Transforming Manner Adverbs into Subject-Oriented Adverbs: Evidence from Japanese
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1 Introduction

The Issue: Manner/SO Alternation

In English, position matters. (Jackendoff 1972)

(1) a. John stupidly danced. (Ambiguous)
   (i) Manner: ‘John danced in a stupid manner.’
   (ii) Clausal: ‘It was stupid of John to have danced.’

b. John danced stupidly. (Manner only)

c. Stupidly, John danced. (Clausal only)

1 Terminology to be adopted:
   – Manner adverbs: ‘... in a ADJ manner’, ‘The way ... is ADJ’
   – Subject-oriented (SO) Adverbs: ‘it is ADJ of SUBJ to ...’

In Japanese, it’s not the position of adverbs.

2 Wyner (2008) notes that a manner adverb can be interpreted as manner even in the sentence initial position, when “the overall sentence implies a contrast; that is, we use [(i)] to deny some previous assertion”. (p. 253)
   (i) Passionately, Bill kissed Jill.
   I set aside this contrastive case at the moment.

2 I use a traditional term here. Other related terms are e.g. ‘agent-oriented’ (Geuder 2002), ‘topic-oriented’ (Potts 2005), ‘factive’ (Wyner 2008).

2 Though the canonical word order is (2)a for manner adverbs and (3)b for SO adverbs. Focusing (e.g. by adding phonological prominence) does not affect the interpretation.

1 Wyner (2008) notes that a manner adverb can be interpreted as manner even in the sentence initial position, when “the overall sentence implies a contrast; that is, we use [(i)] to deny some previous assertion”. (p. 253)

(2) a. John-wa orokani odotta.
   John-TOP stupidly danced.
   ‘John danced stupidly.’ (Manner only)

b. Orokani John-wa odotta.
   stupidly John-TOP danced.
   ‘John danced stupidly.’ (Manner only)

(3) a. John-wa orokani-mo odotta.
   John-TOP stupidly danced.
   ‘Stupidly, John danced.’ (SO only)

b. Orokani-mo John-wa odotta.
   stupidly John-TOP danced.
   ‘Stupidly, John danced.’ (SO only)

2 Morphologically, it seems as if the mo particle, whatever that is, transforms the manner adjectival adverb into the clausal counterpart.

(4) Manner adverb + mo → Subject-oriented adverb

This occurs systematically among adverbs such as kashikoku(-mo) ‘cleverly’, daitanni(-mo) ‘boldly’, namaikini(-mo) ‘impertinently’ etc.

This mo alternation is only available for the adverbs that has an adjectival stem, e.g. doodooto(-mo) ‘dignifiedly’ (the adverb does not have an adjectival counterpart)

Question

• What is the precise mechanism of this mo alternation?
• Theoretical and cross-linguistic implications?

Main Claim

The manner reading is the basic. Mo functions as a type-shifter.

Roadmap

• Section 2: Previous studies
• Section 3: Analysis of the mo alternation
• Section 4: On passive sensitivity
• Section 5: Conclusion

4 I just simply call it the mo particle. There are other instances of this particle, which will not concern us here, e.g. additive ‘also’, scalar ‘even’, universal or free choice, NPI, etc.
2 Previous Studies on Manner/SO Alternation

Three possible approaches:

- SO adverbs are derived from manner adverbs: McConnell-Ginet (1982)
- They are lexically ambiguous (or the issue is set aside): Pionen (2010), Wyner (2008)

2.1 Ernst (2002)

The SO interpretation is the basic and the manner meaning is derived via Manner Rule, which is applied only when the adverb appeared lower (within a verb phrase).

(5) a. The event e warrants positing more stupidity in Agent than the norm for events. (SO)
   b. The event e manifests more stupidity in Agent than the norm for Specified Events. (Manner)

- Setting aside the difference between ‘warrants positing’ and ‘manifests’, the only difference between (5)a and (5)b seems to be that they have a different comparison class, i.e. what count as stupid is determined differently. So, for example:

(6) a. Stupidly, John danced. (SO) (Comparison class = {dancing, chatting, drinking,...})
   b. John danced stupidly. (Manner) (Comparison class = {dancing1, dancing2, dancing3...})

- The idea of comparison class seems appropriate, as it captures the gradable aspect of the meaning of these adverbs.
- To adopt this idea to Japanese, what mo does is to extend the comparison class from ‘various kinds of dancing’ to ‘various kinds of events’.
- However, it then suggests that the lexical item orokani ‘stupidly (Manner)’ is never interpretable without the obligatory Manner Rule, unless the mo attachment occurs that transforms it into SO.

