On *Ni/E* Alternation and Change of Location in Japanese[i]

Sumiyo Nishiguchi

Abstract

This paper discusses two groups of verbs in Japanese: (i) verbs that allow alternations between *ni* "Dative/Locative" and *e* "Goal" case markers, and (ii) verbs without *ni/e* alternations. I claim that noun phrases with *ni* "Dat"/*e* "Loc" markers are arguments of the achievement verbs, often of transfer, that allow *ni/e* alternation. In contrast, *ni* "Loc"/*e* "Loc" marked phrases are adjuncts with stative unaccusative or transitive achievement verbs without *ni/e* alternations. *E* "goal" is more concerned with the physical direction of the goal (Kaiser et al. (2013)) although *ni* and *e* are often interchangeable (Tanaka and Matsumoto (1997)). While the allative case marker *e* entails change of location and does not entail arrival, *ni* refers to a goal/location and entails arrival.

Keywords: *adjunct, unaccusativity, event, arrival, necessary condition*

1. Puzzle

This paper discusses the following examples:

(1)	Karen-ga	eki-**ni/e**	it-ta	(koto)	[achievement]
	Karen-Nom	station-Dat/Loc	go-Past	fact	

"Karen went to the station."

(2)	Inu-ga	kainushi-**ni**/***e**	ni-ta	(koto)	[achievement]
	dog-Nom	owner-Dat/Loc	resemble-Past	fact	

"The dog resembled the owner."

It is a puzzle why verbs such as *ik* "go" allow both dative *ni*-NP and locative *e*-NP as in (1) while other verbs like *nir* "resemble" do not allow *e*-NP in (2). This paper addresses the following questions: i) What makes *ni/e* alternation present/absent?, ii) Do any distinct verb classes exist?, iii) Is there any dictinct syntactic behavior?, and iv) What is the semantic difference between (non)alternation verbs?

2. Classification

According to Kuno (1973), NP-*ni* ''Dat'' indicates that the NP is the goal of the motion designated by the verb. On the other hand, NP-*e* "Goal" is more concerned with the physical direction of the goal (Kaiser et al. (2013)) although *ni* and *e* are often interchangeable (Tanaka and Matsumoto (1997)).

With verbs of motion *e* can be used to instead of *ni* to mark a core case (dative of direction). Whereas *ni* indicates the goal of a motion, *e* is said to be concerned more

with the direction towards the goal, but in practice two are often interchangeable.

<div align="right">(Kaiser et al. (2013: 72))</div>

Ni and *e* can be swapped when they occur with certain classes of verbs such as (3)-(12) below, while other classes of verbs do not allow alternations, like (13)-(46).

In Table 1, A group lists verbs that allow *ni/e* alternations while B group does not. The intransitive verbs in A1 group, as shown in (3)-(8), are verbs of transfer such as *go, return, throw, come out, climb up, enter, drop* and *proceed*; these allow both *ni* and *e*. Considering that *e* is directional (Teramura (1992)), this is not surprising. Floating quantifiers (FQ) are marginally allowed with *ni*-case, as exemplified in (3b), (4b), (6c) and (7c). Direct passives are not acceptable, and only indirect (adversative/adversity/affective) passives are possible as shown in (6b) and (7b) (Howard (1968), Kuno (1973), McCawley (1972), Imai (1998)).

On the other hand, (9)-(12) in A2 group are verbs that do not allow *e*, and more stative. While direct passives are allowed as in (12b), FQs are not acceptable as illustrated in (9b) and (11b). The verbs in A group are all achievement verbs according to Vendler's verb classification (Vendler (1957), Dowty (1979)).

