Steps towards a minimalist analysis of Japanese -no

It is well-known that the Japanese grammatical particle *no* (e.g., *Naomi-no bag* 'Naomi's bag') occurs in a much wider variety of contexts than the traditional gloss of 'genitive case' suggests. Some of the contexts *-no* appears are shared with English *of* or French *de*. Descriptively the Japanese generative literature distinguishes between various *no* particles: a genitive case marker, an attributive copula, a pronoun, a complementizer, a nominalizer, a sentence extender and a modification marker (Kuno 1973, Murasugi 1991, Kitagawa and Ross 1982 among others). This raises the analytical question of how many different 'no's Japanese has. From a theoretical and acquisitional point of view, an optimal answer would be that there is only a single 'no', i.e. all contexts in which 'no' occurs project the same substructure, which follows from the properties of *no*. Comparing Tokyo and Toyama dialects, I show that many uses of *no* are in fact instantiation of only one *no*: a reduced relativizer D–a counterpart of English 'of'.

Tokyo and Toyama Dialects Table 1 shows that in both Toyama and Tokyo dialects, *-no* appears following a reduced clause in the frame of [DP/PP/SC-no NP] frame, with a possessor preceding a possessed NP. This *no* clearly has the same function across the two dialects, similar to English *of* (eg. *a picture of John, the way of solving the problem*, cf. Kayne 2002). i.e. they are the same morpheme, which I will analyze as reduced relative D, attracting XP with [+nominal] feature to its specifier. When the head noun is suppressed, however, *ga* appears in place of the head noun only in Toyama dialect. Then what is the Tokyo counterpart of Toyama *ga*? (Note that for ease of comparison, Toyama dialect is rendered into Tokyo dialect except the particles.)

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Table 1	Tokyo	Toyama
	{Ken/Losu-kara}-no tegami-ga hosi-i.	
1.[DP/PP-no NP]	{Ken/LA-from}-NO letter-NOM want-PRS	
	'(I) want {Ken's letter/a letter from LA}.'	
	Hahaoya-ga zyoyuu-no -syoonen o sit-tei-ru	
2.[SC-no NP]	[mother-ga actress]-NO boy-acc know-asp-pres	
	Lit. 'I know a boy of his mom being an actress.'	
2.[DP/PP-no]	{Ken/Losu-kara}-no no -ga hosii.	{Ken/Losu-kara}-no ga -ga hosii.
	{Ken/LA-from}-NO no-NOM want	{Ken/LA-from}-NO ga-NOM want
	(I) want {Ken's /the one from LA}.	

'(I) want {Ken's /the one from LA}.' Two possibilities: one is that Tokyo dialect has a pronoun *no*, and successive uses of *no* undergo simplification, and are realized as only one *no* (i.e. DP-no-*no*). The other is that Tokyo dialect has a silent pronoun. I pursue the first option here, along with Kuno (1973) and Murasugi (1991). Support for this claim comes from the distribution of headless RC. In Tokyo headless RC (3), *no* appears in place of the pronoun *ga* in Toyama headless RC.

Table 2	Tokyo	Toyama
4. Headless RC	kino katta no -o yon-da.	kino katta ga -o yon-da.
	yesterday bought no-acc read-pst	yesterday bought ga-acc read-pst
	(I) read the book	k that (I) bought.'
5. Nominalizer	Ken-ga hikkosi-ta no -o sit-ta.	Ken-ga hikkosi-ta ga -o sit-ta.
	K-nom move-pst no-acc know-pst	K-nom move-pst ga-acc know-pst
	(I) got to know	that Ken moved.'
6. Pseudo-Cleft	kino kat-ta no -wa hon-da.	kino kat-ta ga -wa hon-da.
	yesterday buy-pst no-top book-cop	yesterday buy-pst ga-top book-cop
	'What I bought ye	esterday is a book.'
7. Sentence	kino hon-o katta no -da.	kino hon-o kat-ta ga -da.
Extender	yesterday book-acc bought no-cop	yesterday book-acc bought ga-cop
	'It is that (I) bought	the book yesterday.'

