# SOME APPROACHES TO LANGUAGE TYPOLOGY FROM JAPANESE

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## 1. Introduction

Data from Japanese have been widely involved in recent typological investigations. Nevertheless, there still exist areas of language typology where Japanese can help a lot to substantiate principle arguments. One of these areas is the typology of predicative coordination.

It is a well known observation that natural languages provide two basic types of combining clauses into compound or complex sentences. These two types could be labeled as 'analytic' and 'synthetic' with respect to their technical properties. What really underlies this distinction is the morphological status of linguistic devices used for linking clauses. The analytic type uses conjunctions, particles, formal nouns and other form-words, whereas the synthetic type uses inflectional endings or suffixes which do not constitute a separate lexical item, but are inserted into a verbal form.

Some typological and genetic groups of languages (Altaic, for example) are distinguished by a highly developed system of synthetic complex sentences, or a clause-chaining system[1]. In these languages, there exists a highly developed system of the so-called non-finite (or medial) verbal forms. These forms usually take the same tense and mood as the final verb, and are used to modify the final verb, expressing its logical and temporal conditions, reasons, and manner.

While most non-finite forms introduce a subordinate clause, there still exist some cases where a semantic relationship between clauses within a clause-chain should be interpreted as coordination rather than as subordination. For a more detailed discussion of this problem I would like to bring in some examples from Japanese. In Japanese mainly two medial forms are used in this formally subordinate, but conceptually coordinate position. These two are *-te* form (gerund) and *-i* form (conjunctive)[2]. Consider the

following examples:

(1) *sora* *wa* *kumotte,* *samui*
sky SUBJTOP[3] clouds=overNF cold
*kadze* *ga fuite iru* [MS,3][4].
wind SUBJ blows
'The sky clouds over, and a cold wind is blowing.'

(2) *aoi* *hikari* *no* *naka* *de* *uma* *wa*
pale light ATTR in LOC horse SUBJTOP
*hissori to* *Taro* *o* *mitsume,* *Taro*
silently DOBJ gazeNF
*wa* *sono mae* *ni* *tachitsukushita*
SUBJTOP it in=front=of LOC stood=stock=still
[AK6,2]
'In the pale light the horse gazed silently at Taro and Taro stood stock-still in front of it.'

In *(1) kumotte* is a gerund of the verb *kumoru* 'to cloud over' and in *(2) mitsume* is a conjunctive of the verb *mitsumeru* 'to gaze'. In the above examples each clause has its own subject. Medial and final verbs each designate two independent events, and their relationship with each other seems to be logically symmetric. Sentences like *(1)* and *(2)* could be treated as obvious cases of predicate coordination were it not for the fact that one of two clauses has a non-finite verbal form as a head. Much of the debate among grammarians revolves around deciding exactly whether this sort of construction should be regarded as coordinate or subordinate. Noting that one verb has a medial form and the other verb has a final form, some scholars argue that sentences similar to *(1), (2)* should be regarded as subordinate. Others claim that these morphological considerations should be ignored in favor of semantic ones, and, thus, the fact that the clauses are logically symmetric[5] is a weighty enough argument to call them coordinated[6].

I side with those linguists [Foley-Van Valin 1984; Foley- Olson 1985; Lehmann 1984; Koenig-Auwera 1988], who consider it more fruitful to reject the notion that coordination and subordination are mutually exclusive and regard them rather as a scalar sequence. The scalar approach leads to a uniform description of both coordinate sentences and sentences with sentential circumstantials. In addition, this approach leads to a uniform description of both synthetic and analytic complex sentences.

This paper aims at formulating basic principles of the scalar approach to predicate coordination. The line of reasoning is developed mainly on data from the Japanese language.

## 2. The scale of coordinateness

2.1. In this paper we consider only predicate coordination; we will not attempt to solve the general problem of coordination in all its diversity. Our primary concern is thus the syntactic predicate.

We define a syntactic predicate as a unit that either can function as a head of a simple sentence on its own, or belongs to a paradigm containing at least one form that is able to function as a head of a simple sentence. Thus, in Japanese syntactic predicates are verbs, predicative adjectives and a copula.

