Division of Labor between Semantics and Pragmatics
of Canonical and Non-canonical Imperatives

Shun Ihara

Kobe University

Abstract: Recent work on imperatives has explored what enables sentences to convey the directive meaning. The "minimal" theories assume an imperative-oriented pragmatic content (e.g., Portner 2004, 2007, von Fintel and Iatridou 2017, among others), which does the heavy lifting that is required to convey the meaning. The "modal" theories, in contrast, assume that it is a semantic modal that derives the diverse interpretations of imperatives (e.g., Han 2000, Kaufmann 2012, Condoravdi and Lauer 2012, 2017, among others). This paper addresses this controversy and proposes a division of labor between the contributions of semantic and pragmatic meanings of imperatives, focusing on the two different types of imperatives in Japanese. I conclude that the process by which the directive meaning is generated differs depending on the components that each type encodes. The resulting account eliminates the competition between the minimal and modal theories, by synthesizing the underlying ideas behind them. It also sheds light on the different ways in which sentence 'forms' interact with sentence 'types' and contexts to modify the illocutionary force of an utterance.*

Key words: imperatives, modality, semantics, pragmatics, Japanese

1. Introduction

Recent work on imperatives has explored what enables imperatives to convey the "directive" meaning. While most theories of imperatives rely on non-linguistic elements to derive this meaning, it remains controversial whether an imperative clause denotes these elements. The family of theories known as the "minimal" (or "dynamic") theories assumes an imperative-oriented pragmatic content (e.g.,

---

Portner 2004, 2007, 2012, Mastop 2005, Starr 2011, von Fintel and Iatridou 2017), which does the heavy lifting that is required to convey the imperative meaning. The "modal" (or "strong") theories, in contrast, assume that it is a semantic modal operator that derives the diverse interpretations of imperatives (e.g., Han 2000, Kaufmann 2012, Condoravdi and Lauer 2012, 2017, Medeiros 2013).

This paper addresses this controversy and proposes a solution; namely, a division of labor between the contributions of semantic and pragmatic meanings of imperatives. Regarding the whole meaning of imperatives, I will clarify what part of the meaning is based on semantics and what part is based on pragmatics. Through a close examination of two fundamentally different types of imperatives in modern standard Japanese, I conclude that the process by which the directive meaning is generated differs depending on the components that each type encodes. The two imperatives are labeled *Morphological Imperatives* and *Basic form Imperatives* (abbreviated as "M-Imps" and "B-Imps," respectively). The evidence and the motivation for the argument will be drawn from empirical data presented in the first half of the paper as well as data from the previous literature. The resulting account eliminates the competition between the minimal and modal theories, in spite of their seeming incompatibility, by synthesizing the underlying ideas behind them in the sense that, while canonical form imperatives contain modals, certain non-canonical form imperatives can lack such semantic elements. It also sheds light on the different ways in which sentence 'forms' interact with sentence 'types' and contexts to modify the illocutionary force of an utterance.

The rest of this paper is structured as follows. Crucial data on M-Imps and B-Imps are laid out in Section 2. Section 3 provides brief backgrounds on the minimal and modal theories of imperatives and shows that neither theory can account for all of the data observed in Section 2. Based on the discussion in Sections 2 and 3, Section 4 proposes my novel method of deriving the meanings of the two imperatives in a unified way. In Section 5, I consider the implications of my theory on the semantics of imperatives and suggest some directions for future work.

2. Data: Canonical and Non-canonical Imperatives
2.1. Basic facts
In Japanese, we typically use certain special markers of verbal imperative morphology that mark a clause as belonging to the imperative type. The inflectional endings *-e* and *-ro* are characteristic of these canonical form imperatives: *-e* attaches to consonant stem verbs, and *-ro* to vowel stem verbs, as exemplified in (1).[1] Interestingly, however, some Japanese sentences can function as imperatives

---

[1] Note that a small set of verbs have irregular inflections, most of which incorporate the allomorph *-i* (e.g., *ko-i* 'come-IMP'). In the case of vowel stem verbs, the alternative form *-yo* is also found, frequently appearing in the formal written register. Setting the register point of view aside, I assume that imperatives with *-i* and *-yo* have meanings identical to those with *-e/ro*, and thus should be classified as M-Imps.

without including these imperative morphemes. These are referred to as basic (or dictionary) form imperatives (B-Imps), in which the verb stem is followed by the non-past-tense affix *-(r)u*, as shown in (2).[2]

(1) Hayaku   ik-e/tabe-ro!   *Morphological Imperatives* (M-Imps)
     quickly   go-IMP/eat-IMP
     'Go/Eat quickly!'
(2) Hayaku ik-u!   *Basic form Imperatives* (B-Imps)
     quickly go-PRES
     'Go quickly!'

What is intriguing about B-Imps is that the interpretation of these basic form sentences depends strongly on sentence-final intonations and/or contexts: clauses with *-(r)u* are generally used to form declaratives or interrogatives and are relatively rarely used as imperatives. Although there have been extensive previous studies on the nature of basic form sentences (e.g., Teramura 1984, Kudo 2004, Takubo 2011, Arita 2015), few of them, other than Arita's, which includes a note on B-Imps, have dealt with the strategy of deriving directive meaning from semantic perspectives.

2.2. Motivations
On the surface, the distinction between M-Imps and B-Imps seems to be a purely morphological one. This section, however, will show that, while they share the canonical property that each can be used as a strategy for directive speech, they differ in some semantic/pragmatic respects.

2.2.1. Strong and weak distinction
In the literature on imperatives, it has often been remarked that imperatives are not only used for strong readings (e.g., orders/requests, warning/prohibition, wishes/curses), but also for weak readings (e.g., permission or acquiescence), i.e., for speech acts that widen the range of "possible" actions (Lewis 1979, Portner 2004, 2007, Condoravdi and Lauer 2012, 2017, von Fintel and Iatridou 2017).

(3) Strong readings
     a. Drink this beer!   (orders/requests)
     b. Stay away from here!   (warning/prohibitions)
(4) Weak readings
     a. A: May I open the window?
         B: Sure, open the window, if you are hot!
            ≈ You can/may open the window, if you are hot!   (permission)
     b. All right, go to the party, then! (I don't care.)
            ≈ You may/can go to the party, then!   (concessive)

---

[2] Sentences with a verb followed by the past-tense affix *-ta* can also mark directivity (Arita 2015). Although imperatives with *-ta* could also be classified as B-Imps, this paper will mainly focus on present-tense sentences.

At the level of semantic interpretation as well as at the level of intuitive paraphrases, examples such as (3), namely, the strong imperatives, are usually associated with "strong" necessity modals like *must* or *have to*, while examples such as (4), namely, the weak imperatives, are associated with possibility modals such as *can* or *may*.

Here, I basically follow the distinction between "strong" and "weak" necessity modals as discussed in von Fintel and Iatridou (2008). Adopting the general framework of Kratzer (1981), I assume that modals quantify over a set of worlds. The worlds in the relevant set are determined by the modal base, a conversational background fixed to the context, and the ordering source, which ranks the worlds in the modal base. Using the terminology of von Fintel and Iatridou, the worlds in the modal base that are highly ranked according to the ordering source are the "favored" worlds. From this perspective, a strong necessity modality is informally defined as in (5a) and a weak necessity modality as in (5b), although I ultimately propose a slightly different definition of weak necessity in Section 4.

(5) a. Strong necessity modals (e.g., *must*, *have to*): modals that require the prejacent to be true in all favored worlds
     b. Weak necessity modals (e.g., *should*, *ought to*): modals specifying that the prejacent is true in all of the best favored worlds

Ninan (2005) and Portner (2007) discuss the relative strength of *must*/*have to* as compared to *should*/*ought (to)* with regard to imperatives in English, presenting some data with respect to strong and weak readings. The contrast between (6) and (7) indicates that, as in the case of imperatives, sentences containing weak necessity modals can be interpreted as having either strong or weak readings.

(6) a. You { should/ought to/must/have to } drink this beer!
     b. You { should/ought to/must/have to } stay away from here!
(7) a. A: May I open the window?
        B: Sure, you { should/ought to/#must/#have to } open the window, if you are hot!
     b. All right, you { should/ought to/#must/#have to } go to the party, then!

Another piece of evidence for the relative weakness of *should*/*ought (to)* in combination with an imperative is the fact that (8a) is a contradiction while (8b,c) are not.

(8) a. #You must/have to do the dishes, <u>but you don't have to</u>.
     b. You should/ought to do the dishes, <u>but you don't have to</u>.
     c. A: May I do the dishes?
        B: Sure, do the dishes, <u>but you don't have to</u>.

Bearing this difference between strong and weak readings in mind, let us now observe how Japanese imperatives behave with respect to strong/weak readings. First, M-Imps are unobjectionable in weak contexts as they are in English impera-

tives, as shown in (9).

(9) a. A: Mado-o   ake-teii-desu   ka?
           window-ACC   open-may-COP.HON   Q
           'May I open the window?'
       B: Motiron. Mosi atui nara ake-ro yo.   (Akenaku-temoii   yo.)
           of.course if   hot then open-IMP DP   open.NEG-may   DP
           'Sure, open the window, if you are hot (, but you don't have to).'
     b. Haihai, wakat-ta.   Nomikai-ni   ik-e (yo).   Ore-ni-wa
         ok   all.right-PAST   party-to   go-IMP (DP)   I-to-TOP
         kankei-nai.
         relate-NEG
         'Okay, all right. Go to the party, then! (I don't care.)'

Ihara and Noguchi (2019) point out that B-Imps, conversely, cannot bear a weak imperative interpretation, similar to sentences containing the strong necessity marker *must/have to*, as exemplified in (10).

