Territory of information in English and Japanese and psychological utterances

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Abstract

This paper presents a comparative pragmatic analysis of Japanese and English based on the theory of territory of information developed in an earlier paper. The theory assumes that the notion of territory familiar from studies on the behavior of animals (including human beings) is also relevant to the evidential aspect of language. On this assumption, it aims to specify the relationship between the forms of utterance and the notion of territory of information. This paper first presents a summary of an analysis of utterances in Japanese, developed in the earlier paper, and then provides an analysis of English utterances within the framework of the theory of territory of information. On the basis of these results, it further attempts to analyze psychological utterances in both languages and show that their pragmatic characters are also explained by the theory.

1. Introduction

In an earlier paper (Kamio, 1994), I proposed a pragmatic theory dealing with an aspect of evidentiality, called the theory of territory of information. The basic idea on which it stands is the notion of territory familiar from studies on the behavior of animals, including human beings. The paper claimed that the evidential aspect of human language is systematically controlled by the notion of territory of informa-

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This paper is based on Kamio (1990), which was published in Japanese and which treats wider phenomena in terms of an earlier version of the theory of territory of information.

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tion. It attempted to demonstrate this claim and formalize a pragmatic theory based on that notion, using Japanese as the target language. Since recent discussions of evidentiality show that the area still lacks an appropriate theoretical framework (Palmer, 1986; Chafe and Nichols, 1986; Willett, 1988), that paper was also intended to fill this gap.

The present paper further develops the content of Kamio (1994). The purpose here is two-fold. First, we argue that the theory of territory of information can be applied to English, capturing significant evidential properties of the language. We then compare the results of our analysis of Japanese and English in terms of our theory, focusing on the uses of psychological utterances, i.e. utterances in both languages conveying information about a psychological state of the referent of the subject.

Section 2 provides a summary of our presentation of the theory, as applied to Japanese in the earlier paper. Section 3 presents the theory as applied to English and discusses some significant differences from the theory as applied to Japanese. Section 4 considers psychological utterances, showing that they are basically similar, with some interesting differences which can be explained by the differences between the two versions of the theory noted in section 3. Section 5 concludes with a summary and brief remarks which suggest further applicability of the theory.

2. Outline of the theory of territory of information in Japanese

The theory of territory of information primarily concerns the relationship between forms of utterances and the conditions under which they can be used naturally. It explains the relationship by virtue of a conceptual category called the speaker’s/hearer’s 'territory of information': if a given piece of information satisfies a condition or conditions specified in the theory, then it is considered close to the speaker/hearer. When it is equal to or closer to the speaker/hearer than a specified value n, it is considered to fall into the speaker’s and/or the bearer’s territory to some degree(s). Depending on where it is located, a certain form of utterance must be used to express it.

Diagram I, below, provides the basic postulate of the theory of territory of information:

I. There are two linear psychological scales, one for the speaker and the other for the hearer:

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1 In this paper, as in Kamio (1994), we will use the term 'information' without a precise definition. In fact, it is so basic that it is extremely difficult to define. Roughly, it corresponds to what is generally understood by the term 'proposition' minus whatever so-called modal elements contribute to it. Thus, (i) and (ii) below share the same information in our terms:

(i) John likes music.

(ii) John may like music.

(iia) I hear John likes music.

(iib) I hear John apparently likes music.

In other words, the italicized elements do not contribute to the information these utterances express.
A given piece of information is located on these scales and can take any value between (and including) 1 and 0.

In the case illustrated above, the information is closer to the speaker than to the hearer.

Based on I, we define the speaker's/.hearer's territory of information as in II:

II. There are two conceptual categories called the speaker's and the hearer's territories of information. They each contain information close to the speaker/hearer, i.e. information having the value \( \geq n \), where \( n \) is a specified value between 1 and 0.

If a given piece of information takes the value \( m (> n) \) on the speaker's scale, while it takes the value \( (n >) m' \) on the hearer's scale (as in Diagram I), then that information falls into the speaker's territory to some degree and not into the hearer's, since \( n \) is the threshold value for information to fall into the speaker/hearer's territory. On the other hand, if \( m' > m \geq n \) holds, then the information falls into both territories, but more into the hearer's territory than into the speaker's.

There are general conditions which determine the location of information on the speaker's or the hearer's scale:

III. a. information obtained though the speaker's/hearer's internal direct experience
b. information embodying detailed knowledge which falls into the speaker's/hearer's professional or other expertise
c. information obtained through the speaker's/hearer's external direct experience
d. information about persons, objects, events and facts close to the speaker/hearer including information about the speaker/hearer him/herself

In IIIa, "internal direct experience" means so-called internal feelings such as pain, emotions, and beliefs. In contrast, "external direct experience" in IIIc means experience which is obtained from outside an experiencer through the five senses. Notice here that in Japanese reception of verbal information is not counted as external direct experience.

Meta-conditions IVa to IVc may function in conjunction with some of the conditions in III:

IV a. information subject to conditions IIIb to IIId is considered less close if the speaker does not have an adequate basis for asserting it
b. new information conveyed to the speaker is generally considered less close to him/her until considerable processing has taken place

c. information private to someone other than the speaker is considered less close to the speaker if the speaker is not close to that person

Conditions III and meta-conditions IV function in the following way. If a given piece of information satisfies one or more of the conditions in III with respect to the speaker, then he/she assumes that it is closer to him/her. For example, consider example (1):

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2 It is difficult to be more precise about 'considerable processing'. What we mean here is that information conveyed to a speaker through communication from others is generally treated as falling outside his/her territory until that information has been 'digested' in his/her mind and absorbed into his/her body of knowledge. Thus this process involves the integration of a given piece of information with various relevant linguistic and non-linguistic data. For the relationship between this process and the theory of territory of information, see Kamio (to appear). Some examples that can be interpreted as reflecting this process are given in (10) and (12) in the text. For an interesting hypothesis about linguistic information processing that is quite relevant to our theory, see Akatsuka (1985).

The reader who has read Kamio (1994) may have noticed that IVb is somewhat different from Vb in that paper, which should correspond to IVb here. This difference results from expository considerations and does not have any theoretical significance.

3 Meta-condition IVc was not mentioned in Kamio (1994). The reasons are, first, that it does not play any role in the discussions in that paper and, second, that space prevented us from providing an argument there for the necessity of such a meta-condition in Japanese. We therefore provide a brief argument for it here. Consider the following examples. (For symbols like TM, SF, NM and CP, see the next footnote):

(i) Ano isya wa yuumeina hito da yo.
    that doctor TM famous person is SF
    'That doctor is a famous person.'

(ii) Ano isya wa okusan to naka ga warui yo.
    that doctor TM wife with terms NM bad SF
    Lit. 'That doctor is on bad terms with his wife.'

(iib) Ano isya wa okusan to naka ga warui-rasii yo.
    that doctor TM wife with terms NM bad seem SF
Assume that the speaker of these examples is not close to the doctor. Then, (i), which expresses public information, is natural in a direct form, while (ii), which expresses information private to the doctor, is odd in the same form. However, (iib), which is in an indirect form, is natural although the information it expresses is the same as that which (ii) expresses. This means that information private to someone other than the speaker is not considered close to the speaker, in the sense to be discussed below, if the speaker is not close to that person. This, then, is an argument for the necessity of meta-condition IVc in Japanese.

Notice, however, that a form like that in (iii) below:

(iii) Ano isya wa okusan to naka ga warui-n da yo.
    that doctor TM wife with terms NM bad -CP is SF
    Lit. 'It is that that doctor is on bad terms with his wife.'

which takes the no da form (contracted as n da in (iii)), is quite acceptable. For more on this form, see footnote 13.
(1) Watasi no tranzyoobi wa 4-gatu 5-ka desu.

I of birthday TM month day is-F

‘My birthday is April 5th.’

