

【Forum】

Against Finite Raising (and Against Defective Tense): A Semantic Analysis of *-yooni naru* in Japanese

KOYO AKUZAWA

Kyoto University

YUSUKE KUBOTA

NINJAL

Abstract: The change of state verb *naru* behaves like a raising verb when it takes a *yooni*-marked complement clause. The syntactic status of the subject argument in this construction has been controversial in the literature. While some authors (e.g. Shibatani 1978) have argued that the *-yooni naru* construction takes an expletive subject, Uchibori (2000) and Fujii (2006) analyze it as a case of what they call ‘finite raising’, in which the embedded subject syntactically raises to the matrix clause. According to Uchibori and Fujii, such an analysis is supported by the fact that the embedded tense in the *-yooni naru* construction is ‘defective’, since only the nonpast tense form can appear in the complement clause. In this paper, we reconsider the syntactic and semantic properties of the *-yooni naru* construction, and show that the finite raising analysis lacks any strong support either empirically or conceptually. Empirically, syntactic tests such as NPI licensing and indirect passive point to the conclusion that an alternative, non-raising analysis is better. Conceptually, the distribution of the tense morpheme in the embedded clause, the key evidence for its alleged ‘defective’ status (and hence for the finite raising analysis), receives independent explanation from the lexical semantic properties of *-yooni naru* as a change of state predicate involving a habitual (or homogeneous) meaning component. Our conclusion is in line with the recent reconsideration of ‘finite control’ in Japanese by Akuzawa and Kubota (2020) and Kubota and Akuzawa (2020) in that a careful semantic analysis simplifies the syntactic properties of certain ‘infinitive-like’ constructions in Japanese with overt tense marking.*

Key words: raising, defective tense, tense, habituality, Japanese

1. Introduction

The nonpast tense form *-ru* in Japanese is sometimes viewed as an untensed form in certain syntactic environments. This idea has led many previous researchers

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(Uchibori 2000, Fujii 2006, Fukuhara 2010, among others) to a view that *-ru* in examples such as (1) is morphologically overt but syntactically ‘defective’, having a status parallel to infinitives in English.

- (1) a Ken_i-ga [_{t_i} dekake-**ru**] yooni nat-ta.
 K.-NOM go.out-NPST COMP become-PST
 ‘Ken started going out (regularly).’ (finite raising)
- b Ken_i-ga [PRO_i ie-o de-**ru**] koto-o ketuisi-ta.
 K.-NOM home-ACC leave-NPST COMP-ACC decide-PST
 ‘Ken decided to leave home.’ (finite control)

A representative case of such a proposal can be found with the analyses of (1a) and (1b) as ‘finite raising’ and ‘finite control’, respectively, as advocated by Uchibori (2000) and Fujii (2006). The main motivation for such an analysis is simple (but essentially theory-internal): by assuming that these examples are tenseless, they become amenable to the standard analyses of raising and control in infinitival clauses in English and other languages.

The idea to take the *-ru* form as an infinitival form is actually a matter of much dispute (Tagawa 2019). In fact, Akuzawa and Kubota (2020) and Kubota and Akuzawa (2020) have recently argued against the defective tense approach to *koto*-taking control predicates such as (1b), proposing an explicit alternative in which the embedded clause in (1b) is fully tensed and where the missing subject is not PRO but *pro*. On their account, the control status in (1b) is not induced by the defective status of the embedded tense, but instead follows from independently motivated lexical semantic properties of the embedding verb. However, Akuzawa and Kubota do not address the status of the ‘finite raising’ construction in (1a). Thus, whether there remains any plausible candidate for defective tense in Japanese is still an open issue.

The present paper addresses this issue, by investigating the syntactic and semantic properties of the *-yooni naru* construction in (1a), with a special focus on its lexical meaning. Specifically, we show that empirical evidence disfavors a raising-type analysis (with A-movement of the subject) for this construction, and that the alleged morphosyntactic evidence for the defectiveness of the embedded tense in fact falls out from the inherent semantic properties of *-yooni naru*. Together with the findings in Akuzawa and Kubota (2020) and Kubota and Akuzawa (2020), this leads to the conclusion that (at least some of) the finite clauses that have been misanalyzed as raising and control constructions in Japanese have syntactic properties that are distinctly different from their apparent English counterparts, and that there is as yet no known case of the so-called ‘defective tense’ paradigm in Japanese, contra Uchibori (2000) and Fujii (2006).

