QUOTATION IN CONTEXT[*]

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Abstract
It appears that in mixed quotations like the following, the quoted expression is used and mentioned at the same time:

George says Tony is his 'bestest friend'.

Most theories seek to account for this observation by assuming that mixed quotations operate at two levels of content at once. In contradistinction to such two-dimensional theories, we propose that quotation involves just a single level of content. Quotation always produces a change in meaning of the quoted expression, and if the quotation is mixed the shift is, to a first approximation at least, from α to 'what x calls 'α'', where x is a variable whose value is determined by the context. We argue that quotation is generally context dependent in various ways, and that some of these ways are presuppositional in nature; we present a detailed analysis of the presuppositions in question.

1. Introduction

The objective of this paper is to elaborate on a theory of quotation outlined by Geurts (1998). According to this theory, what all varieties of quotation have in common is not that they refer to linguistic expressions, but rather that their meanings involve reference to linguistic expressions. Quotation always produces a change in meaning of the quoted expression, but the effect is not always the same. In the simplest case, the meaning of an expression α is shifted to a meaning that one might express as 'the expression 'α''; (1a) is a case in point:

(1) a. 'Boston' contains six letters.
     b. The name 'Boston' contains six letters.

On the face of it, the subject terms of (1a) and (1b) refer to the same thing, i.e. the name 'Boston', and in our view they are synonymous, as well. But, as is well known, all varieties of quotation are not like this.

Whereas the variety of quotation exhibited in (1) is generally regarded as 'pure', (2) contains an instance of 'mixed' quotation. This is the species we shall be concerned in the following pages:[1]

(2)   George says Tony is his 'bestest friend'.

In the case of mixed quotation, the meaning shift is, roughly speaking, from α to 'what x calls 'α'', where the value of x is determined by the context. For example, with x = George, the quotation in (2) is synonymous with the bracketed portion of (3):[2]

(3)   George says Tony is his [what George calls 'bestest friend'].

A distinctive feature of the proposed analysis is that it involves just a single level of meaning. This goes against the prevailing opinion that mixed quotations result from an interplay between two distinct dimensions of content, a view that is rife in the literature, but nowhere as explicit as in Potts's (2004) recent paper. One of the main points we shall try to establish is that our 1D analysis enjoys important advantages over 2D approaches.

Another characteristic trait of our theory is that it emphasises the context dependence of quotation, and offers an explicit model of how contextual factors affect its interpretation. This is not to suggest that we are the first to observe that quotation is context dependent, for we aren't; but as far as we know ours is the first attempt at explaining this aspect of quotation.

2. Quotation in 2D

In his discussion of examples like (4), Davidson observes that, apparently, the words enclosed in quotation marks '... do double duty, once as meaningful cogs in the machine of the sentence, once as semantically neutral objects with a useful form.' (Davidson 1979: 92).

(4)   Quine says that quotation 'has a certain anomalous feature'.

Davidson's intuitive description is widely accepted, and often taken to imply that mixed quotations operate on two levels, as it were. For instance, Recanati (2001), referring to an example similar to (4), contends that:

> ... the proposition expressed by the complement sentence is the same with or without the quotation marks, and it is *not* about words. The [quotation] conveys an additional meaning, but that pictorial meaning runs in parallel to the proposition which is linguistically articulated: it is not a part of it. (Recanati 2001: 660-661)

In the same vein, Predelli (2003: 26) speaks of 'attached content' and says that '... it is part of the conventional profile for quotation marks that sentences in which they occur are associated with information content *additional* to their customary messages ...' (emphasis added).

It seems natural to infer from such claims that the information conveyed by means of a mixed quotation is thought to divide into two parts, two different kinds of content existing in separate dimensions. Until recently, the ramifications of this two-dimensional view were up for grabs, but thanks to Potts (2004) it is becoming clearer where they lead to. In this section we will try to show that there are problems with Potts's proposal which are due precisely to the fact that it is a 2D theory, so although we will confine our attention to one particular version, our criticism is directed against the whole family of 2D theories.

Potts presents a grammar based on a standard type system augmented with expression types. Any well-formed expression is mapped into an object which can be named, quantified over, and so on, thus yielding a straightforward treatment of (1a) and similar examples. For the harder cases, like (2) or (4), a two-dimensional treatment is required, which is implemented by introducing product types: if a and b are semantic objects of types α and β, respectively, then $\langle a,b \rangle$ is an object of type $\alpha \times \beta$. The verb 'say', for instance, is assigned to type $\langle u, \langle e, t \times t \rangle \rangle$: it denotes a ternary relation between expressions, individuals and pairs of propositions. Hence, the sentence,

(5)   George said: 'Tony is very special'.

receives as its semantic value a pair consisting of:

- the proposition that George claimed that Tony is very special; and
- the proposition that George uttered the sentence 'Tony is very special'.

The first proposition is what Potts calls the 'regular meaning' of (5); the second proposition is the sentence's 'speech report meaning'.