The information (1) expresses is obviously closer to the speaker than to the hearer. First, condition IIId about personal data applies to the speaker’s scale and leads him/her to assume that the information is closer to him/her. Second, condition IIIa about internal belief also applies to the speaker, making him/her assume that the information is even closer to him/her since one usually has a firm belief about one’s birthdate. Third, the speaker assumes that there is no condition that applies to the hearer’s scale. Fourth, the speaker assumes that meta-conditions IVa and IVb obviously do not apply to him/her, since one usually knows one’s own birthdate for certain and has known it for a long time. Fifth, the speaker also assumes that meta-condition IVc does not apply to him/her, since information about one’s birthdate is not only not private to someone else but rather public. Thus, the speaker assumes that the information (1) expresses is closer to him/her, falling deep within his/her territory of information, but not within that of the hearer. Notice that as this illustration shows, what is crucial is the speaker’s assumption about the relationship between him/her, the hearer, and a given piece of information.

Given the speaker and the hearer, and given the assumption that information takes values between (and including) 1 and 0 on the speaker’s and the hearer’s scales, we can set up a table like V for Japanese:

V. Japanese

<table>
<thead>
<tr>
<th>Case</th>
<th>Definition of case</th>
<th>Utterance form</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1=Speaker&gt;Hearer=0</td>
<td>direct form</td>
</tr>
<tr>
<td>B</td>
<td>n&lt;S&lt;H=1</td>
<td>direct-ne form</td>
</tr>
<tr>
<td>BC</td>
<td>1=S&gt;H&gt;n</td>
<td>daroo form</td>
</tr>
<tr>
<td>CB</td>
<td>n≤S&lt;H</td>
<td>daroo form</td>
</tr>
<tr>
<td>C</td>
<td>n&gt;S&lt;H=I</td>
<td>indirect-ne form</td>
</tr>
<tr>
<td>D</td>
<td>n&gt;S=H</td>
<td>indirect form</td>
</tr>
</tbody>
</table>

In V, the values 1, 0 and n are used as defined above. The notation x>y means that (the speaker assumes that) a given piece of information belongs more to x’s territory of information than to y’s, while the notation x<y means the reverse situation. X=y

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4 In this paper, we will use the following abbreviatory symbols for the presentation of Japanese examples: TM = Topic Marker; NM = Nominative Marker, AM = Accusative Marker; HM = Hearsay Marker; SF = Sentence-final Particle; CP = Complementizer; -F = formal style; -P = honorific form.

5 If, however, the hearer is very close to the speaker, for example is a member of the speaker’s family, then condition IIId about personal information applies, and the information becomes close to the hearer to some degree. We will discuss cases like this in section 4.1.
means that information falls into both territories to the same degree. Table V shows six different cases in all, which we call A, B, BC, CB, C and D, as indicated.

In terms of Table V, the case of a speaker who says (1) about his/her birthday falls into case A since the speaker assumes that the information (1) expresses falls deep within his/her territory but not within the hearer’s at all. Thus, as V dictates, the utterance in (1) takes the direct form. This form ends with a main predicate or a minimum stylistic auxiliary, such as -masu, which may further be followed by one or two sentence-final particles such as yo and ne. Its most important feature, however, is that it does not include any hedging elements such as daroo (may be), rasii (seem) or tabun (probably), and is used to make a most direct and definite statement. In contrast, the indirect form in (VD) includes hedging elements such as those just mentioned, and is used to make an indirect and indefinite statement. The direct- and the indirect-ne forms in (VB) and (VC) are forms in which a direct form and an indirect form are each immediately followed by the sentence-final particle ne. The daroo form in (VBC) and (VCB) ends with the auxiliary daroo (may) or one of its variants daro, desyyoo and desyo. The last two are more formal than the first two. In addition, the daroo form in (VCB) includes a form ending with zya nai (Isn’t/Do(es)n’t ...?).

Returning to example (1), since Table V dictates that the direct form must be used to express the information, any other form would be inappropriate and unacceptable in the same situation. For example:

(2a) ??Watasi no tanzyoobi wa 4- gatu 5- ka desu ne.
   I of birthday TM month day is-F SF
   Lit. 'My birthday is April 5th, isn’t it?'
(2b) ??Watasi no tanzyoobi wa 4- gatu 5- ka daroo?
   I of birthday TM month day be-will
   Lit. 'My birthday is April 5th, isn’t it?'
(2c) ??Watasi no tanzyoobi wa 4- gatu 5-ka- rassi.7
   I of birthday TM month day seem
   Lit. 'My birthday seems to be April 5th.'

(2) show that direct-ne, daroo and indirect forms are all unacceptable in the given situation. Of course, an amnesic patient could make utterances like these, but in such cases meta-condition IVa would apply because of the psychological malfunction of the speaker, leading him/her to assume that the information is less close to him/her. Therefore, an instance of case B, BC or D would be created, which justifies the uses of examples (2). Another illustrative example is (3):

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6 The ne that is illustrated here is what we call the ‘optional’ ne in Kamio (1994). This kind of ne is different from the ne that appears in the direct- and indirect-ne forms below.

7 We indicate sentence-final elements in Japanese, which play an extremely important role in our analysis of that language, by adding a dash as a prefix (as in ‘-rasii’) in example utterances. We will also use dashes in their ordinary usage, but the distinction should be clear.
(3) Ano hito, anata no gosyuzin desyo?
that person you-F of husband-P is-will-F
‘Isn’t that person your husband?’

Suppose that Taroo happens to meet Hanako in a large airport and they are talking for a moment. Then, Taroo notices a man a few feet away from Hanako who he vaguely knows is her husband. In this case, (3), a daroo form, would be natural if Taroo wants to make sure that that person is really her husband. This is because condition IIIc about external direct observation applies with respect to Taroo, the speaker, while condition IIIId about personal data and condition IIIc apply with respect to Hanako, the hearer. Furthermore, the effect of IIIc with respect to Taroo is weakened by meta-condition IVa (about an insufficient basis), whereas two conditions, IIIc and IIIId, apply with respect to Hanako. Therefore, Taroo assumes that n<S<H holds, which creates an instance of case CB. This requires a daroo form as in (3). If, for example, a direct form were used in this situation:

(4) *Ano hito, anata no gosyuzin desu.
that person you-F of husband-P is-F
Lit. ‘That person is your husband.’

it would seem very strange, as seen in (4), since a case CB cannot be expressed in a direct form.

3. The theory of territory of information in English

The preceding section provided an outline of the theory of territory of information in Japanese. In this section, we turn to the theory as applied to English. First of all, however, examples from English showing the validity of the notion of territory of information will be discussed.

3.2. Evidence for the territory of information

Suppose that the president of a company and his business associate are talking about something in the former’s office. His secretary comes in there and says (5) to him. (Let us call the persons in question John, Tom and Susan, respectively):

(5) Susan: You have a meeting at three.

Both John and Tom hear (5) and thus receive the same information from the same source at the same time. Later, when it is close to three, John wants to tell Tom that he can no longer talk to him. Then, most likely John would say (6) as an excuse:

(6) John: I have a meeting at three.
On the other hand, if Tom notices that it is now close to three, and feels that he should leave so as to allow John to attend the meeting, he will probably say:

(7) Tom: I guess/believe/understand you have a meeting coming up at three.

Notice that these are all in the indirect form.

English indirect forms are (or contain) what are generally called ‘hedges’ (such as those in (7)); in addition, there are rhetorical questions such as Is that true? and Really? in situations where surprising information has been provided. Hedging adverbs like maybe and apparently are also counted as indirect forms. Furthermore, expressions which indicate the source or means of obtaining a given piece of information such as I discovered ..., I found in ... and Someone told me ... will be considered indirect forms. On the other hand, utterances which directly state given information without any of these elements or expressions are called direct forms. As in the case of Japanese, by ‘indirect form’, we mean either one of these elements themselves or whole utterances which contain one of these elements.

