subtlety (co-themes, terminals, and peripherals) are created and accessed via the lexical process of verbal derivation.

(53)

PARTICIPANT				
CORE		NON-CORE		
AGENT	THEME	TERMINAL	PERIPHERAL	CO-THEME

The three suffixes that we have studied share a small semantic space, that of an additional participant which is not central or required to be associated with a verb. It is not surprising that the meanings of the suffixes sometimes appear to overlap, and it should also not surprise us if other languages do not express the semantics of non-central participants in identical ways. That is, we are dealing with a matter of language-specific subtlety, although because of the small semantic space involved we should expect similar semantic notions to be grammaticized in other languages. As an example, we may consider Swahili, an unrelated Bantu language. In Swahili, as in Nandi, verbs may be derived via suffixation, and one of the suffixes found is termed the 'prepositional' or the 'applied'. Among the semantic roles associated with it are benefactive, malefactive, itive and instrumental roles (Ashton 1947: 217-220). These roles are parceled out among three different suffixes in Nandi and none of these suffixes are associated solely with any single one of the roles.

Finally, we may note the kinds of semantic relations (Lyons 1977) involved. We have three different kinds of meaning relationships: senses which are equal subsenses of a more inclusive sense (recipient, location as subsenses of terminal), senses which are related in terms of hyponymy (means as a

hyponym of instrument as a hyponym of peripheral), and senses which are unrelated (homonymy with the directional and co-theme senses of /-ta/). It is striking that the semantics of these grammatical elements is so similar to that of lexical items.

In his famous Kasuslehre article, Jakobson 1936, 1990 argues that although grammatical cases may not have a single primary or basic meaning («Grundbedeutung», «signification fondamentale»), they do have a general meaning («Gesamtbedeutung», «signification générale»), which is independent of context, and special or particular meanings («Sonderbedeutungen»), which are context-dependent. The analysis I have given for /-ci/ fits this scheme perfectly with the general meaning being 'terminal' and the two specific meanings of 'location' and 'dative proper' associated with the animacy status of the referent which has been added to the context. Although more complex because of the number of subsenses and their hierarchical relationships, the same can be said of the analysis of /-e:/. However, Jakobson's framework does not fit that of the two /-ta/'s (nor the dative case of Ancient Greek as previously noted).

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