	ni/e alternation		no ni/e alternation	
groups	Al	A2	Bl	B2
transitivity	**intransitive**	**transitive**	**intransitive**	**transitive**
aspect	**achievement**		**state**	**achievement**
alignment	**unergative**		**unaccusative**	**unergative**
FQ	**?ni/*e**	*	*	*
direct passive	*	**OK**	*	**OK**
change of location	**yes**		**no**	
verbs	ik "go" kaer "return" der "go out" nobor "climb" hair "enter" shingaku-sur "enroll"	nager "throw" nagekom "throw in" horikom "damp in" otos "drop" okurikom "send"	ar "exist" nir "resemble" ochiir "fall" umarer "born" ukab "float" sakara "rebel" maker"lose" nurer "get.wet" nor "appear (in newspaper)" utsur "reflect" seichosur "grow" sum "live" a "meet" tats "stand" suwar "sit" chakusekisur "get.seated" tomar "stay" doisur "agree" norikom "ride" hashiridas "start.running"	oki-wasurer "leave" waker "divide" kazar "decorate" yukaisur "kidnap" nyuryokusur "input" mazer "mix" tsuker "park" bunkai-sur' "disassemble" tsuke-tas "add" chunyu-suru "insert" kak "write" karir "borrow" nor "ride" egak "draw/illustrate"

<div align="center">Table 1. Classification of verbs based on ni/e alternation</div>

A. Verbs with *ni/e* alternations: X(goal)(theme?)(agent)

A.1. Unergatives   X(location) (agent)

achievement

(3) a.   Karen-ga   (*5-fun-de)   eki-ni/e   **it**-ta   (koto)   [achievement]
         Karen-Nom   5-minute-by   station-Dat/Loc   go-Past   fact
         "Karen went to the station (within five minutes)."   go(location)(agent)

    b.   Karen-ga   fiirudo   asurechikku-ni/e   2-kasho   it-ta.
         Karen-Nom   field   athletics-Dat/Loc   2-Cl   go-Past
         "Karen went to two field athletics."

(4) a.   Karen-ga   30-pun-de   ie-ni/e   **kaet**-ta   (koto)   [achievement]
         Karen-Nom   30-minutes-by   home-Dat/Loc   return-Past   fact
         "Karen returned home in 30 min."   return(goal)(agent)

    b.   Watari-dori-ga   su-$^?$ni/*e   2-kasho   kaet-ta.
         migratory-bird-Nom   nest- Dat/Loc   2-Cl   return-Past
         "Migratory birds returned to two nests."

(5)   Watashi-mo   roka-ni/e   **de**-ta.   [achievement]
      I-also   corridor-Dat/Loc   come.out-Past
      "I also came out to the corridor."

(*e*-example is from BCCWJ LBi9_00192, via Chunagon search of "noun+e+verb" sequences)
                                                                        come-out(goal)(agent)

(6) a.   Yama-ni/e   (1-jikan-*(de))   **nobor**-e-ta.   [achievement]
         mountain-Dat/Loc   1-hour-by   climb-can-Past
         "(I) was able to climb the mountain ((within) one hour)." (*e*-example, ibid. PB29_00130)
                                                                        climb(goal)(agent)

    b.   Fuji-san-ga   kanko-kyaku-ni   noborare-ta.
         Fuji-mt.-Nom   tourism-guest-Dat   climb-Past
         "Mt Fuji was climbed by tourists."

    c.   Tozanka-ga   yama-ni/e   2-yama   nobot-ta.
         climber-Nom   mountain-Dat/Loc   2-Cl   climb-Past
         "The climbers climbed two mountains."

(7) a.   Karen-ga   o-furo-ni/e   **hait**-ta.   [activity]
         Karen-Nom   Hon-bath-Dat/Loc   enter-Past
         "Karen took the bath (lit. enter the bath)."   enter(location)(agent)

    b.   Onsen-gakanko-kyaku-ni   hai-rare-ta.
         spa-Nom tourism.guest-Dat   enter-Pass-Past
         "The spa was used by tourists."

    c.   Karen-ga   onsen-^{OK}ni/*e   2-kasho   hait-ta.
         Karen-Nom   spa-Dat/Loc   2-Cl   enter-Past
         "Karen went to two spas."

