

Conditionals and Modality: A Reexamination of the Function of *Ba* and Volitional Expressions¹

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In Japanese language education, conditionals are one of the most difficult grammatical items for learners to acquire, as well as for educators to teach. This is in large part due to the fact that the forms in English (if/when) correspond to four forms (*to/ba/tara/nara*) in Japanese. Among these conditional forms, it has been pointed out by some reserchers that *ba* attached to a non-stative predicate cannot invite so-called volitional expressions, while *ba* attached to a stative predicate can invite such expressions in the consequent. Yet an adequate explanation as to why such a difference exists has not been delineated. This paper reveals critical features of *ba* conditional sentences that give a reasonable answer to such concerns.

Contrary to most research in this area, it is found that the stative / non-stative predicate dichotomy is not precisely the key to explaining the appropriate use of volitional expressions in the consequent of *ba* conditional sentences. This can be most easily seen in the co-occurrence of non-stative predicates in *ba* conditional and volitional expressions. Use of volitional expressions in the consequent in *ba* conditionals is not dependent on whether or not a predicate is stative, but rather, dependent on the determinability, and volitional controllability of a predicate in the antecedent.

Indeterminable, volitionally uncontrollable predicates co-occurring

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with a *ba* conditional tend to receive only a hypothetical interpretation. A hypothetical situation is a not-yet-realized situation; therefore, volitional expressions that are also not-yet-realized situations are compatible with such *ba* antecedents. This observation also gives a key as to why gradation is seen in the compatibility of the *ba* antecedent and volitional expressions, and to why deontic constructions such as command and request are incompatible with a *ba* antecedent in the case of volitionally uncontrollable, indeterminable predicates.

INTRODUCTION

The term “conditional” is used to represent “hypotheticality,” which itself usually refers to a logical hypothesis: a tentative assumption made in order to draw out logical or empirical consequences. In natural language, hypotheticality is expressed in conditional sentences which are commonly understood as not having truth value, i.e., the constituent propositions are not known to be true. They can be neither determined nor observed; rather, they reflect a realm of possibility that is explored simply by considering an alternate way the world might have been or might be, i.e., a non-actual situation. Conditional sentences invite one to imagine that certain hypotheses hold, and invite consideration of the consequences of these hypotheses. They do not, however, require commitment of believing that a given proposition is true. They have neither truth value nor factivity, but express possible worlds in which one cannot determine the truth of the antecedent nor the truth of the consequent. Neither is given as truth. In this sense, conditional sentences can be said to express modality.²

In Japanese there are four conditional forms, *to*, *ba*, *tara*, and *nara*, which can be used to express either a hypothetical situation (if) or a non-hypothetical situation (when). Whether the Japanese conditional sentences express “if” or “when” depends on the nature of the consequent clause, and on pragmatic judgments made by the speaker.³ This is in large part why conditionals are one of the most difficult grammatical items for learners to acquire, as well as for educators to teach, in Japanese language education.

Among these conditional forms, it has been pointed out by some researchers that *ba* attached to a non-stative predicate cannot invite so-called volitional expressions, such as will, hope, request, command, and so forth, while

² Modality, in this article, is defined as a matter of the degree of possibility and actuality of a not-yet-realized proposition, i.e., a possible / non-actual world situation (Johnson, 1994, 1999).

³ In this sense, as used by Hinds and Tawa (1975), the term conditional refers to the complete sentence, both antecedent and consequent, which contains any of the four conditional forms. Also, refer to the arguments of Akatsuka (1983) and Jacobsen (1992) in this regard.

ba attached to a stative predicate can invite such expressions in the consequent. Yet an adequate explanation as to why such a difference exists has not been spelled out. The purpose of this paper is to reveal critical features of *ba* conditional sentences that give a reasonable answer to such concerns. In order to do so, features of *ba* conditional sentences will first be reexamined.

Hypotheticality and the Conditional *Ba*

In past studies, *ba* has been variously described as: expressing a connection between a condition and a causal relation (Alfonso 1966, Koide and others 1981); implying an unmentioned opposite alternative in the antecedent (Hinds & Tawa 1975); expressing a speaker's hopes or wishes that a situation will be true (MacGloin 1977); expressing hypotheticality because of the grammatical requirement that it not be used in a past context (Koide and others 1981); and expressing a general causal relation that is established beyond the time framework depending on the combination of the antecedent and the consequent (Masuoka 1995). *Ba* certainly has all of these functions, yet identifying particular semantic functions is only a part of the process of defining the fundamental function of the *ba* conditional. *Ba* sentences herein are approached from the viewpoint of modality. When viewing *ba* in terms of hypotheticality and non-hypotheticality, it is apparent that it can in fact be used to express both, although in day-to-day conversation, it most often expresses the former. The question is, then, what factors result in the expression of non-hypotheticality or hypotheticality in *ba* sentences and to what degree.

The formation of a *ba* constructions is such that *ba* follows the so-called "e" form of a predicate, *kake-ba* "if you write," and *omoshirokere-ba* "if it is interesting," for example. The "e" form of a predicate does not possess independent meanings or functions the way a *ta* form used in conjunction with *tara* does or a *ru* form preceding a *to* form does. It seems that *ba* sentences emphasize neither a one-time event (as with *tara* sentences) nor a natural course of events (as with *to* sentences). The former observation is especially true when *ba* is used to refer to realized situations (actual world situations); it refers to general and habitual events, but it does not indicate a single specific event. The following case, where a one-time event is about to be realized, also exemplifies this observation:

- (1)* a. Abunai! Otose-ba wareru!!
 watch out drop-COND break
 "Watch out! If you drop it, it will break!!" (MacGloin 1976)
- b. Abunai! Otoshi-tara wareru!!
 watch out drop-COND break
 "Watch out! When you drop it, it will break!!"

- c. Abunai! Otosu-to wareru!
 watch out drop-COND break
 “Watch out! When you drop it, it will break!!”

In sentences (1)a, b, and c, the event “to drop” appears about to be realized and the speaker shouts a warning. The immediacy of the event is indicated by the word *abunai* “watch out.” MacGloin (1976) pointed out that *ba* sentences are used to express a speaker’s hopes or wishes that a given situation will be true, but in contrast *ba* cannot be used when a speaker intends a “warning.” MacGloin’s statement is valid only as far as the immediacy of the warning is concerned. For example, *Ii? kono kusuri o mainichi chanto nomana-kere-ba yoku-nara-nai-n-da yo* “Listen. If you do not take this medicine every day regularly, you will not get better,” is also a warning, but here *ba* can be used. The difference is a lack of immediacy. In the example about taking medicine, the speaker believes that the listener has time to process the information before reaching a point where s/he must carry out the action described in the warning. Furthermore, such a warning is not limited to an exclusive occasion. In the warning in sentence (1)a, the speaker believes the immediacy of the situation is such that the listener must take action immediately. The non-use of *ba* is not due to the element of warning, but rather to the immediacy of that warning.⁴ The fact that *ba* is not used to give such a warning supports the idea that *ba* is not an appropriate option to describe a single specific event in the domain of actual worlds, i.e., an “(at the time) when” interpretation is not applicable.