2.2 McConnell-Ginet (1982)

Adverbs are always composed directly with the verb.\(^5\)

(7) a. Louisa departed rudely. (Manner)  
   b. Louisa [departed rudely]

(8) a. Louisa rudely departed. (SO)  
   b. Louisa [acted rudely to depart]

- The interpretation depends on which verb the adverb modify, either the main verb depart or the higher, abstract verb act.
- Derives SO interpretation from the manner adverbs (i.e. manner adverbs are the basic).

2.3 Geuder (2002)

- Points out the following shortcomings of McConnell-Ginet (1982)’s analysis:
  - John departed cannot be rephrased as John acted to depart
  - It is not clear how to analyze the contrast between She acted rudely and She rudely acted.
- Argues that Manner is derived from SO (i.e. SO is the basic).
- Proposes that the three variants, stupid (adjective), stupidly (manner), and stupidly (SO), all share the same denotation (9).

(9) stupid\(_{C,w*}(x)(k) = 1 \text{ iff } k \approx \{e, x,...\}, \{Pw_0(e, x,...)\}\) and:

(i) \(C \ni \exists e* : e \ \text{CAUSE} \ e*,\) and
(ii) \(x \text{ does not intend to bring about } e*, \text{ the occurrence of } e* \text{ is incompatible with the preferences of } x \text{ in } w_0,\) and
(iii) \(\forall w' \in W : \exists e[P(w')(e)(x)] \Leftrightarrow D_{w'}(x)\)

- Stupid(ly) takes the subject (x) and an abstract object k, a fact argument, defined in a DRT style representation.
- P(w')(e)(x) and D in (iii) roughly correspond to what x does in w' and a stupid disposition respectively (I think).
- How does this work compositionally?
- If the three variants, stupid (adjective), stupidly (manner), and stupidly (SO), all share the same denotation above, then how can it support the idea that SO is the basic and manner is a derived one?

\(^5\)Adverbs are actually considered as an argument of the verb. I will not go further into this discussion here.
2.4 Piñón (2010)

- Supports McConnell-Ginet (1982)’s idea.
- With Geuder (2002)’s criticism in mind, it is argued that there is a higher verb DECIDE, which does not exist by itself, but is introduced by the SO adverb, instead of the higher abstract verb ACT somewhere in the structure.
- There are two different lexical entries:

\[(\text{11}a,\text{b})\]

\[\lambda x,\lambda e_v. \text{voice} \langle\langle e_v, vt\rangle\rangle (\lambda x,\lambda e_v. \text{agent}(x)(e) \land \text{depart}(e) \land \text{rude}(e))\]

Here is my interpretation of how (I think) these work. (I am tentatively assuming the VOICE head and Event Identification (Kratzer 1996) for the agent argument, which is not present in Piñón (2010)’s analysis.\(^7\)

\[(\text{12})\]

\[\lambda S_{vt, vt}\lambda W_{vt, vt}\lambda x,\lambda e_v. \exists e''[\text{CAUSE}(e'', x) \land W(e, x) \land \text{stupid}(e'')]\]

- Piñón (2010)’s analysis overcomes the two shortcoming pointed out by Geuder (2002).
- In his original analysis, it is not mentioned how the two lexical entries stupidly\(^a\) and stupidly\(^m\) are related to each other.
- To convert one into the other, the following operation is possible.

\[\text{Converting from manner adverbs into SO adverbs:}\]

\[\lambda S_{vt, vt}\lambda W_{vt, vt}\lambda x,\lambda e_v. \exists e''[\text{CAUSE}(e'', x) \land W(e, x) \land \text{stupid}(e'')]\]

\[= \lambda W\lambda x,\lambda e_v. \exists e''[\text{CAUSE}(e'', x) \land W(e, x) \land \text{stupid}(e'')]\]

\[= \lambda W\lambda x,\lambda e_v. \exists e''[\text{CAUSE}(e'', x) \land W(e, x) \land \text{stupid}(e'')]\]

