Formal: Semantics
Title: *Sekkaku*

This paper considers the semantics of the Japanese sentential adverbial *sekkaku*, which has a very complex meaning: it expresses a positive feeling toward the proposition it applies to and that the proposition holds as the result of intentional action if the proposition describes an agentive eventuality. It also expresses a notion of *expectation* about how courses of events should go and thus has a modal flavor. I also show that *sekkaku* has complex restrictions on its distribution. I propose a formal semantics for this adverbial that captures all these elements of its meaning.

Consider two typical examples of *sekkaku*, in (1a) and (1b). As the glosses suggest, the meaning of *sekkaku* has several parts. First, it suggests that the speaker believes that the proposition in *sekkaku*'s scope is in some way positive. This part of *sekkaku*'s meaning can easily be formalized using the emotive predicate **good** (of type $\langle t, t\rangle$; cf. Potts 2005). The formula $\mathbf{good}(\varphi)$ is interpreted as 'φ is good for the speaker' (see also Lasersohn 2004).

A persistent intuition about *sekkaku* is that it applies to events that have agents, and that the agent performed the action of the event intentionally. We might build this into the semantics of the adverbial using a presupposition stating that the event is agentive (cf. Dowty 1990): $\exists x[Agent(x, e) \wedge Intend(x, realize(e)]$. This, however, is too strong. The reason is that *sekkaku* can apply to sentences that lack agents altogether, as in (2). However, if the eventuality denoted by a given sentence *does* have an agent, the sense of intentionality is always present. To incorporate this fact into the semantics is straightforward: we can use a conditional statement that is a variant of the presupposition above, as in (3).

One element remains: the *modal flavor* of *sekkaku*. The intuition is that the speaker believes that the proposition *sekkaku* applies to is associated with some other action that should have been done in response to the event. We can characterize this intuition using a conditional: given φ (the argument of *sekkaku*), it should be the case that ψ, for some contextually determined ψ; since denial cannot target this conditional statement, it can be taken to be presupposed. Adding this clause yields the revised lexical entry in (4). In the full paper, I show that it is possible to connect the need to identify ψ to the inability of *sekkaku* to appear in matrix clauses (Koyano 1997, *i.a.*).

The distribution of *sekkaku*, interestingly, is very like that of *yoku(mo)* (McCready 2004). Just as with *yoku(mo)*, *sekkaku* is bad (on any scoping) with modals, in conditional constructions, and in sentences describing future events, and can be used with negation on a coerced reading. I conclude that *sekkaku*, like *yoku(mo)*, can apply only to propositions describing actually realized eventualities. These facts indicate that *sekkaku* should be associated with a presupposition of the same sort McCready (2004) assigns to *yoku(mo)*. I thus propose (5) as the correct semantics of *sekkaku*.

(1) a. sekkaku gohan tukutta noni (tabenai no?)
SEKKAKU food made NONI (eat-not Q)

'Even though I went to the trouble of making this food, which was a good thing (aren't you going to eat it?)'

b. sekkaku gohan tukutta (no da) kara tabete yo
SEKKAKU food made (NO COP) because eat-IMP YO

'Because I went to the trouble of making this food, eat some man!'

(2) sekkaku kuri-ga otita kara hiroo yo
SEKKAKU chestnuts-NOM fallen-down because pick.up-HORT YO

'Since fortunately some chestnuts have fallen down here let's pick them up.'

(3) $[\![sekkaku]\!] = \lambda p.[p \wedge \mathbf{good}(p) \wedge \forall e \forall x[Desc(p,e) \wedge Agent(x,e) \rightarrow Intend(x, realize(e))]]$

(4) $[\![sekkaku]\!] = \lambda p.[p \wedge \mathbf{good}(p) \wedge \forall e \forall x[Desc(p,e) \wedge Agent(x,e) \rightarrow Intend(x, realize(e))] \wedge \exists q[^{\vee}p \rightarrow should(q)]]$

(5) $[\![sekkaku]\!] = \lambda p.\{\exists q[^{\vee}p \rightarrow should(q)] \wedge \exists e[\tau(e) = t \wedge t \leq n] \wedge Desc(e,p)\}[p \wedge \mathbf{good}(p) \wedge \forall e \forall x[Desc(p,e) \wedge Agent(x,e) \rightarrow Intend(x, realize(e))]]$

(6) a. * ashita mochi-o sekkaku tsukuru kamoshirenai kara
tomorrow ricecake-ACC SEKKAKU make might because
kite yo
come-IMP YO

'Tomorrow I might go to the trouble of making a ricecake, so come over.'

b. * [omae-ga sekkaku keeki-o tukuttara] mochiron taberu yo
you-NOM SEKKAKU cake-ACC make-COND of-course eat YO

'If you go to the trouble of making a cake, of course I'll eat it.'

c. * [omae-ga sekkaku keeki-o tukuru to] mochiron taberu yo
you-NOM SEKKAKU cake-ACC make COND of-course eat YO

'If you go to the trouble of making a cake, of course I'll eat it.'

d. * ashita mochi-o sekkaku tsukuru kara kite yo
tomorrow ricecake-ACC SEKKAKU make because come-IMP YO

'Tomorrow I will go to the trouble of making a ricecake so come over.'

e. ? sekkaku gohan-o tsukuranakatta kara taberu mono nai (yo)
SEKKAKU food-ACC make-not-PST (YO)

'I went to the trouble of not making any food so there's nothing to eat.'

f. * biiru-o sekkaku kau to sinjita
beer-ACC SEKKAKU buy COMP believe-PST

'I believed you would purposely and fortunately buy beer.'