We define then a multipredicate construction (MPC) as a syntactic construction containing more than one syntactic predicate.

2.2. The main principles of the scalar approach to predicate coordination are the the following.

A. Coordinate constructions do not form a closed class of MPCs. Presence or absence of coordination between syntactic predicates cannot be treated as a dichotomy: a MPC can be more coordinate or less coordinate, i.e. MPCs form a scale of coordinateness.

B. Coordination is a syntactic strategy for expressing symmetric situations. Coordinate constructions tend to use symmetric language devices in consequence of the general iconicity principle[6]. Thus, the more symmetric (i.e.homogeneous) the coordinated predicates are, the more coordinate is the MPC.

2.3. Before we discuss in detail different types of symmetry that influence the degree of coordinateness, we will define more precisely the place of coordinate constructions in the general classification of MPCs.

Suppose MPC components manifest two elements ($P_1$ and $P_2$) of semantic code. Then we may set out two main types of semantic structure MPCs are based on and, accordingly, two main classes of MPCs:

Class 1. $P_1 \leftarrow P_2$. One MPC component takes another as an argument according to its valence potential. The most obvious example of this is sentential complementation.

Class 2. $P_1 \leftarrow P_3 \rightarrow P_2$. Both MPC components are arguments of a semantic element $P_3$, which we shall call a dominant. For example, if a dominant is manifested by a causative conjunction (e.g. Japanese *kara*)[7] it takes both main and subordinate clauses as arguments.

Usually a dominant is manifested by those units which tend to lose their syntactic independence. The tighter bound they become to one of the MPC components, the more a MPC shifts from analytic type to synthetic.

Thus the opposition "analytic vs synthetic" should be also viewed as a scale rather than as a dichotomy.

The scale of coordinateness is formed only by MPCs of Class 2. One extreme of this scale is "minimum of coordinateness" with MPCs that contain sentential circumstantials, or "true" subordinate adverbial clauses. Another extreme is "maximum of coordinateness" with "true" coordinate MPCs.

The position of a MPC on this scale seems to be simultaneously governed by several factors. Most of them deal with different kinds of linguistic symmetry in that components of "true" coordinate MPC are homogeneous with respect to their morphological, syntactic, semantic and communicative parameters.

## 3.Degree of coordinateness and linguistic symmetry

3.1. The position of MPC on the scale of coordinateness is correlated first and foremost with logical symmetry of its dominant. As a rule, a dominant is a logical or temporal relation. Symmetric relation (e.g. logical conjunction or disjunction) is a base for coordinate MPCs. Asymmetric relation (e.g. logical implication) is a base for MPCs with a sentential circumstantial.

In a natural language, however, even the meaning of elementary conjunctions, such as *if* or *and*, is not equal to its logical correlate. As a result, the semantic nuances of a dominant could alter the degree of coordinateness of a given MPC.

Thus a dominant can indicate whether MPC components are of different importance within the situation being described. For instance, the meaning of Japanese conjunction *shi* is asymmetric: *X shi Y* means '*Y* is more important than *X*, but does not contradict *X*'.This meaning approximately corresponds to English *and what is more*.The conjunction *shi* may be supported by lexical devices that increase semantic asymmetry:

*(3) sore de chidory ga kanaradzu*
thus plover SUBJ surely
*sukuidaseru to wa ienai*
can=be=rescued QUOT TOP one=can't=say
*shi sore ni sore o suru*
and=what=is=more besides this DOBJ do
*ni wa omae wa totemo tsurai me ni*
to TOP you SUBJTOP very hardship IOBJ
*awanakute wa iranai no da yo* [AK2,106]
you'll=have=to=meet the=fact=is
'I cannot say that this is an unfailing way to rescue the plover, and what is more, in doing this you will have a lot of trouble.'