The inappropriateness of the use of *ba* for a single, specific event can, however, be recovered by removing the word *abunai* “watch out.” The following example supports this observation:

⁴ The premise of the hypothetical non-use and non-hypothetical use of *ba* can be further illustrated by examining the seemingly subtle differences between an “immediate warning” described above and a “threat.” Both *ba* as well as *tara* can be used in a causal relation which indicates a “threat.” This is because the premise of a threat is that in the antecedent the speaker is expressing an indeterminable situation. In the following examples, there is no guarantee of the antecedent being realized. The antecedent expresses a non-actual world situation in which, in this case, the listener will give the speaker some money.

- a. Kane o dase-ba himitsu wa mamoru. (Koide and others, 1983)
 money ACC give-COND secret CONT keep
 “If you give me money, I will keep the secret.”
- b. Kane o dashi-tara himitsu wa mamoru.
 money ACC give-COND secret CONT keep
 “If /when you give me money, I will keep the secret.”

The realization of the antecedent in a “threat” sentence like this is not predictable or determinable, yet the consequent keeping of the secret is valid only contingent on the realization of the antecedent.

- (2) Otose-ba wareru sa. Sonna koto atarimae daroo.
 drop-COND break PART such thing natural COP
 “(Glasses) break upon being dropped. It is natural, isn’t it?”

Although the word *abunai* “watch out” could be used to indicate that the situation is about to be actualized, i.e., that a situation is teetering on the edge of realization, once this word is removed, sentence (2) can be interpreted as expressing general knowledge the speaker possesses. Such general knowledge about the world is acquired by iterated observation of previous events which in turn comes to be accepted as general. Events iterated in the actual world, therefore, no longer belong in the domain of non-actual worlds. In this case the whole sentence acts as a hypothetical sponge, absorbing a multiple subject and expressing habituality and generality. This use of *ba* is often seen in a sentence with an “everyone” subject. This is why *ba* sentences are often interpreted as expressing a notion that is equivalent to “whenever” or “every time” in English as expressed in sentence (2). This remark again demonstrates that *ba* conditional sentences can be used to express not only hypothetical situations, but also non-hypothetical situations. These non-hypothetical situations, however, cannot be perceived as expressing one-time events as *tara* sentences do, but events which a speaker can recognize as repeatable. In other words, *ba* sentences are used to express either a not-yet-realized situation, an indeterminable situation, or an iterated, general event.

A question arises, however, as to the difference between *ba* and *to*, which is also used to express a general, natural course of events. The following sentences are examples of some scientific facts that compare the use of *ba* and *to* (*to* is appropriately used):⁵

- (3)* a. Taiyoo wa higashi kara dere-ba nishi e shizumu.
 sun TOP east from rise-COND west LOC set
 “If the sun rises from the east, it sets in the west.”
- b. Taiyoo wa higashi kara deru-to nishi e shizumu.
 sun TOP east from rise-COND west LOC set
 “The sun rises from the east and sets in the west.”
- (4) a. Haru-ni-nare-ba sakura ga saku.
 spring-become-COND cherry flowers NOM bloom
 “Whenever spring comes, cherry flowers bloom.”

⁵ In order to avoid subjective judgments made solely by the author regarding the relative appropriateness / inappropriateness of various sentences, a survey was conducted to assemble native Japanese speakers’ intuitive judgment. Questionnaires were distributed to forty native speakers of Japanese between the ages of 20 and 40 living in Tokyo. The group included twenty women and twenty men, none of whom speaks a second language. They were asked to answer the questions intuitively, and their replies were used to decide problematic points of commonly acceptable practical language use.

- b. Haru-ni-naru-to sakura ga saku.
 spring-become-COND cherry flowers NOM bloom
 "When spring comes, cherry flowers bloom."

Most Japanese speakers would consider that sentence (3)a is grammatically unacceptable or awkward, while sentence (4)a is acceptable and, in fact, frequently used. Both events—the sun's movement and the cherry flower bloom—are considered scientific facts which are recognized as expressing natural phenomena that are known by everyone and are taken for granted; neither sentence can be perceived as expressing hypotheticality. This is due to the fact that scientific facts exclusively exist in an actual world domain, and can no longer be viewed from an indeterminable world domain once they are established as facts, i.e., the "if" interpretation is not applicable. As seen in sentences (3)b and (4)b, there is no problem in describing these phenomena using *to*, but this is not the case for *ba*. A question arises, then, as to what accounts for the appropriateness of sentence (4)a regardless of the fact that both events are exclusive to the actual world domain.

The key can be found in the MacGloin's research (1976) where she states that *ba* sentences express a speaker's hopes or wishes that a situation will be true. For most *ba* sentences, this claim is applicable as represented by sentence (4) in which the speaker hopes for the arrival of spring and for the blossoming of cherry flowers. Sentence (4)b, on the other hand, does not create such connotation; it merely states the sentence as a factual event. Nevertheless, such a function of *ba* is not limited to positive connotation, but also includes adverse connotation, such as a warning, as exemplified in *kono kusuri o noma-nakere-ba yoku nara-nai* "if you do not take this medicine, you do not get better." In this sentence, the speaker certainly does not hope the situation described in the sentence "do not take this medicine; do not get better" will be true, but the speaker's hope is expressed in the "invited inference"⁶ interpretation—if you take this medicine, you will get better. MacGloin's postulation should be slightly modified to reflect that *ba* sentences express a speaker's expectation / perspective that the whole statement

⁶ Hypothetical situations often caused a speaker to imply or a listener to infer that a result other than that expressed in the antecedent is possible due to the unpredicatability of the realization of the expressed antecedent. For example, in the used of natural language, if one says "if you give me 10 dollars an hour, I would work for you" this invites an inference of the opposite situation—"if you do not give me 10 dollars an hour, I would not work for you." This tendency is referred to as an "invited inference" proposed by Geis and Zwicky (1971), who pointed out the applicability of biconditionals to natural language phenomena and suggested that a sentence of the form $X \supset Y$ invites an inference of the form $\sim X \supset \sim Y$. Although they conclude that there is no evidence of a direct relationship between invited inferences and syntactic form, it is not difficult to perceive that the higher the degree of hypotheticality of a sentence, the stronger the possibility of the proposition's suggestion invited inference.

is valid from the speaker's viewpoint.

The inappropriateness of *ba* in sentences that express scientific fact seems due to this pragmatic function of *ba*. Especially a sentence such as (3)a, that describes the sun's movement, is seldom referred to in everyday conversation, since we take such phenomena for granted. It is perhaps even rarer for one to look forward to or anticipate such an event as the sun's movement. Sentence (4)a, on the other hand, can easily be perceived as expressing the situation where the speaker is anxiously waiting for spring to come and for flowers to bloom. Therefore, it can be said that the appropriateness or inappropriateness of this type of sentence is attributed to singling out the sentence without providing any context. In fact, the addition of phrases such as *atarimae-da* "it is naturally the case that ~," makes sentence (3)a as equally appropriate as sentence (4)a and can be accepted as naturally as sentence (2). This premise is applicable to most universal truths, scientific facts, and general courses of events.