(10) a. A: Mado-o   ake-teii-desu   ka?
            window-ACC   open-may-COP.HON   Q
            'May I open the window?'
        B: Motiron. #Mosi atui nara   ake-ru!   (Akenaku-temoii   yo.)
            of.course if   hot then open-PRES   open.NEG-may   DP
            '[Int.] Sure, open the window, if you are hot (, but you don't have to).'
      b. Haihai, wakat-ta.   #Nomikai-ni ik-u!   Ore-ni-wa
          ok   all.right-PAST   party-to   go-PRES   I-to-TOP
          kankei-nai.
          relate-NEG
          '[Int.] Okay, all right. Go to the party, then! I don't care.'

To sum up, the present examples reveal that M-Imps, similar to weak necessity modals such as *should*, can bear both weak and strong interpretations, whereas B-Imps, similar to strong necessity modals such as *must*, can only have strong readings. One may think that this difference in the appropriateness of weak and strong readings can simply be explained by the difference in the semantics of the modals encoded by each imperative. This possibility, however, will be eliminated on the grounds of several examples of embedded imperatives, which will be shown in Section 2.2.3.

2.2.2. Temporal properties: future, present, and past
This section explores the difference among imperatives in Japanese with respect to the temporal property, i.e., the property that indicates when the event ordered by an imperative can/cannot happen.

First, as the example in (11) suggests, it is quite natural to utter both M-Imps and B-Imps in contexts where the speaker intends to give the addressee an immediate/urgent order. In other words, both types can be used in contexts in which the

speaker desires the event of the imperative to be achieved at the time of utterance or at a point infinitely close to the utterance time. This property, which I will call "Immediacy," is thought to be shared by the canonical form imperatives in most languages.

(11) (During a game, a college football coach yells to his player)
Ut-{e/u}!
shoot-IMP/PRES
'Get a shot!'

The second property, which I will call "Future-fulfillment," is likewise a common property of canonical imperatives in most languages (Mastop 2005, Wratil 2005, Schwager 2011, Kaufmann 2012). As observed in languages such as English and German, the events ordered by imperatives including M-Imps can happen any point in the future. As Arita (2015) first observed, B-Imps, unlike M-Imps, are unutterable in contexts where events are assumed to be satisfied strictly at a future point. In (12) below, the speaker presupposes that the event of the imperative must happen in the future, as the temporal adverbial *asita* 'tomorrow' indicates. Interestingly, however, if the context is such that the utterance time is *included* in the time interval at which the imperative event can be achieved, B-Imps become unobjectionable, as exemplified in (13).

(12) Asita   syukudai-o   owarase-{ ro/#ru }!
     tomorrow   homework-ACC   finish-IMP/PRES
     'Finish your homework tomorrow!'
(13) Asita-<u>madeni</u> syukudai-o   owarase-{ ro/ru }!
     tomorrow-by   homework-ACC   finish-IMP/PRES
     'Finish your homework by tomorrow!'

Finally, unlike English imperatives, Tagawa (2019) has observed that M-Imps in Japanese can occur in conjunction with past-tense expressions like *kinoo* 'yesterday' or *sengetu* 'last month'; this is a distinctive property of Japanese imperatives that I will call "Past-fulfillment." The imperatives in (15a) and (16a) convey a sense of reproach that the addressee did not perform an action in the past though (s)he should have done so.[3] However, as (15b) and (16b) suggest, B-Imps can never be connected to past events.

(14) *Finish the homework last month!
(15) Sore-wa   kinoo   { a. osie-ro (yo) /   b. #osie-ru }!
     that-TOP   yesterday   tell-IMP (DP)   tell-PRES
     'You should have told me that yesterday!
(16) Sono   syukudai-wa   sengetu { a. owarase-ro   (yo) /   b. #owarase-ru }!
     that   homework-TOP last.month finish-IMP (DP)   finish-PRES

---

[3] Tagawa (2019) calls imperatives of this type "grumble imperatives," while Schwager (2011) and Kaufmann (2012) have characterized them as "reproachatives."

'You should have finished the homework last month!'

It is worth noting that, as Tagawa (2019) observes, examples along the lines of (15a) and (16a) sound more natural when they are accompanied by the sentence-final (or discourse) particle *yo* with falling intonations. Although it is still unclear why the insertion of *yo* increases the acceptability of past imperatives, it may be due to the semantic/pragmatic effect of *yo*. That is, *yo* with falling intonations embodies some sort of emotion on the speaker's part toward the proposition (Oshima 2014, Section 6.2).[4]

2.2.3. Embeddability

The question of whether a language can embed an imperative clause has attracted much attention in the literature (Oshima 2006, Crnič and Trinh 2009, Kaufmann 2012, Stegovec and Kaufmann 2015). For example, it is well-known that English imperatives cannot be embedded as in (17).[5] Japanese M-Imps, in contrast, can be embedded, as shown in (18a) (Kuno 1988, Kaufmann 2012, Saito 2013).

(17) a. *John ordered Mary$_i$ (that) finish her$_i$ homework.
   b. John said to Mary "Finish your homework!"
(18) a. Ken-ga   Aya$_i$-ni   [kanozyo$_i$-no haha-o   tetuda-e   to]
      Ken-NOM   Aya-DAT   she-GEN   mother-ACC   help-IMP   C
      it-ta.
      say-PAST
      'Ken told Aya to help her mother.'
   b. Ken-ga   Aya$_i$-ni   [omae$_i$-no   haha-o   tetuda-e   to]
      Ken-NOM   Aya-DAT   you-GEN   mother-ACC help-IMP   C
      it-ta.
      say-PAST
      'Ken said to Aya "Help your mother!"'

The embedding by the marker *to* in (18a) can be understood as a true/proper embedding as opposed to a quotation, since the pronominal element in the embedded clause, i.e., *kanozyo* 'she,' is co-indexed with "Aya" in the matrix clause, construed from the viewpoint of the speaker. Henceforth, for convenience, I will call a true embedding an "indirect" quotation, and an ordinary quotation a "direct" quotation.

   Taking a closer look at Japanese B-Imps in terms of their embeddability makes the situation more puzzling. The contrast found in (19) indicates that B-Imps, unlike M-Imps, cannot be embedded as indirect quotations, as Noguchi (2016) first observed.

---

[4] For a detailed study on the semantics of *yo*, one can refer to Oshima (2014) and Davis (2011).
[5] Crnič and Trinh (2009), however, point out that such embedding is possible in very limited cases in English.

(19) a. Ken-ga   Aya$_i$-ni   [kanozyo$_i$-no haha-o   tetuda-u   to]
       Ken-NOM   Aya-DAT   she-GEN   mother-ACC help-PRES   C
       it-ta.
       say-PAST
       # 'Ken told Aya to help her mother.'
       (only: 'Ken said to Aya "I will help her mother".')

   b. Ken-ga   Aya$_i$-ni   [omae$_i$-no   haha-o   tetuda-u   to]
      Ken-NOM   Aya-DAT   she-GEN   mother-ACC help-PRES C
      it-ta.
      say-PAST
      'Ken said to Aya "I will help her mother".' or 'Ken told Aya to help her
       mother.'

The embedded clause in (19a) can only be interpreted as a declarative that 'Ken
said to Aya "I will help her mother"'; of importance here is that it can never be
interpreted as an imperative.

2.2.4. Implicature with focus particles

Haida and Repp (2012) observe that imperatives containing the focus particle *only*
are ambiguous in their interpretations. In addition to the directive meaning, in
Context I in (20), one can get what I call the "prohibition" implicature, indicating
that *it's not O.K. to paint the other tables*; at the same time, as shown in Context II
in (21), one can also get the "permission" implicature, indicating that *it's O.K. not to
paint the other tables*.

(20) Context I:
     A: I think I'll paint the tables over there.
     B: Only paint the [round]$_F$ table!
        ≈ You must paint the round table, and *it's not O.K. to paint the other tables*.
(21) Context II:
     A: I'm really tired and don't feel like doing something really useful today.
     B: (OK, then) Only paint the [round]$_F$ table!
        ≈ You must paint the round table, but *it's O.K. to not paint the other tables*.

Japanese M-Imps with the focus particle *dake* 'only' have the same effect as
English imperatives containing 'only,' as shown in (22) and (23); the sentence in
(22) conveys the directive meaning with the prohibition implicature that *it's not
O.K. to paint the other tables* whereas the one in (23) conveys the meaning with the
permission implicature that *it's O.K. not to paint the other tables*.

(22) [Marui]$_F$ tukue   dake   penki-o   nur-e!   [Context I]
     round   table   only   paint-ACC   paint-IMP
     'Only paint the round table! (*It's not O.K. to paint the other tables.*)'
(23) Murisi-nai-deii.   [Marui]$_F$ tukue dake penki-o   nur-e! [Context II]
     overwork-NEG-may round   table only paint-ACC paint-IMP
     'Take it easy. Only paint the round table! (*It's O.K. not to paint the other tables.*)'

Crucially, there is no difference in the acceptability of the M-Imp between the above two contexts. As for B-Imps, in contrast, it is less natural to utter them in Context II than in Context I; the utterance in (24) is unacceptable as an imperative with the implicature that *it's O.K. not to paint the other tables.*

(24) [Marui]$_F$ tukue dake penki-o   nur-u!   [Context I]
    round table only paint-ACC paint-PRES
    'Only paint the round table! (*It's not O.K. to paint the other tables.*)'
(25) Murisi-nai-deii.   #[Marui]$_F$ tukue dake penki-o   nur-u!
    overwork-NEG-may   round   table only paint-ACC paint-PRES
                                     [Context II]
    'Take it easy. Only paint the round table! (*It's O.K. not to paint the other tables.*)'

The most plausible account for the dual reading of M-Imps (in (22) and (23)) would be an account assuming a scopal ambiguity between the imperative operator and the focus particle (See Oikonomou (2016), cf. Haida and Repp (2012)). According to this theory, how can we explain the fact that only B-Imps with *dake* cannot be used in Context II? We shall return to this issue in Section 5.4.