With the extended type system in place, deriving the composite meaning of (5) is a relatively straightforward matter, as it only requires that the lexical meaning of the verb 'say' be adjusted. Examples like the following are more challenging:

(6) a. When in Santa Cruz, Peter orders '[eɪ]pricots' at the local market.

  b. When in Amherst, Peter orders '[æ]pricots' at the local market.

According to Potts, the regular meaning of (6a) is that Peter orders apricots at the local market while at Santa Cruz; the sentence's speech report meaning is that Peter utters '[eɪ]pricots' while in Santa Cruz (and similarly for (6b), presumably). In order to derive this pair of meanings, Potts postulates a covert operator that shifts the expression '[eɪ]pricots' into a relation of type ⟨e,e×t⟩ between individuals and pairs of individuals and propositions. This relation requires an argument of type e, to be provided by the context, which is the source of the quoted expression, '[eɪ]pricots'. This individual (Peter, as it happens) is mapped onto a pair consisting of whatever '[eɪ]pricots' means in Peter's idiolect and the proposition that Peter tokens '[eɪ]pricots'. Supposing Peter means 'apricots' when he says '[eɪ]pricots', the contextual meaning of '[eɪ]pricots' consists of:

- apricots (regular meaning), and
- the proposition that Peter utters '[eɪ]pricots' (speech event meaning).

In the remainder of the derivation, the regular meaning combines with the predicate 'order' as usual, while the speech event meaning is passed on until it reaches clause level.

There are a number of problems with this story. Beginning with the last example, it should be noted that Potts's analysis falls short of accounting for what we take to be the most natural interpretation of (6a), namely that when he is in Santa Cruz *and orders apricots at the local market*, Peter says '[eɪ]pricots'. The italicised restriction isn't part of Potts's analysis, and it isn't clear how it could be. One might expect this type of restriction to be due to the fact that the quotation in (6a) is in focus. As a rule, the domain of a quantifier is restricted by backgrounded material in its nuclear scope. But as it happens, the restriction observed in this case coincides with the *complete* regular meaning (in Potts's terms) of 'Peter orders '[eɪ]pricots' at the local market'. The problem, then, is to explain how focus might interact with two-dimensional meanings so as to produce the right kind of domain restriction.

Another problem that springs directly from the decision to keep regular and speech event meaning segregated is the following.

(7) Every soldier said he longed to go home to his 'mommy'.

The reading Potts would predict for this sentence consists of:

- the proposition that every soldier said he longed to go home to his mother, and
- the proposition that every soldier uttered 'mommy'.

What Potts's analysis fails to capture is that every soldier used the word 'mommy' to refer to his (i.e. the soldier's) mother—which, according to our intuitions, is entailed by the most natural construal of (7). This problem may seem harmless at first, but it isn't, for in order to solve it the two kinds of content which are cleanly separated in Potts's system will have to be connected, and it is doubtful that this can be done.

Generally speaking, a multi-dimensional logic is suitable for representing different kinds of content that don't interact too much, as the opportunities for combining dimensions are very limited. In fact, Potts's paper contains several analyses that unwittingly illustrate this point. One of the clearest cases is Potts's treatment of negation.

It is a well-known fact that negation may be used not only to target regular propositional content, but may also be directed at presuppositions, implicatures, and even at formal aspects of language concerning style, register, pronunciation, and so on (Horn 1989, Geurts 1998). Such uses go under the name of 'metalinguistic negation' or 'denial'; we will use the latter term. The following examples are from Horn's book (though (9b) may have been around a bit longer):

(8) a. Around here, we don't LIKE coffee, we LOVE it.
     b. I'm not HAPPY he's gone—I'm ELATED.

In these examples denials are directed against the quantity implicatures associated with the predicates 'like' and 'happy', respectively. In (9), by contrast, the targets are of a presuppositional nature.

(9) a. Chris didn't MANAGE to solve the problem—it was quite easy for him.
     b. The king of France is not BALD—there is no king of France.

In (9a), the verb 'manage' induces the presupposition that solving the problem was difficult for Chris, which is rectified in the sequel. In (9b) the presupposition that France has a king is treated similarly. Finally, in the following examples, denials are directed, respectively, at matters of pronunciation, morphology, and style or register:

(10) a. He didn't call the POlice, he called the poLICE.

    b. I didn't manage to trap two monGEESE—I managed to trap two
       monGOOSES.
    c. We didn't {have intercourse/make love}—we fucked.

(There may be speakers of English for whom 'fuck' is truth-conditionally
distinct from 'have intercourse' and 'make love'. For them (10c) will not
involve a special use of negation.)

Potts proposes to deal with examples like (10a-c) by introducing an
operator that negates speech event meaning. So, if the first half of (10a) is
parsed as being of the form 'not$_1\varphi$'', it is construed in the standard way as
denying that 'he' called the police; whereas on its 'not$_2\varphi$'' reading the sentence
denies, e.g., that 'police' is stressed on the first syllable. This treatment
generalises in a natural way to other varieties of denial: if implicated content
belongs to a separate dimension, it can have a negation operator of its own, and
the same goes for presuppositions.