- \[\text{What is this operation? This is not a simple type-shifting, but something that introduces the higher verb decide and a causal connection between the two events (x’s decision of doing W and x’s doing W).}\]
- \[\text{Another worry: whenever there is a SO adverb, the sentence always means that the subject decided to do the action. What about, then, a sentence like (13), even when John didn’t decide to die/fall?}\]

\[(\text{13})\]

John-wa orokani-mo \{shinda/koronda\}.
John-top stupidly-mo \{died/fell\}

‘Stupidly, John died/fell.’

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\(^6\)This is a slightly simplified version with no significant effect to our current discussion. In his original, the clausal argument of ‘decide’ is intensionalized:

\[\langle\langle e_v, vt\rangle\rangle (\lambda x,\lambda e_v. \text{voice} \langle\langle e_v, vt\rangle\rangle (\lambda x,\lambda e_v. \text{agent}(x)(e) \land \text{depart}(e) \land \text{rude}(e))\land \text{A}(e, x) \land \text{stupid}(e''))\]

\(^7\)But then, I have to assume that VOICE is not present where the SO adverb is present in the sentence since it introduces the subject by itself, I think.
3 Deriving SO from Manner

- Majority of analyses argue for deriving manner adverbs from SO adverbs, except McConnell-Ginet (1982). Japanese data shows the opposite direction:

\[ \text{Manner Adverb + mo} \rightarrow \text{Subject Oriented Adverb} \]

\[ \text{orokani 'stupidly' + mo} \rightarrow \text{orokani-mo 'stupidly'} \]

- My approach is a combination of the two ideas:
  - Following McConnell-Ginet (1982), I propose that the SO averb is derived when it is directly composed with the ‘higher verb’, something like \text{voice} for example or something similar.
  - I incorporate the notion of comparison class into the meaning representation of these adverbs, following (Ernst 2002).

- I then suggest that \text{mo} is simply a type shifter. It just transforms adverbs of type \langle vt, vt \rangle (manner) to that of type \langle e, vt \rangle, \langle e, vt \rangle (SO), and does not introduces the higher verb like ‘decide’ by itself.

3.1 Manner Adverb \text{orokani ‘stupidly’}

\[ \text{\{orokani\}} = \lambda V_{(v,t)} \lambda e_{v} \cdot V(e) \wedge \text{stupid}(e) > \text{standard(stupid)}(\lambda e'.V'(e')) \]

- \text{stupid(e)} is a measure function, i.e. takes an event \( e \) (or an individual in case of adjectives) and measures the degree of stupidity of \( e \).

- \text{Standard(stupid)(\lambda e'.V'(e'))} gives a standard degree of stupidity, where what count as ‘standard’ is determined by the comparison class \( \lambda e'.V'(e') \).

- In case of adjectives, comparison class is a property of individuals (i.e. of type \( \langle e, t \rangle \)), von Stechow (1984).

- For adverbs, I assume that comparison class is a set of events (i.e. of type \( \langle v, t \rangle \)).

3.2 SO Adverb \text{orokani-mo ‘stupidly’}

\[ \text{\{orokani-mo\}} = \lambda W_{(e,vt)} \lambda x_e \lambda e_{v} \cdot W(x)(e) \wedge \text{stupid(e)} > \text{standard(stupid)(\lambda e'.W'(x)(e'))} \]

- \text{Orokanimo} takes a predicate \( W \) of type \( \langle e, vt \rangle \).

- The comparison class is a set of events that \( x \) could have involved.

- The following structure shows one way to analyze the sentence with this SO adverb. It is interpretable, however it does not give the SO reading.
The correct word order is derived via head movement of V to v.

The reason (18) does not give the SO reading is because the comparison class is not the one for the SO interpretation. It roughly means that the event was stupid for x’s dancing (a kind of manner reading).

We need a broader comparison class for the SO reading. That is, the event is considered as stupid with respect to various kinds of event (not just dancing) that the subject could have been involved, as described by Ernst (2002).

The correct the structure of SO interpretation should be (19).