2. Thematic properties of the *-yooni naru* construction

We start with the basic thematic properties of *naru* (‘become’), comparing it to the *koto*-taking control verb *ketui-suru* (‘decide’). First, as noted by Uchibori (2000) and Fujii (2006), *naru* is compatible with non-sentient subjects unlike the control

verb *ketui-suru*.

- (2) a Ame-ga hur-u yooni nat-ta.
rain-NOM fall-NPST COMP become-PST
'It started to rain regularly.'
- b #Ame-ga hur-u koto-o ketuisi-ta.
rain-NOM fall-NPST COMP-ACC decide-PST
(Lit.) 'It decided to rain.'

This contrast about selectional restriction on the subject shows that *naru* assigns no θ -role to the nominative-marked subject unlike the control verbs *ketui-suru*. Another way of putting it is that unlike *ketui-suru*, *naru* does not select for an external argument.

As discussed by Uchibori (2000) and Fujii (2006), this is corroborated by another piece of evidence, which comes from idiom chunks:

- (3) a Miiratori-ga miira-ni nar-u yooni
mummy.hunter-NOM mummy-DAT become-NPST COMP
nat-ta.
become-PST
'Mummy hunters started to become mummies.' (literal meaning)
'Many began going out for wool and returning home shorn.' (idiomatic meaning)
- b #Miiratori-ga miira-ni nar-u
mummy.hunter-NOM mummy-DAT become-NPST
koto-o ketuisi-ta.
COMP-ACC decide-PST
'A mummy hunter decided to become a mummy.' (literal meaning only)

With *naru*, the idiomatic meaning 'many go out for wool and come home shorn' is available, but with *ketui-suru* it isn't. Since idiom chunks are only interpretable within the minimal idiomatic phrase, the contrast in (3) shows that in (3a) the subject belongs to the embedded clause headed by *naru*, while in (3b) the subject is an argument of the embedding verb *ketui-suru*.

Second, whether the propositional argument is expressed in the active or the passive voice makes no truth-conditional difference with *naru* but it does with *ketui-suru*.

- (4) a Yuki-ga Ken-o nagur-u yooni nat-ta. = (4b)
Y.-NOM K.-ACC hit-NPST COMP become-PST
'Yuki started hitting Ken.'
- b Ken-ga Yuki-ni nagur-are-ru yooni nat-ta.
'Ken started being hit by Yuki.'
- (5) a Yuki-ga Ken-o nagur-u koto-o ketuisi-ta. ≠ (5b)
Y.-NOM K.-ACC hit-NPST COMP-ACC decide-PST
'Yuki decided to hit Ken.'

- b Ken-ga Yuki-ni nagur-are-ru koto-o ketuisi-ta.
 ‘Ken decided to be hit by Yuki.’

In both (4a) and (4b), Yuki is the agent of *naguru* (‘hit’) and Ken is the patient, thus there is no difference in the truth-conditional meaning in the two sentences. In contrast, the decider switches from Yuki to Ken in (5a,b), so these two sentences mean different things. Thus, the subject NP in (4) is an argument of *naguru* alone and receives no θ -role from *naru*, whereas that in (5) is an argument of the higher verb *ketui-suru* as well, receiving a θ -role from it.

The data above show that *naru* is a monadic verb semantically, whose only logical argument is the propositional complement, whereas *ketui-suru* is a dyadic verb which expresses a relation between an individual (attitude holder) and a proposition (or property).

3. Syntactic properties of the *-yooni naru* construction

Given the thematic properties of *naru*, there are at least two possible syntactic structures, shown in (6), for the *-yooni naru* construction (where \emptyset is a non-referential, expletive subject).

- (6) a. NP_i-NOM [_{t_i} ...] yooni naru b. \emptyset [NP-NOM ...] yooni naru

In both structures, the matrix predicate *naru* assigns no θ -role to the matrix subject. However, the two differ in whether they involve A-movement of the embedded subject to the matrix subject position. Since (6a) and (6b) are string-identical, the surface subject position of the *-yooni naru* construction has been controversial in the literature (Nakau 1973, Shibatani 1978, Uchibori 2000, Fujii 2006, Kishimoto 2018, among others). In section 3.1, we summarize what has been taken to be a major piece of evidence for the finite raising approach along the lines of (6a). Then, in section 3.2, we argue against this view by showing that the subject remains in the embedded clause as in (6b), based on two empirical observations.