Returning to our examples, note that if Tom used (8), a direct form, then it would sound somewhat odd:

(8) Tom: ??You have a meeting at three.

Thus, Tom is required to use the indirect form while John can use the direct form. This contrast is crucial to the theory of territory of information because, as noted above, both parties receive the same information from the same source at the same time. Therefore, the only reason for the contrast lies in the relationship of the information to John and to Tom. A natural and very reasonable explanation is as follows: the information is very close to John because it concerns his plan or behavior, and therefore it falls into his territory of information. On the other hand, the information is distant from Tom since he is an outsider to John’s company, and thus John’s meeting has nothing to do with him. The information therefore falls outside his territory in the assumed situation. Consequently, what corresponds to a typical instance of case A in Japanese is created from John’s point of view, which makes his utterance (6) and Tom’s utterance (7) quite natural. In addition, since reminding her boss about his schedule falls within her professional expertise, Susan can also use the direct form in (5). These examples thus provide crucial evidence for the relevance of our notion of territory of information. Notice that without this notion or something equivalent to it, the contrast between (6) and (7) above cannot be explained. (The explanation just provided will be slightly modified in the next subsection.)

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Although these forms are considered indirect forms here, they clearly differ from indirect forms containing hedges. For example, I discovered ... can itself take a hedge as in I seem to have discovered ..., thus constituting what might be called a doubly indirect form. They can, however, be considered indirect forms in the sense that they do not directly express what information their complements convey and that they clearly indicate how that information has been obtained. Obviously, more work on these forms is called for in relation to the theory of territory of information.
3.2. The system of the theory of territory of information

Having presented evidence for the notion of territory of information, let us turn to the main body of our theory for English. First of all, our basic postulate I and the definition of territory in II can be applied to English without any modification. Conditions that determine the closeness of information, however, must be modified slightly:

III'. a. information obtained through the speaker's/hearer's internal direct experience
   b. information embodying detailed knowledge which falls into the speaker's/hearer's professional or other expertise
   c. information obtained through the speaker's/hearer's external direct experience including information conveyed to the speaker/hearer which he/she considers reliable
   d. information about persons, objects, events and facts close to the speaker/hearer, including information about the speaker/hearer him/herself

Notice that III'c includes 'information conveyed to the speaker/hearer which he/she considers reliable', which is not included in the Japanese counterpart IIIc. This addition is necessary in English because examples such as (9b) below are acceptable. Suppose that Jack, a family friend of the Clarks, has called Jane, a member of the family, and said to her that he will visit them soon. Then, Jane may respond to question (9a) from her mother by saying (9b):

(9a) Mother: What did Jack say?
(9b) Jane: He's coming to visit us soon.

Note that Jane's response is in the direct form. If this exchange occurred in Japanese, her response would be in an indirect form like (10). Notice the hearsay marker at the end:

(10) Jane: (Jack ga) kondo asobi ni kuru-tte.
       NM soon play for come HM
       Lit. 'I hear (Jack) is coming to play soon.'

This is because conditions III for Japanese do not include any condition that makes the information in (10) close to Jane. Thus, in order for the information expressed in (9b) to be close to her, we need a new condition for English. This is why the latter half of III'c above must be introduced.

Meta-conditions IV for Japanese must also be modified as in the following:

IV'. a. information subject to conditions III'b to III'd is considered less close if the speaker does not have an adequate basis for asserting it
   b. information private to someone other than the speaker is considered less close to the speaker if the speaker is not close to that person
IV’a is the same as Japanese IVa. Also, IV’b is the same as Japanese IVc. Notice, however, that what corresponds to Japanese IVb concerning processing is lacking here. The latter is not necessary in English because utterances like (11) are acceptable:

(11) Tim has heart trouble.

If the doctor who examined Tim, a boy, has told his father that he has heart trouble, then his father can immediately call his wife and say (11), a direct form. If this conversation were in Japanese, then Tim’s father would say (12), an indirect form:

(12) Tim wa sinzoo ga warui-soo da.

Lit. 'I hear Tim has a bad heart.'

This is because meta-condition IVb functions in Japanese. Since that is not the case in English, as the acceptability of (11) shows, Japanese meta-condition IVb should be eliminated in English.

It should be noted here that meta-condition IV’a about an insufficient basis has an important property in relation to condition III’c about reliable information. Because the second half of III’c dictates that the speaker/hearer accept reliable information conveyed to him/her within his/her territory, situations specified in IV’a are automatically excluded when the second half of this condition applies. That is, if a given piece of information has become close to the speaker/hearer because it is reliable, it does not matter whether he/she has an adequate basis for asserting it or not.

Meta-condition IV’b above is based on the following observations. What IV’b says is that information that is considered private to someone else is less close to a speaker who is not close to that person. Consider (13) and (14):

(13) The owner of that restaurant is an Italian.
(14a) ?The owner of that restaurant has heart trouble.
(14b) I hear the owner of that restaurant has heart trouble.

If the speaker of (13) and (14) is not close to the owner of that restaurant, then (13) and (14b) are acceptable but (14a) is dubious. Notice that what (13) expresses is not private to the owner but what (14a) expresses is. Thus, information private to someone to whom the speaker is not close should be considered less close to the speaker, hence should be expressed in a non-direct form. On the other hand, if the speaker is close to someone to whom a given piece of information is private, then, as example (11) about Tim’s heart trouble shows, that information can be close to the speaker by condition III’d and thus take a direct form.

Returning to conditions III’ in English, note that with the modification of III’c, our explanation for John and Tom’s utterances in John’s office in the previous subsection must be modified. Since John and Tom simultaneously heard secretary Susan utter (5), i.e. *You (= John) have a meeting at three*, Tom has received this informa-
tion from a reliable source. Thus, condition III’c applies to the information expressed in Tom’s utterance (7), making it fall into his territory to some degree. The conclusion reached above, however, remains essentially the same, since with respect to the hearer of (7), i.e. John, the same condition, III’c, applies, and in addition, III’d about John’s own plan and behavior applies, making the information closer to John than to Tom.9

Now we can construct a table showing the correlations between situations and the forms of utterance required for them. Observe the following table:

<table>
<thead>
<tr>
<th>Case</th>
<th>Definition of case</th>
<th>Sentence form</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>I=S&gt;H=0</td>
<td>direct form</td>
</tr>
<tr>
<td>B</td>
<td>n&lt;S≤H=1</td>
<td>direct form</td>
</tr>
<tr>
<td>BC</td>
<td>I=S&gt;H&gt;n</td>
<td>NYNQ form</td>
</tr>
<tr>
<td>CB</td>
<td>n≤S&lt;H</td>
<td>NYNQ/DTQ form</td>
</tr>
<tr>
<td>C</td>
<td>n&gt;S&lt;H=1</td>
<td>indirect form</td>
</tr>
<tr>
<td>D</td>
<td>n&gt;S=H</td>
<td>indirect form</td>
</tr>
</tbody>
</table>

Thus, in English, cases A and B are expressed in the same direct form, whereas cases C and D are expressed in the same indirect form. There are, however, two remaining cases which are expressed in partially different forms: the first is the NYNQ (negative yes–no question) form, which is common to cases BC and CB, as exemplified in (15):

(15a) Isn’t Mr. Smith a teacher?
(15b) Didn’t you call your wife?

The other is appropriate in case CB, and is a direct form followed by a tag question (DTQ). (16) is an example:

(16) You are a linguist, aren’t you?10

9 Thus, the information that John has a meeting at three falls more deeply within John’s territory than within Tom’s. Therefore, this is a case BC situation, which requires a Negative Yes–No Question form. In fact, in the given situation Tom may say, “Don’t you have a meeting at three?” exactly as predicted. If, however, Tom regarded Susan’s message as being directed to John and decided to disregard it out of politeness, then Tom has chosen a position according to which no information about the meeting has been provided to him. In this case, the information in question falls deep within John’s territory and not at all within Tom’s. Therefore, from Tom’s point of view, case C is considered to hold and thus his utterance in (7) is appropriate.

