1. Kaette and CONTRAST

Let us start from the example (1). The use of *kaette* implies that the result is contrary to expectation. The normal course of event would have been the contrary, namely, the market which requires doctors’ prescription prospers.

(1) この結果、かえって医師の処方が経ないで入手できる市場が生じている。

(omitted)

\( \pi \) Kono kekka *kaette* ishi-no

this result kaette doctor-GEN

a sho ho o he-nai-de

prescription:ACC go through-NEG-by nyusyu-

dekiru shijo-ga shoji-teiru.

get-can market-NOM appear-PROG

"As a result, there emerged a market (medicine is) obtainable without doctors’ prescription."

(SemEval ID 21128-28, Shinnou et al., 2015,358)

Even though the discourse in the actual world proceeded from \( \pi \) to \( \pi \), as given above, the expected world would have had the sequence of \((\pi , \pi )\) where \( \pi \rightarrow \pi \), which means that \( \pi \) is opposite in meaning with \( \pi \), informally. The lexical entry for *kaette* would be formalized as:

(2) \[|kaette| = \lambda . p \land \exp \sim p\]

where \( \exp \) is the speaker expectation.

(3) \( \pi \) cause \( \sim \pi \) & \( \pi \) cause \( \pi \)

holds. The meaning of \( \pi \) and \( \pi \) is dissimilar, which means that the relation CONTRAST holds between \( \pi \) and \( \pi \).

In SDRT, CONTRAST is one of the rhetorical or discourse relations between the meaning the utterances convey. Every single proposition should be connected with another with rhetorical relation and form a single connected structure; otherwise, the discourse is incoherent. The connective *but* signals CONTRAST relation in English.

(4) \( \pi \) Max bought a piano.

\( \pi \) But he never played it.

CONTRAST(\( \pi \), \( \pi \)) \& NARRATION(\( \pi \), \( \pi \))

On the other hand, the phrase *and then* connects utterances with NARRATION:

(5) \( \pi \) Instinctively I turned away.

\( \pi \) and then I realized I was walking in the opposite direction, then running, almost tripping over my own two flat feet.

(BNC A0F 1353)

Syntax of SDRT:

A set \( \Psi \) of logical forms for atomic natural language clauses

Sentence labels \( \pi_1 , \pi_2 , \pi_3 ,... \)

A set of relation symbols for discourse relations: \( R , R_1 , R_2 ,... \)

\( R \) can be Elaboration, Explanation, Result, Narration, Background, Consequence, Alternation and so forth.

1 \( \Psi \subseteq \Phi \)

2 If \( R \) is an \( n \) ary discourse relation symbol and \( \pi_1 ,...,\pi_n \) are labels, then \( R(\pi_1 ,...,\pi_n ) \in \Phi \)

3 For \( \phi , \psi \in \Phi \), \( \sim \psi \in \Phi \), where \( \land \) is understood dynamically

The typical discourse would be as in (6) in which \( \pi \) and \( \pi \) are contrasted—although sufficient explanation would ease comprehension normally, the discourse proceeds the other way. As indicated by *kaette*, the speaker concludes that too much explanation would complicate the matter, rather than simplify it, so s/he would not avoid giving one.

(6) Seishinkai’to kaunsera’nō

psychiatrist and counselor-GEN

chigai’-wa senmontekini’-node difference’-TOP-complicated’-become’so

\( \pi_1 \) [amari jibun’-ga (sore’-ro) setsuimeisuru’-to]

much self’-NOM it ACC explain’then

\( \pi_1 \) [kaette (sore’-ga)]

kaette it’-NOM

muzukashiku’nar’-node habuki’-masu.

difficult’-become’so abbreviate’-HON

“I will skip explaining the difference between psychiatrists and counselors because it would become too complicated.”

CONTRAST (\( \pi_1 , \pi_2 \) & \( \exp \sim \pi_2 \)

2. Corpus: BCCWJ-NT

The corpus search on *kaette* reveals that *kaette*, being and adverb, modifies the sentence contrastive to the...
preceeding sentence which may or may not be conjoined with it. Kaette also contrasts predicates with its subject nouns. Out of 45 occurrences of the adverb kaette, 3 occurrences modify sentences and contrast with the previous sentence. Other 20 cases contrast with the coordinated preceding sentence. 19 instances contrast the subject with the predicate sentence internally. Kaette in other two case are not adverb but in fact verbs. Therefore, 51% of kaette is contrastive with the previous sentence.

Type 1: Contrastive with its sentential conjunct
(7) π katayotta shokuji‘de ichijitekini
unbalanced meal‘by temporarily
yase‘temo nagatsuzukishi‘masen‘shi,
lose.weight‘though last‘NEG‘and
π kaette kenko‘o
kaette health‘ACC
sokonete‘shimau‘koto‘mo ari‘masu.
damage‘end.up‘fact‘also exist‘HON
"Unbalanced meals may lose your
weight temporally but hard to continue,
and may damage your health."

Type 2: Contrasted with subject
(8) π Tekunoroji‘ga ningen‘o
technology‘NOM human‘ACC
shinshokushi‘teiku‘koto‘ga
corrode‘PROG‘fact‘NOM
π kaette kakkoi‘to iu.
kaette cool‘COMP say
"They say that it is rather cool that technology
goes eating up people."

Type 3: Contrast between two separate sentences.

<table>
<thead>
<tr>
<th>contrasted</th>
<th>token</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 sentence conjunct</td>
<td>20</td>
</tr>
<tr>
<td>2 subject</td>
<td>19</td>
</tr>
<tr>
<td>3 previous sentence</td>
<td>3</td>
</tr>
<tr>
<td>4 verb</td>
<td>2</td>
</tr>
<tr>
<td>5 other</td>
<td>1</td>
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<td>total</td>
<td>45</td>
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</tbody>
</table>

Table 1 contrastees of kaette, from BCCWJ-NT
Types 1 & 3: CONTRAST (π1 (sentence), π2 (sentence))
Type 2: CONTRAST (π1 (NP), π2 (VP))

3. Conclusion

Thus, the adverb kaette in Japanese indicates discourse relation CONTRAST between two utterances. Due to the adverbial nature, kaette may contrast non-sentential categories as does and then in English, which signals another discourse relation NARRATION. Even so, it is found useful to analyze discourse with rhetorical relations signaled by these elements.

References