The reason why *ba* is awkward in expressing these concepts alone, however, does not seem only due to an insufficient supply of context, but also to the fundamental function of *ba*. That is, *ba* can vacillate between hypothetical and non-hypothetical worlds depending on the speaker's perception and context. For example, as mentioned earlier, scientific facts exclusively exist in an actual world domain, and they can no longer be viewed from a hypothetical world domain once established as fact. Yet, when *ba* is used to express a scientific fact, it gives an impression that it can also be interpreted as "if," such as "if the sun rises from the east" and "if spring comes," and creates a pragmatically inappropriate meaning. Thus, *ba*'s ability to vacillate between two opposite worlds generates awkwardness in the interpretation of events in the scientific domain.

An actual world situation is determinable, i.e., its occurrence can be observed by the speaker due to an objectively perceptible event. In fact, determinability plays a significant role in defining the correct conditions for the use of the *ba* conditional. This can clearly be demonstrated in past context since past events are realized events and are objectively perceptible. In the following section the behaviors of *ba* sentences are examined based on the dichotomy of determinable / indeterminable predicates.

Determinability / Indeterminability and *Ba* Sentences in Past Context

1 Indeterminability and *Ba* Sentences in Past Context

Although it has been illustrated that *ba* can be used to express general, non-hypothetical events in non-past context, such as seen in sentence (4) *haru ni nare-ba sakura ga saku* "cherry flowers bloom in spring," most *ba* sentences in past context create an "invited inference" that points to a different or opposite result from the one described. The following are some examples of this case:

- (5) Kanojo ga iwa-nakere-ba daremo shinjitsu o
 she NOM tell-NEG-COND no one truth ACC
 shira-nakat-ta.
 know-NEG-PAST
 "If she did not tell, no one would have known the truth."
- (6) Hikooki ga jikandoori ni tsuke-ba
 airplane NOM on time TEMP arrive-COND
 tsugi no hikooki ni maniat-ta.
 next GEN airplane DAT in time-PAST
 "If the plane (I took) was on time, I would have been in time for the
 next plane."
- (7) Tenki ga warukere-ba, shiai wa chuushi-ni-nat-ta.
 weather NOM bad-COND game TOP cancel-become-PAST
 "If the weather was bad, the game would have been cancelled."

Normal interpretations of these sentences are that they imply the unmentioned opposite alternative to the situation expressed in the sentence, such as: "the truth was in fact discovered by her disclosure;" "the delay of the plane caused the speaker to miss the next plane;" and "the game was cancelled due to the bad weather," respectively. Sentences (5) and (6) are concerned with a particular person's single event, and cannot be viewed in terms of accustomed activity. In order for these sentences to receive habitual interpretations, specific context and / or grammatical devices such as additional use of *mono-da* "used to be," could be included; otherwise, these sentences convey a counterfactual meaning. Sentence (7), on the other hand, shows a slightly different aspect; it is possible to interpret the sentence as expressing a certain degree of habituality. This is due to the fact that the bad weather pattern can be viewed as a common phenomenon which may habitually end up cancelling the game. Such an interpretation causes one to envision that the speaker is remembering the past and being nostalgic about the fact that the game was cancelled every time the weather went bad. In either speaking or writing, without a device such as *mono-da naa* . . . "used to be," the sentence is not effective in expressing such speaker feeling toward the past event.

When paying careful attention to the type of predicates used in the antecedents, one recognizes that these conditions are illustrated by stative predicates (sentences (5) and (7)) and intransitive verbs (sentence (6)) that are considered indeterminable predicates as defined in this article.⁷ These predicates can-

⁷ Indeterminable, volitionally uncontrollable events such as weather can be observed objectively as habitual phenomena. However, the point here is that without any additional information, such interpretation may be possible. For example, the accompanying *kanarazu* "without fail" to *ame ga fure-ba koozui ni nat-ta* can denote the event's habitual occurrence "every time it rained (the river) flooded without fail," but without such an adverbial phrase, the sentence receives a counterfactual interpretation.

not likely be viewed as expressing habitual concepts. Again, indeterminable predicates here play a significant role for *ba* sentences to receive a hypothetical meaning.⁸

2 Determinability and *Ba* Sentences in Past Context

Although most *ba* sentences in past context can be said to express a counterfactual event, there are some cases where *ba* can express past habitual events. Generality, connoted in past habitual events, often describes a speaker's emotional reminiscences. Such use of *ba* to express the emotional demeanor of the speaker is comparable to the use of *ba* in non-past context where the speaker expects that the whole statement valid. The spatio-temporal distance between the time of speech and the time referenced can be described as different directions relative to a boundary formed by the time of speech: the hopes / wishes / expectations of the speaker are referenced from the time of speech toward the future in non-past context; on the other hand, the reminiscence / nostalgia of the speaker is referenced toward the past. Thus, *ba*'s function can commonly be seen in both contexts.

Determinable predicates communicate such non-hypothetical notions since they describe events that are volitionally controllable, generalizable, and / or predictable to the speaker, i.e., the realization of an event can be determined by the speaker due to the knowledge the speaker possesses. The difference in the way determinability is viewed in *ba* sentences from which *to* and *tara* sentences are viewed is that determinability communicates habituality, but not semelfactivity, since *ba* sentences cannot be used to express a one-time event. With such circumscription, when determinable predicates are used in a *ba* construction, the *ba* sentence in past context can convey either a habitual event or a counterfactual event. Such interpretation is possible given the fact that the meaning of Japanese conditional sentences is not merely dependent upon the antecedent, but the consequent also has impact on the interpretation of the sentence. The following examples prove this observation:

- (8) a. Ame no hi ni ike-ba, mise wa
rain GEN day TEMP go-COND store TOP

⁸ Another phenomenon that might be noticed through the observation of example sentences (5)–(7) is the compatibility of the predicate in the consequent with the antecedent. When volitionally uncontrollable predicates are used in the antecedent, the predicate in the consequent is also more compatible with the same type of predicates. For example, *maniat-ta* “was in time” and *shira-nakat-ta* “did not know” in sentences (5) and (6) are negative (stative) and intransitive predicates, respectively, that are in the volitionally uncontrollable category, and therefore the sentences do not create awkwardness.

suite-i-ta.

not-crowded-PERF-PAST

“Every time we went to the store on a rainy day, it was uncrowded. / If I went to the store on a rainy day, the store would not have been crowded.”

- b. Ototoi no ame no hi ni ike-ba,
the day before yesterday GEN rain GEN day TEMP go-COND
mise wa suite-i-ta . . .
store TOP uncrowded-PERF-PAST

“If I went to the store the day before yesterday, which was a rainy day, the store would not have been crowded.”

- c. Ame no hi ni itte-ire-ba, mise wa
rain GEN day TEMP go-PERF-COND store TOP
suite-i-ta.

not-crowded-PERF-PAST

“The store would have been less crowded if I had gone on a rainy day.”

