Quotes as complements: A Kratzerian approach*

Emar Maier
University of Groningen

Abstract I explore the consequences of extending Kratzer's (2006; 2016) treatment of *that*-complements as essentially nominal modifiers, to the domain of quotation.

Keywords: speech reports; complements; quotation; compositionality; quotatives

1 Introduction

In a Festschrift contribution of her own, Kratzer (2006) rejects the traditional Hintikka-style analysis of attitude verbs as intensional operators:

(1) a. $[\![\text{believe}]\!]_w = \lambda p \lambda x \forall w'[w' \in Dox(x,w) \rightarrow p(w')]$
b. $[\![\text{Ann believes that Ortcutt is a spy}]\!]_w = \forall w'[w' \in Dox(ann,w) \rightarrow spy(ortcutt,w')]$

She replaces the traditional account with a Neo-Davidsonian one, where attitude verbs are simply transitive verbs that take 'contentful' direct objects (as in (2a), where '$believe(e,x,w)$' abbreviates that e is the eventuality of believing x in w), and it's these belief objects that are in turn modified by *that*-clauses (as in (2c)-(2d)):

(2) a. $[\![\text{believe}]\!]_w = \lambda x \lambda e.believe(e,x,w)$
b. $[\![\text{that}]\!]_w = \lambda p \lambda x \forall w'.compat(w,w') \rightarrow p(w')$
c. $[\![\text{that Ortcutt is a spy}]\!]_w = \lambda x \forall w'[compat(w,w') \rightarrow spy(ortcutt,w')]$
d. $[\![\text{believes that Ortcutt is a spy}]\!]_w = \lambda e \exists x[believe(e,x,w) \wedge \forall w'[compat(w,w') \rightarrow spy(ortcutt,w')]]$
e. $[\![\text{Ann believes that Ortcutt is a spy}]\!]_w = \exists e \exists x[agent(e,ann) \wedge believe(e,x,w) \wedge \forall w'[compat(w,w') \rightarrow spy(ortcutt,w')]]$

In the final steps of this derivation, the CP in (2c) combines with the verb (2a) via Restrict (Chung & Ladusaw 2004), followed by Existential Closure over the

* I thank Angelika Kratzer for sponsoring my Fall 2017 sabbatical at UMass Amherst, letting me use her office, and taking the time to discuss semantics with me. This paper collects some thoughts inspired by our conversations about speech and attitude reports. I also thank the rest of the UMass Linguistics community for making this a very enjoyable and productive stay. My research (including the Amherst visit) is supported by NWO Vidi Grant 276-80-004 (FICTION).

direct object argument, to get (2d). The eventual truth conditions in (2e) are derived by adding the subject as the agent of the eventuality (or, as Kratzer 2006 puts it, as the possessor of the state), and, finally, applying Existential Closure over the event argument. In short, on Kratzer's account, believing that Ortcutt is a spy means believing something (a belief, a proposition, a thought) with the content that Ortcutt is a spy.

Kratzer's move essentially relieves the attitude verb of its modalizing duties and foists them on the complementizer. In a more recent version of the theory (Kratzer 2016), the modalizing function is pushed down even further, into an embedded Mood feature, in order to deal with harmonic modals/moods and intransitive 'manner of speech verbs'. We'll ignore this complication for now, but we return to it below in section 4 and beyond.

The selling points of Kratzer's approach include a unification of the syntax and semantics of *that*-complements modifying verbs (3a) and nouns (3b), and an immediate explanation of the otherwise puzzling inference from (3a) to the clearly transitive existential generalization (3c).

(3) a. Ann believes/desires/fears that Ortcutt is a spy
b. the belief/desire/fear that Ortcutt is a spy
c. Ann believes/desires/fears something

In this paper I want to extend Kratzer's analysis, from *that*-complements to direct quotation complements, because those show the exact same patterns, i.e. quotations can modify both verbs (4a) and nouns (4b), and they license existential inferences (e.g., from (4a) to (4c)):

(4) a. John said, "Ortcutt is a spy".
b. the sentence/phrase/utterance "Ortcutt is a spy".
c. John said something.