10 Tag questions take either a rising or a falling intonation pattern. Note that the definition of case CB contains n<S. The rising intonation makes the value for S closer to n whereas the falling intonation makes the value for S closer to 1.
Thus, while English makes no distinction in form between cases A and B and between cases C and D,\(^{11}\) it has two other cases and two forms other than the direct and indirect forms.

### 3.2.1. Case A

Let us first consider case A in \(V'\). Typical examples are as follows. They are all in the direct form in English:

(17a) I have a headache.
(17b) My son has been admitted to Harvard.
(17c) Your driver’s license has expired.

(17a) conveys information acquired through the speaker’s internal direct experience. Accordingly, III’a leads the speaker to assume that it is close to him/her so that it exclusively falls into his/her territory. With respect to the hearer, condition III’c about external observation may apply; but meta-conditions IV’a about an insufficient basis (and, possibly, IV’b about a ‘distant’ person’s privacy) also apply, leading the speaker to assume that the information is less close to the hearer, since having a headache is a private state unavailable to external observation. Hence the direct form is appropriate. In a situation where (17a) is used, it is also possible that the hearer is a person close to the speaker so that condition III’d about personal data may apply (and meta-condition IV’b about a distant person’s privacy does not apply) with respect to the hearer. Cases like this will be discussed in section 4.

(17b) expresses information about a person close to the speaker. Thus, condition III’d applies with respect to the speaker, but if the hearer is not close to the son, no condition applies with respect to the hearer. Hence the speaker assumes that case A holds and the direct form is required.

(17c) is a remark made by a policeman to a driver. Since the policeman actually looks at the driver’s license as part of his professional duty, condition III’b about his expertise and condition III’c about his external direct experience make the information close to him. Therefore, if he assumes that the driver has not noticed the expiration date, case A holds and the direct form is required. When, however, the policeman assumes that the driver is aware of the expiration, then case B holds, since the information conveyed in (17c) is also close to the driver by condition III’d about his/her personal data and condition III’b about detailed knowledge. Therefore, the direct form is again used, this time for case B.

\(^{11}\) One might think that the identity of forms in cases A and B and cases C and D can hold as far as syntactic and morphological forms are concerned and that in English intonation plays a major role differentiating the form in case A from that in case B, and likewise the form in case C from that in case D. A similar suspicion might occur regarding the NYNQ form in cases BC and CB. To the best of our knowledge, however, intonation does not have a consistent relationship to these six sentential forms. Although much further work on intonation within the framework of the theory of territory of information is desirable, we can at least assume that cases A and B, cases C and D, and cases BC and CB are not consistently differentiated by the intonation patterns.
3.2.2. Case B
Consider next case B, an instance of which we have just seen. This case has two subcases, for the relations n<S=H=I and n<S<H=I:

(18a) It's a beautiful day.
(18b) That is Grimm's law.
(18c) Yes, it is.

(18a) is an utterance often made to a companion at the same location when it is clear and pleasant. This utterance can be considered an exclamation, especially when beautiful carries the intonation nucleus. It can, however, be pronounced with a flatter intonation contour identical to the one used when the speaker reports the weather of where he/she is to a hearer in some other location by telephone, for example (case A). Said with either intonation pattern, it represents case B since the speaker assumes that the information is close to both him/her and the hearer in accordance with III'c about external direct experience, falling deep within both territories.

(18b) may also represent case B, when, for example, two linguists, who happen to be in a vacant classroom, look at the blackboard and find the paradigmatic data for Grimm's law on the board. In this case, the speaker assumes that the information expressed by (18b) is very close both to him/her and to the other linguist who is the hearer, by III'b about expertise and III'c about external direct experience. Note that because both of them are familiar with Grimm's law, the intonation contour of (18b) may be rather flat, not sounding like an exclamation.

(18c) represents the other possibility of case B, that is, when n<S<H=I holds. Suppose that the hearer takes the speaker to a restaurant. Suppose further that the hearer has been there many times and knows that the restaurant serves very good food, whereas the speaker is there for the first time. Then, when the ordered meals have been delivered and they begin to eat, the hearer says to the speaker, "Isn't this delicious?" To this remark, the speaker may respond with (18c), a direct form.12 In this situation, the speaker assumes that conditions III'b about detailed knowledge and III'c about external direct experience apply to the hearer, and that the information that the food is delicious is located deep within the latter's territory. On the other hand, the speaker assumes that only condition III'c applies to him/her, so that the relation n<S<H=I obtains. These examples and (17c) above show that case B is expressed in the direct form, as specified in V'.

3.2.3. Case BC
Observe next some instances of case BC:

(19a) Isn't Mary pretty?
(19b) Isn't our baby wonderful?
(19c) Aren't you forgetting that I said "yes"?

12 This example situation is based on Ken-ichi Takami's suggestion (personal communication) of a corresponding situation in Japanese.
(19a) is appropriate in a situation like the following. Suppose the speaker believes that his/her daughter, Mary, is pretty. Suppose further that the hearer has met her for the first time in the presence of the speaker. After this meeting, the speaker makes an utterance like (19a) to the hearer. In this case, the information that Mary is pretty falls deep within the speaker's territory by conditions III'a about internal belief, III'c about external direct experience, and III'd about personal data. On the other hand, the information falls into the hearer's territory to a lesser degree since the only condition that is applicable to him/her is III'c about external direct experience. Thus, the speaker assumes that relation $I=S>H>n$ holds, creating case BC. As seen in this example, case BC is expressed in the Negative Yes-No Question form. An exactly parallel account applies to example (19b).

In (19c), the speaker is reminding the hearer of a certain piece of information. Thus, the speaker has the information that the hearer has forgotten that the speaker said "yes", deep within his/her territory, through his/her knowledge (III'b) and observation of the bearer's attitude (III'c). On the other hand, the speaker assumes that that information falls into the hearer's territory to a lesser degree, since the only condition applicable to the hearer is III'a, about the hearer's own psychological state. This creates a case BC situation. Hence, the NYNQ form is appropriate, as $V'$ dictates.

### 3.2.4. Case CB

Let us next consider a related but different situation, case CB. In this case, the Negative Yes-No Question form is again required but another form, the Declarative with a Tag Question form, is also possible. Observe the following examples:

(20a) Isn't your daughter wonderful?
(20b) Isn't that gentleman your friend? (cf. (3))
(20c) Didn't you meet your mother?
(20d) The gentleman made an offer, didn't he?
(20e) You were born in 1952, weren't you?

(20a) would be natural when, for example, the speaker feels that some behavior of the hearer's daughter is wonderful. In this situation, the speaker assumes that the information falls into both territories, but more deeply within the hearer's than within the speaker's. This is obvious because conditions III'c about external observation and III'd about personal data apply with respect to the hearer, whereas only the first of these applies with respect to the speaker. This satisfies the relation $n<S<H$, creating an instance of case CB.

(20b), which is an example similar to (3) in section 2, would be appropriate in a situation like the one already explained there. Suppose that John and Mary are talking in the lobby of a hotel. Then there appears a man who John vaguely knows is Mary's friend but whose appearance Mary has not noticed. In this situation, John would say (20b) to let her know of the appearance of the gentleman. Here, the information expressed in (20b) definitely falls into Mary's territory by condition III'd about her personal data. On the other hand, it also falls into John's territory but only
to some degree, since condition III’c about external observation applies, even though its effect is weakened by meta-condition IV’a. Therefore, the speaker assumes that this situation meets the definition of case CB, which requires a NYNQ form as in (20b).

(20c) is accounted for in a more or less similar way. Clearly, the information that the hearer met his/her mother falls deep within his/her territory, but only to some degree within the speaker’s territory. The NYNQ form can thus be used in case CB as well as in case BC, but a consistent difference in intonation between the two cases is difficult to identify.

