

Remarks on Hirose's (2007) Nominal Paths

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ABSTRACT. This paper extends the empirical domain of Hirose's (2007) analysis of nominal paths, investigating into the differences between English and Japanese in the behavior of nominal paths, and those between temporal paths and spatial paths. I will argue that Japanese, but not English, allows defective paths without a coordinator as long as the path constructs a prosodic unit on its own, and the spatial paths are semantically more restricted than temporal paths because the relation between source and goal is always symmetric.*

Keywords: coordinating adposition, linear order, nominal path, N-path, prosody

1. Nominal path as a coordinated structure

Hirose (2007: 548) argues that “there exist nominal paths in the syntax, in addition to PP paths.” English has full-fledged PP paths depicted in (1a), where A refers to a source, and B, a goal. In Japanese, a head-final language, the PP path has a form depicted in (1b).

(1) Full-fledged PP path

- a. English: [FROM A TO B] (A: source, B: goal)
- b. Japanese: [A FROM B TO] (A: source, B: goal)

A spatial PP path in English is exemplified in (2), and temporal PP paths in English and Japanese are exemplified in (3a) and (3b), respectively.

* First and foremost, I am grateful to Andrew Houwen and Christopher Tancredi for acting as English informants, and to four anonymous Japanese speakers for insightful Japanese data and thought provoking discussion on them. Thanks also go to Tomio Hirose for his valuable suggestions. This paper is based on my presentation at the 12th workshop on the phonological externalization of morphosyntactic structure (phex 12) held online, February 13, 2022. I would like to thank the participants of the workshop for comments, and Christopher Tancredi for stylistic suggestions and comments. Needless to say, the author takes full responsibility for any remaining errors or misunderstandings. This work was supported by JSPS KAKENHI (Grant Number 20H01269).

- (2) [From Alabama to Louisiana] John played the banjo.
(Williams 1994: 12, as cited in Hirose 2007: 548)
- (3) a. That store is open [from 9 a.m. to 5 p.m.] every day.
b. Ano mise-wa mainiti [gozen kuzi-kara gogo gozi-made]
that store-TOP every.day a.m. nine.o'clock-from p.m. five.o'clock-till
aiteiru.¹
be.open
'That store is open from 9 a.m. to 5 p.m. every day.' (Hirose 2007: 548-549)

On the other hand, both English and Japanese have defective nominal paths, where the adposition at the edge is omitted. This is illustrated in (4), and exemplified in (5).

- (4) Defective nominal path
a. English: (FROM) [A TO B] (A: source, B: goal)
b. Japanese: [A FROM B] (TO) (A: source, B: goal)
- (5) a. It will take [three *to* five days] for him to recover.
b. Kare-ga kaifukusuru-noni [mikka-*kara* ituka] kakaru-daroo.
he-NOM recover-INF three.days-from five.days take-will
'It will take three to five days for him to recover.' (Hirose 2007: 549)

Hirose (2007) proposes that nominal paths have a coordinated structure headed by an adposition as a coordinator, *to* in English and *kara* in Japanese. (The adpositional coordinators are italicized in (5) and the examples below.) The hypotheses behind this proposal are (i) that the path consists of the source as its left-hand constituent and the goal as its right-hand constituent, which seems to be true across languages; and (ii) that one component of a path may well be left unmarked, up to recoverability, as long as the other component of the path is overtly marked (Hirose 2007: 549-550, fn. 3). As a result, a well-formed nominal path consists of two NPs that are conjoined by *to* or *kara* as an adpositional coordinator (ibid: 550).

Hirose's analysis of nominal paths as coordinated NPs finds the following supporting evidence. First, the presence of *from* in (6a) and of *made* in (6b) forces the entire path phrase to be a (coordinated) PP, but the temporal path in question cannot be a PP because of the

¹ Abbreviations used in this paper: ACC = accusative, COND = conditional, GEN = genitive, H = high, INF = infinitive, L = low, NOM = nominative, TOP = topic.

subcategorization frame of the verbs in the intended context (e.g. *It will take (*for) three days for him to recover*).

- (6) a. * It will take [from three to five days] for him to recover.²
 b. * Kare-ga kaifukusuru-noni [mikka-kara ituka-made]
 he-NOM recover-INF three.days-from five.days-till
 kakaru-daroo.
 take-will (Hirose 2007: 550)

In addition, the coordinator analysis of *to* in English finds support in the colloquial substitution of *to* for *and* in the complement of *between*.