In earlier work I've sketched a simple event semantics for speech reports, where communicative events themselves have both a content and a form, and *that*-clauses and quotations alike express properties of events (Maier 2017).[1] The contribution of the current paper is to explore what happens if we start from Kratzer's superior event-based analysis of *that*-clauses (where, as we just saw, the connection between the verbal eventuality and the complement is mediated by a direct object), and extend that to the quotation domain. In sections 2–3, I first show that this extension indeed

1 Analyzing indirect speech and attitude reports in terms of 'contentful events' is by no means new, cf. Brasoveanu & Farkas (2007) and Hacquard (2010), in addition of course to Kratzer's own variety, under discussion here, where the attitude or speech event has a contentful direct object (cf. also Moulton 2009).

allows us to deal with the basic patterns in (4) above. In sections 4–6 I then more tentatively explore some further consequences of the resulting nominal modification account of quotation for the analysis of free indirect discourse, and *be like* quotatives.

2 Quotation in canonical direct speech

The goal is to extend Kratzer's analysis of indirect discourse in (2) to a theory of quotation. As announced, I'm sticking with the 2006 version of Kratzer's theory for now, i.e., all the intensionalizing action is in the complementizer. The idea then is that quotation marks function much like such a complementizer,[2] viz. as taking a clause and turning it into a property of objects, only this time this property characterizes the linguistic surface form rather than the content of the object. Thus (4a) (*Ann said "Ortcutt is a spy"*) comes out meaning that Ann said something of the form *Ortcut is a spy*. In the remainder of this section I'll make this precise.

On Kratzer's approach, the complementizer takes an intensional type (st) argument, which we can assume is supplied by applying Intensional Function Application (IFA, Heim & Kratzer 1998). For direct discourse then, the corresponding operator, i.e. the quotation operator QUOT, will have to take a 'linguistic form' type argument, supplied by applying Quotational Function Application (QFA, Sudo 2013). To see how this works, let's first settle on some notation. Let u be the type of linguistic forms or expressions, i.e., D_u is the set of finite strings of letters in some (phonetic) alphabet, e.g. $\textsf{abs1f} \in D_u$ and $\textsf{I am an idiot} \in D_u$. Moreover, every expression in the object language corresponds to one such string object. We'll use a common notation where '$\ulcorner$I am an idiot$\urcorner$' in the metalanguage denotes the phonetic string object I am an idiot corresponding to the object language expression *I am an idiot*.

Back to the IFA and QFA composition rules. While *that* denotes a function of type $(st)et$, QUOT denotes the following function of type $u(et)$ (where '$form(x,f)$' means that the linguistic form of x is f):

(5) $\quad [\![\text{QUOT}]\!] = \lambda f_u \lambda x_e [form(x,f)]$

I leave possible worlds and other intensional parameters out of my notations from here on, since quotation itself is strictly speaking extensional in the current formalization. In order to combine QUOT with its complement we use our dedicated new composition rule QFA, which says that QUOT, as a function with a type u argument, can combine with an argument α of any type to form a complex [QUOT α], and that this complex is interpreted by feeding into QUOT not the denotation of α but the linguistic form corresponding to α.

2 This may help explain why some languages use the same marker to introduce both direct and indirect discourse (e.g. Japanese *to*, and (arguably) Ancient Greek *hoti*).

(6) $[\![\text{QUOT } \alpha]\!] = [\![\text{QUOT}]\!]\,(\ulcorner\alpha\urcorner)$

Note that QFA makes the derivation arguably non-compositional as the meaning of the complex is not determined by the meanings of its parts, but also by the linguistic form of the argument. One way to save compositionality perhaps would be to say that determining the surface form of an LF expression is also a kind of interpretation, viz. a phonological interpretation, and that quotation shows that this interpretation must be considered semantic as well. Instead of dwelling on this terminological distraction let's apply what we have to our example:

(7) a. $[\![\text{QUOT [Ortcutt is a spy]}]\!] = \lambda x[\mathit{form}(x, \ulcorner\text{Ortcutt is a spy}\urcorner)]$
b. $[\![\text{say}]\!] = \lambda x \lambda e[\mathit{say}(e,x)]$
c. $[\![\text{say [QUOT [Ortcutt is a spy]]}]\!] =$
$\lambda e \exists x[\mathit{say}(e,x) \wedge \mathit{form}(x, \ulcorner\text{Ortcutt is a spy}\urcorner)]$

As in Kratzer's original proposal, reviewed in (2), (7c) is derived by Restrict and Existential Closure. The resulting interpretation of the entire report, (4a), would be that there is a speech event with John as agent, which is an event of saying something of the form *Ortcutt is a spy*.