(8)   Karen-ga   daigaku-ni/e   1-nen-kan-*(de)   **shingakushi**-ta.

[accomplishment]

Karen-Nom   university-Dat/Loc   1-year-period-by   enroll-Past

"Karen enrolled a university."   enroll(location)(agent)

A.2. Transitives X(loc)(theme)(agent)

(9) a.   Karen-ga   boru-o   goru-ni/e   5-fun   **nage**-ta.   [achievement]
Karen-Nom   ball-Acc   goal-Dat/Loc   5-min   throw-Past
"Karen threw a ball toward the goal."

  b.   *Pureya-ga   boru-o goru-ni/e   2-kasho   nage-ta.
player-Nom   ball-Acc goal-Dat/Loc   2-Cl   throw-Past
"The player threw the ball into two goals."

throw(goal)(theme)(agent)

(10)   Karen-ga   jagaimo-o   nabe-ni/e   **hori-kon-**da.   [activity]
Karen-Nom   potatoe-Acc   pot-Dat/Loc   throw-in-Past
"Karen threw potatoes into the pot."   throw(goal)(theme)(agent)

(11) a.   Kutsu-o   dobu-ni/e   **otoshi**-ta.   [achievement]
shoe-Acc   ditch-Dat/Loc   drop-Past
"(I) dropped the shoes into a ditch."   drop(goal)(theme)(agent)

  b.   *Karen-ga   kutsu-o   dobu-ni/e   2-kasho   otoshi-ta.
Karen-Nom   shoe-Acc   ditch-Dat/Loc   2-Cl   drop-Past
"Karen dropped her shoes into two ditches."

(12) a.   Karen-ga   (suieki)-o   junishicho-ni/e   **okurikon**-da. [achievement]
Karen-Nom   pancreatic.juice-Acc   duodenum-Dat/Loc   send-Past
"Karen sent pancreatic juice into the duodenum."   (PB14_00126)
send(goal)(theme)(agent)

  b.   Suieki-ga   junishicho-ni/e   okurikom-are-da.   [achievement]
pancreatic.juice-Nom   duodenum-Dat/Loc   send-Pass-Past
"Pancreatic juice was sent into the duodenum."

In contrast, the following B groups do not allow ni/e alternations. The verbs in B1 group neither passivize nor allow FQs.

B. Verbs without ni/e alternations: X(location)(theme)
B.1. Unaccusatives: X(theme)

(13)   Hon-ga   soko-ni/*e   **at**-ta.   [state]
book-Nom   there-Dat/Loc   be-Past
"The book was there."   exist(location)(theme)

(14)   Karen-ga   (1-pun-de)   yumeijin-ni/*e   **ni**-ta   (koto)[achievement]
Karen-Nom   (1-minute-by)   celebrity-Dat/Loc   resemble-Past   fact
"Karen came to resemble a celebrity (in a minute)."   resemble(goal)(theme)

(15)   Karen-ga   1-pun-de/kan   sakkaku-ni/*e   **ochiit**-ta   koto [achievement]

Karen-Nom   1-minute-by/for   illusion-Dat/Loc   fall-Past   fact

"Karen cherished the illusion in/for a minute."   fall(location)(theme)

(16)   (Karen-ga)   Okayamaken-ni/*e   **umare**-ta   (koto).   [achievement]

Karen-Nom   Okayama Prefecture-Dat/Loc   born-Past   fact

"(Karen) was born in Okayama Prefecture." (OT31_00016)   be-born(location)(theme)

(17)   Karen-ga   5-fun-de/*kan   aidia-ga   atama-ni/*e   **ukan**-da   (koto)

[achievement]

Karen-Nom   5-minute-by/for   idea-Nom   head-Dat/Loc   float-Past   fact

"Karen came up with an idea within/*for five minutes."

come-out(location)(theme)

(18)   Jibun-ni/*e   **sakarau**-mono   [achievement]

self-Dat/Loc   rebel-person

"those against you"   (OB1X_00190)

rebel(theme)(agent)