Apart from the fact that this approach requires that there be as many
negation operators as there are dimensions of content, our main objection is
that it is ad hoc. Potts's theory allows us to describe the facts about denial, but
it doesn't explain them. To illustrate this point, consider how Potts might
account for the fact that there are limits to what can be negated by means of
denial. Horn (1989) observes that (11b) cannot be used to convey that the
person in question was able to solve the problem but didn't do so, although
(11a) may implicate that 'he' solved the problem:

(11) a. He was able to solve the problem.
      b. He wasn't able to solve the problem.

Geurts (1998) makes the same point with another example:

(12) A: You left the door open.
      B: I didn't leave the door open—you can close it yourself if you
         wish.

A's utterance in (12) might be taken as an indirect request for B to close the
door. But even in a context in which it is evident that this implication is
intended, it would be strange for B to respond as in this exchange. Apparently,
indirect speech acts cannot be targeted by denials.[3]

There are two ways in which these facts could be accommodated in Potts's
framework. On the one hand, one may choose to deny that 'undeniable'
inferences are entitled to dimensions of their own. This would not be a very
plausible move, however, and anyway it would merely shift the problem,
because it raises the question what is the status of these inferences. On the

other hand, it might be stipulated that certain types of content cannot be negated. This yields a reasonable description of the data, but doesn't explain anything. The long and short of it is that there is nothing in the nature of negation à la Potts that could explain the restrictions exemplified by (11) and (12).

To sum up: there are several problems with Potts's theory of quotation, which are related to the fact that his is a 2D account, in which there is a strict divide between ordinary meaning and metalinguistic meaning. The theory to be presented in the following does not make such a separation, and therefore, we will argue, the problems discussed above don't arise in our framework.

3. Background: the binding theory of presupposition

It is fairly obvious that the interpretation of quotation depends on contextual factors to a considerable degree, and this context dependence is central to our present concerns. We maintain that, in the case of quotation, the context dependence is of the presuppositional variety, so we will need a theory of presupposition to work with. The general framework we adopt is that of the 'binding theory' of presupposition (van der Sandt 1992, Geurts 1999), which is an offshoot of Discourse Representation Theory (Kamp 1981, Kamp and Reyle 1993). This section provides a brief summary of the key ideas; readers familiar with the DRT treatment of presupposition can safely skip it.

The binding theory is based on the observation that there are close parallels between the interpretation of anaphora on the one hand and presupposition projection on the other. In fact, anaphora in the usual sense of the word is viewed as a special case of presupposition. A few examples will help to clarify what this means. Consider first the following mini-discourse:

(13) (a) George has a rabbit. (b) Tony hates his rabbit.

(13a) is interpreted by setting up two discourse referents and relating them by a two-place predicate, as follows:

(14) [x: George(x), y: rabbit(y), has(x,y)]

This Discourse Representation Structure (DRS) is the background against which (13b) is interpreted. The sentence DRS associated with this sentence is the following:

(15) [v: Tony(v), z̲ u̲: rabbit(u̲), has(z̲,u̲), hates(v,u)]

This is intended as a schematic but nonetheless complete representation of (13), except for one thing: the presuppositions induced by the possessive noun phrase, which are underlined in (15), haven't been processed yet. We assume that the noun phrase 'his rabbit' triggers two presuppositions, namely, that (i) there is an individual z such (ii) that z has a rabbit, u. The first presupposition is underlined twice so as to distinguish it from the second.[4]

We regard presupposition projection as a pragmatic process, and assume that structures like (14) and (15) are delivered by the grammar further to be processed by the pragmatic component. We will focus here on the kinematics of presupposition projection and start out from half-finished DRSs like (15), so we will simply take such structures as given. This shouldn't be too much of a problem, because our preliminary DRSs will always correspond rather closely to linguistic surface form, as (14) and (15) exemplify.

Continuing with the interpretation of (13), the next step is to add the sentence DRS shown in (15) to the DRS representing the previous discourse, i.e. (14):

(16)   [x: George(x), y: rabbit(y), has(x,y),
                          v: Tony(v), z̲ u: rabbit(u), has(z,u), hates(v,u)]

The central tenet of the binding theory is that presuppositions in general want to be bound to referents made available in the context, and the first presupposition in (16) can be bound to the discourse referent associated with George, as follows:

(17)   [x: George(x), y: rabbit(y), has(x,y),
                          v: Tony(v), z: z = x, u: rabbit(u), has(z,u), hates(v,u)]

Which is equivalent to:

(18)   [x: George(x), y: rabbit(y), has(x,y),
                          v: Tony(v), u: rabbit(u), has(x,u), hates(v,u)]

Now the presupposition that George has a rabbit can be bound to y, which results in (19a), or equivalently, (19b):

(19)   a.   [x: George(x), y: rabbit(y), has(x,y),
                          v: Tony(v), u: u = y, rabbit(u), has(x,u), hates(v,u)]
        b.   [x: George(x), y: rabbit(y), has(x,y), v: Tony(v), hates(v,y)]

This says that there is a rabbit such that George has it and Tony hates it, which is one way, and perhaps the most natural way, of interpreting (13).