3 Quotation as a noun modifier

The essence of Kratzer's account is that *that*-complements are always noun modifiers, and now so are quotations. Just to be sure, consider an example of a quotation overtly modifying a nominal, which was beyond the scope of more traditional approaches (including my own earlier attempts):

(8) a. $[\![\text{sentence}]\!] = \lambda x[\mathit{sentence}(x)]$
b. $[\![\text{sentence [QUOT [Ortcutt is a spy]]}]\!] =$
$\lambda x[\mathit{sentence}(x) \wedge \mathit{form}(x, \ulcorner\text{Ortcutt is a spy}\urcorner)]$

Treating *the* as a Fregean $(et)t$ operator we can capture constructions like (9) with just function application:

(9) $[\![\text{write [the [sentence [QUOT [Ortcutt is a spy]]]]}]\!]$

For all our derivations above to be interpretable, the thing modified by the quotation must be something that can plausibly be said to have a linguistic form, i.e., something like an utterance or a sentence. Although dreams, desires, fears, intentions and beliefs clearly have contents (and hence allow *that*-complementation), they don't plausibly have a genuinely linguistic structure, and hence such nouns and the corresponding verbs can't take quotation complements.

(10) a. *the belief/fear/desire "Ortcutt is a spy"
b. *Ann believes/fears/desires "Ortcutt is a spy"

Interestingly, thoughts are often conceptualized as 'inner speech acts' and hence can have both form and content, which explains why *think*, unlike *believe*, can take both direct and indirect discourse complements (Maier 2017).

4 Intransitive communication verbs

So far I've been following Kratzer's analysis of *believe* and *say* as transitive verbs with internal object arguments built in. In her later work Kratzer (2016) modifies the analysis to cover complements of intransitive communication verbs (*sigh*, *groan*, etc.) by assuming a silent report feature [say] high in the left periphery of the embedded clause, above Mood (which in turn functions roughly like the 2006 *that*, or our QUOT). Hence:

(11) John sighed, "What now?"
a. LF: John [sighed [[say] [QUOT [What now?]]]]
b. $[\![\text{sigh}]\!] = \lambda e[sigh(e)]$
c. $[\![\text{[say] [QUOT [What now?]]}]\!] = \lambda e \exists x[say(e,x) \wedge form(e, \ulcorner \text{What now?} \urcorner)]$
d. $[\![\text{(11a)}]\!] = \exists e \exists x[agent(e,john) \wedge sigh(e) \wedge say(e,x) \wedge form(x, \ulcorner \text{What now?} \urcorner)]$

The intransitive in (11b) and the [say]-phrase in (11c) combine via Predicate Modification, which, after bringing in the external argument and event closure, derives the final output in (11d). In words: there was an event of John sighing and (thereby) saying something of the form *What now?*.

As a bonus, the flexibility of Neo-Davidsonian event semantics let's us derive the common 'fronted quotation' order, without postulating overt movement (because, before existential closure over events, both *John sighed* and the [say]-phrase both express properties of events):

(12) a. "What now?" John sighed.
b. [[say] [QUOT [What now?]]] [John sighed]

5 A note on free (in)direct discourse

Looking at uses of quotation in actual narratives, we find many cases of unframed or free-standing quotations:

(13) She sighed and looked down at her hands with dull concentration. "I know it's going to be less than two weeks."

> "I wish you'd promise me something."
> She looked at him with no anger or suspicion, only faint curiosity. "What?"
> "Not to read any more until I'm done… or until I have to… you know…"
> "Stop?"
> "Yes. Or until I have to stop"[3]

Following the Kratzerian reasoning above, at LF all quotations in this passage will be headed by (at least) a [say]-feature and a QUOT-operator, in order to derive the intended interpretation as speech reports.[4]

But then the same goes for free indirect discourse, where speech and thought attributions are even less clearly marked on the surface.

(14) Mary panicked. The deadline was tomorrow! What on earth was she going to do?

One of the puzzles of free indirect discourse is that it doesn't just cause indexical shift (*tomorrow* refers to the day after Mary's supposed panicking, not the day after the utterance of (14)), but that it really forces a reportative reading: the author/narrator is not exclaiming, nor desperately asking the reader what Mary should do; the narrator is merely reporting what the protagonist Mary is exclaiming and asking (*sub voce*, presumably). If we weaken the interpretation of the [say] feature to include also internal/mental speech acts we can assume that its (covert) presence is responsible for deriving the reportative interpretation in (14), just as with (13).