- (7) a. The labor union of that factory organized few strikes between [1990 *and* 2000].
 b. The labor union of that factory organized few strikes between [1990 *to* 2000].
 (Hirose 2007: 551, n.6)

Furthermore, the bracketed phrase in (5a), for example, can be paraphrased by *three, four, or five days* as in (8a); that is, as a coordinated NP. Similarly, the bracketed phrase in (5b) can be paraphrased by *mikka, yokka, matawa ituka* in Japanese, as in (8b). Also, the fact that the Japanese accusative suffix *-o* attaches only to NPs (Fukui 1995: 116, fn.16, as cited in Hirose 2007: 551, n.7) leads to the conclusion that the grammaticality of (9) shows the path-denoting phrase in question to be an NP.

- (8) a. [three, four, *or* five days] (Hirose 2007: 551, n.7)
 b. [mikka, yokka, *matawa* ituka]
 three.days four.days, *or* five.days
 'three, four, or five days / three to five days'
- (9) Okaasan-no kaifuku-no mikomi-tosite-wa [mikka-kara
 mother-GEN recovery-GEN prospect-as-TOP three.days-from
 ituka]-o miteok-eba ii desyoo.
 five.days-ACC estimate-COND good will.be

² Although the sentence in (6a) is reported to be unacceptable in Hirose (2007), an informant I consulted finds it perfectly acceptable. I leave this variety in acceptability judgement as a remaining problem.

Thus, coordinated structures and nominal paths in Japanese are similar in that they have full-fledged versions with multiple adpositions/coordinators and defective versions with the last adposition/coordinator omitted. In the next section, I would like to extend the empirical domain of Hirose (2007) and consider the following empirical questions regarding nominal paths:

(13) Empirical questions

- a. How defective can a nominal path be?
- b. Do English or Japanese have spatial defective/nominal path?

2. Expanding the empirical domain

2.1 Temporal paths

Let us further look at temporal path examples. Full-fledged PP paths in English and Japanese are exemplified in (14a) and (14b) respectively, and defective nominal paths in English and Japanese are in (15a) and (15b) respectively.

(14) a. My worktime is [from 9 a.m. to 5 p.m.] every day except Sunday.

- b. Watashi-no kinmujikan-wa nitiyoo igai mainiti [gozen
I-GEN working.time-TOP Sunday except every.day a.m.
kuzi-kara gogo gozi-made] desu.
nine.o'clock-from p.m. five.o'clock-till be
'My worktime is from 9 a.m. to 5 p.m. every day except Sunday.'

(15) a. My worktime is [9 a.m. to 5 p.m.] every day except Sunday.

- b. Watashi-no kinmujikan-wa nitiyoo igai mainiti [gozen kuzi-kara gogo gozi] desu.

Considering the first empirical question in (13a), *how defective can nominal path be*, Japanese, but not English, allows *more* defective nominal paths, which I dub "N-path" (shown in bold in the examples below), where the coordinating adposition is absent.

(16) a. *My worktime is [**nine (a.m.) five (p.m.)**] every day except Sunday.

- b. Watasi-no kinmujikan-wa nitiyoo igai mainiti [**kuzi gozi**] desu.

While English does not allow the N-path, *nine (a.m.) five (p.m.)*, Japanese allows the N-path *kuzi gozi*, where the coordinating adposition *kara* between source and goal is absent.

The same contrast is found between English and Japanese when the path appears as a fragment: N-path is allowed in Japanese but not in English:

- (17) [How many days will it take for him to recover?]
- a. [*From three to five days*]. / [*Three to five days*]. / ***[Three five (days)]**.
- b. ***[Mikka-kara ituka-made]** desu. / [*Mikka-kara ituka*] desu.
 three.days-from five.days-till be / three.days-from five.days be
[Mikka ituka] desu.³
 three.days five.days be

Let us further look at what Winter (2018) calls coordinate structure complexes, where more than two conjuncts are involved (Winter 2018, Shiobara 2019, see also (8) in section 1). In the current context, let us call the relevant complex structures “nominal path or N-path complexes” depending on the type of coordinators.

- (18) [How many days will it take for him to recover?]
- a. [Three, four(,) *or* five days]. : Coordinate structure complex
 ?*[Three, four, *to* five days]. : Nominal path complex
 ? [Three, four, five days]. : N-path complex
 ? [Three *to* four *to* five days]. : Nominal path complex
- b. [Mikka, yokka, matawa ituka] desu. : Coordinate structure complex
 three.days four.days, or five.days be
 [Mikka-kara yokka (?*) ituka] desu. : Nominal path complex
 [Mikka, yokka, ituka] desu. : N-path complex

³ It seems that the classifier *-ka* ‘day(s)’ is necessary in Japanese N-paths:

[How many days will it take for him to recover?]