There is another way, of course: 'his rabbit' might be taken to refer to Tony's rabbit rather than George's. In order to capture this construal, z in (16) would be bound to v, which represents Tony, and the remaining presupposition would be accommodated:

(20)   [x: George(x), y: rabbit(y), has(x,y), v: Tony(v),
                                    u: rabbit(u), has(v,u), hates(v,u)]

Accommodation is a secondary strategy for dealing with presuppositions. If a presupposition cannot be bound, or all available ways of binding it are dispreferred for some reason or other, it may be interpreted by way of accommodation (Stalnaker 1975, Lewis 1979). Intuitively, the idea is that the speaker may exploit presuppositional devices to introduce information. That is to say, the speaker may present as given information that is actually new to the context, and his audience will usually be prepared to go along with this provided the new information is not especially controversial or interesting. Formally, this means that the presupposed material is inserted into the DRS at some suitable point, as illustrated by (20).

If a presupposition is triggered in an embedded DRS and cannot be bound, there will be more than one DRS in which it may be accommodated:

(21)   a.   Tony didn't call his sister.
       b.   [u: Tony(u), ¬[x: sister(x,u), e: call$_e$(u,x)]]

(21b) is the preliminary DRS for (21a), which also introduces the event-based representations that we will need in the following. (Formally, discourse referents denoting events are arguments just like ordinary discourse referents; the subscript notation merely serves to highlight the fact that they denote a special kind of entity.) In (21b), the presupposition triggered by 'his sister' in (21a) is within the scope of the negation operator. For convenience, we assume that the presupposition triggered by the possessive pronoun has already been bound to Tony, so the only presupposition that remains to be processed is that Tony has a sister. Supposing that this is new information, the presupposition cannot be bound to a suitable antecedent. It will therefore have to be accommodated, which can be done in two ways: globally, in the main DRS, or locally, within the scope of the negation operator. Following Heim (1983), the binding theory assumes that, ceteris paribus, global accommodation is preferred, so the predicted reading is the following:

(22)   [u: Tony(u), x: sister(x,u), ¬[e: call$_e$(u,x)]]

On this reading, (21a) is taken to convey that Tony has a sister, whom he didn't call.

In (23a), all else is not equal: if we should opt for global accommodation in this case, the discourse would become inconsistent, since the second sentence denies that Tony has a sister. Therefore, in this case the hearer resorts to local accommodation, which for the first half of (23a) yields the DRS in (23b):

(23)   a.   Tony didn't call his sister: he doesn't even have a sister.
       b.   [u: Tony(u), ¬[x: sister(x,u), e: call$_e$(u,x)]]

I.e., Tony doesn't have a sister whom he called.

In order to represent quantified sentences like (24a), we adopt Kamp and Reyle's (1993) 'duplex conditions', illustrated in (24b):

(24)   a.   All soldiers cried.
       b.   [: [x: soldier(x)]⟨∀x⟩[e: cry$_e$(x)]]

Duplex conditions will also be employed to represent quantification over events, as in the following example:

(25)   a.   When Tony visits George, they play cowboys and indians.
       b.   [x: Tony(x), y: George(y), [e: visit$_e$(x,y)]⟨∀e⟩[: play$_e$(x,y)]]

Hence, (25a) is interpreted as stating that for all occasions e on which Tony visits George, the two play cowboys and indians together.

It has been argued by Geurts and van der Sandt (2004) that presupposition projection is implicated in the interpretation of focusing. According to Geurts and van der Sandt, focus/background and presupposition are linked by a simple principle, which they call the 'Background Presupposition Rule':

The Background-Presupposition Rule (BPR)
Whenever focusing gives rise to a background $\lambda x.\varphi(x)$, there is a presupposition to the effect that $\lambda x.\varphi(x)$ holds of some entity of the appropriate type.

The intuitive motivation for the BPR is straightforward. Given that the effect of focusing is to evoke a set of alternatives, it is plausible to assume that there is a general presumption to the effect that one of these alternatives holds. To illustrate the workings of the BPR, let us consider the following example:

(26)   When Tony visits George, he drinks his lemonade [with a straw]$_F$.