3.1. Embedded tense and the Tense Alternation Generalization

The nonpast tense *-ru* form is sometimes viewed as an infinitival form, especially in embedded contexts. Alleged evidence for this view comes from the patterns of tense alternation. As shown in (7), the *-yooni naru* construction allows only the *-ru* form for the embedded predicate.¹

¹ *-Yooni naru* appears with a past tense-marked complement in (i) (Tayama 2003, Fujii 2006):

- (i) Ken-ga sake-o non-da yooni nat-ta.
 K.-NOM alcohol-ACC drink-PST looks like become-PST
 ‘Ken looks intoxicated.’

But the meaning of *-yooni* here is modal, unlike the nonpast tense embedding version. Crucially, (i) does not entail Ken’s drinking alcohol in the actual world. Also, in (i), *-ta* arguably

- (7) Ken-ga dekake-ru/*ta yooni nat-ta.
 K.-NOM go.out-NPST/PST COMP become-PST
 ‘Ken started going out (regularly).’

This fact apparently poses a serious challenge to a relative tense analysis of Japanese tense (cf. Teramura 1984, Ogihara 1996). Here, Ken’s leaving must be interpreted as a *realized* event relative to the time of the matrix verb *naru*, since, intuitively, in order to say that some activity has become a habit, one has to have evidence that the subject has already participated in that activity regularly. Nevertheless, the embedded verb allows only the *-ru* form. We then seem to have no choice other than to admit that the morpheme *-ru* here, despite being morphologically identical to the nonpast tense, is defective (i.e., meaningless). (There is actually a flaw in this reasoning; we will point that out in section 4 and formulate an explicit analysis of *-yooni naru* in which the embedded nonpast tense has a uniform relative nonpast tense meaning.)

This is the principal motivation for the defective tense approach to *-yooni naru*. Fujii (2006), for example, suggests the following syntactic generalization dubbed ‘Tense Alternation Generalization (TAG)’, from which it follows that the *-ru* form under *-yooni naru* is defective.

- (8) **Tense Alternation Generalization:** Tensed subordinate clauses in Japanese act like infinitives if and only if their predicate does not alternate between nonpast and past forms.

According to Fujii, TAG also accounts for finite control with *koto*-marked clauses such as (1b) (but see Akuzawa and Kubota (2020) and Kubota and Akuzawa (2020) for a counterproposal).

The defective tense approach to *-yooni naru* is attractive in that, if tenable, it can tame what appears to be a rather strange beast (i.e. *finite* raising) via a completely standard toolkit in syntactic analysis (i.e. A-movement in non-finite constructions). However, we should keep in mind that the crucial premise that it rests on, namely, TAG in (8) (or its analogue) is a stipulation that doesn’t follow from any deeper principles of grammar. In addition, it is unclear how the notion of ‘defective tense’ fits in the overall tense system of Japanese, which overwhelmingly exhibits relative tense in embedded contexts (Teramura 1984, Ogihara 1996). Hence, stipulating that the embedded *-ru* is defective is not conceptually satisfactory. Moreover, the subject raising view has empirical problems too, as we discuss in the next subsection.

denotes the ‘result state’ type meaning rather than simple past (cf. **Ken-ga arui-ta yooni nat-ta* lit. ??‘Ken became as if he walked’). While a detailed analysis is beyond the scope of this paper, this seems to be compatible with our relative tense analysis. In any event, we follow Fujii (2006) in taking the past tense embedding version in (i) to be a separate lexical item.

3.2. The position of the subject argument

We now offer two pieces of evidence showing that the *-yooni naru* construction does not involve subject raising. The first piece of evidence comes from NPI (Negative Polarity Item) licensing.

- (9) a. Rokuna zinzai-ga atumara-na-i yooni nat-ta.
 decent people-NOM come-NEG-NPST COMP become-PST
 'It became so that no competent people would apply (for the position).'
- b. ??Rokuna zinzai-ga atumara-na-soo-da.
 decent people-NOM come-NEG-seem-COP.NPST
 Intended: 'No competent people seem to apply (for the position).'