2.2.5. Putting them together

So far, I have compared the behavior of the canonical and non-canonical imperatives in Japanese, namely M-Imps and B-Imps, from a viewpoint that has not received much attention. Their characteristics are compared in Table 1.[6] Considering that the differences between them are crucial, in Section 4, I propose semantic and syntactic structures for the two types of imperatives.

---

[6] An anonymous reviewer points out that even in the case in which a sentence has a basic form, it seems to be possible to use it as a permission or to fulfill Future/Past-fulfillment when the complementizer *no* occurs sentence-finally, as in the followings:

(i) Mosi atui nara   mado-o   akeru { no (da)   / no yo }.
    if   hot   then   window-ACC open { NO (COP) / NO DP }
    'Open the window, if you are hot.'
(ii) Sooiu koto-wa { asu   / kinoo (madeni) } yaru no   (da yo).
    that C-TOP { tomorrow / yesterday (by) } do   NO (COP DP)
    'You {should finish/should have finished} the homework {tomorrow/yesterday}.'

One plausible explanation for the fact is that the particle *no* is a speech act-level operator that allows for various interpretations (Riezer 2017). Since *no*-sentences can be interpreted as assertions, questions, and even as exclamations, it seems intuitively correct to analyze *no* as such an operator. Thus, by applying this line of analysis to the proposal in this study, it would be quite possible to provide an account for the behavior of *no*-imperatives.

Table 1. The Properties of M-/B-Imperatives in Japanese

	Weak readings	Temporality	Embed-dability	Implicature with *only*
Morphological Imperatives	✔	No restriction	✔	Both PROHIBITION and PERMISSION
Basic form Imperatives	#	PRES or FUTURE (including the utterance time)	#	Only PROHIBITION

3. Formal Theories of Imperatives and Their Limitations

In this section, I first provide brief backgrounds of the theories of imperatives, which I believe are necessary to support my proposal. Here, I mainly focus on two theories that have been perceived as competing with one another (cf. von Fintel and Iatridou 2017): the minimal theory proposed by Portner (2004, 2007) and the modal theory proposed by Kaufmann (2012). I start with the minimal theory, then introduce the modal theory. Afterwards, I evaluate these two explanations in view of what they predict with regard to the data observed in Section 2, and show that neither theory alone is sufficient to explain these data in a unified way.

3.1. Minimal approach: imperatives as properties

The main point of the minimal family of theories is that an imperative clause itself denotes no imperative or modal operator (Portner 2004, 2007, Mastop 2005, Starr 2011, von Fintel and Iatridou 2017). That is, the denotation of an imperative clause is only a property or a proposition. In this view, the meaning of the necessity deontic modality, which is associated with imperatives, is not encoded at the level of syntax or semantics but is rather part of the pragmatic component. While there are some differences among the various approaches within this family of theories regarding the mechanism that is responsible for giving a property/proposition a directive effect, in the following section, I will focus on Portner's (2004, 2007) proposal, which is the most representative approach among the minimal theories.[7]

Portner proposes that imperatives, like declaratives and interrogatives, encode a distinctive type of denotation: while a declarative clause denotes a proposition and an interrogative clause denotes a set of propositions, an imperative clause denotes a property that is restricted to the addressee. In this way, Portner's approach provides a uniform semantic/pragmatic interpretation: while the function of a declarative is to update the context by adding a proposition to Stalnaker's (1978) Common Ground (CG) and the function of interrogatives is to update a context by adding a question (a set of propositions) to the stack of questions, namely the question set, imperatives crucially update the context by adding a

---

[7] Mastop (2005) and Starr (2011) are also classified into the minimal approach, but they suggest a mechanism distinct from that in Portner's framework, which does not depend on a dynamic component like the TDL. von Fintel and Iatridou (2017) give a modified version of Portner's TDL approach, adopting the notion of the speaker's endorsement.

property to the addressee's To-Do List (TDL). The important property of the minimal theories is that the denotation of imperatives is merely a property that is addressee-restricted, as in (26).

(26) [[Read this book!]]^c = λw. λx: x is the addressee in c. [x reads this book in w]
       if defined, [the addressee reads this book] goes to the addressee's TDL in c.

Portner (2012) further provides a treatment of permissions, in which permission readings of imperatives arise because of conflicting requirements on the TDL. That is, when an imperative content contradicts other contents in the addressee's TDL, it gives rise to a permission interpretation. For instance, in (27), A's TDL before B utters the imperative should be represented as in (28): before B's utterance in (27), the addressee (=A) is contextually prohibited from eating the cookies (as underlined in (28)), but after B utters the imperative in (27), the property 'eat the cookies' is added to A's TDL, which yields the updated version of the TDL as in (29).

(27) A: May I eat the cookies?
       B: Sure. Eat the cookies! (permission)
(28) TDL$_{\text{before (27)}}$: { A cleans her room, … , <u>A does not eat the cookies</u> }
(29) TDL$_{\text{after (27)}}$: { A cleans her room, … , <u>A does not eat the cookies</u>, **A eats the cookies** }

The updated version of the TDL in (29) is now inconsistent since it contains both 'A does not eat the cookies' and 'A eats the cookies'; therefore, A's TDL offers A a choice of whether or not to eat the cookies, which leads to the possibility-like reading in which the addressee may or may not eat the cookies.

3.2. Modal approach: imperatives as modals

The hallmark of the strong view of imperatives is that they denote imperative modal operators (e.g., Han 2000, Condoravdi and Lauer 2012, 2017, Kaufmann 2012, Medeiros 2013). The exact form of analysis depends on one's preferred approach.[8] Since Kaufmann's (2012) framework is regarded as representative among the theories, I only introduce her proposal in the rest of this section.

Kaufmann's modal theory basically relies on a version of Kratzer's (1981) semantics for modality in possible worlds semantics that employs conversational backgrounds (CBs). Modal expressions can then be interpreted as quantifiers over the sets of possible worlds that are compatible with a given CB. Kratzer further

---

[8] Han (2000) argues that there is an imperative operator at C(omp)-level with what Han calls the [directive] and [irrealis] features, enabling utterances to obtain imperative illocutionary force. Condoravdi and Lauer (2017) claim that, to account for conditional imperatives, that meaning has to be part of the semantics, rather than the convention of use. It is worth noting that this allows for the possibility of an additional intermediate theory that assumes that imperatives encode modals, but it is not the case that an imperative morphology itself is a modal (e.g., Oikonomou 2016).

proposes individuating the domain of quantification via two CBs that play different roles: one that serves as the modal base (represented as 'f') and records 'what is known' or 'what the relevant facts are', and one that serves as the ordering source (represented as 'g'), determining which of the worlds compatible with the relevant facts are more plausible, are morally better, realize more of an agent's goals, etc. Technically, the ordering source orders the set of possible worlds '$\leq_{g(t,w)}$' as in (30b), and this order is then used to single out the best worlds among those compatible with the modal base. The best worlds '$\mathbf{O}(f,g,t,w)$' are those worlds in $\cap f(t,w)$ such that no other worlds in $\cap f(t,w)$ are strictly better than they are according to g(t,w), (30a). $\cap f(t,w)$ corresponds to the Context Set (CS) at t in w, namely the stack of mutual joint belief (i.e., the CG) (Stalnaker 1978).

(30) a. $\mathbf{O}(f, g, t, w) = \{ v \in \cap f(t,w) \mid \forall z \in \cap f(t,w): z \leq_{g(t,w)} v \Rightarrow v \leq_{g(t,w)} z \}$
      b. $v \leq_{g(t,w)} z$ iff $\{ p \mid p \in g(t,w) \wedge z \in p \} \subseteq \{ p \mid p \in g(t,w) \wedge v \in p \}$

By adopting a Kratzerian framework of modals, Kaufmann derives the meaning of imperatives from a modal layer in the semantics of imperatives, i.e., imperatives have almost the same truth-condition as sentences with *should* or *must*, which allows us to analyze imperatives on a par with deontic modals. (31) is a denotation of Kaufmann's imperative operator, where p is a function from time-intervals into propositions and c_T is the utterance time in c, $t_{PRES} = c_T$.

(31) The imperative operator (Kaufmann 2012: (68))
      $[[\mathbf{OP}_{Imp}]]^c = \lambda f.\lambda g.\lambda t'.\lambda p_{<i,st>}.\lambda w. \forall w' \in \mathbf{O}(f, g, c_T, w): p(t')(w')$
(32) $[[\text{Bring some beers!}]]^{c,f,g,t'} = \forall w' \in \mathbf{O}(f, g, c_T, w): \text{bring-some-beers}(c_A)(t')$
      (w'),
      where c_A is the addressee in c.

(32) is true iff the addressee brings some beers in all worlds in the CS, and is ranked best in terms of what the addressee is ordered to do at t' in w'. More intuitively, it is true iff the discourse participants know that it is possible for the addressee to bring some beers, and iff her bringing some beers satisfies the greatest number of wishes/goals/orders directed at her.

Kaufmann further proposes that the imperative operator should satisfy the following presuppositions, which allows us to make imperatives look non-truth-conditional.

(33) The presuppositions of $[[\mathbf{OP}_{Imp}(p)]]^c$ (Kaufmann 2012: 162)
      a. <u>Temporality Condition</u>: $\neg(t' < c_T)$
      b. <u>Authority Condition</u>: $f, g \in AUTH(c_S)(c)$, where c_S is the speaker in c and $AUTH(c_S)(c)$ means "the speaker is an (epistemic) authority in c."
      c. <u>Epistemic Uncertainty Condition</u>: For the pre-context c' of c,
          $CS(c') \subseteq \lambda w.\exists w' \in Bel(c_S)(c'_T)(w). \exists w'' \in Bel(c_S)(c'_T)(w): \neg p(t)(w') \& p(t)$
          (w''),
          where $Bel(c_S)(t)(w)$ is the speaker's (= c_S) belief at t in w.
      d. <u>Ordering Source Restriction</u>: Either (i) in c, there is a salient decision

problem $\Delta(c) \subseteq \wp(w)$ s.t. in c, the imperative provides an answer to it, g is any prioritizing ordering source, and the speaker and addressee consider g the relevant criteria for resolving $\Delta(c)$; or else, (ii) in c, there is no salient decision problem $\Delta(c)$ such that the imperative provides an answer to it in c, and g is speaker bouletic.