?? [San-kara go] desu.

three-from five be

* [San go] desu.

I leave the issue of why for future research.

[san	si	goniti]	desu.	
three	four	five.days	be	: N-path complex
?*[mikka-kara		yokka-kara	ituka]	desu.
three.days-from		four.days-from	five.days	be
				: Nominal path complex

Below are the questions raised by these examples:

(19) Major question

Why does Japanese, but not English, allow N-paths?

(20) Minor questions

- a. Why is the PP in English (17a) ([From three to five days]) good (as opposed to *(6a)) whereas the PP in Japanese (17b) ((*[Mikka-kara ituka-made] desu) bad?⁴
- b. Why is the N-path in English (18a) (?[**Three, four, five days**]) not so bad?
- c. Why does the nominal path complex in English (18a) (?*[Three, four, *to* five days]) degrade whereas that in Japanese (18b) ([mikka-kara yokka (?*) ituka]) does not?
- d. Why does the nominal path complex with multiple *-kara* in Japanese (18b) (?*[mikka-kara yokka-kara ituka]) degrade?

We will consider these questions in section 3. Before that, let us look at examples of spatial paths.

2.2 Spatial paths

Both English and Japanese allow spatial nominal paths and N-paths, but they seem to be subject to a semantic restriction that they must refer to the amount of time, not the actual time picked out by the paths.

(21) [Imagine a man reading a book on a train.]

- a. It will take [from Alabama to Louisiana] for him to finish reading this book.

⁴ But see note 2.

- b. Kare-ga kono hon-o yomioeru-noni-wa [Sinzyuku-kara
he-NOM this book-ACC read.finish-to-TOP Sinzyuku-from
Kobutisawa made] kakaru darou.
Kobutisawa till take will
'It will take from Sinzyuku to Kobutisawa for him to finish reading this book.'

(22) [Same as (21)]

- a. ? It will take [Alabama to Louisiana] for him to finish reading this book.
b. Kare-ga kono hon-o yomioeru-noni-wa [Sinzyuku-kara
he-NOM this book-ACC read.finish-to-TOP Sinzyuku-from
Kobutisawa * (kurai)] kakaru darou.⁵
Kobutisawa about take will
'It will take roughly from Sinzyuku to Kobutisawa for him to
finish reading this book.'

(23) [Same as (21)]

- a. ? It will take [**Alabama Louisiana**] for him to finish reading this book.
b. Kare-ga kono hon-o yomioeru-noni-wa [**Sinzyuku Kobutisawa** *(kurai)]
kakaru darou.

For the interpretation of (23a), an English informant notes the following:

- (24) "I can understand 'Alabama-Louisiana' (without *to*) as designating a certain train that goes from Alabama to Louisiana (and no further). That train could be called the Alabama-Louisiana train, or the Alabama-Louisiana line. If it takes the man *the same*

⁵ The following example suggests that the phrase *Sinzyuku-kara Kobutisawa* is indeed a nominal phrase.

- (i) Kare-ga kono hon-o yomioeru-noni-wa [Sinzyuku-kara
he-NOM this book-ACC read.finish-in.order.to-TOP Sinzyuku-from
Kobutisawa]-o miteok-eba yoi daroo.
Kobutisawa-ACC estimate-COND good will.be
'We can estimate that it will take from Sinzyuku to Kobutisawa maximally for him to finish
reading the book.'

See (9) for the same point for temporal nominal paths.

amount of time to read his book as that train takes to run its full route, [(23a)] is possible. In that case, it is only *the amount of time* that matters, not actual time – the man could read in the morning even if the train only runs in the afternoon and evening. [...] However, I can't get 'Alabama-Louisiana' to pick out just the actual time when a train on that route covers the distance. If a train goes from Washington D.C. through Alabama and Louisiana and then on to Texas, then [(23a)] cannot mean that it took the man from the time that train was in Alabama until the time it was in Louisiana to read his book. On that understanding I give it a [*].”

The same interpretation holds for (22a), but not necessarily for (21a). The same can be said for Japanese equivalents in (b). Given these, the following questions arise:

(25) Question:

Why are spatial nominal paths and N-paths semantically restricted?

(26) (Related) minor question

Why do the Japanese spatial nominal path in (22b) ([*Sinzyuku-kara Kobutisawa *(kurai)*]) and the N-path in (23b) ([**Sinzyuku Kobutisawa *(kurai)**]) need *kurai* 'roughly' at the end of the path ?

We will consider these questions in the next section.