With a raising predicate *-soo-da* ('seem'), for which there is independent evidence that the subject moves to the higher clause (Takezawa 2016), *rokuna* attached to the subject NP cannot be licensed by the embedded negation as in (9b) (note that the matrix negation can license *rokuna*, as in *Rokuna zinzai-ga atumari-soo-ni-nai*). This suggests that a downstairs negation cannot license an NPI in a moved subject NP. With this in mind, note the acceptability of (9a). If the subject NP moved to the matrix clause, the contrast between (9a) and (9b) would remain a mystery, but if we assume that the subject stays in situ, the acceptability of (9a) naturally follows, as a standard case of licensing by a clausemate negation (see, e.g., Kataoka 2006).²

The second piece of evidence comes from data involving indirect passive such as (10).

- (10) a. Ken-ga ame-ni hur-are-ru yooni nat-ta.
 K.-NOM rain-DAT fall-PASS-NPST COMP become-PST
 'Ken began to be adversely affected by the regular rain.'
- b. *Ken-ga ame-ni hur-u yooni nar-are-ta.
 K.-NOM rain-DAT fall-NPST COMP become-PASS-PST
 Intended: 'Ken began to be adversely affected by the regular rain.'

If the embedded subject moved out to the matrix clause, (10b) should be acceptable, since the raised subject can be the target of indirect passivization of the matrix verb, as shown by the following example involving the raising verb *-kakeru* ('be about to') (cf., e.g., Nishigauchi 1993):

- (11) Ken-ga musuko-ni keeki-o tabe-kake-rare-ta.
 K.-NOM son-DAT cake-ACC eat-be.about.to-PASS-PST

² Kishimoto (2018: 32–33) arrives at an opposite conclusion based on the observation that the NPI *sika* ('only') cannot be licensed by embedded negation. But we find his example (**Kaigi-de-wa Ken-sika hanasa-nai yooni nat-ta*) totally acceptable, especially when an appropriate context is given (e.g., Ken, who is the chairperson, kept refusing his colleagues' proposals, and the members of the meeting gradually became silent). Thus, it is more likely that the awkwardness of his example (in an out-of-the-blue context) is due to a pragmatic, rather than a syntactic factor.

when there is strong evidence that favors it over this null hypothesis. It should be clear from the discussion above that there is indeed no such evidence, except possibly the tense non-alternation pattern from section 3.1 which we haven't yet addressed. We take up this issue in the next section by examining the lexical semantic properties of *-yooni naru* in detail, and conclude that the distribution of tense in the complement clause of *-yooni naru* receives an independently motivated semantic explanation.

4. A semantic alternative

We now sketch a compositional analysis of *-yooni naru* which predicts the distribution of tense in the embedded clause. Before presenting the formal analysis, we introduce the basic semantic properties of *-yooni naru* sentences and outline the key idea of the proposed analysis in prose.

As noted in the literature (cf. Tayama 2003, Nihongo Kijutsu-Bunpoo Kenkyuukai 2009), a *-yooni naru* sentence entails that the complement event happens repeatedly (or obtains as a semi-permanent state), that is, the complement of *-yooni naru* denotes a habitual (or homogeneous) event. In fact, it is incompatible with unrepeatable events such as *sinu* ('die').

- (14) #Ken-ga sin-u yooni nat-ta.
 K.-NOM die-NPST COMP become-PST
 (Lit.) 'Ken started dying regularly.'

This observation lies at the heart of our semantic analysis of *-yooni naru*. Assuming the relative tense analysis of embedded tense in Japanese, the past tense morpheme is incompatible with the habitual operator since the functions of the operators are in conflict with one another. The past tense locates the event time for the embedded event *P* in the past relative to the time of evaluation, which is identified with the matrix event time. The habitual (or homogeneity) operator, on the other hand, imposes the part-whole relation between the matrix event time and the smaller subintervals at which the embedded predicate *P* actually obtains. These two temporal requirements cannot be satisfied at the same time, and thus embedded past tense is prohibited in habitual clauses. By contrast, despite what may initially appear (cf. the brief discussion in section 3.1), once the role of the habitual operator is properly recognized, the nonpast tense for the embedded predicate does not induce any semantic incongruence, and thus is predicted to be possible.