Turning now to the next two examples, we find a different form, i.e. the DTQ. Example (20d) would be natural when the speaker somehow has the information it expresses in his/her territory, but assumes that the hearer has the information more deeply in his/her territory. For example, while the speaker has not met the gentleman but heard about him from the hearer (III’c), the hearer has(III’b, III’c, and III’d). In a situation like this, case CB obtains and thus the DTQ form is appropriate, as V’ requires.

In (20e), too, the information expressed is obviously closer to the hearer by conditions III’d about personal data and III’a about internal belief. Thus, if the speaker has somehow obtained the information in a reliable manner (III’c), the definition of case CB is met, invoking the use of a DTQ form.

3.2.5. Case C

Observe next some instances of case C:

(21a) I hear your German is excellent.
(21b) I hear the population of this town is 3,000.
(21c) You seem worried.

(21a) is natural in situations where the speaker him/herself does not know much about the hearer’s competence in German, but has obtained the information expressed in the utterance by hearsay. In this case, since the information is about one of the personal traits of the hearer, the speaker assumes that (by III’d about personal data) it is close to the hearer. The speaker, however, does not assume that he/she is close to the information, since none of the conditions in III’ applies. Thus, this is an instance of case C, where Table V’ specifies that the indirect form is appropriate.

For utterance (21b), assume the following situation: a speaker who is visiting his/her friend in a small town happens to learn the population figure there during his/her stay, and says (21b) to his/her host. In this situation, since the given information is close to the hearer (by III’b about detailed knowledge and III’d about personal data about his/her dwelling place), but not to the speaker by any condition, the speaker assumes that case C holds. Thus, again, the indirect form is required. If, however, the speaker believes that he/she holds the information in (21b) within his/her territory by III’c about reliable information, then case CB would obtain, requiring the Negative Yes–No Question or Declarative with a Tag Question form.
(21c) is appropriate when, for example, the speaker has made an inference that the hearer may be worried on the basis of the hearer’s remarks during a telephone conversation. In this case, no condition in III’ applies with respect to the speaker (and meta-condition IV’b about a distant person’s privacy may apply, rendering the information even less close to him/her), while condition III’a about the hearer’s internal direct experience applies with respect to the hearer. Thus, the speaker assumes that the definition of case C is met and that the indirect form is appropriate.

3.2.6. Case D

Finally, consider case D, where the given information falls into neither the speaker’s nor the hearer’s territory:

(22a) I hear summer in Alaska is beautiful.
(22b) It looks like this is a good college.
(22c) This computer seems to have broken down.

Suppose that neither the speaker nor the hearer has ever been to Alaska and that they have only hearsay information about that place. Then the speaker assumes that case D obtains for (22a), and thus the indirect form is appropriate, as Table V’ dictates.

In the case of the other two examples, (22b) and (22c), suppose that the speaker has just looked at the college or the computer, and neither the speaker nor the hearer has specialized knowledge about them, as condition III’b about expert knowledge requires. Then the meta-condition IV’a about an insufficient basis is invoked, and thus no conditions lead the speaker to assume that the information is close to the speaker or the hearer. This creates case D, hence indirect forms are natural.

Notice that the intonation contour of (22a) in the assumed situation, for example, may be hardly distinguishable from that of (21a) in the situation assumed for it. Thus, the indirect forms in cases C and D may be the same, even in intonation contour, although of course they may also differ in this respect.

It should also be noted that if the speaker used a direct form in expressing the information (22a) conveys, as in (23):

(23) Summer in Alaska is beautiful.

then, most likely the hearer, who has never been to Alaska, will assume that the speaker has visited there in the summer. This is because case A is considered to obtain. If, on the other hand, the hearer has been there in the summer, then he/she will assume the same and thus case B holds.

We have thus seen that the framework of the theory of territory of information holds in English in essentially the same form as in Japanese. Moreover, the explanations provided here are largely the same as those provided for the Japanese examples. Thus, although in some cases we have appealed to a language-specific principle like the second half of condition III’c, it has not been shown to play a large role in our explanation of English examples. In the next section, however, it will be shown to play a crucial role in our explanation of psychological utterances.
4. Analysis of psychological utterances

This section will illustrate the applicability of the theory of territory of information by considering an analysis of the nature of information expressed by a semantically defined class of utterances, i.e. psychological utterances. An application of our theory to a syntactically defined class of utterances, i.e. the cleft and pseudo-cleft constructions, is provided in an earlier paper (Kamio, 1991), although the analysis given there is based on an earlier framework of our theory (Kamio, 1990).

4.1. Japanese psychological utterances

It has been well recognized that in Japanese psychological utterances in the direct form such as those in (24):

(24a) Watasi wa sabissii.
    I TM lonely
    ‘I feel lonely.’
(24b) *Anata wa sabissii.
    you TM lonely
    Lit. ‘You feel lonely.’
(24c) *Aitu wa sabissii.
    he TM lonely
    Lit. ‘He feels lonely.’

are possible when the subject is the first person as in (24a), but not when the subject is the second or the third person as in (24b) and (24c). In the latter cases, utterances must take a non-direct form as in (25):^13

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^13 Ken-ichi Takami reminds me (personal communication) of the fact that psychological utterances with subjects other than the first person are possible in some cases. First, S.-Y. Kuroda (1973) pointed out that in what he calls non-reportive style in Japanese, sentences such as (i) are perfectly natural:

(i) Yamadera no kane o kiite, Mary wa kanasikatta.
    mountain-temple of bell AM hearing TM sad-was
    ‘Hearing the bell of the mountain temple, Mary was sad.’
    (Kuroda, 1973: 384)

Note that sentences like (i) typically appear in novels or essays. Notice also that they tend to take the past tense and that the present tense version of them often sounds dubious. Another important feature of examples like (i) is that the speaker is acting like an ‘omniscient narrator’ who takes the point of view of the third person subject. Second, Kuroda also pointed out that the no da (‘n da) form makes psychological utterances with (the second and) the third person subject possible as in (ii):

(ii) Mary wa sabissii no da/sabissii-n da.
    TM lonely CP is lonely CP is
    Lit. ‘It is that Mary is lonely.’
    (Kuroda, 1973: 381)

As Kuroda noted, utterances like (ii), which may well occur in everyday speech, sound somewhat apodictic. It is difficult to explain why psychological utterances in the no da form are possible with the second and third person subject, since the pragmatic character of the form has been difficult to identify
In fact, a text count of the use of psychological utterances gives a result shown in the following table:

<table>
<thead>
<tr>
<th>Subject of psychological utterance</th>
<th>1st person</th>
<th>2nd and 3rd person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct form</td>
<td>91</td>
<td>0</td>
</tr>
<tr>
<td>Indirect form</td>
<td>2</td>
<td>22</td>
</tr>
</tbody>
</table>

That is, all direct forms are in the 1st person, while the overwhelming majority of indirect forms are in the 2nd or 3rd person. This strongly supports the observations given in (24) and (25).\(^{14}\)

The theory of territory of information can provide an explanation for this phenomenon. Recall first conditions IIIa and IIId Japanese. IIIa dictates that information about the speaker's internal direct experience is close to him/her. On the other hand, the hearer of psychological utterances in the first person is not usually close to the information such utterances express. This might seem to readily explain why psy-

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\(^{14}\) 'Indirect form' here includes indirect, indirect-ne, and daroo forms. The text used for this count is Fumio Niwa's novel *Siki no Senritu* (The melody of the four seasons). Directly quoted utterances by the characters have been counted in the first five chapters. Although there are some borderline cases that are difficult to classify, the general tendency is quite clear.
chological utterances in the direct form with the first person subject, such as (24a), are acceptable. Condition IIIId, however, says that information about persons, objects, events, and facts close to the speaker is close to him/her. Thus, if the hearer of psychological utterances with the first person subject happens to be close to the speaker, then the information such utterances express is close to the speaker by condition IIIa, and also close to the hearer by condition IIIId. This entails that case B obtains and thus the direct-ne form is required. Utterances in the direct-ne form with the first-person subject are not acceptable, however, as shown by the oddness of (26):

(26) *Watasi wa omosiroku nai ne.\(^{15}\)
      I TM pleasant not SF
      Lit. ‘I feel unhappy, don’t I?’