(19)   Hanshin-wa   Kyojin-ni/*e   **make**-ta.   [achievement]

Hanshin-Top   Kyojin-Dat/Loc   lose-Past

"Hanshin Tigers was defeated by Kyojin Giants."   (ibid.)

lose(agent)(patient)

(20)   Taro-ga   ame-ni/*e   **nure**-ta   (koto)   [achievement]

Taro-Nom   rain-Dat/Loc   wet-Past   fact

"Taro became wet with rain."   get-wet(instrument)(theme)

(21)   Karen-ga   shumatsu-no   yukan-ni/*e   **not**-ta.   [achievement]

Karen-Nom   weekend-Gen   evening.newspaper-Dat/Loc   be.put.in-Past

"Karen was on the evening news on the weekend."   put in(location)(theme)

(22)   June Kay-no   kao-ga   suimen-ni/*e   **utsut**-ta.   [achievement]

June Kay-Gen   face-Nom   surface-Dat/Loc   reflect-Past

"June Kay's face is reflected on the surface."

(PB59_00290, Chunagon search for "NP-ni NP" sequence)

reflect(location)(theme)

(23)   Karen-ga   otona-ni/*e   **seichoshi**-ta.   [achievement]

Karen-Nom   adult-Dat/Loc   grow-Past

"Karen grew into an adult."   grow(goal)(theme)

(24)   Karen-ga   (1-nen-kan)   Tokyo-ni/*e   **sun**-da   (koto)   [activity]

Karen-Nom   1-year-for   Tokyo-Dat/Loc   live-Past   fact

"Karen lived in Tokyo (for a year)"   live(location)(agent)

(25)   Karen-ga   shiriai-ni/*e   (guzen)   **at**-ta   (koto)   [activity]

Karen-Nom   acquaintance-Dat/Loc   by chance   meet-Past   fact

"Karen ran into an acquaintance by chance."   meet(theme)(agent)

(26)   Karen-ga   1-jikan(-de)   yama-no   teppen-ni/*e   **tat**-ta   koto

[accomplishment/activity]

Karen-Nom 1-hour-by   mountain-Gen top-Dat/Loc stand-Past fact

"Karen stood at the top of the mountain in/for one hour."   stand(location)(agent)

(27)　Karen-ga   isu-ni/*e   **suwat**-ta.   [activity]

　　　Karen-Nom   chair-Dat/Loc sit-Past

　　　"Karen sat on a chair."   sit(goal)(agent)

(28)　Karen-ga   isu-ni/*e   **chakuseki-shi**-ta.   [achievement]

　　　Karen-Nom   chair-Dat/Loc sit-do-Past

　　　"Karen sat on a chair."   sit(goal)(agent)

(29)　Karen-ga   hoteru-ni/*e   **tomat**-ta.   [achievement]

　　　Karen-Nom   hotel-Dat/Loc stay-Past

　　　"Karen stayed in a hotel."   stay(location)(agent)

(30)　Karen-ga   teian-ni/*e   **doishi**-ta.   [achievement]

　　　Karen-Nom   proposal-Dat/Loc agree-Past

　　　"Karen agreed to the proposal."   agree(theme)(experiencer)

(31)　Kare-ga   gokato-ni/*e   **norikomu**-no-o mi-ta.   [achievement]

　　　he-Nom   go-cart-Dat/Loc get.in-Gen-Acc see-Past

　　　"I saw him get into a go-cart."   hop in(goal)(agent)

(32)　Meros-wa   Atene-ni/*e-mukete **hashiridashi**-ta.   [achievement]

　　　Melos-Top   Athens-Dat/Loc-for   start running-Past

　　　"Melos started running toward Athens."   start running(goal)(agent)

B.2. Transitives X(theme)(agent), no FQ but passivizable

(33) a. (Karen-ga) taisetsuna shinamono-o ie-no-naka-ni/*e   **okiwasure**(-ta).