What is interesting is the consistent appearance of ga in Toyama dialect in contexts given in Table 2. Generally, these uses of *no* in Tokyo dialect are distinguished from possessive *no* and are known as nominalizer (4-6), and sentence-extender (7). Contrary to the standard classification, Toyama's pattern naturally leads to a hypothesis that all of these instances in fact involve a single no-a pronoun 'no,' which is the same as the one that appears in (2) or (3). This proposal is not surprising given that 'no' in these positions can be replaced with an overt DP.

- 8. a. *Ken-ga hikkosi-ta (to iwu) {no/koto/zizitu}-o sit-ta.* Ken-NOM move-PST C say {no/matter/fact}-ACC know-PST '(I) knew the fact (which says) that Ken moved.'
 - b. *kino kat-ta* {*no/mono*}*-wa hon-da*. 'The thing I bought yesterday is a book.' yesterday buy-PST{no/thing}-TOP book-COP

Sentence extender *no* given in (6) is used to provide an explanation (often a reason) for what has been said (Kuno 1973:227). The appropriate head noun that can replace this *no* depends on the type of explanation. Kuno (1973) translates it as 'It is (the case) that ...,' and I found the following example with the noun *tame* 'cause' very natural:

- 9. a. Doo sita? Kao.iro-ga warui-yo. 'What happened? You look pale.'
 - b. kino nomi-sugi-ta {no/tame}-da.
 yesterday drink-exceed-PST {no/cause}-COP
 Int. 'It is {because/the case that} I drank too much yesterday.'

If *no* in table 2 is indeed a pronoun, this opens a possibility of analyzing these instances as relative clauses, similar to Kayne's (2008) proposal that English *that* is a relative D. In Japanese, however, this D, which attracts XP [+XP] feature to its specifier, is silent unlike English *that*.

no in [DP/PP-no NP] Let us now return to cases in which *no* appears after a reduced XP. Recent analyses, such as Saito et al. 2008, assume that there are two *no* particles in the [DP-no NP] context—one introducing arguments and one introducing adjuncts—based on the distributional differences with respect to nominal ellipsis (e.g. *Ken-no (hon)* 'Ken's (book) vs. *ame-no *(hi)* 'rainy day'). If this is indeed the case, it is conceivable that the two '*no*'s are realized as different morphemes in Toyama dialect. However, this is not the case (e.g., 'rain-no day' is realized with *no* in Toyama dialect). Note that Saito's analysis crucially depends on the mechanism of nominal ellipsis (see Watanabe (2010) for a different proposal of licensing ellipsis). Further, 'DP-no' subject behaves differently from 'DP-no' object in terms of possessor-raising: only the former can undergo possessor-raising and move to a DP-external nominative position. Thus the dichotomy is not necessarily arguments vs. adjuncts (or predicate NP). Based on the data in Toyama dialect and the distribution in terms of possessor-raising, I argue that it is too hasty to abandon the uniform account of *no* in the [DP/PP-no (NP]] context.

Proposal Contrary to Saito et al. (2008), I motivate a (reduced) relative D analysis of *no* given in (10) (cf. Kayne 1994, Koike 1999): *no* is a type of "D", which merges with a CP complement (i.e., a relative clause), and which has an EPP-feature requiring a [+nominal] (with PP being nominal) specifier.

10. $\left[_{DP} \left[_{XP} + nominal \right] \left[_{D} no \left[_{CP} \left[_{C} \left[_{XP} \dots NP Pred \dots \right] \right] \right] \right] \right]$

The CP contains an XP of different sizes, and provides an \bar{A} -landing site to the relativized NP (if raising fails, the construction would not be headed). The remnant XP raises to the Spec, *no*, satisfying the EPP property of *no*. For example, the string *ame-no hi* 'rain-no day' is built from an elementary silent predicate BE (day BE rainy). First, 'day' raises to Spec,CP, then the remnant XP containing 'rain' raises to Spec,DP. The requirement of XP being [+nominal] comes from the fact that once an AP (in general, 'AP(*-no) NP') is embedded under a nominal element, *no* appears (e.g., *atui-dake-*(no) piza* 'hot-only-no pizza' the pizza that is only hot'). **Selected Reference** Kayne 2008 "Why Isn't *This* a Complementizer." Ms.