Essentially the same problem arises in the case of psychological utterances with second and third person subjects. Consider (27):

(27a) *Hanako wa tumaranai.
      TM bored
      Lit. ‘Hanako is bored.’
(27b) *Hanako wa tumaranai ne.
      TM bored SF
      Lit. ‘Hanako is bored, isn’t she?’

Suppose that Hanako is the speaker’s daughter. Then, by condition IIIId about personal data the information conveyed by either form in (27) must be close to the speaker. Therefore, utterances (27a) and (27b) should be natural depending on the relation of the information to the hearer. Both forms, however, are totally unacceptable.

These observations might be taken to suggest that something must be added to the theory of territory of information as a language-particular condition or principle. Such a principle, however, is not necessary. Recall conditions III and meta-condition IVa about an insufficient basis. These collectively entail that examples such as (26) cannot be allowed nor can examples such as (27) be acceptable within the theory of territory of information.

A person’s psychological state can only be known to another person by the latter looking at the former’s observable state, behavior, and attitude, or by the latter hearing what the former says about his/her own psychological state. The first of these two means, however, cannot provide a sufficient basis to make information about one’s own psychological state close or closer to another person. Thus, when external observations are available to the speaker, that is, when condition IIIc applies, meta-

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\(^{15}\) This utterance is fully acceptable in another interpretation which is not intended here. That is, it is natural as an instance of the direct form followed by the optional *ne. See footnote 6.
condition IVa also applies, locating a given piece of psychological information less close to him/her. Moreover, one’s own statement about one’s psychological state does not make information about one’s psychological state close to the speaker, either. Recall that conditions III in Japanese do not contain any clause which says that reliable information conveyed to the speaker/hearer becomes close to him/her.

One might recall the Japanese meta-condition IVb in this connection. It says that new information does not become close to the speaker until after it has been thoroughly processed by him/her. It thus might seem that after thorough processing of a given piece of psychological information, Japanese may allow the information to fall within the speaker’s territory. Processing such information thoroughly, however, involves bringing to bear on that psychological information various relevant linguistic and non-linguistic data. But, as we noted above, relevant information is limited to only two kinds: the experiencer’s statement and his/her observable attitude. It is thus extremely difficult, usually even impossible, for the speaker to gather information relevant to a particular psychological state of persons other than the speaker at a particular moment. Therefore, psychological information about persons other than the speaker cannot usually be processed thoroughly.

Now let us turn to the specific examples we cited above. First, (24a), a direct form in the first person, is acceptable because condition IIIa about internal direct experience locates the information within the speaker’s territory, whereas no conditions in III make it fall into the hearer’s territory in the usual case. If the hearer is close to the speaker, however, it might be thought that the information might fall into the hearer’s territory (by condition IIIb about personal data). This does not occur, however: the speaker’s external observation of the speaker is obviously insufficient; and the speaker’s own statement that he/she feels lonely does not locate the information within the hearer’s territory, because of conditions III and meta-conditions IV; that is, for reasons considered just above. Thus, it does not fall within the hearer’s territory even when the hearer is close to the speaker. Accordingly, case A obtains and the direct form is appropriate.

On the other hand, (24b) and (24c), direct forms in the second and the third person, respectively, are not allowed because again, no conditions in III make the information they express fall into the speaker’s territory. Even if the speaker is close to the referent of the respective subjects, meta-conditions IVa (about an insufficient basis) and/or IVb (about new information) exclude the information from the speaker’s territory. Therefore, case A cannot hold and thus the direct form is not allowed.

Non-direct forms such as those in (25) can be explained in the following fashion: (25a), an indirect-ne form, is possible because case C obtains, by condition IIIa about internal direct experience applied to the hearer, while no conditions are sufficient to make the information closer to the speaker for reasons already given; (25b), a daroo form of case CB, is allowed because condition IIIa applies to the hearer whereas only condition IIIb about external observation and/or IIIa about internal belief, both weakened by the meta-condition IVa about an insufficient basis, apply to the speaker. Thus, the relation n<S<H holds so that the daroo form is acceptable; (25c) is just an ordinary instance of case D and thus is quite acceptable.
Utterance (26), a direct-ne form, is excluded for the reasons given for (24). Even under the assumption that the speaker and the hearer are close, neither the speaker’s observable behavior nor his/her own psychological statement can locate the information (26) expresses within the hearer’s territory. Therefore, the definition of case B cannot be satisfied. This is why (26) is totally unacceptable.

Finally, (27a) has already been treated above, while (27b), a psychological utterance in the direct-ne form with a third person subject, can also be explained in the same way. Even if the referent of the subject, Hanako, is close to the speaker, neither her external behavior nor her own psychological statement can make the information these utterances express fall into the speaker’s or the hearer’s territory. Accordingly, case B cannot hold, which renders the direct-ne form unacceptable.

We have explained why psychological utterances in the direct form are unacceptable in Japanese except when the subject is first person, and also why psychological utterances in some of the other forms are prohibited. The crucial element in our explanation is that Japanese does not consider psychological information which an experiencer expresses, to fall into a hearer’s territory of information. This is based on a more general tendency in Japanese to the effect that information which a speaker expresses in his/her statement cannot fall into the hearer’s territory, at least not until much processing of that information has taken place. As we saw in section 3, however, English does consider such information to fall into the hearer’s territory. This was explicitly stated in the English condition III’c. In the next subsection, we will see how this crucial difference affects the availability of psychological utterances in English.

Before going into a comparison of English and Japanese psychological utterances, we must further consider the availability of such utterances in Japanese. As we have seen in this subsection, psychological utterances in Japanese are rather restricted: in the direct form, only the first person subject is allowed. This restrictiveness, however, is not absolute. There are, in fact, rare situations in which psychological utterances in the direct form with second or third person subjects are found to be natural. Suppose that a hypnotist is performing hypnosis on a person. Then, utterances like those in (28) are perfectly acceptable:16

(28a) Anata wa siawase desu.
       you-F TM happy  is-F
       ‘You are happy.’
(28b) Kimi wa kurusii.
       you TM painful
       ‘You are in pain.’
(28c) Omae wa sabissi.
       you TM lonely.
       ‘You feel lonely.’

In this situation, the hypnotist is controlling the subject’s state of mind, manipulating it at will. Thus, in a sense the hypnotist has entered into the subject’s mind as if

16 This example of hypnotism was suggested to me by Masaki Sano (personal communication).
the former were directly experiencing the latter’s awareness. This leads the hypnotist to assume that the information about the subject’s state of mind falls deep within his/her territory of information, in accordance with condition IIIa about internal direct experience. Therefore, psychological utterances in the direct form such as those in (28) are acceptable.

There are other situations in which information about psychological states of persons other than the speaker may fall deep within his/her territory of information (Kamio, 1979). There may even be situations in which it is not unnatural for an experiencer to seek a confirmation of his/her own state of mind from the hearer, viz. in situations that can only be realized in science fiction. For example, assume that there is a computer display on which a subject’s state of mind is clearly projected. Then, the subject might say (26), i.e. Watasi wa omosiroku nai ne (I feel unhappy, don’t I?) to the hearer who is also watching the display. In situations like this, note that the speaker could assume that the hearer is having the same ‘internal direct experience’ as the person from whom the information originates, i.e. the speaker. Thus he/she would be considered to be as close as the speaker him/herself to the psychological information expressed by (26). Therefore, the utterance would be quite natural as an instance of case B.