                                                    [achievement]

　　　Karen-Nom important goods-Acc   home-Gen-inside-Dat/Loc leave-Past

　　　"(Karen) left important goods at home."   (e-example, LBj9_00190)

                                    leave(location)(theme)(experiencer)

　　b. Shinamono-ga okiwasure-rare-ta.

　　　goods-Nom   leave-Pass-Past

　　　"Goods were left behind."

(34)　Karen-ga   keki-o   2-tsu-ni/*e   **wake**-ta.   [achievement]

　　　Karen-Nom   cake-Acc   2-Cl-Dat/Loc   divide-Past

　　　"Karen cut the cake in half."   divide(goal)(theme)(agent)

(35)　(Karen-ga) borubuke-o   kaijo-no iriguchi-ni/*e   **kaza**(t-ta).

                                                    [achievement]

　　　　　ball bouquet-Acc hall-Gen entrance-Dat/Loc decorate-Past

　　　"(Karen) placed a bouquet at the entrance of the hall." (PM41_00925)

                                    decorate(goal)(theme)(agent)

(36)　Hannin-ga   hitojichi-o   kokugai-ni/*e **yukai-shi**-ta. [achievement]

　　　suspect-Nom hostage-Acc abroad-Dat/Loc kidnap-Past

"The suspect kidnapped a hostage abroad."   kidnap(goal)(theme)(agent)

(37)   Karen-ga   deta-o   pasokon-ni/*e   **nyuryokushi**-ta. [achievement]
       Karen-Nom   data-Acc   personal.computer-Dat/Loc   enter-Past
       "Karen entered data into a computer."   enter(location)(theme)(agent)

(38)   Karen-ga   eigo-o   nihongo-ni/*e   **maze**-ta.   [achievement]
       Karen-Nom   English-Acc   Japanese-Dat/Loc   mix-Past
       "Karen mixed English with Japanese."   mix(goal)(theme)(agent)

(39)   Karen-ga   kuruma-o   mise-no-mae-ni/*e   (*2-tenpo) **tsuke**-ta.

                                                                    [achievement]
       Karen-Nom   car-Acc   store-Gen-front-Dat-Loc   (2-Cl)   attach-Past
       "Karen parked the car in front of {the store/(two stores)}." park(location)(theme)(agent)

(40)   Karen-ga   terebi-o   buhin-ni/*e   **bunkai-shi**-ta.   [achievement]
       Karen-Nom   TV-Acc   part-Dat/Loc   disassemble-do-Past
       "Karen disassembled the TV into its parts."   disassemble(goal)(theme)(agent)

(41)   Karen-ga   kadai-o   shukudai-ni/*e   (*2-mon) **tsuketashi**-ta.

                                                                    [achievement]
       Karen-Nom   assignment-Acc   homework-Dat/Loc   (2-Cl)   add-Past
       "Karen added (two) more homework assignments."   add(goal)(theme)(agent)

(42)   Kangofu-ga Chushabari-o   jomyaku-ni/*e   **chunyu-shi**-ta.   [achievement]
       nurse-Nom   injection.needle-Acc vein-Dat/Loc   insert-do-Past
       "The nurse inserted a needle into a vein."   inject(location)(theme)(agent)

(43)   (Sensei-ga)   eigo-de   kanban-ni/*e   **kai**-ta. [activity/achievement]
       teacher-Nom   English-by   signboard-Dat/Loc   write-Past
       "(The teacher) wrote on the signboard in English."   (OC12_02043)
                                                            write(instrument)(location)(agent)

(44)   Taro-wa   Jiro-ni/*e   sono   hon-o   **kari**-ta.   [achievement]
       Taro-Top   Jiro-Dat/Loc   that   book-Acc   borrow-Past
       "Taro borrowed that book from Jiro."   (Sugimoto (1986: 367))
                                                            borrow(theme)(patient)(agent)

(45)   Karen-ga   1-pun-de/kan   uma-ni/*e   **not**-ta. [activity/accomplishment]
       Karen-Nom   1-minute-by/for   horse-Dat/Loc ride-Past
       "Karen rode a horse in/for a minute."   ride(location)(agent)

(46)   Karen-ga   borubuke-o   kaijo-no iriguchi-ni   2-kasho **kaza**t-ta.
       Karen-Nom   ball.bouquet-Acc   hall-Genentrance-Dat   2-Cl   decorate-Past
       "Karen decorated ball bouquet at two places at the entrance of the hall."