With narrow focus on the prepositional phrase, this will be interpreted as saying that whenever Tony visits George *and he gets to drink lemonade*, he drinks it with a straw. So it appears that the backgrounded material in the nuclear scope of the quantifier ends up restricting its domain. In conjunction with the BPR, the binding theory accounts for this as follows. We start out from the following DRS:

(27)   [x: George(x), y: Tony(y),
             [e: $visit_e$(y,x)]$\langle\forall e\rangle$[: $drinkLemonade_e$(y), $useStraw_e$(y)]]

Since the focus in (26) is on the prepositional phrase 'with a straw', the BPR licenses a presupposition to the effect that Tony somehow drinks his lemonade, which, somewhat provisionally, may be represented as follows:

(28)   [x: George(x), y: Tony(y),
          [e: $visit_e$(y,x)]$\langle\forall e\rangle$[: $drinkLemonade_e$(y), $useStraw_e$(y),
                                    $\underline{drinkLemonade_e(\underline{y})}$)]]

This presupposition cannot be bound and will therefore have to be accommodated, and as there is a general preference for accommodation in the main DRS, the first option would be:

(29)   [x: George(x), y: Tony(y), $drinkLemonade_e$(y),
             [e: $visit_e$(y,x)]$\langle\forall e\rangle$[: $drinkLemonade_e$(y), $useStraw_e$(y)]]

However, this DRS is defective: the discourse referent e is used in the main DRS without having been properly introduced (or, in more standard terminology, (29) contains a free variable). The next-best option is to accommodate the presupposition one level down, which yields (30a), or equivalently, (30b):

(30)   a.   [x: George(x), y: Tony(y),
             [e: $visit_e$(y,x), $drinkLemonade_e$(y)]$\langle\forall e\rangle$[: $drinkLemonade_e$(y),
                                    $useStraw_e$(y)]]
       b.   [x: George(x), y: Tony(y),
             [e: $visit_e$(y,x), $drinkLemonade_e$(y)]$\langle\forall e\rangle$[: $useStraw_e$(y)]]

4. Quotation in context

The view on quotation we advocate, following Geurts (1998), is that the semantic effect of quotation is to shift the ordinary meaning of an expression α

to a new meaning that involves mentioning α. This meaning shift is not constant: quotation doesn't always work in the same way. Still, the various types of meaning that quotation may give rise to are related by the fact that they mention the quoted expression. If the quotation is a 'pure' one, it denotes a linguistic expression and its semantic type may differ from that of the quoted expression. For example, in (31) quotation maps the semantic type of the adjective 'monosyllabic' to that of singular terms, and the resulting expression denotes the word 'monosyllabic':

(31)   'Monosyllabic' is not monosyllabic.

The semantic effect of mixed quotation is similar to that of pure quotation, but it is not the same. For one thing, in the mixed case, the semantic type of the quotation is always the same as that of the quoted expression. For example, in (32) the meaning of the quotation is of the same type as that of the quoted noun, 'police':

(32)   George called the 'POlice'.

In our analysis, the quotation in (32) does not denote a linguistic expression. Rather, it denotes (or purports to denote) the same kind of object the word 'police' would have denoted. The semantic content expressed by the quotation involves reference to the expression 'POlice'; it might be, e.g., 'whatever it is George meant when he used the expression 'POlice''. It is in this sense that 'POlice' is used and mentioned at the same time: the mentioning becomes part of the expression's content; they are not on different levels. In this respect, our theory of quotation is one-dimensional.

The sentence in (32) illustrates another way in which mixed quotations differ from pure ones: the interpretation of 'POlice' depends on the context, and it is this context dependence that is our main target in the following.[5] To begin with, there is the question who mispronounced the word 'police'.[6] In the absence of more specific information about the context in which (32) occurred, the most obvious candidate is the agent of the sentence, George, but in the following exchange Tony may be echoing Dad's pronunciation of the word 'police':

(33)   Dad: Somebody call the POlice!
         Tony: George just called the 'POlice'.

As the following example shows, the source doesn't have to be any particular individual:

(34)   You shouldn't call the 'POlice': call the 'poLICE'.

If this is meant to correct the addressee's pronunciation of the word 'police', the source of 'poLICE' is not this or that individual, but rather generic ('people like us') or institutional ('the English language').

Suppose that the quotation in (32) echoes George. Then the next question is whether or not his mispronouncing 'police' was accidental. Perhaps George would ordinarily achieve a flawless delivery of the word 'police', but on this particular occasion he was so nervous that he got it wrong; or perhaps he doesn't know better and habitually falls into this kind of error. In the former case, the token of 'poLICE' is tied to the event of George's calling the police. In the latter, there is no particular antecedent event. It is possible, even, that this was the first time George ever used the word; he is just the kind of person that is wont to say 'POlice' rather than 'poLICE'.

There are, then, at least two ways in which mixed quotations depend on the context. A mixed quotation always has a source, which has two coordinates: a speaker and a speech event. The speaker coordinate may be a concrete individual or it may be institutional or generic. Similarly, the speech-event coordinate may be a concrete event or it may be habitual or generic. In the following we will concentrate our attention on instances of mixed quotation in which both coordinates are concrete.

