

# A Conditional Theory of Permission and Obligation

## The View from Japanese, Korean, and Burmese

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# Plan

The view from Japanese, Korean, and Burmese

Conditional modality in philosophical logic

Relationship to the standard theory

Strong or weak permission?

Arguments for the conditional theory

- Strengthening

- Two Trains

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(d) And finally, not only is it possible and plausible to construe statements of obligation in the idiom recommended by the systems *OX*, it is as a matter of fact the standard way of construing such assertions in certain natural languages. In Japanese,<sup>94</sup> for example, the standard way of rendering “*X* ought to be done,” is “*X wo shinakereba, narimaseng.*” The clause before the comma may be literally translated “if *X* is not done,” and the clause after the comma means something like “it won’t do,” or “things will go wrong” (literally, “it won’t become”). “*Narimaseng*,” in short, is standardly

<sup>94</sup> See Bloch and Jorden [19], pp. 399 and 415.

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#### THE FORMAL ANALYSIS OF NORMATIVE SYSTEMS

taken in Japanese as the interpretation of what we have called the sanction ‘*S*’. The fact that obligations are expressed in a natural language by means of locutions paralleling so exactly those of the systems *OX*, should be sufficient to dispel any notion that the locutions of *OX* are somehow arbitrary or artificial or unnatural. And Japanese is not the only example; comparable modes of expression are also found in Korean.<sup>95</sup>

**Figure:** Anderson (1956), *The Formal Analysis of Normative Systems*; see also Anderson (1958b), ‘The logic of norms’, *Logique et Analyse*; and Anderson (1958a), ‘A reduction of deontic logic to alethic modal logic’. *Mind*.

# Japanese Modals are Conditionals\*

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## 1. Introduction

Although virtually unknown to Western linguists, it is well-known among both students and teachers of Japanese that Japanese uses conditional structures for expressing such concepts as permission and obligation.<sup>1</sup> English uses modal verbs. The present paper addresses itself to the question of why Japanese uses conditional structures for expressing modal concepts.

Japanese has several different conditional patterns, e.g. "S1 *tara*, S2", "S1 *ba*, S2", and "S1 *to*, S2"? However, it has only one concessive conditional pattern, "S1 *temo*, S2", which I will henceforth call the *temo*-conditional. Compare (1) and (2):

**Figure:** Akatsuka (1992), 'Japanese modals are conditionals'. *The Joy of Grammar*.

(3) *Permission:*

*Tabe-temo*    *ii.*

eat even if good

lit. "It is good even if you eat." = "You may eat."

(5) *Obligation:*

*Tabenakere-ba*    *ikenai/*    *dame*    *da.*

eat Neg    if can go Neg    no good is

lit. "It is not good if you don't eat" = "You must eat."

What I have said about Japanese here is also applicable to Korean (Akatsuka 1989) and Burmese (Nishide p.c.).

**Figure:** Akatsuka (1992), 'Japanese modals are conditionals'. *The Joy of Grammar*.

(1) 'Specialised' Modal Conditionals

- a. 이런 거                      먹으면                      안 되지!  
KOR ilɔn kɔ                      mɔk-imyɔn    an twæ-ci!  
this.kind.of thing    eat-COND       NEG **become**-PROP  
*If you eat this kind of thing that won't do! = You shouldn't eat this kind of thing!*
- b. こういうもの    食べては                      いけないよ!  
JAP kou\_iu mono              tabe-tewa              ikenai yo!  
this.kind.of thing    eat-SEQ/COND    **won't.do** ASRT  
*If you eat this kind of thing that won't do! = You shouldn't eat this kind of thing!*

Figure: Knoob (2008), 'Conditional constructions as expressions of desiderative modalities in Korean and Japanese'.

# A rich literature

- ▶ Wymann (1996)
- ▶ Clancy, Akatsuka, and Strauss (1997)
- ▶ Nauze (2008)
- ▶ Knoob (2008)
- ▶ Narrog (2009)
- ▶ Kaufmann (2017)
- ▶ Kaufmann and Tamura (2017)
- ▶ Kaufmann and Whitman (2022)
- ▶ Chung (2019)
- ▶ Li (2025)
- ▶ ...



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# Leibniz (1670)

Leibniz's *Elements of Natural Law*:

What is permitted is

“what is possible for a good person to do”

What is obligatory is

“what is necessary for a good person to do”

Hilpinen (2017, pp. 159–60) suggests paraphrasing Leibniz's thought here using conditionals:

One is permitted to do something just in case

if they do it, possibly, they are a good person

One is obligated to do something just in case

if they do not do it, necessarily, they are not a good person.

Williamson (2007, pp. 157, 297) also considers analysing metaphysical possibility and necessity in terms of counterfactuals.