- (9) a. Kuruma ni nore-ba kibun ga waruku-nat-ta.
car LOC ride-COND feeling NOM bad-become-PAST.
“Whenever I rode in a car, I got car sick.”

- ? b. Anotoki kuruma ni nore-ba kibun ga
that time car LOC ride-COND feeling NOM
waruku-nat-ta.
bad-become-PAST
“If I had ridden in a car, I would have gotten car sick.”

- c. Kuruma ni notte-ire-ba kibun ga
car LOC ride-PERF-COND feeling NOM
waruku-natte-i-ta.
bad-become-PERF-PAST
“If had ridden in a car, I would have gotten car sick.”

- (10) a. Ondo o 32 do ni agere-ba, koori wa
temperature ACC 32 degree to raise-COND ice TOP
toke-ta.
melt-PAST

“Raising the temperature to 32 degrees melted the ice. / If I had raised the temperature to 32 degrees, the ice would have melted.”

- b. Sono jiten de ondo o 32 do ni agereba,
that point TEMP temperature ACC 32 degree to raise-COND
koori wa toke-ta.
ice TOP melt
“If I had raised the temperature to 32 degrees at that point, the

ice would have melted.”

- c. Ondo o 32 do ni agete-ire-ba, koori wa
 temperature ACC 32 degree to raise-PERF-COND ice TOP
 toke-ta.

melt-PAST

“Raising the temperature to 32 degrees melted the ice. / If I had raised the temperature to 32 degrees, the ice would have melted.”

Sentences (8)a, (9)a, and (10)a are somewhat semantically ambiguous: they can be interpreted as expressing either a past habitual event or a counterfactual event. The interpretation of these sentences, however, depends on the degree of habituality perceived in the event in the antecedent. When the event in the antecedent is recognized as routine activity that anyone can perform iteratively, the *ba* sentence tends to receive a habitual interpretation. This observation is especially exemplified by sentences (8)a and (9)a whose interpretation is prone to be the habitual one, while sentence (10)a may not be recognized as habitual at a glance unless one is in the situation where melting ice is his / her accustomed work at a lab. Thus, the fact that there is a degree to which hypotheticality is detected in *ba* sentences should be acknowledged. The reason why sentence (9)b is considered awkward is due to this observation: the whole event described by the *ba* sentence is best viewed as the speaker’s habit rather than a one-time hypothetical event.

The habitual interpretation of these sentences can also be supported by the fact that they can accompany *itsumo* “always.” For example, sentence (10)a as a whole is concerned with a scientific fact that is proven to be true, and such relation of cause and effect should be seen equally and uniformly not only in the present / future time framework, but also in the past time framework. However, when specific context is provided, the sentence no longer expresses habituality, but expresses only counterfactuality. This is exemplified by sentences (8)b and (10)b which allow a counterfactual interpretation only. Sentence (9)b is awkward since the interpretation of the sentence leans toward the habitual one and is not reconcilable with the specificity expressed by *anotoki* “that time.” This ineffectiveness can be recovered by the use of *te-iru* seen in sentence (9)c, which is another, more effective device that allows a *ba* sentence to express a counterfactual meaning. The use of the aspectual form *te-iru* in either the antecedent or the consequent or both for non-stative predicates is a powerful method for removing the ambiguity of the sentence. This is also exemplified in sentences (8)c and (10)c.

Types of predicates are thus crucial to the investigation of the essential functions of *ba* sentences. It has to be mentioned that there are, however, cases where only a habitual interpretation is possible regardless of the type of the predicate in the *ba* construction. Those are the cases where the antecedent is describing a scientific fact or something that is perceived as occurring inevitably and habitually; therefore, an “if” interpretation is not applicable.

In this case, the whole antecedent is viewed in terms of determinability. The following are examples of such cases:

- (11) Yoru ga kure-ba, kossorito uchi o nukedashi-te,
 night NOM come-COND secretly house ACC sneak away-GER
 Momoko wa otoko no tokoro e it-ta.
 Momoko TOP man GEN place LOC go-PAST
 “Momoko sneaked away from her house and visited her boy friend every night.”
- (12) a. Haru-ni nare-ba tsubame ga ki-te,
 spring become-COND swallow NOM come-GER
 su o tsukut-ta.
 nest ACC make-PAST
 “Swallows used to come and make nests in the spring.”
- b. Kyonen haru-ni-nare-ba tsubame ga ki-te,
 last years spring-become-COND swallow NOM come-GER
 su o tsukut-ta.
 nest ACC make-PAST
 “Swallows used to come and make nests in the spring.”
- (13) Fure-ba doshaburi-dat-ta.
 fall-COND pouring-COP-PAST
 “Whenever it rained, it came down in buckets.”

Sentences (11) to (13) receive a past habitual interpretation only. In regard to sentences (11) and (12), this is simply due to the common understanding regarding the natural phenomena that night comes everyday and spring comes every year. Even a *ba* sentence can describe some kind of scientific fact; hence, it is possible to interpret the sentence as expressing a hypothetical meaning if an event in the antecedent is not necessarily realized. Such an instance was already seen in sentence (10)a where the speaker talks about the possibility of melting ice upon raising the temperature to 32 degrees. Although the whole sentence is concerned with a scientific fact, the event in the antecedent is still under the speaker's control and cannot necessarily be viewed from a habitual perspective. With sentence (11), however, a hypothetical situation interpreted as “if night had come, she would have gone to her boyfriend's place” cannot be envisioned since the invited inference that “night did not come and she did not visit her boyfriend” is hardly cognizable. The same thing can be observed for sentence (12)a. Sentence (12)b describes that scientific natural phenomena cannot express counterfactuality when they accompany the temporal element *kyonen* “last year”; this is simply an inappropriate sentence since the antecedent describes the arrival of spring as a routine phenomenon and is incompatible with a specific occasion.

Although native speakers of Japanese can naturally comprehend the habit-

ual interpretation of sentence (13), it is quite challenging to explain what factor causes the sentence to receive such an interpretation, since the antecedent is not something that can be perceived as habitual, as in sentences (11) and (12)a.

The explanation may be given in terms of the lack of cause and effect. In this sentence, “rain” and “pelting heavy rain” are identical entities that are occurring simultaneously. In other words, the consequent is describing the antecedent in that the heavy volume of rain itself is the phenomenon of rain. For example, it is easy to perceive that a flood is caused by a large volume of rain, and that a stomachache is caused by the result of eating uncooked chicken, and so forth. If the sentence describes some sort of contingency relationship between the antecedent and the consequent, the hypothetical interpretation (i.e., “if it had ~, then it would have been ~”) would have been easily comprehended.

Thus, in order for a *ba* sentence to receive only a non-hypothetical interpretation, and a hypothetical interpretation is in no way possible, an event in the antecedent has to be concerned with a phenomenon that is inconceivable not to envision as habitual, i.e., events that inevitably occur on a regular basis along with the notion of determinability are key to such an interpretation nonetheless.