For the semantics of the tense morphemes *-ru* and *-ta*, we assume the following lexical entries, which are generally in line with the relative tense analysis of Japanese tense (cf. Ogihara 1996):

- (15) a. $\llbracket -ru \rrbracket = \lambda P \lambda T.P(T) \wedge T_{[2]} \leq T_{[1]}$ b. $\llbracket -ta \rrbracket = \lambda P \lambda T.P(T) \wedge T_{[1]} < T_{[2]}$

Some comments are in order on the notation and assumptions. First, we assume an extensional fragment since intensionality has no role to play in our analysis. Second, we use \mathbb{T} for tuples (or pairs) of temporal variables and write $\mathbb{T}_{[1]}$ and $\mathbb{T}_{[2]}$ for the first and second projections of \mathbb{T} , that is, $\mathbb{T} = \langle t, t' \rangle$ iff $\mathbb{T}_{[1]} = t \wedge \mathbb{T}_{[2]} = t'$.

Temporal abstracts are of type $\langle I, t \rangle$ where I is the type of tuples of temporal variables. This way, we keep track of both the event time ($\mathbb{T}_{[1]}$) and the evaluation time ($\mathbb{T}_{[2]}$) explicitly for all clauses (this is essentially a version of the double-indexing system; see, e.g., Kamp (1971) and Dowty (1979: 329–330)). Tense morphemes are modifiers of temporal abstracts of type $\langle I, t \rangle$, imposing restrictions on the relationship between the event time and the evaluation time. Thus, (15b) says that the past tense restricts the event time ($\mathbb{T}_{[1]}$) to precede the evaluation time ($\mathbb{T}_{[2]}$). The nonpast tense in (15a) imposes the opposite condition of non-precedence.

The evaluation time $\mathbb{T}_{[2]}$ is identified with the speech time in the matrix clause by the existential closure operator in (16). Thus, with the meaning for the verb root *arui* of type $\langle e, \langle I, t \rangle \rangle$ in (17) (note that the semantic primitive **walk** used in (17) is of type $\langle e, \langle i, t \rangle \rangle$ and that it picks up the first component of \mathbb{T} ; **walk**(x)(t) is true iff x walks at t), we obtain the translation in (18) for a simple monoclausal sentence *Ken-ga arui-ta* ‘Ken walked’.

$$(16) \ \mathcal{O}_3 = \lambda P. \exists t. P(\langle t, \mathbf{now} \rangle)$$

$$(17) \ \llbracket \text{arui} \rrbracket = \lambda x \lambda \mathbb{T}. \mathbf{walk}(x)(\mathbb{T}_{[1]})$$

$$(18) \ \llbracket \mathcal{O}_3 \text{ Ken-ga arui-ta} \rrbracket = \exists t. \mathbf{walk}(\mathbf{k})(t) \wedge t < \mathbf{now}$$

The evaluation time is identified with some time explicitly supplied by the embedding predicate in embedded clauses (such as the attitude holder’s ‘now’ in the case of attitude predicates; cf., e.g., Ogihara 1996). The habitual operator, which we assume to be part of the meaning of *-yooni naru*, has the following definition. It identifies the evaluation time of the embedded clause (the second component of the argument given to P) with the matrix event time ($\mathbb{T}_{[1]}$).

$$(19) \ \mathbf{Hab} =_{def} \lambda P \lambda \mathbb{T}. \exists t_1 \dots t_n. \forall i \in \{1 \dots n\}. t_i \subseteq \mathbb{T}_{[1]} \wedge P(\langle t_i, \mathbb{T}_{[1]} \rangle)$$

The exact definition of the habitual operator is a complex issue (see, e.g., Boneh and Doron (2013) for some discussion on its modal aspects), so, (19) should be taken to be a rough approximation. (19) essentially says that **Hab** subdivides the event time $\mathbb{T}_{[1]}$ to smaller subintervals t_1, \dots, t_n and imposes the condition that P obtains at all of these subintervals. This captures the intuition that, for example, if Ken habitually runs, then there are multiples times at present (in a suitably extended sense) such that Ken engages in the activity of running at these subintervals.