First, the presupposition of Temporality Condition ensures that an event frame of an imperative t′ does not strictly precede an evaluation time c_T, which captures the unacceptability of the case where a past-tense adverb like *yesterday* occurs, cf. (14).

Authority Condition is proposed to guarantee that imperatives can only be used felicitously if the speaker is in an epistemically privileged position. The core idea is that, if it is taken for granted that the speaker is in a privileged position with respect to the truth of proposition p, then the addressee will accept p as true if the speaker expresses p (and there is no reason to suspect that she is lying). In cases of imperatives, for example, if the social context is such that the speaker is in a position to command the addressee to act in a certain way, then the addressee would accept p as true.[9]

Epistemic Uncertainty Condition reflects the fact that both p and ¬p are possible when an imperative [Imp p] is uttered. That is, if the speaker is certain that p is going to happen (or not going to happen), then uttering [Imp p] becomes infelicitous.[10]

Finally, Ordering Source Restriction is imposed to account for the action-incentive character of imperatives. This ensures that the imperative operator can only be construed deontically (prioritizing or bouletic) rather than epistemically.

In Section 4, I will argue that, while Kaufmann's approach assuming the imperative modal is the best way to capture the behaviors of M-Imps, her approach needs additional modifications if it is to account for non-canonical imperatives such as B-Imps.

3.3. Evaluating the theories

The rest of this section shows that neither the minimal nor the modal theories are able to explain all of the examples provided in Section 2 in a unified manner.

First, consider the properties of weak readings. Both Portner (2012) and Kaufmann (2012) have argued that weak readings happen at the level of pragmatics. Portner claims that weak readings occur in imperatives when the addressee already has a property that contradicts a given imperative content. In Kaufmann's

---

[9] More technically, Kaufmann captures the concept of 'counting as an authority in a context c' as being an authority according to mutual joint belief in c, borrowing the idea of Zimmermann's (2000) notion of epistemic authority. See Kaufmann (2012: 148–149).

[10] This captures the following contrast between deontic modals and imperatives.

(iii)   a. I know that you are going to bring some beers, <u>and moreover you {must/should}</u>.
        b.#I know that you are going to bring some beers, <u>so do it also</u>.

modal approach, the permission effect comes about because an update with a necessity modal proposition derives the information that the prejacent is what is required by the speaker. Suppose that there is a context in which p is disallowed, i.e., ¬p is true. In this context, if we utter an imperative with p, the semantics of the necessity modal convey, incorrectly, that p is compatible with the context. Thus the prohibited prejacent (= ¬p) is no longer true but is rather false, such that this utterance contributes to the permission interpretation. Each of these theories has certain limitations regarding weak readings, however: first, Portner's account assumes that imperatives are always sensitive to TDLs. If so, we would expect B-Imps to be interpreted as weak readings if the uttered context is such that a given imperative content contradicts a property in an addressee's TDL, yet this is contrary to the facts.[11] Kaufmann's account of weak readings is also problematic. According to her explanation, it is the contribution of the modal that triggers weak readings. Since Kaufmann assumes that imperatives are modals, B-Imps should also contain modals, which means that B-Imps should also be able to bear weak readings. As I noted at the end of Section 2.2.1., the possibility that B-Imps can encode stronger modals is precluded by the data of embedded imperatives.

In addition, the temporalities of M-Imps and B-Imps are not thoroughly explained by either of the theories: both minimal and modal theories impose the felicity condition of the future-orientation on imperatives, an assumption which is too strong to accurately describe all M-Imps and too weak to accurately describe all B-Imps. According to the minimal approach, the function of the TDL is future-oriented by definition (Portner 2007: 381), such that any imperative content is intended to be satisfied in the future (see also Mastop (2005)). The modal approach, conversely, assumes a temporality presupposition (= (33a)) that restricts the utterable tenses of imperatives to the present and future. Thus, the fact that M-Imps can denote past events (cf. (15)) and the fact that B-Imps are felicitous only if the utterance time is included in the time interval of the imperative event (cf. (12), (13)) cannot be predicted without saying more about the temporal properties of each imperative.

As for embeddability, Stegovec and Kaufmann (2015) show that embedded imperatives (either indirectly or directly) are captured under the modal approach, assuming that imperative modals are embeddable. This, however, gives rise to the same problems encountered in the case of weak readings; since the modal approach assumes that B-Imps are modalized, it ends up predicting that B-Imps should also be embedded indirectly, although in practice they cannot. The minimal approach, meanwhile, fails to answer the question of how we should treat pragmatic objects such as the TDL in embedded contexts, which is not clarified by Portner. In other words, it remains unclear whether and how the TDL could exist in an embedded context. Furthermore, even if it could exist, it would still be difficult to derive the difference in the property of embedding between different types

---

[11] Another problem is pointed out by von Fintel and Iatridou (2017), and is also recognized by Portner himself. See von Fintel and Iatridou (2017: 295–296) for the relevant discussion.

of imperatives (i.e., M-Imps and B-Imps), because it would be strange to assume that a commonly occurring pragmatic object activates for one type of imperatives and not for the other.

Finally, regarding the dual character of imperatives containing *only*, Haida and Repp (2012) show that both the theory of Kaufmann and that of Portner can explain the basic facts, viz., that in the prohibition reading, the addressee is required not to perform the actions induced by the focus alternatives, whereas in the permission reading s/he is allowed not to perform these actions, by assuming that *only* scopes either over or under the imperative (or the update) operator (see Haida and Repp (2012: 310–317) for details). One problem that remains to be solved is that neither Kaufmann's nor Portner's analysis accounts for imperatives such as B-Imps that are only permitted in the prohibition context (cf. (24), (25)). Thus, we need to produce a better theory by which we can predict the possible contexts in which imperatives with *only* can be uttered.

The conclusion to be drawn from this is that neither the minimal theory nor the modal theory can deal with both types of imperatives. What we want in an improved theory is thus an integrated framework and analysis, which will be proposed in the next section.

4. Proposal: decomposing the imperative meanings

This section examines how we can derive the behaviors of canonical and non-canonical imperatives in Japanese as demonstrated in the examples in Section 2. I will discuss the semantic structure of M-Imps in Section 4.1 and that of B-Imps in Section 4.2.

4.1. The semantics of morphological imperatives

Here, I present a proposal based on the modal analysis proposed by Kaufmann (2012), which assumes a modal for the denotation of M-Imps. My proposed theory departs from Kaufmann's analysis, however, in that the meaning of the imperative speech act operator (*à la* Kaufmann) is broken down into two parts: (i) the modal meaning, which is understood as the semantic part of the imperative, and (ii) the directive speech act meaning, which represents the pragmatic part.[12]

Let me begin with modals. I argue that the Japanese imperative morpheme *-e/-ro* has the denotation stated in (34), which basically shares the same modal meaning with the imperative operator as proposed by Kaufmann (cf. (31)). Departing from her analysis, I follow Medeiros (2013) in proposing that the imperative semantically represents the weak necessity modal, which is roughly equivalent to *should* or *ought to*.[13]

---

[12] Note that the current proposal is inspired by the idea of Medeiros (2013) that the imperative operator can be divided into two components. Departing from his idea, however, I will represent this operator in a different syntactic/semantic position.

[13] The formalization of the weak necessity here differs from Medeiros's analysis, which, after the example of Silk (2016), does not assume a Kratzerian framework. This difference is not

(34) $[[\text{ -e/ro}_{\text{imp}}]]^c = \lambda f.\lambda g.\lambda t'.\lambda p_{<i,st>}.\lambda w.\forall w' \in \mathbf{O}(f, h_c(g), c_T, w): p(t')(w')$,

where h_c is a contextually supplied selection function that takes an ordering source g and returns a secondary ordering source $h_c(g)$ (cf. von Fintel and Iatridou 2008).

In (34), the truth of a sentence containing *-e/ro* is not evaluated according to the best worlds w.r.t. an ordering source g in w, but rather w.r.t. the *secondary* ordering source in w, which is made possible by the selection function h_c; the idea is that h_c picks out an ordering source that is 'preferred' in some contextually relevant sense, i.e., most normal, expected, or desirable. In that sense, the secondary ordering source is a 'subjective' ordering source that represents the speaker's personal endorsement of p. The existence of this secondary ordering source allows sentences using it to be weaker than those with strong necessity modals such that they can be uttered in contexts where there is more than one set of rules or principles interacting.[14] In Section 5.1., I will illustrate how these semantics work in the case of imperatives.

Crucially, the proposal in (34) differs from Kaufmann's original suggestion in (31) in that the imperative morphology *-e/-ro* only encodes the weak necessity modal meaning but does not itself possess any presuppositional meanings. This implies that, in Japanese, directive speech acts conveyed by imperative clauses arise independently of imperative morphologies. How can the directive meaning be derived, then? The solution is to define what I call the directive operator, which carries the performative effects of directive speech acts. The operator is represented as '$\mathcal{D}$' in (35), which basically shares the same presuppositions as Kaufmann's original proposal, but contains a modification.[15]

(35) $[[\ \mathcal{D} \ ]]^{c,F} = \lambda P. \ \lambda w.P(w)$, where **mod** is a modal and F is a function/pair such that:

if (i) $P = \mathbf{mod}^{<f1,g1>}(p)$, then F: $[f \mapsto f1, g \mapsto g1]$, (ii) otherwise F: $<f, g>$,

defined iff: Temporality Condition, Authority Condition, Epistemic Uncer-

---

particularly crucial in this paper.