8Since Japanese is a head-final language, a better structure that reflects the head directionality probably should be the following:

The correct word order is derived via head movement of V to v.

The adverb is directly composed with the voice head (reflecting McConnell-Ginet (1982)’s original idea).

As a result, the comparison class is restricted to \( \lambda e. \text{agent}(x)(e) \) ‘a set of events that the agent \( x \) could have involved’, i.e. not limited to a specific kind of event like dancing (hopefully reflecting the idea of comparison class by Ernst (2002)).

If this is on a right track, then what \( \text{mo} \) does is simply type-shifting.

The Manner/SO alternation in Japanese:

\[
\lambda W_{(e,vt)} \lambda x \lambda e. W(x)(e) \land \text{stupid}(e) > \text{Standard(stupid)}(\lambda e'. \text{agent}(x)(e))
\]

\[
\lambda W_{(e,vt)} \lambda x \lambda e. W(x)(e) \land \text{stupid}(e) > \text{Standard(stupid)}(\lambda e'. \text{agent}(x)(e))
\]
3.3 The volitional thematic property

Unaccusatives again.

(22) John λxλe. died(e) ∧ theme(x)(e) ∧ stupid(e) > standard(stupid)(λe′. died(e′) ∧ theme(x)(e′))

• The above structure gives the manner reading ‘John died and the stupidity of the event is greater than the standard stupidity of John’s dying’. How can we derive the SO meaning?

• I suggest that there is some kind of functional head that can host the SO adverb, specifically, a head that can assign a volitional thematic property to an argument just like the volitional passive auxiliary proposed by Wyner (1998).

4 On Passive Sensitivity

4.1 Passive sensitive SO adverbs

Some SO adverbs are passive sensitive (McConnell-Ginet 1982, Wyner 1998):

(25) a. Kim reluctantly hit Sandy. (Active; unambiguous)
   (i) Kim was reluctant.

   b. Sandy was reluctantly hit (by Kim). (Passive; ambiguous)
      (i) Sandy was reluctant.
      (ii) Kim/The hitter was reluctant.

4.2 Syntactic assumptions on the passive construction

• Wyner (1998)’s take:
  – There is an implicit argument (IMP), which receives an Agent theta role (but no case). IMP is a free variable, and implicit free variables do not get abstracted over.
  – The passive morpheme (-en) absorbs the accusative case.
  – The direct object moves to the spec of IP to get case.
  – There is a mechanism for associating IMP and the NP in the by-phrase.

(26) [IP Sandy, [v be [VP IMP [v hit-en t_i ] ] ] ] ]

• The passive auxiliary be is ambiguous between the ‘null passive auxiliary’, which is basically semantically vacuous, or the ‘volitional passive auxiliary’, which assigns a volitional thematic property to a noun phrase.9

9 This is a modified version to fit in the current framework. In Wyner (1998)’s original proposal, the passive auxiliary is interpreted as either λPλxλe.P(x)(e) or λPλxλe.P(x)(e) ∧ Volition(e)(x).
(23) \[ [\text{Vol}] = \lambda x \lambda e. \text{Volition}(x)(e) \]

- The volitional passive auxiliary attributes a thematic property to an argument, not a thematic role. Theta-criterion applies only to thematic roles and not to thematic properties.
- When the volitional passive auxiliary appears in the sentence, we have the following. (I assume Predicate (Intersective) Modification (Heim & Kratzer 1998)\(^\text{10}\) at the point of combining the passive \textit{be} (of type \(\langle e, vt\rangle\)) and its sister node \([\lambda y [\text{IMP hit-en } y]]\) (also of type \(\langle e, vt\rangle\)).