Semantic symmetry may also reveal itself in that the same semantic constraints may be applied to both

MPC components. Thus, according to [Kuno 1973: 195-199], in Japanese MPCs with gerund (*-te* form) both predicates must be either self-controllable, or both non-self-controllable, while such a constraint does not seem to hold for the conjunctive (*-i* form).

3.2. Another parameter that influences a MPCs degree of coordination is the distribution of the communicative functions between MPC components. The distribution of communicative load between MPC components can be explicated also in terms of grounding, as in [Myhill-Hibia 1988] where the authors compare foregrounding features of Japanese clauses containing *-te* and *-i* non-finite forms. They consider such factors as continuation of the same (human or non-human) subject and chronological sequencing of coded events and conclude that the *-i* form is favoured in cases with no transition from backgrounding to foregrounding or similar discontinuity. This feature of the *-i* form-containing MPCs may be treated as a manifestation of a rather high degree of their coordinatness.

Differing in communicative symmetry, MPCs may consequently differ in liability to transformational operations. Thus S.Kuno [1978 : 123-124] introduced several tests to indicate the distribution of communicative load between MPC components in Japanese sentences containing *-te* or *-i* forms. Among them is the MPC behavior with respect to such syntactic processes as relativization, attachment of an interrogative particle, or the substitution of the subject with *wh*-interrogative word. Thus sentence *(4)* being communicatively asymmetric can undergo all these transformations (in the borrowed examples we keep the author's transcription and interlinear translation):

*(4)* *bukka ga agar-i, minna ga komatte iru*
price rise-GER all suffering are
'Prices rising, all are suffering.'

*(4a)* *[bukka ga agar-i, komatte iru] hitotati*
price rise-ing suffering are persons
'People who, prices going up, are suffering.'

*(4b)* *bukka ga agar-i, minna komatte iru ka*
price rise-ing all suffering are Q
'Prices going up, are all suffering?'

*(4c)* *bukka ga agar-i, dare ga komatte iru ka*
price rise-ing who suffering is Q
'Prices going up , who is suffering.'

In contrast sentence *(5)* cannot undergo these transformations because of its communicative symmetry:

*(5) Taroo ga Amerika ni ik-i, Hanako ga*
to go-GER
*Huransu ni itta*
France to went
'Taroo went to America, and Hanako went to France.'

Kuno [1978 : 123] concludes that *-te* and *-i* medial forms "can be used for both coordination and subordination". Within the framework of the scalar approach we prefer to interpret Japanese non-finite forms as capable of constituting MPCs with different degree of coordinateness, with communicative symmetry being one of many parameters that shift the MPC to and from "true" coordination. In addition as we shall see below, the very fact that a medial form can, in principle, enter a communicatively asymmetric MPC, lowers the degree of coordinateness of a communicatively symmetric MPC containing this form.

3.3. Now we shall consider the more surface types of linguistic symmetry. The main feature of "true" coordination is the identity of syntactic function of coordinated groups. With respect to coordinate MPC that means that the MPC components are either head predicates, or predicates subordinated to the same node. Functional identity is supported by morphological devices: components of "true" coordinate MPC tend to use the same grammatical forms.

One of the main grammar parameters that determines the degree of coordinateness is the symmetry in using finite or non-finite forms. Other things being equal, bifinite MPCs (i.e. MPCs with both final predicates) have a higher degree of coordinateness than those with one final and one medial.

Nevertheless, even bifinite MPCs based on a logically symmetric dominant may differ in degree of coordinateness for certain surface reasons. One of these reasons is the way of manifesting the dominant. Conjunctions or other elements commonly used for coding the dominant tend to be attached to one of the clauses thereby losing their morphosyntactic independence[8]. This stresses the asymmetry of clauses and lowers the MPCs' degree of coordinateness.

On the other hand, there exist at least two symmetric ways to code a dominant. First, a dominant may be reduplicated in each MPC component, second, a dominant may have a zero surface manifestation (so called "conjunctionless coordination"). Consequently the more symmetric is a device for coding a dominant the higher is a degree of coordinatness.