Our proposal is that in cases like (32), the effect of quotation is to shift the sense of the noun 'police' to a meaning of the same type which involves reference to a linguistic object, along the following lines:

(35)   [y: George(y), $\underline{x}$ $\underline{e}$ Q: $\underline{E_e(x,Q,}$**POlice**$)$, z: Q(z), e': call$_{e'}$(y,z)]

This is the semantic representation of (32) as it comes out of the grammar, i.e. before presuppositional dependencies are resolved. The part in (35) corresponding to the quotation in (32) is [x e Q: E_e(x,Q,**POlice**)]. This says that there is an individual x, an event e, and a property Q, such that e involves x's expressing Q by means of 'POlice'. We assume that x, e, and Q are presupposed, so they are preferably bound to a suitable antecedent provided by the context, or else construed by way of accommodation. In addition to the presuppositions associated with 'POlice', (35) contains the presupposition [z: Q(z)]. This is the presupposition triggered by the definite NP 'the 'POlice'', whose descriptive content is that of the shifted sense of 'police'.

Let us suppose that the speaker of (32) wanted to convey that when George called the police, he stressed the first syllable of the word 'police'. Starting out from (35), this reading is obtained as follows. First, the discourse referent x representing the source of the quoted word is bound to y, which stands for George. Secondly, the presupposed event e of expressing Q is bound to e'. The

remaining presuppositions in (35) cannot be bound, and are therefore accommodated. Thus we arrive at the following representation:

(36)   [y: George(y), e Q: E_e(y,Q,**POlice**), z: Q(z), $call_e$(y,z)]

This says that on some occasion e George employed the linguistic device 'POlice' to express the property Q (which might well be the property of being the police), and that on the same occasion George called an entity with property Q.

In the remainder of this paper we will present a number of case studies to illustrate how this view on mixed quotation interacts with our theory of presupposition. But before we get to that we want to note that in several respects the proposed account is incomplete. Apart from the restriction to concrete sources, which we announced already, there are one or two issues with the Q's in DRSs like (36). Intuitively, Q represents, in the case at hand, whatever George expressed by means of the expression 'POlice'. In order to formally implement this intuition we would need a higher-order version of DRT, like the one proposed by Muskens (1996), for instance. Here we will just assume without proof that our proposal can be embedded in such a framework. A more serious issue concerning the treatment of Q's is that their discourse status remains to be clarified. The Q in (36) represents the property of being the police (supposing that is what George had in mind), and it is obvious that this kind of discourse entity is likely to behave differently from first-order discourse referents. In the following we sidestep this issue by treating Q as if it represented an ordinary individual, which may well turn out to be problematic if the theory is extended beyond the range of examples discussed below.

With these caveats out of the way, we proceed with a scenario in which the speaker, having just uttered (32), continues as follows:

(37)   Tony called the 'POlice', too.

There are at least two ways of interpreting this sentence. One is analogous to the interpretation of (32) discussed above. On this reading Tony called the police mispronouncing the word as did his friend. On the other reading, the quotation in (37) echoes George. These readings are derivable as follows. We start out from a sentence DRS isomorphic to (35), and add it to (36), which is the background against which (37) is interpreted. Now the interpretation process either proceeds as in the previous example, which entails that Tony mispronounced the word 'police', or the presuppositions triggered by the definite noun phrase 'the 'POlice'' are bound to discourse referents made available by the background DRS. In the latter case, we obtain the following representation:

(38)   [y: George(y), e Q: E_e(y,Q,**POlice**), z: Q(z), $call_e$(y,z),
                                    u: Tony(u), e': $call_{e'}$(u,z)]

The first line in this DRS is identical to (36). The second line is new; it says that Tony called whatever it is *George* referred to using the expression 'POlice'.

One of our main tenets in this paper is that the interpretation of a quotation depends on the context in the same way as anaphoric pronouns, definite noun phrases, and other presupposition-inducing expressions are context dependent. The contrast between (32) and (37) illustrates our point. These sentences are the same in all relevant respects, but due to a change of context the second sentence admits of a construal that is unavailable to the first. Change the context and the interpretation of a quotation may change just as the interpretation of a pronoun or definite noun phrase might change.

We now turn to examples in which quotations occur in the scope of an operator, beginning with negation:

(39)   Tony didn't call the 'POlice' (he called the 'poLICE').

The reading we want to consider is the one which entails that Tony didn't utter the expression 'POlice'. We start out from the following representation, which, save for the negation operator, will be familiar from the foregoing:

(40)   [y: Tony(y), ¬[x̲ e̲ Q̲: $\underline{E_e}$(x̲,Q̲,**POlice**), z̲: Q̲(z̲), e': $call_{e'}$(y,z)]]

The discourse referent x represents the source of the quoted word, and is therefore bound to y, which stands for Tony. The presupposed event e of expressing Q is bound to e', as in earlier examples. The remaining presuppositions in (40) cannot be bound, and must therefore be accommodated, and since neither Q nor z can be accommodated globally (because that would make the resulting DRS defective), they are accommodated within the scope of the negation operator, and we obtain the following representation:

(41)   [y: Tony(y), ¬[e Q: E_e(y,Q,**POlice**), z: Q(z), e: $call_e$(y,z)]]

This denies that Tony called something he referred to by way of the expression 'POlice', which is the reading we wanted to account for.