[14] von Fintel and Iatridou (2008) support their idea by the following observation:

(iv) ?According to the law, people convicted of stealing ought to go to prison.

cf. According to the law, people convicted of stealing must go to prison.

They argue that (iv) is odd because *ought to* signals the existence of a secondary ordering source. In (iv), we cannot imagine a situation where there is more than one relevant law, which makes the use of *ought to* bad.

[15] It is not hard to see that the meaning of the directive operator is empirically non-truth-conditional, i.e., that it has a non-semantic meaning. Refer to Gutzmann (2015), who treats the meaning of imperatives as use-conditional meanings for the relevant discussion. Instead of discussing this issue, in this paper, I simply assume that the term "presupposition" is meant to cover all aspects of meaning other than the regular entailment (at-issue meaning), including use-conditional meanings.

> tainty Condition, and Ordering Source Restriction (in (33a-d)) are met.
> If defined: $g = g' \cup \{ [[p]] \}$ (i.e., p is added to g in c')

In (35), if a propositional argument of $\mathcal{D}$ is modalized (i.e., P = **mod**(p)), F abstracts over **mod**'s modal base (f1) and ordering source (g1) and requires $\mathcal{D}$'s f and g to fulfill the presupposition of **mod**, which simply ensures that $\mathcal{D}$ shares the same backgrounds with the imperative modal claim. This helps $\mathcal{D}$ to be evaluated w.r.t. the secondary ordering source so that imperatives with $\mathcal{D}$ can be compatible with weak contexts. The underlined part of the meaning in (35) adds a propositional content to the relevant ordering source. Intuitively, an uttered content becomes the addressee's obligation after a directive utterance.[16] This function can be understood as the 'post'-supposition of imperatives, in the sense that imperatives give an output-condition on the ordering source.

My proposed analysis method segregates the interpretation of M-Imps into semantic and pragmatic parts: (i) the modal meaning conveyed by the weak necessity modal and (ii) the actual directive speech act conveyed by the directive operator. For instance, the imperative "*Hasi-re!*" 'Run!' is defined when the presuppositions of $\mathcal{D}$ are fulfilled, and if it is defined, the imperative semantically conveys the modal meaning that the speaker believes that the addressee is obliged to run, while at the same time it pragmatically adds the content 'the addressee runs' to the priority/bouletic ordering source.

Syntactically, I propose that the directive operator exists at the clause-external level, specifically, at the so-called Speech act Phrase (SP, Speas and Tenny 2003, among others), following the analysis in Ihara and Noguchi (2019). I assume that any element that occurs at the level of SP cannot be embedded under indirect quotations (Saito and Haraguchi 2012). For instance, certain Japanese discourse particles like *yo* or *ne*, which Saito and Haraguchi claim are the head of the SP, cannot appear in an indirect quotation clause.[17] These particles are in the hierarchical position in (36). Here, the indirect quotation marker *-to* is assumed to occupy the head of Rep(ort)P, which is located in the embedded clause (cf. Saito 2013).

(36) [$_\text{SP (clause-external)}$ [$_\text{RepP (clause-internal)}$ [$_\text{TP}$ p] ... (-*to*$_\text{indirect}$) ...] *yo/ne*]

Given these settings, we are now in a position to identify the LF of M-Imps. As I have already mentioned, the key in (37) is that the LF contains the two components at different positions: the presuppositional element $\mathcal{D}$ is located clause-externally at SP on the one hand, and the modal content which is encoded by the imperative morphology *-e/ro* is located clause-internally at MoodP (or ModalP)

---

[16] This function underlined in (35) is in effect a simplified version of Condoravdi and Lauer's (2012) *Effective Preference*.

[17] The relevant data is shown in (v):

(v) Ken-ga   Aya$_i$-ni   [kanozyo$_i$-no hahaoya-o   tetudau {*yo/*ne} to] itta.
     Ken-NOM Aya-to   she-GEN   mother-ACC help   DP C   said
     'Ken said to Aya that he will help her mother YO/NE.'

on the other hand.[18]

(37) $[_{SP} \, \mathcal{D} \, [_{TP} \, t_{PRES} = c_T \, [_{MoodP \, (or \, ModalP)} \, \mathbf{mod}_{\text{-}e/ro} \, f \, g \, t' \, [_{VP} \, IMPPRO_{2nd} \, run \,] \,] \,] \,]$

According to the current analysis, the presence of the directive operator is no longer a necessary condition for the realization of morphological imperative clauses; the modality must be denoted in clauses with *-e/ro*, whereas the ultimate speech act is independently determined by the context uttered.

4.2. The semantics of basic form imperatives

In the preceding section, I have explained M-Imps according to modal analysis, which assumes a modal for the denotation of imperative clauses. In contrast, this section will show that there are cases in which imperatives can lack such an element. B-Imps are the preeminent example of this. The suggestion theoretically implies that a minimal analysis that assumes no modal for the denotation of imperatives is still needed to explain the behaviors of non-canonical imperatives.

We should first consider the semantics of the verbal morphology of B-Imps, namely, the non-past morpheme *-(r)u*. Based on the assumption in Yoshimoto et al. (2000), I assume that the Japanese matrix non-past morpheme *-(r)u* must encode the utterance time c_T. Inspired by the ideas of Takubo (2011) and Arita (2015), I further assume that sentences containing *-(r)u* require that the utterance time be the initiation point of the time interval in which the propositional content can be established.

(38) $[[\, \text{-(r)u} \,]]^c = \lambda t'.\lambda p_{<i,st>}.\lambda w.[\text{init}(t') = c_T \, \& \, p(t')(w)]$

The core of my argument in this section is that, in contrast to M-Imps, B-Imps have *no* modal semantic denotata, and only encode the directive operator at the position where elements that contribute to pragmatic (i.e., non-at-issue) meanings occur, namely, at the SP, as shown in (39).

(39) LF: $[_{SP} \, \mathcal{D} \, [_{TP} \, t_{PRES} \, [\, \text{-(r)u} \, [_{VP} \, IMPPRO_{2nd} \, run \,] \,] \,] \,]$

The structure above implies that the existence of $\mathcal{D}$ is essential for sentences containing *-(r)u* to obtain an imperative interpretation. In other words, the projection of SP is responsible for conveying the directive force of B-Imps.[19] The role of this morpheme is merely to impose a temporal restriction on the event frame of a given proposition.

---

[18] I follow Wratil (2005) in assuming that, IMPPRO is restricted to the subject position of imperatives. For semantic purposes, the only relevant points are that it is a covert variant of the second person pronoun and that it comes in singular and plural variants.

[19] This idea is in line with the fact that *-(r)u*-sentences can express various non-imperative readings, e.g., habitual/generic readings, intentive/promissive readings, questions, etc. I will not go into details regarding the analysis of these cases for reasons of space, but we could assume a sort of sentential mood operator that induces certain readings (e.g., GEN, INT, Q for generic, intentive, and question readings, respectively).

It is worth noting that the proposed semantics for B-Imps is consistent with Onoe's (1979) description from the Japanese Linguistics (*Kokugogaku*) perspective. He describes B-Imps as "a material of a sentence that is supported by the way in which utterances are expressed and consequently obtains an imperative interpretation", which is potentially the same idea as my analysis that B-Imps are imperatives that are triggered by the pragmatic element. The current proposal can therefore be positioned as a further development of the findings of Japanese Linguistics at a more elaborate level.

5. Analysis

Section 5 shows how the current proposal can handle the contrast between the two types of imperatives pointed out in Section 2.

5.1. Deriving weak readings

In Section 2.1, I have shown that Japanese M-Imps pattern with all kinds of weak readings whereas B-Imps cannot. One characteristic of the analysis that we must develop to explain this is that it must be able to predict that M-Imps naturally occur in weak contexts, given that sentences with strong necessity modals are odd in such contexts. Before moving on to the analysis of the relevant data, I assume the common view that strong and weak readings of various imperatives should be understood at the level of pragmatics (Portner 2012, Kaufmann 2012). This means that weak readings are derived from particular contextual constellations.

Let me first explain why strong necessity modals are infelicitous in weak contexts. These strong modals are defined as in (40) within the current framework.

(40) $[[\text{ must / have to }]]^c = \lambda f.\lambda g.\lambda t'.\lambda p.\lambda t.\lambda w.\forall w' \in \mathbf{O}(f, g, t, w): p(t')(w')$

The truth of '*must*(p)' can be checked simply by determining whether p is true in all the best worlds w.r.t. f, g, t, and w. In (7a), for instance, suppose that $[q_1: c_A$ is not allowed to open the window] is true in c, thereby $g_{(7a)} = \{ [q_1: c_A$ does not open the window], $[q_2: c_A$ passes the exam], $[q_3: c_A$ does not forget to do the homework], … $\}$. Here, the sentence "You must open the window" cannot be uttered felicitously, because this q_1 deontically conflicts with the uttered proposition: the prejacent 'c_A opens the window' cannot be true in all the best worlds in which 'c_A is not allowed to open the window' is true.

With a weak necessity modal, the truth is not evaluated at g but rather at $h_c(g)$, a secondary ordering source, cf. (35). Recall that the function of h_c is to pick up an ordering source that is preferred in some contextually relevant sense. Due to the contribution of h_c, the relevant ordering source can *ignore* some laws that are incompatible with prejacents. For example, in (9a), h_c applies to $g_{(9a)}$ and returns the secondary ordering source *without* q_1, $h_c(g_{(9a)}) = \{ [q_2: c_A$ passes the exam], $[q_3: c_A$ does not forget to do the homework], … $\}$. Then, in all the best worlds according to this $h_c(g_{(9a)})$, the prejacent 'the addressee opens the window' is able to become true without deontic conflict, which explains why M-Imps are unobjectionable in weak contexts.