3.4. However "true" coordination is not limited to bifinite area. An alternative example is the Japanese

non-finite *-tari* form (so called representative). This form may designate a situation which represents a number of repeated, alternating or distributed situations, cf. [Martin 1977 : 566]. The meaning of *X-tari* may be approximately interpreted as 'some happenings, for example *X* or something of that kind'. The *-tari* form can enter the so called representative construction *X-tari, Y-tari suru* where two or more predicates have *-tari* form, while grammar markers are fixed to a final auxiliary verb *suru* 'to do':

*(6) watashitachi wa mainichi kotoba o*
we SUBJTOP every=day words DOBJ
*tsukatte hanashitari, kiitari,*
using speakNF(and=so=on) listenNF(and=so=on)
*kaitari, yondari*
writeNF(and=so=on) readNF(and=so=on)
*shimasu* [AK2,69]
'Every day using words we speak, listen, write, *and* read [and so on and so on].'

As we can see the components of this MPC are symmetric both from a semantic and a formal point of view, because all of them are manifested by the same non-finite *-tari* form, and because the relationship between predicates ("incomplete enumeration") is very close to conjunction. We conclude that the high degree of coordinateness can be expressed by MPCs other than those with finite predicates.

Consequently we may conclude that components of "true" coordinate construction are homogeneous in all their main characteristics. However, while symmetry is necessary it is not sufficient by itself for "true" coordination.

**4. Degree of coordinateness and prototypical functions of MPC elements**

In estimating the degree of coordinateness of a certain MPC we should take into consideration not only its immanent characteristics, but also general linguistic abilities of its elements That means, in particular, that we should also consider the degree of coordinateness of all other MPCs these elements can enter.

Thus, in synthetic MPCs of the Altaic type the degree of coordination is influenced in particular by syntactical abilities of the medial predicate. For example, some participles in Turk and Manchu-Tungus languages can function as a predicate of an independent simple sentence. Thus, the perfect participle in the Sibe language is used as a finite form to express first-hand knowledge of the event cf.[Norman 1974 : 170]. Consequently, MPCs using these participles occupy

a higher position on the scale of coordinateness than those whose medial forms cannot be used independently. On the other hand, the MPCs' degree of coordinateness becomes lower if it contains a non-finite verbal form that can be used not only as a medial predicate but also in some other purely dependent positions.

A possible example of this situation is the gerund in Japanese. The gerund usually forms a MPC with a "true" adverbial clause. The dominant of this MPC is mainly a logical or temporal asymmetric relation, such as "natural conclusion", like in *(7)*:

*(7)* *ojisan* *wa* *toshi* *o* *totte ite*
grandpa SUBJTOP years DOBJ hasNF
*mimi ga toi* [AK3,25]
is=hard=of=hearing
'Grandpa being old is hard of hearing.'

Final form and medial *-te* form can designate different sides of the same situation as in *(8)*:

*(8)* *zo* *wa* *kusa* *ka* *ki* *no*
elephant SUBJTOP grass or trees ATTR
*ha* *o* *tabete* *ikite iru* [AK3,38]
leaves DOBJ eatNF lives
'Elephants live on eating grass and leaves of trees.'

However, the syntactic potential of the *-te* form is not limited to circumstantial functions. It can also form a sentential complement, as in *(9)* and a relative clause, as in *(10)*. In *(9)* the gerund form *ikenakute* 'being not able to go' indicates an object being estimated:

*(9)* *watashi* *wa* *ikenakute*
I SUBJTOP couldn't=goNF
*zannen deshita* [AN,323]
sorry
'It's a pity, I couldn't go.'

In *(10)* the gerund form *mite* 'seeing' is relativized by means of attributive marker *no*:

*(10)* *eiga o* *mite* *no* *toron* [SU.1990.4.1]
film DOBJ seeNF ATTR discussion
'The discussion after (or 'connected with') viewing the film.'

In addition, the *-te* form can lose its syntactic status and serve as a postposition specifying the relationship between a predicate and its complement:

*(11)* *genzai* *wa* *watashitachi* *ni*
nowadays SUBJTOP we IOBJ
*totte* *kibishii fuyu*
for (*toru* 'to take' + NF) severe winter
*no* *jidai* *de aru* [SU.1990.4.1.]
ATTR period is

'Now it is a hard time for us ('a period of severe winter is upon us').'