The resulting analysis would in principle be compatible with both my quotation-plus-unquotation account of free indirect discourse (Maier 2017), and the competing indirect-discourse-plus-context-shift accounts of Sharvit (2008) or Eckardt (2014), because the [say] feature could embed either a QUOT,[5] or Kratzer's modalizing *that*/Mood.[6] Either way, introducing the [say] feature here addresses Stokke's (2013) objection to Schlenker's (2004) analysis of free indirect discourse – that the latter focuses exclusively on context shift and fails to account for the 'commitment shift'

3 Stephen King, *Misery*, 1988. New York: Penguin.

4 Whether to further stipulate a covert subject or leave that to pragmatics is a question for future research.

5 This QUOT should then in turn embed an UNQUOTation operator to deal with unshifted person and tense features (Maier 2017).

6 Interestingly, as Fabricius-Hansen & Sæbø (2004) and Eckardt (2014) discuss, free indirect discourse in German can take the Reportative Subjunctive mood, in which case the interpretation is as a speech report rather than as a thought report. It is not clear to me whether all cases discussed by these authors are really free indirect discourse (as opposed to 'unembedded indirect discourse', cf. Bary & Maier 2014), and if so how best to deal with it, but one possibility to explore would be that there are distinct [say] and [think] features, selecting for subjunctive or indicative mood.

characteristic of report constructions – and it does so by replacing the *ad hoc* 'FID-operator' of Sharvit (2008) with an independently motivated feature of report constructions generally.

6 A note on quotative *be like*

Quotative *be like* patterns with intransitive speech report constructions like (11) (*John sighed "What now?"*):

(15) John was like, "What now?"
⊭ John was like something.

Moreover, like the intransitive *sigh*, *be like* is not inherently restricted to speech reporting (Davidson 2015):

(16) John was like <looks annoyed and sighs>

Thus, it seems natural to assume that the speech report interpretation of (15) arises due to a transitive [say] feature that in turn licenses QUOT. To ensure a uniform treatment of the quotative constructions in (15) and (16), let's first take a closer look at the latter.

Following Davidson, *like* denotes the demonstration relation, i.e., it relates a demonstration event (in this case, the reporter's annoyed look and sigh), to the supposedly similar eventuality thereby depicted (in this case, John's acting similarly annoyed).

(17) a. $[\![\text{like}]\!] = \lambda d \lambda e[demonstration(d, e)]$
b. $[\![\text{be like <looks annoyed and sighs>}]\!] = \lambda e[demonstration(d_0, e)]$ (where d_0 denotes the event of the reporting speaker's annoyed look and sigh)
c. $[\![(16)]\!] = \exists e[agent(e, john) \wedge demonstration(d_0, e)]$

In words, (16) conveys that there was an eventuality with John as agent which was, in the contextually relevant ways, similar to the reporting speaker's annoyed look and sigh.

Since they take a demonstration argument, *be like* quotatives most naturally occur in 'live modalities' (like face-to-face spoken conversation or signing) allowing vivid gestures, sounds, and other iconic actions. However, following Clark & Gerrig (1990), Davidson goes a step further and suggests that quotation generally be considered a special case of demonstration. This would mean that the (printed) phrase, in quotation marks, in (15) can somehow saturate the demonstration argument. Moreover, canonical *say* reports as discussed above should then be analyzed as involving demonstration as well, perhaps through a silent *like* operator. I've argued elsewhere

(Maier forthcoming) against such a radical version of the demonstration account, and in favor of a hybrid account, where the use of explicit, linguistic quotation (under *be like* or *say*) involves genuine reference to form (giving rise to a linguistic faithfulness constraint), in addition to an optional demonstration component (giving rise to an iconic faithfulness constraint).

On the current Kratzerian approach such a hybrid analysis could take the following form:

(18) John was like <sighs>What now?<looks annoyed>

a. LF: John [be like d_1] [[say] [QUOT [What now?]]] (where d_1 denotes the whole event of the reporter looking annoyed while sighing and muttering *what now?*)

b. $[\![\text{be like } d_1]\!] = \lambda e[demonstration(d_1, e)]$

c. $[\![[\text{say}]\ [\text{QUOT}\ [\text{What now?}]]]\!] = \lambda e \exists x[say(x,e) \wedge form(x, \ulcorner \text{What now?} \urcorner)]$

d. $[\![(18a)]\!] = \exists e \exists x[agent(e, john) \wedge demonstration(d_1, e) \wedge say(x,e) \wedge form(x, \ulcorner \text{What now?} \urcorner)]$

In a way, the reporter's vivid report, represented as a complex event involving sighing, speaking, and looking annoyed, thus fulfills two functions simultaneously: it's a live demonstration of a partly linguistic, partly non-linguistic event, but the part that can be construed as a linguistic utterance also serve as argument to QUOT.