Why can B-Imps not be used in weak contexts? In B-Imps, $\mathcal{D}$ takes a non-modalized proposition p and returns it with the directive presuppositions. Then, the obligation 'the addressee is obliged to p' goes to g in the output context c'. Notice that this g is interpreted only as an ordinary one, not as a secondary one, simply because B-Imps do not encode weak necessity modals. In weak contexts, assuming that 'c_A is obliged not to p' is true in c, a B-Imp '$\mathcal{D}$ (p)' cannot update g with 'c_A is obliged to p,' since 'c_A is obliged to p' is incompatible with 'c_A is obliged not to p.' In (10a), for instance, the B-Imp cannot update the relevant g with 'c_A is obliged to open the window' in the context where 'c_A is not allowed to open the window' is true, i.e., is already part of the relevant rule.[20]

5.2. Deriving the temporal interpretations

This section examines how to derive the temporal property, i.e., when the events specified in imperatives can/cannot happen. Let me first derive the properties of Immediacy and Future-fulfillment, as these explanations will be relatively simple. In the case of M-Imps, we can focus on the temporal constraint given by $\mathcal{D}$ in (33a), $\neg(t' < c_T)$. Since no further temporal constraint is required in M-Imps, the events specified in M-Imps can be satisfied at any point from the utterance time into the future. For instance, the computation for the M-Imp in (12) proceeds in the same manner as that for (41). Here, the adverbial *tomorrow* is assumed to adjoin to AspP and accordingly gets interpreted as a modifier of temporal properties; it restricts the relevant events to those that happen within *tomorrow* (Kaufmann 2012, cf. von Stechow 2003).

(41) a. LF: [$\mathcal{D}$ [-ro$_{imp}$ [tomorrow [$_{AspP(= (41c))}$ finish your homework]]]]
   b. [[tomorrow]]^c = $\lambda p.\lambda t.\lambda w.p(t \cap$ day-after-$c_T)(w)$
   c. [[AspP$_{(12)}$]]^c = $\lambda t.\lambda w.\exists e[\tau(e) \subseteq t$ & finish-hw(c_A)(e)(w)],
       where $\tau(e)$ stands for a time interval that an event e is fulfilled.
   d. [[tomorrow [AspP$_{(12)}$]]]^c
       = $\lambda t.\lambda w. \exists e[\tau(e) \subseteq [t \cap$ day-after-$c_T]$ & finish-hw(c_A)(e)(w)]
   e. [[$\mathcal{D}$ [-ro$_{imp}$ [tomorrow AspP$_{(12)}$]]]]$^{c,f,g,t'}$
       =[$\lambda p<i,st>.\lambda w.\forall w' \in O(f,h_c(g),c_T,w): p(t')(w')$] ($\lambda t.\lambda w.\exists e[\tau(e) \subseteq [t \cap$ day-after-$c_T]$ & finish-hw(c_A)(e)(w)])
       = $\lambda w.\forall w' \in O(f,h_c(g),c_T,w).\exists e[\tau(e) \subseteq [t' \cap$ day-after-$c_T]$ & finish-hw(c_A) (e)(w')] define iff $\neg(t' < c_T)$ and the other presuppositions of $\mathcal{D}$ are met.

With regard to B-Imps, as with M-Imps, the directive operator $\mathcal{D}$ imposes a temporal constraint whereby the event in the prejacent must be satisfied at or following c_T. According to the proposal in (38), *-(r)u* further requires that c_T be the starting point of an interval in which the event in the prejacent can happen. As a result, an event specified in a B-Imp must be satisfied during an interval that starts

_____

[20] To implement this more systematically, we could make some Gricean assumptions about the application of the maxim of QUALITY (Grice 1975) on the giving of a ban on updating an ordering source. See Rudin (2018) for an attempt.

at the utterance time c_T and extends into the future. This explains the oddness of the B-Imp in (12), where the utterance time is not included as the starting point in the time interval during which the imperative event can be achieved; here, the temporal requirements are not satisfied, since the time during which the event can be achieved is entirely in the future, to the exclusion of the utterance time (cf. (41c,d)). In contrast, the utterable example in (13) fulfills the requirements, as expressions such as *madeni* 'by' weaken (i.e., extend) the interval so that the event, although it must have happened by some point in the future, can happen at any point between the utterance time and that future time.

(42) a. $[[\text{madeni(tomorrow)}]]^c = \lambda p.\lambda t.\lambda w.p(t \cap [c_T, \text{day-after-}c_T])(w)$
   b. $[[\text{madeni(tomorrow)} [\text{AspP}_{(13)}]]]^c$
       $= \lambda t.\lambda w. \exists e[\tau(e) \subseteq [t \cap [c_T, \text{day-after-}c_T]] \& \text{finish-hw}(c_A)(e)(w)]$
   c. $[[\mathcal{D} [\text{-ru} [\text{madeni(tomorrow)} [\text{AspP}_{(13)}]]]]]^{c,t',f,g}$
       $= [\lambda p_{<i,st>}.\lambda w.[\text{init}(t') = c_T \& p(t')(w)](\lambda t.\lambda w. \exists e[\tau(e) \subseteq [t \cap [c_T, \text{day-after-}c_T]] \& \text{finish-hw}(c_A)(e)(w)])$
       $= \lambda w.[\text{init}(t') = c_T \& \exists e[\tau(e) \subseteq [t' \cap [c_T, \text{day-after-}c_T]] \& \text{finish-hw}(c_A)(e)(w)]]$ defined iff $\neg(t' < c_T)$ and the other presuppositions are met.

Finally, the property of Past-fulfillment (cf. (15a), (16a)) can be explained by proposing that M-Imps in Japanese can come in a counterfactual variant. Following Schwager (2011), I assume that past imperatives are speech acts distinct from ordinary directives in terms of temporal conditions. Ordinary, factual (realistic) imperatives require their argument proposition to be possible with respect to the CG, and require their modal background to be a subset of the CG, as in (43a). Japanese imperative modals, moreover, allow for past imperatives that require their background to be counterfactual, as in (43b).

(43) $[[\text{-e/ro}_{\text{imp}}]]^c = \lambda f.\lambda g.\lambda t'.\lambda p_{<i,st>}.\lambda t.\lambda w.\forall w' \in \mathbf{O}(f, h_c(g), t, w): p(t')(w')$
   a. Factual (realistic) iff: $\mathbf{O}(f,h_c(g),t,w) \subseteq CG_c$
   b. Counterfactual iff: (i) $\mathbf{O}(f,h_c(g),t,w) = \{ w'|w'$ is optimal according to c_A's goals at w, t $\& \exists w'' \in CG[w''$ and w' share the same history up to t]}
       (ii) $CG_c \cap \lambda w.p(t')(w) = \emptyset$

Counterfactual M-Imps differ from ordinary ones in that (i) they require a particular modal background, and (ii) the proposition of the imperative may be incompatible with the CG. Additionally, counterfactual M-Imps represent a variant form of directives in that the event should have been satisfied prior to the utterance time; their tense time t' can only be a past interval $t' < c_T$. To incorporate this into my theory, I have slightly modified the temporal presupposition of $\mathcal{D}$ as follows.

(44) Temporal Condition of $\mathcal{D}$ (modified version):
   a. $\neg(t' < c_T)$ if the utterance is factual (realistic).
   b. $t < t' < c_T$ if the utterance is counterfactual.

This means that, if $\mathcal{D}$ takes a counterfactual argument, then (i) the modal background must be fetched at t that precedes t′ and c_T, and (ii) the event of the proposition must happen at t′ that precedes c_T. As Schwager notes, the issue of whether we should individuate past imperatives as a distinct type of imperatives is purely terminological: past imperatives in Japanese contain both a weak necessity modal and the directive operator, yet are associated with past-tense marking. Hence, the tense time is set to past and the CBs (f and g) are evaluated in light of the past; intuitively, the context will clarify the current judgments of the speaker w.r.t. such a previous point.

In contrast to M-Imps, there is no modal element that enables B-Imps to be counterfactual. Thus, B-Imps are always factual. Given the modified version of Temporal Condition demonstrated in (44), the interpretation of $\mathcal{D}$ must always be $\neg(t′ < c_T)$, which explains the obligatory non-past character of B-Imps (cf. (15b), (16b)).

5.3. Embedding imperative modals

This section attempts to provide an account of embedded imperatives in Japanese. Let me first deal with embedded M-Imps in reported speech. Recall that M-Imps can properly be reported, i.e., they are permitted to be embedded under indirect quotations (cf. (18a)). Syntactically, embedded M-Imps do not cause any severe problems since my proposal suggests that the modal occurs at the clause-internal level, namely, under indirect quotations. Assuming the structure in (37), where the indirect quotation marker *to* occupies the head of Rep(ort)P, the situation in (18a) is represented as follows.

(45) Ken-ga Aya-ni [$_\text{RepP}$ [$_\text{TP}$ **mod**$_\text{-e/ro}$ (p)] –*to*$_\text{indirect}$] it-ta.
    [**mod**$_\text{-e/ro}$ (p)] ≈ 'it is necessary that p'

Since the directive operator $\mathcal{D}$ is located clause-externally at SP, it cannot occur in embedded imperatives. In (45), the embedded modal contributes to the transmission of the imperative meaning by inducing the deontic necessity meaning. Since the actual speaker of (45) would neither presuppose the contents of $\mathcal{D}$ nor attempt to update the current context by adding 'the addressee is obliged to p' to the ordering source, we can conclude that the theory stating that embedded imperatives lack $\mathcal{D}$ is plausible.

What about B-Imps? One of the biggest advantages of using non-modal analysis for B-Imps is that it accounts for the fact that they can never occur under any embedded contexts. Recall that B-Imps cannot be interpreted as directives when they are embedded, cf. (19a). The analysis here correctly predicts that, when a sentence containing -*(r)u* is embedded, its interpretation is limited to an assertion, as in (46).