The evidence presented shows that the Japanese gerund is widely used in a subordinate syntactic position. We should also take into consideration the fact that MPCs with a gerund undergo syntactic transformations possible only for "true" subordinate clause (see section 3.2.). Thus, a gerunds' prototypical function in Japanese is subordination. This is one more reason (apart from morphological asymmetry) that "spoils" the coordinateness of even semantically symmetric MPCs containing a gerund.

Thus the position of a MPC on the scale of coordinateness is governed by two main factors:

(a) by the symmetry of its components,

(b) by the prototypical function of its elements.

## 5. Conclusions

We started our discussion by introducing Altaic-type MPCs with an originally subordinate medial form used for the purpose of predicate coordination. This type of MPC is worth extensive investigation because it helps to reveal the universality of some linguistic principles.

As a rule if a language has MPCs of the Altaic type, it has more than one medial form, which can be in semantically symmetric relationship with a final predicate. We may even say that in some languages a basic syntactic strategy of predicate coordination is to use prototypically subordinate forms.

In Japanese the following medial forms are used for purpose of coordination: verbal negative forms ending with *-nai, -nakute, -dzu,* non-finite *-ku* and *-kute* forms of predicative adjectives and some others. Moreover, apart from these generally conjunctive forms it is possible to use the conditional *-ba* form to mark predicate coordination. Consider the following example:

*(12)* *usu* *ya* *kine* *o* *uru* *mise*
mortar and pestle DOBJ sell shops
*mo* *areba,* *yama* *kara*
alsoSUBJTOP beCOND mountains from
*matsu* *o* *kitte* *kite*
pine=tree DOBJ having=cut having=come
*utte iru hito mo* *imashita* [AK2,49]
selling people alsoSUBJTOP were
'There were shops selling mortars and pestles, and also there were people selling pines they had cut in the mountains.' (Mortars, pestles and pines are ritual objects for a New Year ceremony).

In *(12)* the semantic symmetry is supported also by

morphological devices: in both clauses subjects are marked with topicalizer *mo* 'also'.

Thus these MPCs are not "truly" coordinate because of communicative asymmetry and prototypical conditional meaning of conjunction. Nonetheless, because of their semantic symmetry, they have a higher degree of coordinateness than pure conditional constructions.

The evidence presented shows some advantages of the scalar approach to predicate coordination. Naturally this article was not able to cover the whole subject. As a matter of fact we did not touch upon rhetorical reasons that have an influence on the choice of linguistic strategy. According to [Inoue 1984 : 60] non-finite forms are used in Japanese to avoid a reiteration of the same chain of morphemes, which would otherwise be necessary because of Japanese SOV word-order. Distinguishing universal from particular regularities governing the choice of predicate coordination strategy is a topic worthy of further study.

## Notes

1. In publications of the Novosibirsk group headed by M.I.Cheremisina the term "synthetic complex sentence" is used as the equivalent of "clause-chain". Cf. for example [Cheremisina 1986], where its application to Altaic languages is extensively discussed.
2. In [Martin 1977 : 475-552] the Japanese non-finite *-te* and *-i* forms are called gerund and infinitive, respectively. In [Kuno 1973 : 195-200] *-te* form is called gerundive and *-i* form is called continuative. Note that in his later work S.Kuno [1978: 121-124] reverses these terms.
3. In the interlinear translations the following abbreviations are used: ATTR (attributive), COND (conditional), DOBJ (direct object), GER (gerundive), IMP (imperative), NF (non-finite synthetic form), IOBJ (indirect object), LOC (locative), NOM (nominalizer), QUOT (quotational conjunction), SUBJ (subject), TOP (topic).
4. Japanese examples are taken from: MS (Matsumoto Seicho. Kyukei no arano. Tokyo.1969), AK (Atarashii kokugo. Parts 1-6. Tokyo.1981), SU (Shisō undo. Tokyo.1990), AN (Atarashii nihongo. Tokyo.1989).
5. This problem is discussed with respect to the Tuvin language in [Bergelson-Kibrik 1987] where a compromise term "quasicoordination" was introduced.