Let us now turn to the analysis of *-yooni naru*, which can be analyzed as a change of state verb with a habitual meaning component (the underlined part is

the presupposition):^{4,5}

$$(20) \llbracket \text{yooni nar} \rrbracket = \lambda P \lambda \mathbb{T} : \forall t_0 < \mathbb{T}_{[1]}, \underline{\neg \mathbf{Hab}(P)(\langle t_0, \mathbb{T}_{[2]} \rangle)}. \mathbf{Hab}(P)(\mathbb{T})$$

Specifically, *-yooni naru* takes a temporal property P (of type $\langle I, t \rangle$) as an argument and presupposes that P did not obtain habitually prior to the matrix event time (the underlined part in (20)) and asserts that P obtains habitually at the matrix event time. Schematically, this is a change from $\neg Q$ to Q , where Q is a habitualized (or homogeneous) event ($Q = \mathbf{Hab}(P)$).

Given the lexical meaning of *-yooni naru* in (20), the meaning of (21) comes out as in (22).

- (21) Ken-ga aruk-u yooni nat-ta.
 K.-NOM walk-NPST COMP become-PST
 ‘Ken started walking.’

$$(22) \llbracket \text{Ken-ga aruk-u yooni nat-ta} \rrbracket = \llbracket \text{ta} \rrbracket (\llbracket \text{yooni nar} \rrbracket (\llbracket \text{Ken-ga aruk-u} \rrbracket)) \\
= \lambda \mathbb{T} : \forall t_0 < \mathbb{T}_{[1]}, \neg \exists t_1 \dots t_n. \forall i \in \{1 \dots n\}. t_i \subseteq t_0 \wedge \mathbf{walk}(\mathbf{k})(t_i) \wedge t_0 \leq t_i. \\
\frac{\exists t_1 \dots t_n. \forall i \in \{1 \dots n\}. t_i \subseteq \mathbb{T}_{[1]} \wedge \mathbf{walk}(\mathbf{k})(t_i) \wedge \mathbb{T}_{[1]} \leq t_i \wedge \mathbb{T}_{[1]} < \mathbb{T}_{[2]}}$$

With existential closure, we obtain (23) (here we show the truth conditional part only).

$$(23) \emptyset_{\exists}((22)) = \exists t. [\exists t_1 \dots t_n. \forall i \in \{1 \dots n\}. t_i \subseteq t \wedge \mathbf{walk}(\mathbf{k})(t_i) \wedge t \leq t_i] \wedge t < \mathbf{now}$$

This says that there is a temporal interval t prior to the speech time and that Ken’s walking takes place repeatedly over the course of t . These subintervals are further constrained to not precede the evaluation time, which, by definition, is identical to the matrix event time t . This latter condition is automatically satisfied since all the subintervals t_i are subintervals of t . Thus, on this analysis, the compatibility of (relative) nonpast tense with the habitual operator falls out as a consequence of the definition of the latter. Note that the apparent puzzle that P has to have already

⁴ As noted by a reviewer, encoding the meaning of habituality directly in *-yooni naru* is an oversimplification since *-yooni naru* is compatible with potential predicates and certain modal predicates (e.g., *kazi-o si-nak-ereba ike-nai yooni naru* ‘end up having to do housework (regularly)’). But note that simply removing the habitual operator from (20) would lead to overgeneration with simple stative predicates such as *atama-ga itai* ‘have a headache’. (?) *Atama-ga itai yooni naru*, to the extent it makes sense, seems to express some kind of change in the disposition of the subject (such as having headache always after drinking alcohol) rather than a one-time incident of headache (which is expressed by the simpler form *atama-ga ita-ku naru* without *yooni*). The key notion involved seems to be homogeneity or constancy rather than habituality. However, since this subtlety in the meaning of *-yooni naru* does not affect its temporal properties (which are our main focus here), we stick to this over-simplifying assumption in the present paper.

⁵ For expository convenience, we treat *-yooni naru* as a unit, but this is not a crucial assumption. It is trivial to reformulate our analysis to conform to the more adequate structure $[\text{S } \textit{yooni}] \textit{naru}$ by taking *yooni* to denote an identity function and by assigning to *naru* the denotation in (20).

happened (most likely, multiple times) ‘at the matrix event time’ receives a natural explanation. This apparent mismatch between temporal order and tense form is only an illusion that arises from ignoring two factors: the habitual (or homogeneous) nature of the embedded event and the fact that events are evaluated not at instants, but rather, relative to (possibly extended) temporal intervals, a standard assumption dating back to Bennett and Partee (1978).