3. Toward a unified analysis of paths

3.1 N-path as a prosodic unit

Let us consider the questions raised in the previous section. First the major question regarding N-path was:

(27) Why does Japanese, but not English, allow N-paths? (= (19))

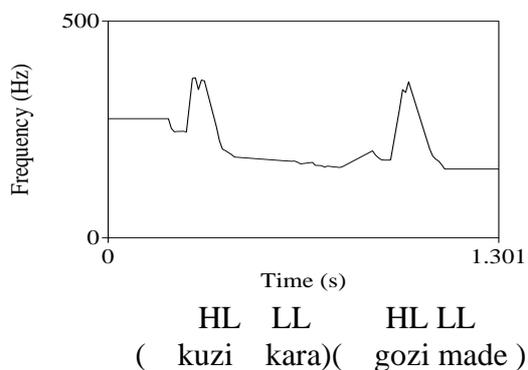
My claim is that what differentiates English and Japanese in terms of the permission of N-paths is their prosody. In particular, N-path is allowed as long as it is prosodically independent. This is formalized in (28).

(28) An N-path can stand on its own as long as it constitutes a prosodic unit (φ).⁶

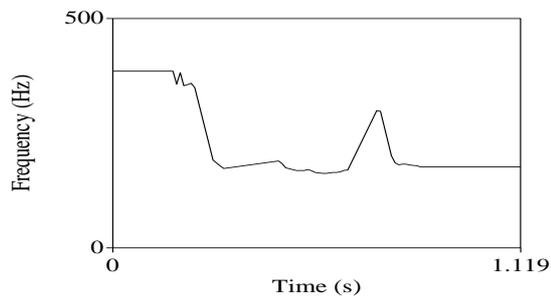
This is based on the following observation. First in English, the prosody of a path does not differ depending on whether it is a PP path, a nominal path, or an N-path, as in (29a). On the other hand, in Japanese, while a PP path and a nominal path may exhibit more than one pitch fall, each of which occurs at the beginning of the nouns (*kuzi*, *gozi*), an N-path shows no pitch fall in between, as shown in (29b).

- (29) a. * *
 (from nine) (to five) _{φ}
 (nine) (to five)
 (**nine**) , (**five**) (cf. *(16a))
 * *
 (**three**) , (**five days**) (cf. *(17a))

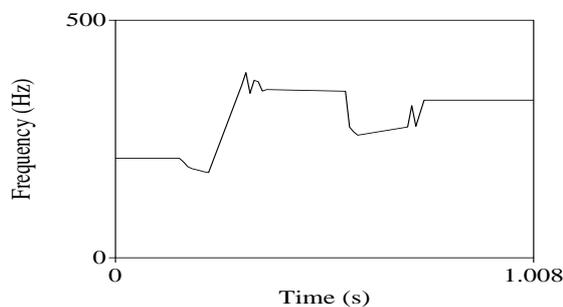
b.



⁶ See Hirose (2007: 352, n.9) for the general prosodic difference between English and Japanese nominal paths.



HL LL HL
 (kuzi kara) (gozi)



LH HH
 (**kuzi** **gozi**) (cf. (16b))

This still holds when the time changes from ‘nine to five’ to ‘seven to three,’ for example, and hence is not specific to the N-path *nine five* or *kuzi gozi*.

- (30) a. *My worktime is [**seven (a.m.) three (p.m.)**] every day except Sunday.
 b. Watasi-no kinmujikan-wa nitiyoo igai mainiti
 I-GEN working.time-TOP Sunday except every.day
 [**sitizi sanzi**] desu.
 seven.o'clock three.o'clock be
 ‘My worktime is from seven to three every day except Sunday.’

I argue that the claim in (28) is due to the general prosodic difference between English and Japanese. That is to say, in English, prosodic structure based on the position of prosodic prominence (indicated as “*” in (29a)) determines the prosodic unit, whereas in Japanese,

tonal melody based on the high-low pattern () determines the prosodic unit, which is relevant to the licensing of N-paths (cf. Tanaka 2005: 22-25).

Now let us turn to one of the smaller questions (20b), repeated here as (31).

(31) Why is the N-path in English (18a) ([?][**Three, four, five days**]) not so bad? (= (20b))

Focusing on the prosody of the path, we can say that N-path complexes such as (18a), i.e. N-paths with more than two members, are not N-paths, but rather lists of nominals. Therefore, they are not subject to the prosodic condition in (28). Being lists, each of the conjunct can construct its own prosodic unit, namely an intonational phrase (I(ntP)), as in (32).

(32) a. [Ducks geese swans and coots inhabit this lake]_{I(ntP)}.

b. [Ducks] [geese] [swans] [and coots] [inhabit this lake]_I.