6. This term is used in the same sense as in [Haiman 1985].
7. Two classes of MPCs set out here correspond with the opposition of embedding and clause-combining as formulated in [Matthiessen - Thompson 1988]. This correspondence is significant the more so as C.Matthiesen and S.A.Thompson appeal mainly to discourse factors, while my reasoning is limited to sentence-level structures.
8. Because its basic word-order is SOV, Japanese tends to use conjunctions in the inter-clause position by attaching it to the preceding clause, cf. for example [Schachter 1985 : 47].
9. Semantic relationships between a final predicate and a medial *-te* form are considered by [Inoue 1984], [Syromyatnikov 1971: 36-45]. The "natural conclusion" relation is defined for the purposes of multipredication in [Levin 1970].

## References


Bergelson, M.B.& Kibrik, A.A. (1987) 'Switch-reference in the Tuvin language.'(In Russian). Sovetskaja T'urkologija.Vol II, N4, 16-32.

Cheremisina, M.I., Brodskaya, L.M. et.al. (1986) Strukturnye Tipy Polipredikativnyx Konstrukcyj v Jazykax Raznyx Sistem. (In Russian). Nauka.

Foley, W.A.& Olson, M. (1985) 'Clausehood and verb serialization.' In J.Nichols & A.C.Woodbury (eds), Grammar Inside and Outside the Clause: Some Approaches to Theory from the Field. Cambridge University Press, 17-60.

Foley, W.A.& Van Valin ,R.D. (1984) Functional Syntax and Universal Grammar. Cambridge University Press.

Haiman, J. (1985) Iconicity in Syntax (Proceedings of the Symposium on Iconicity in Syntax). John Benjamins.

Inoue, K. (1984) 'Some discourse principles and lengthy sentences in Japanese.' In Miyagawa Shigeru & Kitagawa Chisato (eds), Studies in Japanese Language Use (Current Inquiry into Language, Linguistics and Human Communication). Carbondale, Edmonton Vol ILVIII, 57-87.

Koenig, E.& Auwera J. (1988) 'Clause integration in German and Dutch conditionals, concessive conditionals,and concessives.' In J.Haiman & S.A.Thompson (eds), Clause Combining in Grammar. John Benjamins, 101-133.

Kuno, S. (1973) The Structure of the Japanese Language. MIT Press.

Kuno, S. (1978) 'Japanese: a characteristic OV language.' In W.P.Lehmann (ed), Syntactic Typology. University of Texas Press, 57-138.

Lehmann, C. (1988) 'Towards a typology of clause linkage.' In J.Haiman & S.A.Thompson (eds), Clause Combining in Grammar. John Benjamins, 181-225.

Levin, Y.I. (1970) 'On one group of conjunctions in Russian.'(In Russian). Masynnyj Perevod i Prikladnaja Lingvistika. Vol XIII, 64-88.

Martin, S.E. (1977) A Reference Grammar of Japanese. Yale University Press.

Matthiessen, C.& Thompson, S.A. (1988) 'The structure of discourse and 'subordination'. In J.Haiman & S.A.Thompson (eds), Clause Combining in Grammar. John Benjamins, 276-329.

Myhill, J.& Hibia Junko (1988) 'The discourse function of clause-chaining.' In J.Haiman & S.A.Thompson (eds), Clause Combining in Grammar. John Benjamins, 361-399.

Norman, J. (1974) 'A sketch of Sibe morphology.' Central Asiatic Journal. Vol XVIII, N3.

Schachter, P. (1985) 'Parts of speech systems.' In T. Chopen (ed), Language, Typology and Syntactic Description. Cambridge University Press, 3-61.

Syromyatnikov, N.A. (1971) Sistema Vrem'on v Novo-japonskom Jazyke.(In Russian). Nauka.