(46) Ken-ga Aya-ni [$_\text{RepP}$ [$_\text{TP}$ p$_\text{basic-form}$] –*to*$_\text{indirect}$] it-ta.
    [p] ≈ 'it is the case that p'

In example (19a), the embedded sentence lacks any modal content, and thus can-

not induce imperative (i.e., necessity) meanings. Again, in this analysis, since the directive operator $\mathcal{D}$ cannot operate at the level of SP, the operator cannot contribute to the transmission of the meaning.

5.4. Interactions and interpretations containing *only*

In this section, I discuss how focus particles *dake* 'only' interact with imperatives and contexts. The basic idea that I pursue here is that the dual inference of imperatives containing *dake* can be derived by the scope interaction of the imperative modal and the exhaustivity operator associated with *dake*.

For this analysis, I assume the standard view that the exhaustivity operator exh (Chierchia et al. 2012) associated with *dake* identifies a proposition as the most informative out of a given set of alternatives, as shown in (47). exh is a function which takes p and w, and returns the two-part meanings that (i) p is true in w and (ii) all the alternatives that are not weaker than p are false in w.

(47) $[[\text{ exh}_{ALT}]]^c = \lambda p.\lambda w.\ p(w) \wedge \forall \varphi \in NW(p, ALT_{p(w)}): \neg\varphi(w)$

I would like to show how the dual meaning of M-Imps containing *dake* is derived. My proposal is that (i) in prohibition contexts (: Context I in (20)), the exhaustification by *dake* happens at the level of the propositional content, and (ii) in permission contexts (: Context II in (21)), *dake* exhaustifies the modal associated with *-e/ro*.

For the imperative containing *dake* in the prohibition example in (22) (repeated in (48) below), the logical form in (49a) is structured, and the interpretation is given in (49b), where the set alternative is (49c).

(48) (In Context I,) [*Marui*]$_F$ *tukue dake penki-o nur-e!*
   'You must paint the [round]$_F$ table, and it's not O.K. to paint the other tables.'
(49) a. LF: $\mathcal{D}$ [**mod**$_{-e/ro}$ [$_P$ exh$_{ALT}$(c) [p: c$_A$ paints the [round]$_F$ table in w]]]
   b. $\mathcal{D}$ (**mod** ([c$_A$ paints the round table in w] & [$\neg\varphi$(w) for all NW(p, ALT$_{p(w)}$)]))
   c. ALT$_{p(w)}$ = { [p: c$_A$ paints the round table in w], [φ_1: c$_A$ paints the square table in w], [φ_2: c$_A$ paints the triangle table in w] }

The computation above correctly represents the interpretation of the imperative with *dake* in Context I. Here, the alternatives (49c) are evaluated by exh, and all the non-weaker alternatives (i.e., φ_1 and φ_2) are negated, leading to the derivation $\neg$(c$_A$ paints the square table in w) and $\neg$(c$_A$ paints the triangle table in w). The modal **mod** then operates on the uttered proposition p and the negated alternatives $\neg\varphi_{1,2}$, which is equivalent to saying that *it is necessary that 'the addressee paints the round table in w and does not paint the square/triangle table in w.'*

In Context II, *dake* exhaustifies the necessity modal associated with *-e/ro*; in contrast to Context I, *dake* scopes over the modal, and conveys the obligatory permission interpretation, as shown in (51).

(50) (In Context II,) [*Marui*]$_F$ *tukue dake penki-o nur-e!*

'You must paint the [round]$_F$ table, but it's O.K. to not paint the other tables.'

(51) a. LF: $\mathcal{D}$ [exh$_{ALT}$(c) [$_P$ **mod**$_{-e/ro}$(p: c$_A$ paints the [round]$_F$ table in w)]]

b. $\mathcal{D}$ ([**mod** (c$_A$ paints the round table in w)] & [¬φ(w) for all NW(P, ALT$_{P(w)}$)]))

c. ALT$_{p(w)}$ = { [P: **mod**(c$_A$ paints the round table in w)], [φ$_1$: **mod**(c$_A$ paints the square   table in w)], [φ$_2$: **mod**(c$_A$ paints the triangle table in w)] }

In (51a), exh receives the context c. If c is the context that satisfies the presupposition of permissions (i.e., the context where the addressee is obliged to paint the square/triangle table), then exh(c) takes a wide scope to fit the context. Assuming that, in imperatives, permission contexts are marked (Portner 2012), when a given context is such that the permission presupposition is fulfilled, the discourse participant(s) can infer that the meaning that can be inferred from command imperatives (in the current case, the implicature in Context I) does not fit the context. To accommodate the suitable presupposition, exh(c) quantifies over the modal as in (51a), not under the modal.[21] When exh(c) occupies a scope above the necessity modal, we get the interpretation in (51b) that *it is necessary that the addressee paints the round table in w and it is not necessary that she paints the square/ triangle table in w*. The computation goes as follows. When the imperative $\mathcal{D}$ [*dake*[**mod**(p)]] is uttered, the alternatives in (51c) are evaluated by exh(c), and all the non-weaker alternatives (i.e., φ$_{1,2}$) are negated, thus deriving ¬**mod**(c$_A$ paints the square table in w) & ¬**mod**(c$_A$ paints the triangle table in w).

How can we explain the fact that B-Imps containing *dake* become infelicitous when uttered in Context II (cf. (24), (25))? The semantic structure of B-Imps lacking modals explains this contrast: since there is no modal that can be exhaustified by *dake*, B-Imps with *dake* are compatible only with contexts where the prohibition implicature matches, i.e., Context I. When *dake* occupies a scope over the propositions, a B-Imps containing *dake* can have the LF and the interpretation below.

(52) a. LF: $\mathcal{D}$ [exh$_{ALT}$(c) [p: c$_A$ paints [the round]$_F$ table in w]]

b. $\mathcal{D}$ ([c$_A$ paints the round table in w] & [¬φ(w) for all NW(p, ALT$_{p(w)}$)])

c. ALT$_{p(w)}$ = { [p: c$_A$ paints the round table in w], [φ$_1$: c$_A$ paints the square table in w], [φ$_2$: c$_A$ paints the triangle table in w] }

Crucially, since B-Imps do not contain any modals, (52a) is the only structure that B-Imps with *dake* can form. That is, a scope interaction between *dake* and modals cannot occur. As we can see in (52b), the resulting meaning of the sentence is *I command you to paint the round table and not to paint the other tables*, which corresponds to the interpretation that we want in Context I, yet gives rise to an inconsistency in Context II, which is why B-Imps with *dake* are restricted to Context

---

[21] This sort of scope ambiguity is not specific to interactions with focus particles like *only*, it is also attested with degree quantifiers such as *few* and *fewer than*, as observed by Oikonomou (2016: 1051).

I.[22]

6. Conclusions

Little attention has been paid to how and why canonical imperatives and non-canonical imperatives differ from each other semantically and pragmatically. In this paper, I presented an analysis of canonical and non-canonical imperatives in Japanese by synthesizing the underlying ideas behind the modal and minimal theories of imperatives. According to the analysis proposed here, these two theories no longer need to compete with each other, at least in Japanese, as the modal theories optimally explain Japanese canonical imperatives (i.e., M-Imps), while the minimal theories are also needed to account for the nature of non-canonical imperatives (i.e., B-Imps).

A further theoretical contribution of this study is its suggestion that the meaning of imperatives may be embodied in more than a single element, an idea that has not previously been proposed in the literature. While I cannot at this point confirm whether the semantic/pragmatic structure of imperatives is peculiar to Japanese or what degree of variation exists among languages, the difference between the types of imperatives with respect to how the imperative meaning comes into being could be applicable to other language-specific morphological systems (cf. Medeiros 2013). To clarify the universal semantic features of the structure of imperatives, it is necessary to observe further differences between canonical and non-canonical imperatives across a wide variety of languages, which should be addressed in the future.

---

[22] An anonymous reviewer points out that in certain contexts, B-Imps with *dake* as permissions are acceptable, which may be problematic for the current account. (Five out of six informants judged (vi) to be "natural.")

(vi) (A parent to a child who says (s)he has no appetite.)
    Haihai, zyaa   zerii-dake   tabe-ru!   (Ne?)
    okay   then   jelly-only   eat-PRES   (DP)
    'Okay, then eat only the jelly. (Understand?)'

Since the explanation in this section derives the difference in the acceptability of imperatives with *dake* in the prohibition context and the permission context from the difference in scope between the modal and the directive operator, it is difficult to explain why (vi) is not much worse than (25). At this point, I am not able to find out factors for the fact, but one possibility could be that *dake* in (vi) is calculated as *dake-wa* 'only-contrastive topic' or *dake-demo* 'only-even.' In fact, two of the informants reported that the acceptability of (vi) increases when "*zerii-dake*" in (vi) is read with the contrastive intonation. The reviewer also has an intuition that the insertion of the discourse particle *ne* raises the acceptability of (vi), giving a sort of "attentive" impression to the utterance. If some additional meanings brought about by certain elements can affect the acceptability of B-Imps with *dake* in permission contexts, what needs to be clarified in the first place is what factors and by what mechanism make them acceptable, which will be a task for future work. I thank the reviewer for raising this issue.

References

Arita, Setsuko (2015) Sasisematta meireibun ni kansuru oboegaki: Nihongo no tensu to modariti no setten [A note on so-called 'urgent imperatives' expressed by the simple past/non-past sentences: Tense and modality interfaces in Japanese]. *Kyushu University Papers in Linguistics* 35: 382–397.