(Nespor and Vogel 1986: 200)

3.2 Nominal path as a semantic unit with two endpoints

3.2.1. *To* and *kara* as a coordinator of two units

Let us now consider two other minor questions raised in section 2.1, (20c) and (20d), repeated here as (33a) and (33b) respectively:

(33) a. Why does the nominal path complex in English (18a) ([?][Three, four, *to* five days]) degrade whereas that in Japanese (18b) ([*mikka-kara yokka* ([?],) *ituka*]) does not? (= (20c))

b. Why does the nominal path complex with multiple *-kara* in Japanese (18b) ([?][*mikka-kara yokka-kara ituka*]) degrade? (= (20d))

I argue that unlike typical coordinators *and* and *or* in English or *to* and *matawa* in Japanese, the adpositional coordinators *to* in English and *kara* in Japanese can only conjoin *two* members, i.e., they cannot appear in the form of a coordinate structure complex. The example (18b), *mikka-kara yokka* ([?],) *ituka*, is okay without a pause before the last conjunct, which indicates that the last two elements *yokka ituka* should be one syntactic (i.e. N), semantic (i.e., meaning ‘around four or five days’), and prosodic element (φ). This condition should follow from the fact that a path, by definition, is a unit that specifies the *two* endpoints, the source A and the goal B, at least conceptually or semantically (Hirose 2007: 548).

3.2.2 Spatial nominal-paths and N-paths as a unit referring to an amount

In 2.2, a question arose regarding spatial paths, repeated below as (34), with relevant examples in (35):

- (34) Why are spatial nominal paths and N-paths semantically restricted? (= (25))
- (35) a. ? It will take [Alabama *to* Louisiana] for him to finish reading this book.
(= (22a))
- b. ? It will take [**Alabama Louisiana**] for him to finish reading this book.
(= (23a))

More specifically, the semantic restriction was that the nominal path or the N-path in (35) can only refer to the amount of time to finish reading a book (cf. informant's comments in (24)). I conjecture that the semantic restriction on spatial nominal paths and N-paths should be due to the fact that in spatial (PP, nominal, N-)paths, the distance covered from the place A (e.g. Alabama) to the place B (e.g. Louisiana) is the same as that covered from B to A (389.2 miles). This is because the Alabama-Louisiana line and the Louisiana-Alabama line go the same route (in the opposite direction). That is to say, the relation between source and goal is symmetric in spatial paths. This contrasts with the fact that in temporal paths, the time span specified from the time A (e.g. 9:00am) to B (e.g. 5:00pm) could be different from that specified from B to A (8 hours and 16 hours respectively). In spatial nominal and N-paths, the fact of their being nominal is compatible with their meaning, though it does not explain why they *must* refer to the amount of time, not the actual time. This is left as a remaining question.

3.3. Loose ends

In (36) are summarized the questions raised in section 2 and unanswered so far.

- (36) a. Why is the PP in English (17a) ([From three to five days]) good (as opposed to *(6a)) whereas the PP in Japanese (17b) ((*[Mikka-kara ituka-made] desu) bad?
(= (20a))
- b. Why do the Japanese spatial nominal path in (22b) ([Sinzyuku-*kara* Kobutisawa *(kurai)]) and the N-path in (23b) ([**Sinzyuku Kobutisawa *(kurai)**]) need *kurai* 'roughly' at the end of the path? (= (26))

As an answer to the question in (36a), I can only speculate at this point that it has to do with the prosody of adpositions. In English, *from* is prosodically weak and hence allowed to be

there when the path is used as a fragment (but is not allowed when embedded in a sentence). In Japanese, *made* is not necessarily prosodically weak and cannot appear unless it is required for some reason. That is to say, it is a matter of prosody.

For (36b), I do not have any answer. The observational fact is that we need *something* semantically coherent after the goal N. For example, in addition to *Sinzyuku Kobutisawa kurai*, *Sinzyuku Kobutisawa kan* ‘Sinzyuku Kobutisawa in-between’ is also possible. If the requirement is that we only need something overt, it might be also prosodic in nature.

4. Conclusion

In this paper, I extended the empirical domain of Hirose’s (2007) analysis of nominal paths, and investigated into the differences between English and Japanese in the behavior of nominal paths (section 2.1), and those between temporal paths and spatial paths (2.2). My claim was that these differences are prosodically (section 3.1) or semantically (3.2) regulated. There remain some examples that await explanation (3.3).

One of the main claims of Hirose (2007) is that linear order plays a significant role in the syntax of natural language. It is hoped that the present analysis opens a possibility that nominal paths could be analyzed in prosodic and semantic terms without reference to syntax, which should be further tested with more examples in more languages.

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