- ▶ A statement is metaphysically necessary just in case if it were false, a contradiction would obtain
- ▶ Possibility is the dual of necessity

$$\Diamond A \equiv A \Diamond \rightarrow \top$$

$$\Box A \equiv \neg A \Box \rightarrow \perp$$

where  $\top$  is a tautology and  $\perp$  a contradiction

## Anderson (1956, 1958a,b)

Let  $S$  denote “Thing wrong”, or ‘Sanction’

$A$  is obligatory means  $\Box(\neg A \supset S)$

$A$  is forbidden means that  $\neg A$  is obligatory  $\Box(A \supset S)$

$A$  is permitted means that  $A$  is not forbidden  $\Diamond(A \wedge \neg S)$

“to say that  $p$  is obligatory is to say that failure of  $p$  leads to a state-of-affairs  $P$  which is ‘bad’ ”

(Anderson 1958a, p. 103)

“it is *analytic* of the notion of obligation that if an obligation is not fulfilled, then something has gone wrong”

(Anderson 1967, pp. 346–47)

This analysis of obligation is also proposed by Kanger (1957)

## von Wright (1968)

Let  $I$  denote “immunity to punishment”.

**Obligation: necessary condition for no punishment**

*It ought to be the case that  $A$  means*

$A$  is a **necessary** condition of  $I$

$\Box(I \supset A)$ , equivalent to  $\Box(\neg A \supset \neg I)$

**Permission: sufficient condition for no punishment**

*It may be the case that  $A$  means*

$A$  is a **sufficient** condition of  $I$

$\Box(A \supset I)$

This is known as ‘strong permission’

Hilpinen (1982) suggested replacing the strict conditional  $\Box(A \supset C)$  with the variably strict conditional, à la Stalnaker (1968) and Lewis (1973).

Nute (1985) suggested another kind of conditional.

Let  $f$  be a conditional selection function, taking a sentence and a world and returning a set of worlds where the sentence is true.

$A \Diamond \rightarrow C$  is true    iff     $C$  is true at **some**  $A$ -world selected by  $f$

$A \Box \rightarrow C$  is true    iff     $C$  is true at **every**  $A$ -world selected by  $f$

$A$  is (weakly) permitted     $A \Diamond \rightarrow good$

$A$  is (strongly) permitted     $A \Box \rightarrow good$

$A$  is obligatory     $\neg A \Box \rightarrow \neg good$

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The standard theory of modality (Kratzer 1977)

$\Diamond A$ :  $A$  is true at **some** best world in the modal base

$\Box A$ :  $A$  is true at **every** best world in the modal base

Given a world  $w$  and sentence  $A$ , define that a world is

1. *A-accessible* from  $w$  just in case it is a selected  $A$ -world at  $w$  or a selected  $\neg A$ -world at  $w$ , i.e. in  $f(A, w) \cup f(\neg A, w)$
2. *good*, with respect to  $w$  and  $A$ , just in case it is among the best  $A$ -accessible worlds

## Relating conditional modality to the standard theory

- ▶  $A \Diamond \rightarrow \text{good}_{w,A}$  is true at  $w$  just in case  $A$  is true at some best  $A$ -accessible world
- ▶  $\neg A \Box \rightarrow \neg \text{good}_{w,A}$  is true at  $w$  just in case  $A$  is true at every best  $A$ -accessible world



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# Strong or weak permission?

## Strong permission

If A happens, **necessarily** (i.e. in **every** case we consider), there is no violation. (von Wright 1968, Hilpinen 1982)

## Weak permission

If A happens, possibly (i.e. in **some** case we consider), there is no violation. (Anderson 1956)

Angelica has many allergies: she is allergic to soy, gluten, shellfish, lactose, and nuts.

Is she allowed to eat food?

If she ate food, would things be ok?

Alice and Bob are colleagues in Quebec. They know both French and English. Bill 96 requires them to speak French at work. They choose to continue to speak English at work.



Does Bill 96 allow Alice and Bob to talk to each other at work?

If Alice and Bob talked to each other at work, would Bill 96 be satisfied?

There are two switches, A and B. Each switch can be either up or down. The rules specify that A must be up and that B may be in any position.

Are the positions of the switches allowed to agree?

If the switches agreed, would the rules be met?

John's doctor has permitted him to smoke at most seven cigarettes per day.

Does John have permission to smoke more than six cigarettes per day?

If John smoked more than six cigarettes, would he be following his doctors orders?

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*Alice is at the petrol station. She wants to smoke, and takes out a match.*

Alice is not allowed to strike the match.

She is allowed to leave the petrol station and strike it.

She is not allowed to leave the petrol station and go to another station and strike it.

She is allowed to leave the petrol station, go to another station, dip the match in water and strike it.



(based on an example from Williamson 2020)

If Alice stuck the match, the rules would be broken.

If Alice left the station and struck the match, the rules wouldn't be broken.

If Alice left the station, went to another station and struck the match, the rules would be broken.

If Alice left the station and went to another station and dipped the match in water and struck it, the rules wouldn't be broken.