7 Conclusion

Like Kratzer, and many others, I believe it's time to ditch the traditional Hintikka-style account of attitude and speech reports in favor of a Neo-Davidsonian alternative. But such a move can take different forms, each with their own merits and motivations. For me, the primary motivation has been to better understand the various forms of quotation and their relations to indirect speech and attitude reports. Kratzer's original motivation seems to have been a better understanding of complementation. In this squib I try to bring Kratzer's significant insights into complementation to the quotational domain. What I hope to have shown is that Kratzer's approach has significant benefits there as well, as it sheds new light on such recalcitrant phenomena as free indirect discourse and *be like* quotatives.

References

Bary, Corien & Emar Maier. 2014. Unembedded Indirect Discourse. *Proceedings of Sinn und Bedeutung* 18. 77–94. http://semanticsarchive.net/sub2013/

SeparateArticles/Bary&Maier.pdf.
Brasoveanu, Adrian & Donka Farkas. 2007. Say reports, assertion events and meaning dimensions. *Pitar Mos: A Building with a View. Papers in Honour of Alexandra Cornilescu* 175–196.
Chung, Sandra & William Ladusaw. 2004. *Restriction and saturation*. Cambridge: MIT Press.
Clark, Herbert & Richard Gerrig. 1990. Quotations as demonstrations. *Language* 66(4). 764–805.
Davidson, Kathryn. 2015. Quotation, demonstration, and iconicity. *Linguistics and Philosophy* 38(6). 477–520. doi:10.1007/s10988-015-9180-1.
Eckardt, Regine. 2014. *The Semantics of Free Indirect Speech. How Texts Let You Read Minds and Eavesdrop*. Leiden: Brill.
Fabricius-Hansen, Cathrine & Kjell Johan Sæbø. 2004. In a mediative mood: The semantics of the German reportive subjunctive. *Natural Language Semantics* 12(3). 213–257.
Hacquard, Valentine. 2010. On the event relativity of modal auxiliaries. *Natural Language Semantics* 18(1). 79–114. doi:10.1007/s11050-010-9056-4.
Heim, Irene & Angelika Kratzer. 1998. *Semantics in Generative Grammar*. Oxford: Blackwell.
Kratzer, Angelika. 2006. Decomposing attitude verbs. Handout. Honoring Anita Mittwoch on her 80th birthday. The Hebrew University of Jerusalem. https://works.bepress.com/angelika_kratzer/15/.
Kratzer, Angelika. 2016. Evidential moods in attitude and speech reports Slides for a talk at UConn. https://works.bepress.com/angelika_kratzer/10/.
Maier, Emar. 2017. The pragmatics of attraction: Explaining unquotation in direct and free indirect discourse. In Paul Saka & Michael Johnson (eds.), *The Semantics and Pragmatics of Quotation*, Berlin: Springer. http://ling.auf.net/lingbuzz/002966.
Maier, Emar. forthcoming. Quotation, demonstration, and attraction in Sign Language Role Shift. *Theoretical Linguistics* https://ling.auf.net/lingbuzz/003297.
Moulton, Keir. 2009. *Natural Selection and the Syntax of Clausal Complementation*. Amherst: University of Massachusetts PhD thesis. http://scholarworks.umass.edu/open_access_dissertations/99.
Schlenker, Philippe. 2004. Context of thought and context of utterance: A note on Free Indirect Discourse and the Historical Present. *Mind and Language* 19(3). 279–304. doi:10.1111/j.1468-0017.2004.00259.x.
Sharvit, Yael. 2008. The puzzle of free indirect discourse. *Linguistics and Philosophy* 31(3). 353–395. doi:10.1007/s10988-008-9039-9.
Stokke, Andreas. 2013. Protagonist Projection. *Mind and Language* 28(2). 204–232. doi:10.1111/mila.12016.

Sudo, Yasutada. 2013. Metalinguistic Quantification: Evidence from Japanese Wh-doublets Ms. Paris. http://web.mit.edu/ysudo/www/pdf/quotation5.pdf.

Emar Maier
Philosophy & MILLC
University of Groningen
Oude Boteringestraat 52
9712GL Groningen
The Netherlands
emar.maier@gmail.com