Our analysis of psychological utterances is thus based on the theory of territory of information. In this analysis, the fact that Japanese hardly ever allows psychological utterances in the direct form with a second or third person subject follows from our theory. The fact that Japanese allows such psychological utterances in very rare situations also follows from the theory. Thus, the theory of territory of information seems to make possible a natural explanation of relevant data.

4.2. English psychological utterances

In this subsection, we will turn to English to discuss psychological utterances in that language in comparison to the analysis of Japanese utterances provided in the previous subsection. Observe first the following examples:17

(29a) He was afraid to be alone.
(29b) I guess/think/believe he was afraid to be alone.

(29a), which is an attested example in a private conversation, is a psychological utterance in the direct form whereas (30b) is one in the indirect form. Note that (29a) sounds as if the speaker is very close to ‘he’ (which is in fact true) while (29b) does not. Consider also (30), which is an attested example from a newspaper:

(30a) Interior Secretary Bruce Babbitt likes parks; he just doesn’t like parking in parks.

17 Both (29a) and (30a) were brought to my attention by Margaret Thomas. The latter example was taken from p. 66 of the April 6th issue of Boston Globe. I am very grateful to her for this information and her observations on the two examples.
(30b) It appears/seems that Interior Secretary Bruce Babbitt likes parks; he just doesn’t like parking in parks.

Again, the contrast is clear: while (30a), a direct form, suggests that the writer has direct access to Babbitt’s speech and in that sense is very close to him, (30b), an indirect form, does not. Notice also that if the hearer knows that the speaker is not close to the referent of the subject in (29a) or to the information expressed in (30a), then the utterance would sound rather intrusive or pretentious.

These observations suggest that English psychological utterances in the direct form are natural when the speaker is close to the referent of their subjects. In support of this generalization, psychological utterances with the first person subject are always possible given appropriate contexts:

(31a) I’m sick.
(31b) I often feel lonely these days.
(31c) I’m very depressed.

This is natural since the speaker is always close to him/herself. That is, in terms of our theory, the speaker always has the information expressed in (31a) to (31c) in his/her territory by III'a about internal direct experience. The hearer, on the other hand, is not usually close to the information. Consequently, the speaker assumes that case A holds, which makes direct forms like (31) natural.

Observe now examples that lend further support to the above generalization:

(32) Jack is secretly thinking about committing suicide.
(33a) I was shocked to discover that Jack is secretly thinking about committing suicide.
(33b) I discovered from his diary that Jack is secretly thinking about committing suicide.

Suppose that Jack has been secretly thinking about committing suicide and that he has written about his plan in his diary but had said nothing about it to others. Suppose, further, that one day his girlfriend reads about his plan in the diary which happens to have become available to her. Then, to convey this incredible news to others, she will use the direct form as in (32). If, however, a cleaning lady employed by Jack happens to discover his plan in his diary, then she will be likely to use forms of utterance illustrated in (33). Since these forms contain an expression indicating how the given information is obtained, they can be considered a kind of indirect form. In these cases, the content and the source of information are the same, i.e. a description in Jack’s diary. Therefore, the difference between the direct and the indirect forms in (32) and (33), respectively, must be attributed to the difference in the relationships Jack has with his girlfriend on the one hand and the cleaning lady on the other.

On closer inspection, however, the generalization is found to be in need of modification with reference to the predictions of the theory of territory of information. Observe now (34):
(34a) Jack is depressed because his work has not been progressing.
(34b) I hear Jack is depressed because his parents are getting a divorce.

Suppose that Jack is a graduate student working under the supervision of the speaker. Then, assuming ordinary advisor–student relationship, (34a) sounds natural in the direct form whereas (34b) sounds natural in the indirect form. This cannot be subsumed under the foregoing generalization since the speaker in both sentences is one and the same person, Jack’s advisor.

The difference in the forms of utterance between these two examples can only be interpreted in terms of the information they convey. That is, (34a) is appropriate in the direct form because the utterance says that the reason for Jack’s depression lies in the unproductiveness of his work. This falls into the speaker’s, i.e. the advisor’s, territory of information by condition III’b about expertise; hence the direct form is appropriate. On the other hand, (34b) is appropriate in the indirect form because it says that the reason for Jack’s depression is his parents’ divorce. This does not fall into the advisor’s territory of information, since by the assumption made here condition III’d about personal information does not apply, while meta-condition IV’b about a distant person’s privacy applies. Therefore, the indirect form is required.

Thus, what is really relevant to the availability of English psychological utterances in the direct form is whether the information they express is sufficiently close to the speaker to fall within his/her territory of information. The following examples further support this conclusion. Observe (35):

(35a) He was totally unaware of that fact then.
(35b) He now feels very guilty about it.

Suppose that the speaker is an attorney in court and that the referent of the subject in both examples is the defendant, the lawyer’s client. In situations like this, both utterances in the direct form are perfectly natural. This is because by condition III’b (about expertise) the information expressed in both utterances falls deep within the attorney’s territory of information. Notice here that the attorney need not be close to the defendant. Thus, III’d about personal data need not apply. Notice, furthermore, that the attorney need not even believe what he/she is claiming in (35). Thus, these examples show not only that what makes English psychological utterances possible is the principle of the theory of territory of information, but also that these principles have nothing to do with the epistemological problem of ‘other minds’.

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18 Ken-ichi Takami (personal communication) has pointed out that a discourse like (i) below is natural if the hearer is the professor’s wife, for example:

(i) Jack is depressed because his parents are getting a divorce. So our joint work hasn’t made much progress.

This observation seems correct. One factor that makes (i) acceptable is that the second utterance conveys information falling into the professor’s territory by III’b. Another relevant factor may be that the hearer is his wife, so that the professor should be much closer to Jack, his co-worker, than the hearer. Anyway, these examples seem to be borderline cases.
To this conclusion, two sets of observations are relevant. First, we have not considered cases of psychological utterances with a second person subject. If all psychological utterances obey the principles of the theory of territory of information, then utterances like those in (36) below should be acceptable when the hearer is close to the speaker. This is because III'a (about internal direct experience) should apply to the speaker, and III'd (about personal information) to the hearer, so that case B would obtain:

(36a) 'You are dizzy.
(36b) 'You are nauseated.

Utterances like those in (36), however, sound more or less dubious in isolation. Nonetheless, closer observation suggests that the marginality of (36a) and (36b) is due to the nature of the mental or psycho-physiological states described in these utterances; that is, being dizzy and nauseated are strictly internal feelings that only their experiencers, in principle, can directly know. Therefore, unless the experiencers have made an explicit statement, it is very difficult for ordinary speakers other than those experiencers to have such information. The marginality of these two examples thus has more to do with the epistemological problem of other minds than with their pragmatic properties.

In support of this analysis, examples like those in (37) seem acceptable on the assumption that the hearer is very close to the speaker:

(37a) You are worrying too much about your parents.19
(37b) You are afraid of your opponents.

This is because worrying about something and being afraid of something are mental states about which information can be much more easily available to the speaker through the experiencer's statements and other behavior. Recall that III'c in English contains a clause which makes reliable information that the speaker has obtained close to him/her. Recall also that when this clause applies, meta-condition IV'a about an insufficient basis is automatically excluded. The information expressed in either example in (37) may thus become close to the speaker.

The content of the information, however, is highly private to the hearer. This invokes meta-condition IV'b, which says that information private to someone other than the speaker is considered less close to the speaker if he/she is not close to that person. IV'b thus prevents the information expressed in (37) from becoming close to

19 If the information (37a) and (37b) express falls deep within the speaker's territories, but not within the hearers' at all, then case A obtains. Notice, however, that the following responses to these statements by the hearers are perfectly natural:
(i) (to (37a)) Yes, I know.
(ii) (to (37b)) Yes, but I have a reason.
These responses suggest that the information (37a) and (37b) express has already fallen into the hearers' territories. Therefore, these utterances can be taken to represent case B.
others who are not close to that person, in this case the hearer. Accordingly, utterances like those in (37) can only be natural when the speaker is very close to the hearer. The information expressed in (37) thus falls into the hearer’s territory by condition III’a about internal direct experience, and the speaker’s territory by condition III’d about personal information. Thus English psychological utterances with a second person subject are allowed in Case B. Therefore, they are allowed in accordance with the principles of the theory of territory of information.