3. Unaccusativity of the No-Alternation Class

   This section demonstrates the unaccusativity of the no-alternation class. The following two criteria for unaccusativity are used: (i) passivization, and (ii) modification by floating quantifiers (FQs).
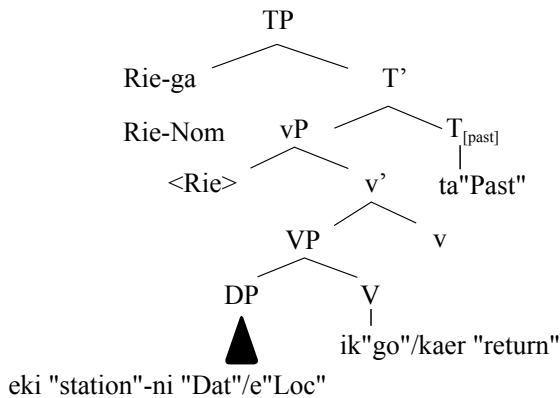
Even though passivization is allowed for the alternation class, passivization is impossible for many verbs without *ni/e* alternations. According to the Unaccusative Hypothesis (Perlmutter (1978)), what appears to be the external argument of this class of verb is in fact base-generated as an internal argument of the verb or VP-complement so that passivization is not allowed.

Some may argue that verbs such as *sit* or *stay* allow passivization. However, what these predicates allow are better understood as "property reading": even though a single event of sitting or staying does not allow passivization by the agent, multiple event reading allows passivization, as pointed out by the audience at MLF 2012.

4. Syntax and Semantics

Therefore, the syntactic trees for both classes of verbs are assumed to be as in the following:

(i) Alternation class: X(location)(theme)(agent)

(3-4)"

```
                        TP
              Rie-ga            T'
              Rie-Nom    vP           T[past]
                    <Rie>      v'      ta"Past"
                            VP     v
                         DP     V
                          ▲     |
                                ik"go"/kaer "return"
        eki "station"-ni "Dat"/e"Loc"
```

(ii) No alternation class: X(theme): there is no CAUS v

(13)"

```
                    TP
              pro          T'
                        VP       T[past]
                    PP     VP      |
                                   ta
                 DP     P  <pro>  V
                 ▲      |          |
                 soko   ni         ar
```

(17)"

$$
\begin{array}{c}
\text{TP} \\
\diagup \diagdown \\
\text{aidia} \quad \text{T'} \\
\diagup \diagdown \\
\text{VP} \quad \text{T}_{[past]} \\
\diagup \diagdown \qquad | \\
\text{PP} \quad \text{VP} \quad \text{ta} \\
\diagup \diagdown \quad \diagup \diagdown \\
\text{DP} \quad \text{P} \quad \langle\text{aidia}\rangle \quad \text{V} \\
\blacktriangle \quad | \qquad\qquad | \\
\text{atama} \quad \text{ni} \qquad\qquad \text{ukab}
\end{array}
$$
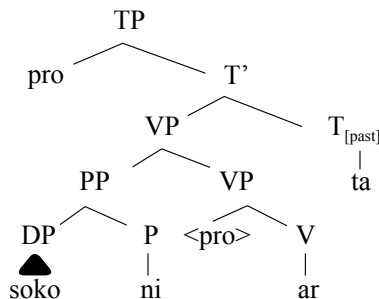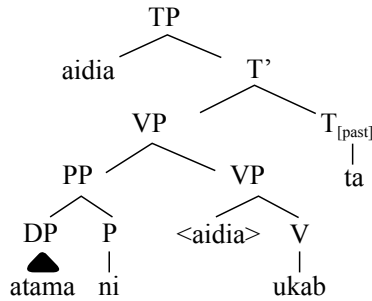
Semantics