The following case illustrates how our one-dimensional quotations interact with attitude verbs like 'say':

(42)   Tony says the 'POlice' are on their way.

Again, there are many ways of interpreting this sentence, depending, inter alia, on who the source of the quotation is taken to be. Here we want to consider what our analysis predicts if the subject of the highest verb is taken to be the source.

(43)   [y: Tony(y),
           e: say$_e$(y,[$\underline{x}$ $\underline{e'}$ Q: $\underline{E_{e'}}$($\underline{x}$,Q,**POlice**), $\underline{z}$: Q($\underline{z}$), e'': onTheirWay$_{e''}$(z)])]

This is the initial DRS for (42), in which 'say' is represented as a three-place predicate relating to each other an illocutionary event e, an individual y, and a DRS. The embedded DRS has the same structure as the one in (35), for example. The first presupposition in (43), i.e. x, is bound to y, since Tony is taken to be the source of the quotation. The second presupposition, e', can be linked either to e, which represents the saying event, or to e'', which stands for the police being on their way. The first option is clearly preferred, because the second one would yield an implausible construal (it would entail that the police being on their way involved Tony's using the expression 'POlice'), and therefore e' is linked to e. The remaining presuppositions, which lack suitable antecedents, may be accommodated in the main DRS, and so we are left with the following representation:

(44)   [y: Tony(y), e Q: E$_e$(y,Q,**POlice**), z: Q(z),
                                        say$_e$(y,[e'': onTheirWay$_{e''}$(z)])]

Simplifying a bit, this says that there is an occasion e on which Tony used the expression 'POlice' to express the property Q, and that on the same occasion Tony said that the Q are on their way.

As observed by Cappelen and Lepore (1997), among others, one of the problems posed by a sentence like (42) is that although, intuitively speaking, the expression 'POlice' is used and mentioned at the same time, and 'POlice' is in the scope of the attitude verb, the sentence's meaning is not that Tony said something about language.[7] Our analysis predicts the correct reading by treating quotation as a presuppositional device, which explains why the quotation in (42) appears to take wide scope.

In our discussion of Potts's theory, we pointed out that sentences like the following are problematic for two-dimensional analyses of quotation:

(45)   Every soldier said he longed to go home to his 'mommy'.

In the present framework this sentence is analysed along the same lines as (42), the only difference being that whereas in (42) the source of the quotation is a

single individual, in (45) every single soldier acts as source. That is to say, the antecedent of the source presupposition associated with the quotation is the variable bound by the universal quantifier. This yields the following representation:

(46)   [: [x: soldier(x)]$\langle\forall x\rangle$[e Q: E_e(x,Q,**mommy**), z: Q(x,z),

$$say_e(x,[e': longTo_{e'}(z)])]]$$

In words: for every soldier x there is an occasion e on which x used the expression 'mommy' to express some property Q, stating on the same occasion that x longs to go home to x's Q. This captures the intended reading quite well. In particular, this example demonstrates the advantage of keeping together mentioned material with whatever it is used to express.

Our last case concerns the interaction between quotation and focus:

(47)   When Peter is in Santa Cruz, he orders '[eɪ]pricots' at the local market.

The problem for 2D theories, it will be recalled, is that by relegating use and mention to separate levels, it becomes difficult to explain how focus on '[eɪ]pricots' acts to restrict the domain of the quantification in an appropriate way. If this is the source of the problem, it shouldn't arise in 1D. Here is the preliminary DRS for (47):

(48) [u: Peter(u),
       [e: $inSC_e$(u)]$\langle\forall e\rangle$[<u>x</u> <u>e'</u> Q: <u>$E_{e'}$(x,Q,**[eɪ]pricots**)</u>, $order_e$(u,Q), $atLM_e$(u)]]

In order to keep things manageable, we will first deal with the quoted material before we address the effects of focusing. The overall structure of (48) is based on the assumption that the when-clause is interpreted as a universal quantifier ranging over events (cf. the discussion of examples (25) and (26) in the last section). The interpretation of the presuppositions associated with the quotation is as in earlier examples: the source presuppositions are linked to Peter and the order event, respectively, and Q is accommodated locally:

(49)   [u: Peter(u),
       [e: $inSC_e$(u)]$\langle\forall e\rangle$[Q: E_e(u,Q,**[eɪ]pricots**), $order_e$(u,Q), $atLM_e$(u)]]