The notion of determinability is thus crucial to determining the meaning of *ba* sentences in past context: indeterminable predicates have an influence over the hypothetical interpretation, while determinable predicates can render *ba* sentences to express either a counterfactual meaning or a habitual meaning. Which interpretation prevails over the other depends on the way we perceive the whole sentence: if a sentence is perceived as a routine event, a habitual interpretation prevails; if a sentence is perceived as a specific event, the sentence expresses hypotheticality. Here again, viewing *ba* sentences in terms of generality, one of *ba* and *to*'s functions is identical in that both can be used to express habitual, general events in past context. For example, *haru ni nare-ba kanarazu tsubame ga ki-ta* and *haru ni naru-to kanarazu tsubame ga ki-ta* are translated into the same English sentence “whenever spring came, swallows came without fail.” The difference is that *ba* sentences relate a speaker's nostalgia toward the past event which no longer occurs in the present time, whereas *to* sentences do not relate such an implication. This idea of “no longer the case” generated by *ba* sentences also communicates counterfactuality at root and establishes an invited inference which pragmatically reveals to us that, in reality, the event resulted in a different way than mentioned in the sentence itself.

Indeterminability / Determinability and *Ba* Sentences in Non-past Context

Since past events are objectively perceptible, it was relatively easy to observe

ba's behavior. The next examination will explicate the behaviors of *ba* in non-past context. Since events in non-past context are not as objectively perceptible as they are in past context, some difficulty in determining the behavior of *ba* sentences might arise.

1 Indeterminability and *Ba* Sentences in Non-pst Context

It was demonstrated that, in past context, predicates that represent the notion of indeterminability (cannot be known / predicted, cannot be volitionally controlled) mostly render *ba* sentences to receive a hypothetical interpretation. *Ba*'s behavior may be found to be the same as that used in past context, and this assumption can easily be justified since the notions of indeterminability and non-past context altogether are concerned with nothing but an unknown, unrealized situation. The following examples exemplify this observation:

- (14) Taifuu ga kure-ba, ensoku wa chuushi-da.
typhoon NOM come-COND field trip TOP cancel-COP
“If it rains tomorrow, the field trip will be cancelled.”
- (15) Shigoto ga oware-ba eiga ni ike-ru.
job NOM finish-COND movie DAT go-POT
“If the job is done I can go out to a movie.”
- (16) Kare ga nihongo de hanase-ba wakaru.
he NOM Japanese INS speak-COND understand
“If he speaks in Japanese, I will understand.”
- (17) Choojoo ni tsuke-ba gekai ga miro-seru.
summit LOC arrive-COND the earth NOM look down-POT
“If you reach the summit, you can have a bird's-eye view of the earth.”

Sentences (14)–(17) all express hypotheticality; it is difficult to perceive these sentences as expressing habitual meaning. This difficulty can be verified by the fact that these sentences are awkward with the adverb *itsumo* “always” that expresses a high frequency of the event's occurrence. A native speaker of Japanese would automatically employ the *to* conditional to express a habitual meaning. In sentence (14), for example, the situation is that whether or not the typhoon comes at the time of the field trip is unknown to the speaker; therefore, the event cannot be perceived as a generalizable event. This observation can also be applied to sentences (15) to (17). None of these sentences indicate a habitual event; rather they imply the opposite possible alternate—an invited inference interpretation. In order to receive a general interpretation, grammatical devices such as *atarimae-da* “it is naturally the case that~” are certainly required. Thus, when a predicate is concerned with indeterminability in which a speaker cannot recognize an objectively

perceptible event, the *ba* sentence receives a hypothetical interpretation. This claim lets us easily predict the behavior of indeterminable predicates in *ba* sentences in that they behave in the same fashion as those in past context: the whole sentence can refer to either a hypothetical world situation or a non-hypothetical world situation depending on context.

2 Determinability and *Ba* Sentences in Non-past Context

Even among native speakers of Japanese, it is common to overlook the fact that *ba* sentences can be used to express non-hypothetical situations (generally understood events). Nevertheless, it can be noticed that *ba* sentences in non-past context can also express a general event which is commonly understood as a fact or as an individual's habitual activity, just like *ba* sentences can express such notions in past context. In the following examples, determinable events are examined in *ba* constructions to exhibit the influences of those events on the interpretation of *ba* sentences:

- (18) Karushium o takusan sesshasure-ba hone ga joobu-ni-naru.
 calcium ACC plenty take-COND bone NOM strong-become
 "If I / you take lots of calcium, my / your bones get stronger. /
 Calcium makes your bones strong."
- (19) Hoomu sutei o sure-ba kaiwa ga
 home stay ACC do-COND conversation skill NOM
 jootatsu-suru.
 improve
 "Staying with a family will improve one's conversation skills. / If I /
 you stay with a family, my / your conversation skills will improve."
- (20) Inu wa mikka kae-ba sannnen on o
 dog TOP three days have-COND three years indebt ACC
 wasure-nai.
 forget-NEG
 "Dogs do not forget a debt of gratitude of their owner. / If I / you take
 care of a dog for three days, he will not forget a debt of gratitude for
 three years."

As the English equivalents show, sentences (18)–(20) can be considered as presenting a speaker's general knowledge that the consequent will be realized upon the realization of the antecedent. In other words, these sentences can also be used to refer to known facts, observable situations, i.e., those in the domain of actual worlds. For example, in sentence (18), it can be acknowledged that the speaker is sharing the information s/he possesses about calcium with the listener. Under such interpretation the degree of hypotheticality expressed in the antecedent is not a significant issue. Evidence can be found in the rather weak interpretation of the invited inference: "if you do not take calcium, your bones will not become strong." Unlike a counterfactual

interpretation of a sentence “If I had money, I would have bought a new car,” in which a speaker is most likely trying to convey the fact that “I did not buy a new car, since I did not have money,” the speaker in sentence (18) is not trying to have the interlocutor envision an opposite or different situation by uttering the sentence. Perhaps the interlocutor does not take “your bones will not get stronger if you do not take calcium” as the real message. The same thing can be observed for sentences (19) and (20). In sentence (19), it is not necessarily true that a person’s language does not improve unless s/he homestays. Sentence (20) is a common admonition that we should not forget what others have done for us, taking a dog as an example. In this type of common saying, even an opposite possible alternate cannot be envisioned. Sentences (18)–(20) therefore can be said to express general knowledge that a speaker possesses.

When, however, these sentences co-occur with an element that expresses specificity, they no longer express general knowledge, but express hypotheticality. The following are examples of such cases:

- (21) Ima shikago ni ike-ba buruzu no shiai ga
 now Chicago LOC go-COND Bulls GEN game NOM
 mi-rareru.
 watch-POT

“If you go to Chicago now, you can see a Bulls game.”

- (22) Kono hon-ja-naku-te sono hon de shirabere-ba
 this book-COP-NEG-GER that book INS search-COND
 kotae ga wakaru.
 answer NOM find out

“If you search using that book, not this book, you will find out the answer.”

In the above instances, specific elements remove the non-hypotheticality since specific elements cannot communicate generality. Both sentences now create an invited inference that “you will miss the Bulls game unless you leave for Chicago now” and “you may not find the answer if you use this book,” respectively. These *ba* sentences then receive a hypothetical interpretation only.