(i) Alternation class: X(location)(theme)(agent)

(3-4)"

$$
\begin{array}{c}
\text{TP} \\
\text{Rie-ga; r} \qquad \text{T'} \\
\text{Rie-Nom} \quad \text{vP} \qquad \text{T}_{[past]} \\
\langle\text{Rie}\rangle \qquad \text{v'} \quad \text{ta"Past"; } \lambda p.p\&time(p) < now \\
\text{VP; } \lambda y.go(\varepsilon x.station(x)\&goal/direction(e)=x)(y)^{ii} \qquad \text{v; } \lambda P\exists e.P(e)(x) \\
\text{DP} \qquad\qquad \text{V} \\
\blacktriangle \qquad\qquad | \\
\qquad\qquad \text{ik"go"/kaer "return"; } \lambda x,y.go(x)(y)
\end{array}
$$
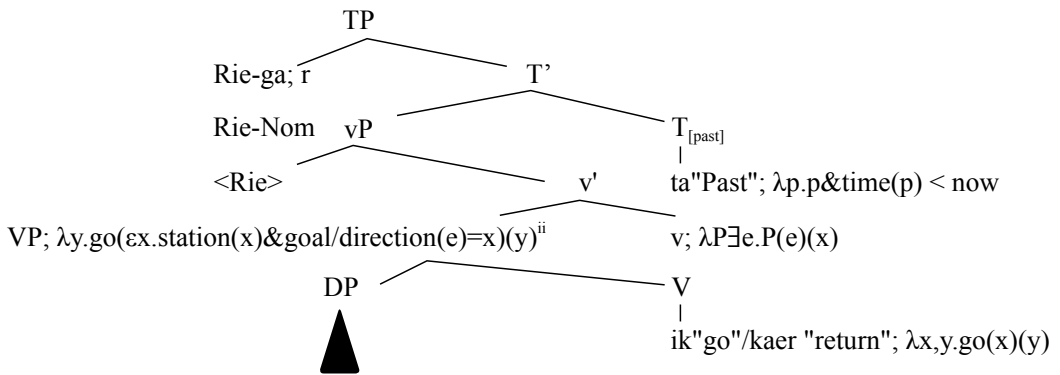
eki "station"- ni "Dat"/e"Loc"; $\varepsilon x.station(x)$ & goal/direction(e) = x

$\varepsilon x.station(x)$ $\lambda x.x$ & goal(e) = x/$\lambda x.x$&direction(e) = x

5. The Meaning of *E* and *Ni*

While *e* "Loc" is said to be directional, *ni* "Dat" focuses on arrival (Tanaka and Matsumoto (1997), Kayser et al (2000)). In this section, I will further argue that *ni* semantically entails arrival while *e* does not. In view of the semantic characteristics of unaccusative verbs—verbs of existence, verbs of appearance and verbs of change of state (Levin and Rappaport (1995))—, stativity is expected. With respect to the directionality of *e* "Goal," change of location is the necessary condition for the use of *e*.

5.1. Entailment of Arrival

Although e does not entail arrival, ni refers to a goal and entails arrival as (47-49) indicate.

(47) Jun-wa   ie-*ni/$^{\surd}$e   kaet-ta-ga   mada   tsui-tei-nai.
       Jun-Top   home-Dat-to return-Past-but yet   arrive-Prog-Neg
       "Although Jun left to return home, he has not yet arrived there."

(48) Boru-o   goru-*ni/$^{\surd}$ni-mukatte/$^{\surd}$e   nage-ta-ga   todoka-nakat-ta.

ball-Acc   goal-Dat/Dat-toward/Goal   throw-Past-but   reach-Neg-Past

"I threw the ball toward the goal but it did not reach it."