\[
(27)
\begin{array}{c}
\text{Sandy} \\
\lambda y \lambda e. \text{agent}(\text{IMP})(e) \land \\
\text{theme}(y)(e) \land \text{hit}(e) \\
\lambda x \lambda e. \text{Volition}(x)(e)
\end{array}
\begin{array}{c}
\lambda y \lambda e. \text{agent}(\text{IMP})(e) \land \\
\text{theme}(y)(e) \land \text{hit}(e) \\
\lambda y \lambda e. \text{agent}(\text{IMP})(e) \land \\
\text{theme}(y)(e) \land \text{hit}(e)
\end{array}
\]

\[
\text{reluctant}(e) > \text{standard}(\text{reluctant})(\lambda e'. \text{Volition}(x)(e'))
\]

\[
\text{reluctant}(e) > \text{standard}(\text{reluctant})(\lambda e'. \text{Volition}(x)(e'))
\]

\[
\lambda y \lambda e. \text{agent}(\text{IMP})(e) \land \\
\text{theme}(y)(e) \land \text{hit}(e)
\]

\[
\lambda y \lambda e. \text{agent}(\text{IMP})(e) \land \\
\text{theme}(y)(e) \land \text{hit}(e)
\]

4.3 The ambiguity explained

- We now have two possible attachment site for the SO adverb \textit{reluctantly}: either to the volitional passive auxiliary or to the voice head (or equivalent) that introduces an agent role for the verb \textit{hit}.
- As for the meaning of the SO adverb \textit{reluctantly}, we can tentatively adopt the format proposed in the previous section for the SO adverb \textit{stupidity} (but will be reconsidered later).

\[
(28) \quad [\text{reluctantly}] = \\
\lambda W_{(e,vt)} \lambda x \lambda e. W_{e,v} \cdot W(x)(e) \land \text{reluctant}(e) > \text{standard}(\text{reluctant})([\lambda e'.W(x)(e')])
\]

\(\text{10}\)Predicate Modification (Adapted)

If \(\alpha\) is a branching node, \(\{\beta, \gamma\}\) is the set of \(\alpha\)’s daughters, and \([\beta]\) and \([\gamma]\) are both of type \(\langle e, vt\rangle\), then \([\alpha] = \lambda x \lambda e. [\beta](x)(e) \land [\gamma](x)(e)\)

The surface subject oriented reading

- When the SO adverb \textit{reluctantly} is composed with the volitional passive auxiliary, we get the surface subject oriented reading ‘Sandy was reluctant’.

\[
(29)
\begin{array}{c}
\text{Sandy} \\
\lambda y \lambda e. \text{agent}(\text{IMP})(e) \land \\
\text{theme}(y)(e) \land \text{hit}(e) \\
\lambda x \lambda e. \text{Volition}(x)(e)
\end{array}
\begin{array}{c}
\lambda y \lambda e. \text{agent}(\text{IMP})(e) \land \\
\text{theme}(y)(e) \land \text{hit}(e) \\
\lambda y \lambda e. \text{agent}(\text{IMP})(e) \land \\
\text{theme}(y)(e) \land \text{hit}(e)
\end{array}
\]

\[
\text{reluctant}(e) > \text{standard}(\text{reluctant})(\lambda e'. \text{Volition}(x)(e'))
\]

\[
\text{reluctant}(e) > \text{standard}(\text{reluctant})(\lambda e'. \text{Volition}(x)(e'))
\]

\[
\lambda y \lambda e. \text{agent}(\text{IMP})(e) \land \\
\text{theme}(y)(e) \land \text{hit}(e)
\]

\[
\lambda y \lambda e. \text{agent}(\text{IMP})(e) \land \\
\text{theme}(y)(e) \land \text{hit}(e)
\]

The underlying subject oriented reading

- When the SO adverb is composed with the voice head (or something equivalent that introduces the agent of \textit{hit} into the meaning), we get the underlying subject oriented reading ‘the hitter was reluctant’.

\[
(30)
\begin{array}{c}
\text{Sandy} \\
\lambda y \lambda e. \text{agent}(\text{IMP})(e) \land \\
\text{theme}(y)(e) \land \text{hit}(e) \\
\lambda x \lambda e. \text{Volition}(x)(e)
\end{array}
\begin{array}{c}
\lambda y \lambda e. \text{agent}(\text{IMP})(e) \land \\
\text{theme}(y)(e) \land \text{hit}(e) \\
\lambda y \lambda e. \text{agent}(\text{IMP})(e) \land \\
\text{theme}(y)(e) \land \text{hit}(e)
\end{array}
\]

\[
\text{reluctant}(e) > \text{standard}(\text{reluctant})(\lambda e'. \text{Volition}(x)(e'))
\]