This conclusion is further supported by the acceptability of examples like the following:

(38a) Mary is dizzy.
(38b) My husband feels nauseated.

When the speaker and Mary in (38a) are close, and after Mary has told him/her that she is feeling dizzy, he/she can use (38a) naturally to another person to give the reason why Mary cannot attend a party, for example. Clearly, in this case condition III’c about reliable information applies to the speaker (and thus meta-condition IVa about an insufficient basis is excluded), leading the speaker to assume that the information falls deep withing his/her territory. Note that since the speaker and Mary are close, meta-condition IV’b about a distant person’s privacy cannot be invoked either, despite the fact that what (38a) conveys is clearly private to Mary. Exactly the same analysis is possible in the case of (38b) in a similar situation. Thus these considerations further demonstrate that English psychological utterances obey the principles of territory.

Notice that these examples and their analyses clearly show the differences between psychological utterances in Japanese and those in English. While in general the direct form is allowed in Japanese only in the first person, in English it is allowed in the second and third persons as well, as long as it obeys the principles of the theory of territory of information. As seen in our analyses above, some of these principles rely on the fact that English, but not Japanese, permits reliable information conveyed to the speaker to fall into the speaker’s territory. On the other hand, English may appeal to a principle, IV’b about a ‘distant’ person’s privacy, based on the relationship between the speaker and the experiencer to which a psychological state is attributed. Since Japanese generally prohibits information conveyed from any other source from entering into the speaker’s territory, meta-condition IVc, which corresponds to English IV’b, need not be invoked in psychological utterances.

A second set of observations relevant to our conclusions about English psychological utterances is concerned with those involving verbs like want and think. Consider the following examples:

(39a) They want to have a picnic.
(39b) He’s thinking about going to Japan.

Suppose that a man knows that a group of people in his neighborhood want to have a picnic and says (39a) to his wife. Then, (39a) is perfectly natural. Similarly, if a
man in charge of sales in the Pacific region has suggested to one of his colleagues that he is thinking about going to Japan to promote sales there, the colleague can naturally say (39b) to others. These exemplify a quite ordinary usage of common psychological verbs like want and think. It should now be clear that in cases like these, condition III’c (about reliable information) functions to locate the information deep within the speaker’s territory, creating case A. Since in both cases condition III’c is relevant and the information concerned is not private, using the direct form in these examples does not give the impression that the speaker is very close to the referent of the subject.

Notice, however, that as the information which is conveyed in utterances with those verbs becomes private to the referents of their subjects, condition III’d and meta-conditions IV’b become more relevant. Consider (40) with the assumption that the speaker is not particularly close to the director:

(40a) The director wants to move to New Hampshire.
(40b) The director wants to get married.
(40c) The director wants his son to marry that woman.

We see here that as the information expressed in (40) becomes more and more private to the referent of the subject, the utterance becomes more and more intrusive. This suggests that as a given piece of information becomes more and more private, meta-condition IV’b about a distant person’s privacy becomes increasingly relevant. Therefore, utterances like those in (40a) through (40c) are increasingly unacceptable unless, as IV’b requires, the speaker is very close to the referent of the subject.

Thus, psychological utterances with verbs like want, think, and believe may change their character in accordance with our theory: most commonly, the condition relevant to these cases is III’c about reliable information, but when the content of the information which they express becomes private, the relevant condition tends to change from III’c to III’d about personal data and/or meta-condition IV’b about privacy. As a whole, however, utterances with verbs obey the principles of the theory of territory of information. Our analysis shows, then, that they are not essentially different from other English utterances.²⁰

²⁰ All psychological utterances involve the experiencers’ internal direct experience, but internal direct experience actually has many borderline cases.

Ken-ichi Takami (personal communication) points out that utterances like (i):

(i) Doomo saikin i ga warui-mitai da.
apparently recently stomach NM bad look is
‘Recently I apparently seem to have stomach trouble.’

is quite natural in the indirect form although the information (i) expresses seems to reflect the speaker’s internal direct experience.

This observation is correct and points to a case on the borderline of internal direct experience: although the speaker must have had internal direct experience suggesting that he has stomach trouble, he could not have identified what is wrong with him through his internal direct experience itself. That is, the information (i) expresses involves the speaker’s judgement, which is based on but beyond his own direct experience. This is presumably the reason why (i) is acceptable in the indirect form.
5. Concluding remarks

This paper first presented an outline of the theory of territory of information using Japanese as the target of analysis (Kamio, 1994). We then turned to English and provided a formulation of the theory of territory of information for that language. Using this work as a base, we then attempted to provide an analysis of psychological utterances of the form of main clauses in Japanese and English. What we have shown above is, first, that the theory of territory of information is applicable to English as well and, second, that in both languages psychological utterances are available when the principles of that theory are fulfilled. In this sense, psychological utterances in both languages are quite similar. There are, however, differences between psychological utterances in Japanese and those in English. Our analysis has shown that such differences follow from certain differences in the details of the English and Japanese versions of the theory. Our final conclusion is that in either language, psychological utterances of the form of main clauses can be completely explained by the theory of the territory of information.

The applicability of the theory of territory of information actually goes far beyond what this paper has shown; it can apply to analysis of phenomena as varied as Chinese degree adverbials (Yang, 1991), differences in discourse structures in Japanese and other languages (Kamio, to appear), Turkish evidentials, politeness in English and Japanese (Kamio, 1990), lexical semantics (Lee, 1985), functional syntax (Kuno, 1987), and others. The wide range of phenomena like these and analyses of

Margaret Thomas (personal communication) examines some English examples which correspond in both content and form to examples like (i), and observes that English patterns just like Japanese. Consider (ii) for example:

(iia) I seem to be suffering from a stomach ulcer.
(iib) I seem to be nauseated.

While (iia) is perfectly natural, (iib) sounds quite strange. She notes that statements about one's health that seem to involve a doctor's diagnosis are more natural in the indirect form than those about immediately identifiable ailments. This is in accord with our conclusion about Takami's example (i). She further notes that (iii) is also natural:

(iii) I seem to have a blister on my left foot.

and points out that whereas information conveyed by examples like (iib) represents what is directly experienced, information conveyed by examples like (iii) does not, unless one takes off one's shoe and verifies one's own blister.

Thus, the conclusion that should be drawn from all these observations seems to be that information representing the speaker's internal direct experience cannot be expressed in the indirect form (except for beliefs), while information representing his/her more or less indirect experience can. Note that by 'indirect experience' we are referring to experiences such as those the speakers of (i), (iia) and (iii) must have had: this kind of experience involves in principle either a doctor's diagnosis or the speaker's having had a related internal direct experience, such as the one in which the speaker of (iii) feels pain in his/her foot. Actually, it is usually the speaker who makes a medical judgement in everyday life. Moreover, it is often the case that the speaker has various kinds and degrees of indirect experience. Therefore, our judgments often vary and thus we encounter many borderline cases.
them in terms of the theory of territory of information will be reviewed extensively in Kamio (in preparation).21

References


21 Lacoste (1981) observes what she calls 'speech territories' in the data based on doctor–patient interactions. Her notion is derived from Labov and Fanshel’s (1977) notions and seems to be relevant to our notion of territory in this paper. Its theoretical status, however, is radically different from the status of territory of information in our framework.
I am indebted to Hartmut Haberland for calling my attention to Lacoste’s work and making it available to me.