In order for *ba* sentences to receive only a hypothetical interpretation, the feature of the antecedent is the key for such interpretation. Here again, non-hypotheticality expressed by *ba* sentences can be viewed similar to that of *ba* sentences in past context. When the antecedent is concerned with some sort of natural phenomena that inevitably occur on a regular basis, the *ba* sentence unavoidably expresses non-hypotheticality only. Such examples are:

- (23) Hi ga nobore-ba atatakaku-naru.
 the sun NOM rise-COND warm-become

“When the sun rises, it becomes warm.”

- (24) Fuyu wa 5 ji-ni-nare-ba moo kurai.
 winter TOP 5 o'clock-become-COND already dark
 “It gets dark around 5:00 in winter.”

The notion of hypotheticality can be applied to neither sentence (23) nor (24) since the antecedent in both sentences inevitably occurs regularly and we view such phenomena as generic. Also, there is no invited inference derived from these sentences; the sunrise and the time reaching 5 o'clock are expected to occur every day.

It has thus been clarified that the notions of indeterminability and determinability are crucial to the interpretation of *ba* sentences. Whether or not a *ba* sentence expresses either a hypothetical or non-hypothetical meaning depends on the feature of the event in the antecedent. Since indeterminability at root communicates hypotheticality, it is easy to see that indeterminate predicates contribute to the hypothetical meaning expressed by *ba* sentences. However, most determinable events, except those represented by sentences (23) and (24), are conceived as expressing either hypothetical or non-hypothetical meanings just like the ones seen in past context. In past context, such vacillation can be explained from the viewpoint of an “unrecoverable event,” that is considered a common thread to both “whenever” and “if” situation.⁹ In non-past context, however, the notions of hypotheticality and non-hypotheticality cannot be projected from such a viewpoint since the future is after all unexplored.

The common thread of hypothetical and non-hypothetical interpretations that determinable events create may be traced in a weak interpretation of invited inference. It is needless to say that the non-hypothetical interpretation, “it is naturally the case that~,” does not generate an invited inference as was exemplified in sentences (18)–(20). Also, a hypothetical interpretation of these sentences does not make us envision an invited inference. The implication is not what the speaker is actually trying to convey. This weak degree of invited inference interpretation seems to originate the basic signification of “determinability” that is expressed by speaker confidence / knowledge in the realization of the event described by a *ba* sentence.

The examination of *ba* sentences demonstrates that *ba* sentences emphasize neither a natural course of events as *to* sentences do, nor a one-time event as *tara* sentences do. *Ba* sentences are used to express either hypothetical

⁹ “If I had money I would have bought a car” is, in a pragmatic view, implying that the speaker did not buy a new car in reality at the time of speech. Also, “Whenever I had money, I gave it away / I used to give money away whenever I had it” implies, in a pragmatic view, that the speaker no longer gives money away. The common notion of these sentences is that the situation at the time of speech is, in fact, an unmentioned opposite or different situation from what the sentences actually say.

events or general events in both non-past and past contexts. Whether or not a *ba* sentence receives a non-hypothetical or hypothetical interpretation is predominately controlled by the features of the events in the antecedent. Determinable events cause *ba* sentences to convey either a previously actualized situation (non-hypothetical interpretation) or a not-yet-actualized situation (hypothetical interpretation). It is reasonable that a *ba* sentence can receive a non-hypothetical interpretation since determinability itself contradicts the hypotheticality that the *ba* conditional carries. Nevertheless, indeterminable events such as intransitive events, natural phenomena, and other individuals' activity, which are perceived as volitionally uncontrollable by the speaker, naturally cause *ba* sentences to convey a non-actual world situation (hypothetical interpretation). Although specificity does not grant a *ba* sentence the ability to convey a one-time event in the actual world situation the way *tara* sentences can, it instead communicates hypotheticality in a *ba* sentence.

It should be noted that the indeterminability captured in *ba* sentences does not wholly overlap the way it might be captured in *tara* sentences. In *tara* sentences, volitional uncontrollability is intertwined with semelfactivity and is crucial to determining the meaning of *tara* sentences. It is not, however, an essential factor for *ba* sentences. This is due to *ba*'s ability to express generality in both past and non-past context, which *tara* does not express. Even if an event is volitionally uncontrollable, unlike non-past context, past context allows the speaker to view such event externally and objectively, i.e., the speaker can recognize the event's occurring iteratively. Since modality is concerned with the speaker's belief and knowledge, the use of conditionals cannot be viewed from the listener's viewpoint. The use of conditionals always reflects the speaker's knowledge.

The notions of determinability and indeterminability are also the key in approaching a unique issue concerning *ba* sentences that has not been fully resolved. In the following sections, the focus of the examination is shifted to this problem, concerned with the compatibility of the antecedent and the consequent in *ba* sentences: specifically, some *ba* sentences do not allow the co-occurrence of a volitional expression in the consequent.

The *Ba* Construction and Volitional Expressions

1 Current View and its Reexamination

Most recently, Inaba (1991) claimed that *ba* following a non-stative predicate does not allow the co-occurrence of modality expressions in the consequent, while *ba* following a stative predicate does not have such a constraint in the consequent clause. For example, *shikago e ike-ba buruzu no shiai o mi-yoo* "If I go to Chicago, I will see a Bulls game" is incorrect since *ba* accompanies the non-stative predicate *iku* "to go." On the other hand, *samukere-ba mado o shimete-kudasai* "If it is cold, please close the window" is grammatically

correct. Inaba approached this from the viewpoint of divergent phenomena: one particular form in the learner's native language corresponds to more than two forms in the learner's target language. She pointed out the grammatical difference between Japanese conditionals and English conditionals.

The volitional expressions in question here are commonly accepted as those that express notions such as will, wish, request, command, and so forth. The equivalents of such expressions in Japanese are, for example, *kaku* "I will write," *kak-oo* "I shall write," *kaki-tai* "I want to write," *kaite-kudasai* "please write," *kak-e* "write," and so forth. These volitional expressions are used to express merely a speaker's state of mind; they are not-yet-realized and therefore express ungeneralizable situations. This notion of "ungeneralizability" communicates the idea of hypotheticality in that both exclusively exist in the domain of non-actual world situations.¹⁰

The above observation leads us to the hypothesis that volitional expressions may be compatible with a *ba* construction when the antecedent fulfills the condition that the whole *ba* sentence expresses a non-actual world situation. In other words, when indeterminable predicates—which render a hypothetical interpretation—co-occur with the *ba* conditional, the antecedent can invite a volitional expression in the consequent. Contrarily, when a determinable predicate—which renders a non-hypothetical interpretation—co-occurs with the *ba* conditional, the antecedent cannot invite a volitional expression in the consequent.