Chierchia, Gennaro, Danny Fox and Benjamin Spector (2012) Scalar implicature as a grammatical phenomenon. In: Claudia Maienborn, Klaus von Heusinger and Paul Portner (eds.) *Semantics: An international handbook of natural language meaning*, Volume 3, 2297–2332. Berlin/Boston: De Gruyter Mouton.

Condoravdi, Cleo and Sven Lauer (2012) Imperatives: Meaning and illocutionary force. *Empirical Issues in Syntax and Semantics* 9: 37–58.

Condoravdi, Cleo and Sven Lauer (2017) Conditional imperatives and endorsement. *Proceedings of NELS* 47: 185–204.

Crnič, Luka and Tue Trinh (2009) Embedding imperatives in English. *Proceedings of Sinn und Bedeutung* 13: 13–127.

Davis, Christopher (2011) *Constraining interpretation: Sentence final particles in Japanese.* Doctoral dissertation, University of Massachusetts-Amherst.

Gutzmann, Daniel (2015) *Use-conditional meaning: Studies in multidimensional semantics.* Oxford: Oxford University Press.

Haida, Andreas, and Sophie Repp (2012) 'Only' in imperatives. *Proceedings of Sinn und Bedeutung* 16: 307–320.

Han, Chung-hye (2000) *The structure and interpretation of imperatives: Mood and force in universal grammar.* New York, NY: Garland.

Ihara, Shun and Yuya Noguchi (2019) Imperatives with/without necessity. In: Shin Fukuda, Mary Shin Kim, and Mee-Jeong Park (eds.) *Japanese/Korean Linguistics* 25: 103–116. Stanford, CA: CSLI Publications.

Kaufmann, Magdalena (2012) *Interpreting imperatives.* New York: Springer.

Kaufmann Magdalena, and Claudia Poschmann (2013) Embedded imperatives: Empirical evidence from Colloquial German. *Language* 89: 619–637.

Kratzer, Angelika (1981) The notional category of modality. In: Hans-Jürgen Ekmeye and Hannes Rieser (eds.) *Words, worlds, and contexts: New approaches to word semantics*, 38–74. Berlin/New York: Walter de Gruyter.

Kudo, Mayumi (2004) *Nihongo no asupekuto, tensu, mudo taikei: Hyojungo kenkyu o koete* [*Aspect, tense, and mood systems in Japanese dialects*]. Tokyo: Hitsuji Shobo.

Kuno, Susumu (1988) Blended quasi-direct discourse in Japanese. In: William Poser (ed.) *Papers from the second international workshop on Japanese syntax*, 75–102. Stanford, CA: CSLI Publications.

Lewis, David (1979) Attitudes de dicto and de se. *The Philosophical Review* 88: 513–543.

Mastop, Rochus Jacobus (2005) What can you do?: Imperative mood in semantic theory. Ph.D. thesis, University of Amsterdam.

Medeiros, David J. (2013) Formal approaches to the syntax and semantics of imperatives. Ph.D. thesis, The University of Michigan.

Ninan, Dilip (2005) Two puzzles about deontic necessity. In: Jon Gajewski, Valentine Hacquard, Bernard Nickel and Seth Yalcin (eds.) *New work on modality: MIT Working Papers in Linguistics #51*, 149–178. Cambridge, MA: MITWPL.

Noguchi, Yuya (2016) Does ForceP determine all the illocutionary forces?: A case study of dictionary form imperatives in Japanese. In: Ayaka Sugawara, Shintaro Hayashi and Satoshi Ito (eds.) *Proceedings of Formal Approaches to Japanese Linguistics* 8: 43–62. Cam-

bridge, MA: MIT Working Papers in Linguistics.

Oikonomou, Despina (2016) Covert modals in root contexts. Ph.D. Thesis, MIT.

Onoe, Keisuke (1979) Soko ni suwaru!: Hyoogen no koozoo to bunpoo [Sit right there!: The structure and grammar of expressions]. *Gengo* [Language], Volume 2, 20–24. Tokyo: Taishukan.

Oshima, David Y. (2006) Perspectives on reported discourse. Ph.D. thesis, Stanford University.

Oshima, David Y. (2014) On the functions of the Japanese discourse particle *yo* in declaratives. In: Erin McCready, Katsuhiko Yabushita, and Kei Yoshimoto (eds.) *Formal approaches to semantics and pragmatics*. 251–271. Heidelberg: Springer.

Portner, Paul (2004) The semantics of imperatives within a theory of clause types. *Proceedings of SALT* 14: 235–252.

Portner, Paul (2007) Imperatives and modals. *Natural Language Semantics* 15: 351–383.

Portner, Paul (2012) Permission and choice. In: Günther Grewendorf and Thomas Ede Zimmermann (eds.) *Discourse and grammar: From sentence types to lexical categories*. 43–68. Boston/Berlin: Walter de Gruyter.

Riezer, Lukas (2017) *Belief states and evidence in speech acts: The Japanese sentence final particle no*. Doctoral dissertation, Kyoto University.

Rudin, Deniz (2018) Rising imperatives. *Proceedings of SALT* 28: 100–119.

Saito, Mamoru and Tomoko Haraguchi (2012) Deriving the cartography of the Japanese right periphery: the case of sentence-final discourse particles. *IBERIA: An International Journal of Theoretical Linguistics* 4: 104–123.

Saito, Mamoru (2013) Conditions on Japanese phrase structure: From morphology to pragmatics. *Nanzan Linguistics* 9: 119–145.

Schwager, Magdalena (2011) Imperatives and tense. In: Renate Musan and Monika Rathert (eds.) *Tense across languages*, 37–58. Berlin: Walter de Gruyter.

Silk, Alex (2016) Weak and strong necessity modals: On linguistic means of expressing a primitive concept OUGHT. In: David Plunkett and Billy Dunaway (eds.) *Meaning, decision, and norms: Themes from the work of Allan Gibbard* (Forthcoming with Maize Books).

Speas, Peggy and Carol Tenny (2003) Configurational properties of point of view roles. In: Anna Maria Di Sciullo (ed.) *Asymmetry in grammar*, 315–344. Amsterdam: John Benjamins.

Stalnaker, Robert C. (1978) Assertion. In: Peter Cole (ed.) *Syntax and Semantics* 9: 315–322. New York: Academic Press.

Starr, William (2011) A preference semantics for imperatives. PhD dissertation, Rutgers University.

Stegovec, Adrian and Magdalena Kaufmann (2015) Slovenian imperatives: You can't always embed what you want! *Proceedings of Sinn und Bedeutung* 19: 621–638.

Tagawa, Takumi (2019) Dokuwa ni arawareru gutimeireibun to hanjijitusei [Grumble imperatives in monologue and counterfactuality]. *Nihongo bunpoo* [*Japanese grammar*] 19: 126–134.

Takubo, Yukinori (2011) Japanese expression of temporal identity: Temporal and counterfactual interpretation of tokoro-da. In: William McClure and Marcel den Dikken (eds.) *Japanese/Korean Linguistics* 18, 392–409. Stanford, CA: CSLI Publications.

Teramura, Hideo (1984) *Nihongo no sintakusu to imi* [*Syntax and Semantics of Japanese*], Volume 2. Tokyo: Kurosio Publisher.

von Fintel, Kai and Sabine Iatridou (2008) How to say ought in foreign: The composition

of weak necessity modals. In: Jacqueline Guéron and Jacqueline Lecarme (eds.) *Time and modality*, 115–141. Dordrecht: Springer.

von Fintel, Kai and Sabine Iatridou (2017) A modest proposal for the meaning of imperatives. In: Ana Arregui, María Luisa Rivero and Andrés Salanova (eds.), *Modality across syntactic categories*, 288–319. Oxford: Oxford University Press.

von Stechow, Arnim (2003) Feature deletion under semantic binding: Tense, person, and mood under verbal quantifiers. In: Makoto Kadowaki and Shigeto Kawahara (eds.) *Proceedings of NELS* 33, 379–404. Amherst, MA: GLSA.

Wratil, Melani (2005) *Die Syntax des imperativs*. Berlin: Akademie Verlag.

Yoshimoto, Kei, Chidori Nakamura and Yoshiki Mori (2000) A unified approach to tense in Japanese. *Proceedings of PACLIC* 14: 389–400.

Zimmermann, Thomas Ede (2000) Free choice disjunctions and epistemic possibility. *Natural Language Semantics* 8: 255–290.

Author's contact information:
Faculty & Graduate School
of Intercultural Studies, Kobe University
e-mail: iharashun0[at]gmail.com

【要　旨】

典型的命令文と非典型的命令文の意味論・語用論とその棲み分け

井原　　駿

神戸大学

　近年の命令文研究における議論の主な争点として，「命令文がその意味表示（semantic denotation）としてモーダル（modals）を持つか否か」というものが存在する。いわゆるミニマル理論（Minimal Theories）では，命令文のための語用論的オブジェクトを仮定し，発話文が指示（directive）の言語行為として解釈されるメカニズムを語用論の領域で説明する（Portner 2004, 2007, von Fintel and Iatridou 2017 など）。これに対してモーダル理論（Modal Theories）では，命令文の意味表示としてモーダルを仮定する立場を採用し，主として意味論の領域から命令文の振る舞いに分析を与える（Han 2000, Kaufmann 2012, Condoravdi and Lauer 2012, 2017 など）。本稿では，まず，二つの異なる形式を持つ命令文の間に見られる多様な振る舞いの差を提示する。その上で，命令文における意味論的意味と語用論的意味が棲み分けされた形式的枠組みを提案し，各命令文の意味の違いを「文がモーダルを持つか否か」の観点から捉えられることを示す。本研究は，従来対立していた理論間の競合を解消し，両理論の背後にあるアイディアを統合した第三の理論として位置付けられる。また，このような理論的貢献に加えて，本研究はこれまでに焦点が当てられてこなかった典型的命令文と周辺的命令文の差異を形式意味論の見地から包括的かつ仔細に観察したものとして記述的価値を持つ。