(49)   Nihontaishikan-*ni/$^\sqrt{}$ni-mukatte/$^\sqrt{}$e   obutsuiri   pettobotoru-o

Japan.embassy-Dat/Dat-toward/Goal   with.excrement   PET.bottle-Acc

nageru-ga   todoka-zu.

throw-but   reach-Neg

"threw a PET bottle containing excrement toward the Japanese Embassy but it did not reach it."

(*e*-example, toriton.blog2.fc2.com/blog-entry-2020.html, via Google)

Without consideration of the event semantics (Davidson (1967)), the semantic entries for each lexical item in the sentence (50) would be as in (51). The composition requires application of the Predicate Modification to compose the predicate *suwaru* "sit" and the dative phrase *isu-ni* "on the chair" which are both predicate types (Heim and Kratzer (1998)).

(50)   Naomi-ga   isu-ni   suwaru.

Naomi-Nom   chair-Dat   sit

"Naomi sits on the chair."

(51)   [| Naomi |] = n

[| suwaru "sit" |] = λx.sit(x)

[| isu "chair" |] = εx.chair(x)[ii]

[| ni "DAT" |] = λx,y.in(x)(y)

[| isu-ni "on the chair" |] = λy.in(εx.chair)(y)

Given the entailment of arrival, the semantics of *ni* should incorporate the event and time. In application of Neo-Davidsonian semantics, there is an additional event argument with the predicate *sit* (Davidson (1967), Parsons (1990)). At time of event, the location of Naomi should be on the chair.

(52)   [| suwaru "sit" |] = λx,e.sit(x)(e)

[| isu-ni "on the chair" |] = λy,e.[in(εx.chair)(y)(e) & in(εx.chair)(y) at t where time(e) = t]

[| isu-ni suwaru "sit on the chair" |] = λx,e.sit(x)(e) & in(εx.chair)(y)(e) & in(εx.chair)

(y) at t where time(e) = t]

5.2. Change of Location for the Alternation Class

On the other hand, *e* should be used only with a change of location.

(53)   JR-e/ni   hairu-no-wa   kodomo-no-koro-kara-no   yume-dat-ta.

JR-to/Dat   join-Gen-Top   child-Gen-time-from-Gen   dream-be-Past

"Joining JR has been a dream from my childhood."

The speaker of (53) had evidently not been at JR before he joined them; thus, his location changes from elsewhere to JR. In (54), the ball had not reached the goal before being kicked by Jun.

(54)   Jun-wa   boru-o   goru-e/ni   ket-ta.

Jun-Top   ball-Acc   goal-to/Dat   kick-Past

"Jun kicked the ball toward the goal."

(55) Jun-wa   suwat-teiru   isu-ni/*e   suwat-ta.
       Jun-Top   sit-Prog   chair-Dat/Loc sit-Past
       "Jun sat on the chair he was sitting on."

In contrast, the verbs with no alternations in (13)-(46) are more stative. On this basis, I would like to formalize the necessary condition for the use of *e*.

(56)[| (54) |] = 1 if ¬in(y)(x)(t) & ball(x) & goal(e) = y & $t < t_i$ & time(e) = t_i & kick(e), undefined otherwise.

(56) is true if the ball was not in the goal prior to the time when the event of kicking occurred (cf. Davidson (1967)).

6. Conclusion

Since *e* "allative case marker" implies a change of location, *ni/e* alternation class verbs are agentive activity verbs, often of transfer. In contrast, no-alternation verbs are stative and often accusative predicates. In them, *ni* indicates arrival.

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Corpora

Balanced Corpus of Contemporary Written Japanese (BCCWJ), National Institute for Japanese Language and Linguistics.
Chunagon 1.05, https://chunagon.ninjal.ac.jp/login, National Institute for Japanese Language and Linguistics.

Sumiyo Nishiguchi

Endnotes

[i] I would like to thank the audience at MLF 2012 and ELSJ 38 Workshop for helpful suggestions.

[ii] The application of the epsilon operator ε results in an arbitrary entity of type e.