\[
\text{reluctant}(e) > \text{standard}(\text{reluctant})(\lambda e'. \text{Volition}(x)(e'))
\]

\[
\lambda y \lambda e. \text{agent}(\text{IMP})(e) \land \\
\text{theme}(y)(e) \land \text{hit}(e)
\]

\[
\lambda y \lambda e. \text{agent}(\text{IMP})(e) \land \\
\text{theme}(y)(e) \land \text{hit}(e)
\]

\[
\lambda y \lambda e. \text{agent}(\text{IMP})(e) \land \\
\text{theme}(y)(e) \land \text{hit}(e)
\]

\[
\lambda y \lambda e. \text{agent}(\text{IMP})(e) \land \\
\text{theme}(y)(e) \land \text{hit}(e)
\]

7
The analysis of SO adverbs such as stupidly proposed in the previous section is thus compatible with the analysis for passive sensitivity of SO adverbs such as reluctantly.

4.4 Two kinds of SO adverbs

- According to Ernst (2002), stupidly and reluctantly belong to different subcategories of SO adverbs.

(31) Subject-oriented adverbs: 

a. Agent-oriented adverbs: cleverly, stupidly, wisely, tactfully, foolishly, rudely, secretly, ostentatiously, intelligently

b. Mental attitude adverbs: reluctantly, calmly, willingly, anxiously, eagerly, frantically, absent-mindedly, gladly, sadly

(32) The interpretation for mental attitude adverbs: The event e is {accompanied by/intended with} a greater degree of ADJ by Experiencer (subject) than the norm for Experiencer.

4.5 Passive Insensitivity?

- There is another concern with respect to the distinction between the agent-oriented adverbs and the mental-attitude adverbs.

- While the mental-attitude adverb reluctantly clearly showed ambiguity in the passive construction, it is less clear in case of the agent-oriented adverb stupidly (according to native speakers I consulted with).

(34) Mary was stupidly hugged by John.

(i) ??It was stupid of Mary to have been hugged by John.

(ii) It was stupid of John to have hugged Mary.

(35) Mary-wa orokani-mo stupidly-mo John-ni dakishimerareta.

Mary-TOP stupidly-MO John-by hug.PASS.PAST

‘Stupidly Mary was hugged by John.’

(i) It was stupid of Mary to have been hugged by John.

(ii) *It was stupid of John to have hugged Mary.

11As far as I can think of, an exception is nesshinni-mo ‘eagerly’.
Unlike mental attitude adverbs like *reluctantly*, agent-oriented adverbs like *stupidly* do not seem to be ambiguous in English as in (34). The underlying subject reading is the preferred interpretation.

In Japanese, however, the situation is opposite (and the judgement is quite clear). Only the surface subject reading is available.

Why the difference between mental attitude adverbs and agent-oriented adverbs? Why the cross-linguistic difference?

It may be because we need a better analysis for the passive construction to begin with, and/or we need to make a clear distinction between the two kinds of SO adverbs, the agent-oriented and the mental-attitude adverbs, and somehow reflect that in the denotation.

5 Summary/Conclusion

Observation:
- Some adverbs such as *rudely* and *stupidly* are interpreted as Manner or SO.
- Japanese data indicates that SO is derived from Manner.

Proposal: Adopting the idea by McConnell-Ginet (1982), and also incorporating the notion of comparison class suggested by Ernst (2002), I showed how the SO interpretation is compositionally derived from manner adverbs and the type-shifter *mo*.

\[
\text{[orokani]} = \lambda V(v, t) \lambda e. V(e) \land \text{stupid}(e) > \text{standard(stupid)}(\lambda e'. V(e'))
\]

\[
\text{[orokani-mo]} = \lambda W(e, v) \lambda e. \left[ W(x)(e) \land \text{stupid}(e) > \text{standard(stupid)}(\lambda e'. W(x')(e')) \right]
\]

\[
\text{[mo]} = \lambda A(v, t) \lambda x. A(W(x))(e)
\]

Consequence:
- The proposed analysis does not suffer from the abstract verb *act* or *decide*.
- And it is also compatible with the analyses of passive sensitivity observed among the SO adverbs such as *reluctantly*.

Remaining issue?
- Agent-oriented adverbs vs. mental attitude adverbs

References