The current view of the stative and non-stative predicate dichotomy is not, however, perfect justification in distinguishing the behavior of volitional expressions. There are non-stative predicates used in *ba* constructions that can invite volitional expressions in the consequent. The following are some examples of this case:

- (25) Kono shigoto ga oware-ba sono shigoto o suru
 this job NOM finish-COND that job ACC do
 tsumori-da.
 intend-COP
 "If this job is finished I will do that job."
- (26) 90 ten ijoo tore-ba A o age-mashoo.
 90 point over get-COND A ACC give-VOL
 "If you score over 90 points, I shall give you an A grade."
- (27) Anata ga nome-ba watashi mo nomu.
 you NOM drink-COND I also drink
 "If you drink it, I will drink too."

The common point of the predicates used in these antecedents is the lack of determinability over the situation described in the antecedents. For exam-

¹⁰ In fact, it can be noticed that most volitional expressions do not form a past tense form.

ple, the predicate *owaru* “to be finished” in sentence (25) is an intransitive verb whose outcome cannot be known to the speaker. The same thing can be observed for sentences (26) and (27). Both *90 ten toru* “score 90 points” and *anata ga nomu*, “you drink,” represent some other individual’s activity and are beyond the speaker’s control. All of these antecedents thus include indeterminable predicates which in turn communicate hypothetical, non-actual world situations, and demonstrate that these predicates in *ba* constructions can invite a volitional expression in the consequent. Contrary to this, when a determinable predicate is used in the antecedent, it can no longer invite a volitional expression in the consequent. The following are examples of this case. Both sentences (28) and (29) include an activity predicate in the antecedent and a volitional expression in the consequent. Neither makes sense:

- (28)* Shikago e ike-ba buruzu no geemu o mi-yoo
 Chicago LOC go-COND Bulls GEN game ACC see-VOL
 “If I go to Chicago, I will see Bulls game.”
- (29)* 200 man en tamere-ba kuruma ga kai-tai
 two million yen save-COND car NOM buy-DES
 “If I save two million yen, I want to buy a new car.”

As was discussed in the previous section, determinable predicates can render *ba* sentences to express either a hypothetical or a non-hypothetical meaning depending on context and the consequent, which means that the equivalent of *ba* sentences is not necessarily always “if.” This is especially exemplified in the examination of *ba* sentences in past context. Such behavior of *ba* also agrees in non-past context. For example, *ano mise e ike-ba Yoko san ni a-eru* “if you go to that restaurant, you can see Yoko. / People can see Yoko in that restaurant” can be interpreted as expressing the hypotheticality of someone’s going to that restaurant or the general activity of an “anyone” subject, depending on context. This premise is not the case for sentences (28) and (29). Neither can accept volitional expressions. This is due to the fact that the speaker’s own activity can be determined by his / her volition, and that contradicts hypotheticality. Also, when, a sentence is considered as having an “anyone” subject, expressing generality, it does not allow a volitional expression in the consequent, since an “anyone” subject communicates the notion of generality, and therefore is not in accord with indeterminability.

Thus, the co-occurrence of volitional expressions in the consequent of *ba* sentences is not merely due to the stative versus non-stative dichotomy; rather, it is due to the existence / non-existence of the determinability detected in the event in the antecedent. Stative predicates, such as adjectives and existential verbs, are certainly in the category that allow invitation of a volitional expression in the consequent.

2 Problems with Deontic Construction¹¹ in *Ba* Sentences

Looking at the behavior of *ba* in relation to volitional expressions, we were able to outline the notion that *ba* expresses hypotheticality in not-yet-realized situations which themselves at root communicate volitional expressions. There is, however, a problem seen especially in deontic constructions. Such constructions are sometimes extremely awkward to use in the consequent even when the *ba* antecedent expresses hypotheticality. Please note the following survey examples:

- (30)* a. Ashita suupaa ni ike-ba sashimi o katte-kudasai.
market LOC go-COND raw fish ACC buy-please
“If you go to a supermarket tomorrow, please buy some raw fish.”
- (31)* a. Honda san ni ae-ba yoroshiku itte-kudasai.
Honda DAT see-COND give reard-please
“If you see Mr. Honda, please say hello to him.”
- * b. Honda san ni ae-ba kisu o shi-temo-ii.
Honda DAT see-COND kiss ACC do-even if-okay
“If you see Mr. Honda, you may kiss him.”
- (32)? a. Hikooki ga hayaku tsuke-ba omiyage o kai-nasai.
airplane NOM early arrive-COND souvenir ACC buy-IMP
“If the plane arrives earlier (than you expect), buy souvenirs.”
- b. Hikooki ga hayaku tsuke-ba omiyage o
airplane NOM early arrive-COND souvenir ACC
kat-temo-ii.
buy-even if-okay
“If the plane arrives earlier (than you expect), you may buy souvenirs.”
- (33) a. Okane ga are-ba kuruma o kai-nasai.
money NOM have car ACC buy-IMP
“If you have money, buy a car.”
- b. Okane ga are-ba kuruma o kat-temo-ii.
money NOM have-COND car ACC buy-even okay
“If you have money, it is okay if you buy a car.”
- (34) a. Samukere-ba mado o shimete-kudasai.
cold-COND window ACC shut-please

¹¹ Deontic construction is one category of “modality” (see Johnson 1994) and is concerned with a speaker’s attitude, related to the notions of permission, prohibition, and obligation. Deontic modality expressed by these deontic constructions is concerned with “the necessity or possibility of acts performed by morally responsible agents” (Lyons 1977, 823).

“If you are cold please shut the window.”

- b. Samukere-ba mado o shime-temo-ii.
 cold-COND window ACC shut-even if-OK
 “If you are cold, you may shut the window.”

Although factors expressing hypotheticality exist in each of the antecedents in the above sentences, sentences (30)–(32) are considered inappropriate or fairly inappropriate. Sentences (33) and (34) are, however, deemed appropriate. In fact, among all four conditionals, *tara* is the only appropriate conditional that could be used in sentences (30)–(32). One significant difference between sentences (30)–(32) and (33) and (34) is that the predicates in the former group are non-stative, whereas the predicates in the latter group are stative. This suggests that the stative / non-stative dichotomy plays some kind of a role in defining a gradation in these deontic forms used in the consequent. A question arises though: what is it about the nature of stative predicate constructions that generates an appropriate situation for the use of request forms?

The crucial difference between non-stative predicates and stative predicates is that non-stative predicates indicate a point in time where the event in question is realized, whereas stative predicates do not indicate such a clear point of the event’s realization.¹² Deontic forms are used when a speaker requests a listener to carry out the particular event in question. In this sense, these forms have a different feature from other volitional expressions such as *~tai* “want to,” *~tsumori-da* “will,” and *~(y)oo* “shall” which do not necessarily involve other individuals in order to realize the event in question. When a non-stative predicate is used in the antecedent and a request form in the consequent, for example, the speaker expects the realization of the event in the antecedent, as non-stative predicates can clearly indicate the point of an event’s realization. The whole sentence, then, is expected to occur as a sequence of events (one-time events) represented in a *ba*

¹² Co-occurrence of a specific time noun supports this premise. Please note the following examples.