Alice leaves the station, goes to another station, dips the match in water and strikes it.

⇒ Alice leaves the station, goes to another station and strikes the match.

⇒ Alice leaves the station and strikes the match.

⇒ Alice strikes the match.

**Inheritance** If  $A$  entails  $B$  and  $A$  is permitted,  $B$  is permitted too.

**Antecedent strengthening** If  $A$  entails  $B$  and *if  $B$ , would  $C$  is true, if  $A$ , would  $C$ .*

**Inheritance** If  $A$  entails  $B$  and  $A$  is permitted,  $B$  is permitted too.

Alice leaves the station and strikes the match.

⇒ Alice strikes the match.

By contraposition,

Alice doesn't strike the match.

⇒ Alice doesn't leave the station and strike the match.

By inheritance,

Alice is not allowed to strike the match.

⇒ Alice is not allowed to leave the station and strike the match.

**Antecedent strengthening** If  $A$  entails  $B$  and if  $B$ , *would*  $C$  is true, *if*  $A$ , *would*  $C$ .

Alice leaves the station and strikes the match.

⇒ Alice strikes the match.

By antecedent strengthening,

If Alice struck the match, the rules would be broken.

⇒ If Alice left the station and struck the match, the rules would be broken.

We seem to be dealing with two very similar phenomena:

1. Failures of inheritance

$$\Diamond(A \wedge B) \not\Rightarrow \Diamond A$$

2. Failure of antecedent strengthening

$$\text{if } A, \text{ would } C \not\Rightarrow \text{if } A \wedge B, \text{ would } C$$

Are these really two separate phenomena?

- ▶ Standard theories of modals and conditionals (such as Kratzer 1977, 1986) validate inheritance and invalidate antecedent strengthening
- ▶ Conditional theories invalidate both, and **for the same reason**

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Two trains approach an intersection in a dense forest at full speed.

One is travelling North to South, the other East to West.

If both continue they will crash into one another.







Network Configuration		Status
A goes	B goes	Forbidden
A goes	B stops	Permitted
A stops	B goes	Permitted
A stops	B stops	Permitted

**Table:** The deontic status of each configuration of the train network.

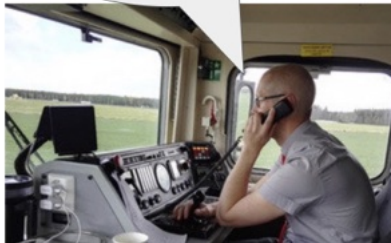
Am I permitted to continue  
through the intersection?

Am I permitted to stop?



Am I permitted to  
continue through the  
intersection?

Am I permitted to stop?



Am I permitted to continue  
through the intersection?

Am I permitted to stop?

Am I permitted to  
continue through the  
intersection?

Am I permitted to stop?



Network Configuration	Deontic status
Train A goes, train B goes	Forbidden
Train A goes, train B stops	Permitted
Train A stops, train B goes	Permitted
Train A stops, train B stops	Permitted

Am I permitted to continue through the intersection?

Yes.

Am I permitted to stop?

Yes.

Am I permitted to continue through the intersection?

Yes.

Am I permitted to stop?

Yes.



Network Configuration	Deontic status
Train A goes, train B goes	Forbidden
Train A goes, train B stops	Permitted
Train A stops, train B goes	Permitted
Train A stops, train B stops	Permitted



You are permitted to continue  
through the intersection.

You are permitted to stop.



EPISTEMIC STATE

A goes B goes  
A stops B goes  
A goes B stops  
A stops B stops

*accessible worlds*

A goes B goes  
A stops B goes  
A goes B stops  
A stops B stops

Contains some  
good world?



EPISTEMIC STATE

A goes B goes  
A stops B goes  
A goes B stops  
A stops B stops

*if A goes...*

A goes B goes

A goes B stops

Contains some  
good world?








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# Summary





1. Conditional modality is expressed in Japanese, Korean and Burmese
2. Conditional permission in these languages appears to be **strong**, in contrast to English *may/allowed*, which are **weak**
3. In contrast to the standard theory of modality, the conditional theory provides
  - ▶ a unified account of failure of inheritance and failures of antecedent strengthening
  - ▶ a more satisfying account of the train case

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*It's Wednesday. A driver pulls over beside the sign.*



PARKING ATTENDANT:

You're not allowed to park here.

But parking here on Sunday is allowed.

But parking here on Sunday during roadworks is not allowed.

But parking an emergency vehicle here on Sunday during roadworks is allowed.

*It's Wednesday. A driver parks beside the sign.*



#### PARKING ATTENDANT:

If you parked here, you'd be breaking the rules.

If you parked here on Sunday, you wouldn't be breaking the rules.

If you parked here on Sunday during roadworks, you'd be breaking the rules

If you parked an emergency vehicle here on Sunday during roadworks, you wouldn't be breaking the rules.