This says that whenever Peter is in Santa Cruz, he goes to the local market and orders what he calls '[eɪ]pricots'. This is similar to, though not quite the same as, the reading predicted by Potts, which we argued is not good enough, because the domain of the universal quantifier should be constrained by the

focus/background division in the quantifier's nuclear scope. However, we still have to take into account the BPR, which contributes the presupposition shown in (50):

(50) [u: Peter(u),
    [e: $inSC_e(u)$]$\langle\forall e\rangle$[Q: $E_e(u,Q,$**[eɪ]pricots**$)$, $order_e(u,Q)$, $atLM_e(u)$,
                                Q': <u>$order_e(u,Q')$</u>, <u>$atLM_e(u)$</u>]]

If the focus in (47) is on '[eɪ]pricots', the BPR introduces the presupposition that Peter orders something at the local market. This presupposition cannot be bound, nor can it be accommodated globally, because the resulting DRS would be defective, and therefore it is accommodated in the domain of the quantifier, yielding (51a), which is equivalent to (51b):

(51) a. [u: Peter(u),
            [e: $inSC_e(u)$, Q': $order_e(u,Q')$, $atLM_e(u)$]$\langle\forall e\rangle$
                        [Q: $E_e(u,Q,$**[eɪ]pricots**$)$, $order_e(u,Q)$, $atLM_e(u)$]]
     b. [u: Peter(u),
            [e: $inSC_e(u)$, Q': $order_e(u,Q')$, $atLM_e(u)$]$\langle\forall e\rangle$
                        [Q: $E_e(u,Q,$**[eɪ]pricots**$)$, $order_e(u,Q)$]]

On this reading, (47) says that whenever Peter orders something at the local market in Santa Cruz, he orders what he calls '[eɪ]pricots'. This may be better than the reading predicted by Potts, but still falls short of what seems to be the predominant reading of (47), on which the quantifier is restricted to occasions on which Peter orders *apricots* at the local market in Santa Cruz.

What this problem indicates, we would like to suggest, is that the BPR is too weak as it stands. The idea behind the BPR, we said, is that there is a general presumption to the effect that one of the alternatives evoked by focusing should apply. The BPR doesn't quite capture this idea, however. In particular, this intuitive motivation implies that whatever is true in all alternatives should be part of the presupposition licensed by the BPR. To see how this observation bears on the interpretation of (47), let us revert to the original examples:

(52) a. When in Santa Cruz, Peter orders '[eɪ]pricots' at the local market.
     b. When in Amherst, Peter orders '[æ]pricots' at the local market.

As presented by Potts, the relevant alternatives are just two: what Peter calls '[eɪ]pricots' and what he calls '[æ]pricots'. If the presupposition induced by the BPR is restricted accordingly, the reading predicted for (47) is the following:

'Whenever Peter orders what he calls '[eɪ]pricots' or '[æ]pricots' at the local market in Santa Cruz, he orders what he calls '[eɪ]pricots''. This, we submit, *is* good enough: it is a possible way of reading (47). However, thus construed the sentence still doesn't say anything about apricots. But it will be obvious how apricots may get into the picture: if the context warrants the assumption that Peter is ordering apricots regardless of whether he calls them '[eɪ]pricots' or '[æ]pricots', then this will be part of the presupposition induced, and the domain of the quantifier will be restricted to apricot-ordering events. But this assumption, though eminently plausible, isn't mandatory, as the following variation on (47) shows:

(53)   When Peter is in Santa Cruz, he always orders '[eɪ]pricots' at the local market—which is strange, because what he means is 'peaches'.

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Notes

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[1] There are of course more ways of using quotation marks, and as Saka (2004) observes, these uses are probably related: quotation marks seem to be polysemous rather than just ambiguous. But it still remains to be sorted out how exactly the various 'senses' of quotation are related to one another.

[2] This example should not be taken to suggest that the 'what x calls   α' paraphrase is always available, for this is also dependent on purely grammatical factors. Still, the fact that such paraphrases are possible on at least some occasions is an argument in favour of our analysis.

[3] See Geurts (1998) for further discussion of this problem, and a solution that hinges on the context dependence of denied content.

[4] The analyses sketched here and in the following are not intended to be complete. For example, in (14) and (15) we ignore the fact that names are presuppositional expressions,too. In general, we will confine our attention to such presuppositions as are relevant to our concerns in this paper.

[5] This is not to say that pure quotation is context free. For example, (31) is true on the understanding that the subject term refers to the English word 'monosyllabic', and it depends on the context whether this is so. (There might be a language in which, quite accidentally, the orthographic sign 'monosyllabic' referred to a monosyllabic word.) However, as we will presently see, the context dependence of mixed quotation goes much further than this.

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[6]This is the aspect Potts (2004: 20) has in mind when he observes that 'subclausal quotation is essentially anaphoric'. This is our view, too, but as we will presently see quotation is anaphoric (or, in our terms, presuppositional) in other ways, as well.

[7]In our opinion, the sentence does allow for this interpretation, though it may be dispreferred. This recessive reading is accounted for in our theory by way of local accommodation.

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