- a. 8ji ni asagohan o taberu.
 eight o'clock TEMP breakfast ACC eat
 “I will eat breakfast at eight o'clock.”
- b. 8ji ni hikooki ga tsuku.
 eight o'clock TEMP airplane NOM arrive
 “The plane will arrive at eight o'clock.”
- c. 8ji ni samui.
 eight o'clock TEMP cold.
 “I’m cold at eight o'clock.”

(Please notice that this premise does not apply to the predicate *iru* “to exist.” The stative predicate *iru*, which can be volitionally controlled, can co-occur with a noun which indicates a point in time.)

sentence by two propositions.¹³ This is why *tara* can be used in sentences without causing awkwardness. *Tara* places emphasis on the contingency relationship whereby the event in the consequent is realized upon the realization of the event in the antecedent. On the other hand, we cannot observe such a clear point in the realization of the event in stative predicates, since stative predicates involve a time expanse. For example, *samukere-ba mado o shimete-kudasai* “if you are cold, please shut the window” demonstrates a clear point of realization of the “coldness” that cannot be envisioned even at the time the event in the request form is realized. This means that when stative predicates are used in the antecedent, the whole sentence can not present the sequential event as a one-time event. Since the realization of sequential events is not emphasized in the conditional sentence, the whole sentence is not a sufficient basis for a concrete one-time event. *Ba*, which cannot be used to express a one-time event, is therefore appropriate in such an environment.

The gradation, however, can be seen in the way we accept sentences (30)–(34). This may be attributed to one’s ability to perceive a point in time at which the event is realized. Even within the category of non-stative predicates, differences in such ability can be observed between human subject events and non-human subject events. It is easy to predict and recognize the point of change in a state when the event in question involves human volition in general, whereas such a point may be less predictable and / or recognizable when the subject of the event is inanimate. This remark may well support the subtle differences concerning the appropriateness of sentences (30)–(32). Many people consider sentence (32) to be acceptable. *Hikooki ga tsuku* “airplane arrives” is an intransitive event that is beyond our control. On the other hand, sentence (30) *ashita suupaa e ike-ba~* “if you go to a supermarket tomorrow” was thought to be unacceptable. This can also be attributed to the time noun *ashita* “tomorrow” used in the antecedent, which makes one visualize a clear point of the event’s realization, and leads one to perceive the sentence as expressing a one-time sequential event. Again, *ba* cannot be used to express such an event.

CONCLUDING REMARKS

It is quite clear that the compatibility of volitional expressions with *ba* constructions is dominated by the nature of the predicate and its environment in the antecedent. This nature is not dependent on the dichotomy of stativity or non-stativity, but rather heavily relies on the speaker’s volitional controllability over the realization of events. A *ba* construction including

¹³ A request cannot be considered as an iterated, generalized event. This observation is supported by the fact that phrases such as *mono-da* “used to” and *yoku* “often” cannot co-occur with those request forms.

such a predicate tends to receive a general, habitual interpretation unless a particular element is emphasized. This was seen in the example *karushiumu o takusan sesshusure-ba hone ga joobu-ni-naru* “(It is naturally the case that) bones get stronger by taking calcium.” In this sentence the phrase “it is naturally the case” is redundant, and the verb *joobu-ni-naru* “become stronger” in the consequent is understood as expressing a non-specific, general event that is compatible with such an antecedent. Nevertheless, volitional expressions, which are not-yet-realized situations, exist in non-actual worlds and therefore are incompatible with an antecedent in a volitionally controllable predicate. This idea, however, may be reversed when the antecedent involves an element that is beyond the speaker’s control, such as other individuals’ activities and natural phenomena. For example, once *anata* “you” is added to the antecedent *suupaa ni ike-ba* “go to a supermarket,” the event is no longer under the speaker’s control, and it is open to a hypothetical interpretation. The hypothetical meaning is compatible with the not-yet-realized situation in that both are non-actual worlds. This is why a *ba* construction with a volitionally uncontrollable predicate can invite a volitional expression.

The volitional controllability of human beings also becomes a basis for why deontic forms such as *~te-kudasai* behave in a different way from other volitional expressions. In volitionally controllable events it is easier to comprehend a point in time for the event’s realization. Request forms appearing in the consequent of a *ba* sentence are used to impose the realization of the event upon the realization of the antecedent. In such cases, it is the sequentiality that is emphasized. This sequentiality, however, can be regarded only as a one-time event in this situation, since request forms cannot be used to indicate general events. *Ba* sentences cannot be used to express such one-time events. On the other hand, a point of realization of an event cannot be recognized in stative predicates; therefore, sequentiality is less distinct in *ba* sentences when these are used in the antecedent.

Although there is a gradation in terms of the level of compatibility seen in the use of request forms in the consequent due to the environment of the antecedent, human volition forms a considerable part of the key to solving the question as to what makes one perceive hypotheticality or non-hypotheticality. Volitional operations, after all, have an effect upon the real world (i.e., upon actual world situations) and cause *ba* conditional sentences to receive a non-hypothetical interpretation. Elements beyond our volitional control, however, are such that there exists an intraversable spatio-temporal distance between us and those types of situations (i.e., between us and a non-actual world). Hence, one can only speculate on the consequences of events existing in a non-actual world, and the ability of *ba* to express hypotheticality is attributed to such non-actual world situations.

BIBLIOGRAPHY

- Akatsuka, Noriko. 1983. Conditionals. *Papers in Japanese Linguistics*, 9: 1-34.
- Alfonso, Anthony. 1966. *Japanese language patterns*. Tokyo: Sophia University Press.
- Geis, Michael and A. Zwicky. 1971. On invited inference. *Linguistic Inquiry*, 2: 561-6.
- Hinds, John and Wako Tawa. 1975. Conditions on conditionals in Japanese. *Papers in Japanese Linguistics*, 4: 3-12.
- Inaba, Midori. 1991. Nihongo jooiken-bun no imi ryooiki to chuukan gengo koozoo. *Nihongo Kyooiku*, 75: 153-63.
- Jacobsen, Wesley. 1992. Are conditionals topics? The Japanese case. *The joy of grammar*, eds. D. Brentari et al. New York: John Benjamins.
- Johnson, Yuki. 1994. Japanese modality: A study of modal auxiliaries, conditionals, and aspectual categories. Unpublished Ph.D. dissertation, University of Minnesota.
- . 1999. A novel entrance to the theory of modality. *Linguistic and Japanese Language Education*. Tokyo: Kurosio Press. 145-60.
- Koide, Keiichi, Noriko Komatsu, and Izumi Saita. 1981. To, Ba, Tara. *Stanford Inter University Center for Japanese Language Studies Bulletin*, 4: 30-66.
- Lyons, John. 1977. *Semantics* 2. New York: Cambridge University Press.
- Masuoka, Takahashi. 1995. Nihongo no jooiken hyoogen ni tsuite. In *Nihongo no jooiken hyoogen*, ed. T. Masuoka. Tokyo: Kurosio Press.
- McGloin, Naomi Hanaoka. 1976. The speaker's attitude and the conditionals To, Ba, and Tara. *Papers in Japanese Linguistics*, 5: 181-92.