With past tense *-ta* in the embedded clause, we obtain (24) (for the ill-formed past tense version of (21)), minimally different from (23) in the relation between t_i and t .

$$(24) \exists t. [\exists t_1 \dots t_n. \forall i \in \{1 \dots n\}. t_i \subseteq t \wedge \text{walk}(\mathbf{k})(t_i) \wedge t_i < t] \wedge t < \mathbf{now}$$

Here, instead of the non-precedence relation of the nonpast tense, the embedded past tense imposes the precedence relation $t_i < t$ between the embedded and matrix event times. But the semantics of the habitual operator requires the actual event times (i.e. each of t_i) to be subintervals of t . This directly conflicts with the precedence requirement from embedded past.

Thus, the incompatibility of past tense under *-yooni naru* falls out from the interaction between two independently motivated assumptions: the habitual operator that is part of the meaning of *-yooni naru* and the meaning of embedded tense. This removes the central conceptual motivation, namely, TAG as a *syntactic* generalization, from the finite raising analysis of *-yooni naru*. The embedded tense can be analyzed as full-fledged finite tense that has exactly the same meaning as it appears in other syntactic environments. Given independent syntactic evidence (from section 3.2) that the embedded subject stays in situ, it seems reasonable to conclude that the simplest analysis is one that does away with the notions of defective tense and finite raising.

5. Conclusion

In this paper, we first gave some syntactic evidence suggesting that the *-yooni naru* construction does not involve subject raising, contra Uchibori (2000) and Fujii (2006). We then examined the semantic properties of *-yooni naru*, which showed that the distribution of the embedded tense, attributed to its defectiveness in Uchibori’s and Fujii’s accounts, falls out naturally from the lexical semantic properties of *-yooni naru*—habituality (or homogeneity) is at the core of the meaning of this predicate, and the incompatibility with (relative) past tense immediately follows from this property. This conclusion is in line with the recent reconsideration of ‘finite control’ in Japanese by Akuzawa and Kubota (2020) and Kubota and Akuzawa (2020) in that a careful semantic analysis considerably simplifies the syntactic properties of certain ‘infinitive-like’ constructions in Japanese with overt tense marking. While we focused solely on the *-yooni naru* construction, our conclusion here has a potentially much wider implication for Japanese grammar, in particular, on the interpretation of the so-called ‘untensed’ variant of the *-ru* form. For (at least) some of the alleged ‘untensed’ *-ru* form identified in the literature (cf. Arita 2007, Fukuhara 2010, Mihara 2015), a similar reanalysis as relative nonpast

tense seems conceivable. This, we believe, would be a fruitful direction for future study (cf. Tamura 2013), since it is after all unclear what it precisely means to say that the nonpast tense form is ‘untensed’.

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Author's contact information:

Institute for Liberal Arts and Sciences

Kyoto University

e-mail: akuzawa.koyo.5w[at]kyoto-u.ac.jp

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【要 旨】

定形繰り上げ(と不完全時制)の批判的検討

——「ようになる」の意味的分析——

阿久澤弘陽

窪田 悠介

京都大学

国立国語研究所

「ように」節をとる変化動詞「なる」は繰り上げ動詞と類似した性質を示し、補文時制辞がル形のみ可能なことから、補文時制が不完全時制 (defective tense) の定形繰り上げ (finite raising) として分析されることがある (Uchibori 2000, Fujii 2006)。本論文では「ようになる」構文の統語的・意味的特徴を再検討し、否定極性表現の認可と間接受身に関する統語的振る舞いから「ようになる」は非繰り上げ構造であること、また、補文時制辞の分布は「ようになる」が習慣 (またはある種の恒常的状态) の意味を含むという語彙意味的特徴から自然な帰結として導かれることを示す。本論文での結論は、意味的特徴を精査することで、従来「擬似的な不定形節」として扱われてきた構文の統語分析を単純化できることを示した点において、近年の定形コントロール (finite control) に関する再検討 (Akuzawa and Kubota 2020, Kubota and Akuzawa 2020) に通ずるものである。