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Quotation and Reach's Puzzle

Reach's Puzzle was the basis of *Analysis* Competition no. 10, 1956, posed by Anscombe: "It is impossible to be told anyone's name. For if I am told 'That man's name is "Smith",' his name is mentioned, not used, and I hear the name of his name but not his name." The puzzle shows that quotation cannot work by forming names of expressions. Thus all quotation-name (or proper name) and autonymous-name theories are mistaken. So too is Davidson's theory, according to which the quotation-marks name the token within them. Quotation works simply by displaying expressions in apposition with the rest of the proposition. Hence quotation is purely paratactical.

1. Reach's puzzle

"It is impossible to be told anyone's name. For if I am told 'That man's name is "Smith",' his name is mentioned, not used, and I hear the name of his name but not his name."¹

Thus Elizabeth Anscombe posed Reach's puzzle in *Analysis* competition no. 10 in 1956. She was drawing on a paper by Karel Reach in the *Journal of Symbolic Logic* for 1938.² The puzzle is this: the syntax of such expressions as

That man's name is x
He is called x
 x is a name of Smith

¹ G.E.M. Anscombe (1956-7), 'Report on Analysis Problem, no. 10', *Analysis* 17: 49-52, p. 49.

² K. Reach (1938): 'The name relation and the logical antinomies', *Journal of Symbolic Logic* 3: 97-111.

demands that what replaces 'x' be a name, a subject expression. But if, on the one hand, it is Smith's name which is substituted for 'x', falsehood results, for Smith is not his (own) name; while if, on the other, a name of his name replaces 'x', then one must already know what that name names, in order to understand the claim. But what the name names is Smith's name, so one must already know Smith's name in order to understand the answer.

We need to start by separating out the rhetorical part of Anscombe's presentation which dramatizes the problem while at the same time complicating it. She concentrates on the use of 'That man's name is "Smith"' to tell someone his name. That is a different use of language from what might be called its standard function. Consider

There's a wart-hog.

It can be used to count wart-hogs, or to draw someone's attention to the presence of one. Call this its standard use, between a speaker and audience who both know what a wart-hog is, in the sense of understanding the name 'wart-hog', recognizing wart-hogs when confronted with them in daylight, and so on. A different use is to explain to someone the meaning of the word 'wart-hog'. I have little idea what a wart-hog is; having my attention drawn to an animal and being told it's a wart-hog will improve my understanding of the word, and perhaps enable me to recognize a wart-hog in future when confronted with one in daylight.

Similarly, the sentence

There's Smith

can be used in a standard way to tell me that Smith is nearby. But it can also be used to teach me his name. The speaker has used an expression I don't understand, say (at least, not in its usage to refer to the man present), and, in assuming he is truthful and properly informed, I attribute a meaning to 'Smith' which will make what he said true. I learn his name, and can then use it to refer to him on future occasions.

This shows how language-learning is possible. It is not this which Reach's puzzle attacks. Reach's puzzle works at a different level, the level of the mentioning of names, not their use. We commonly mark this usage by quotation-marks.

The speaker, perhaps to show that he realises I don't know Smith's name, and to tell me what it is, says

He's called 'Smith'.

Reach's puzzle is whether, or rather how, this is possible. For Smith is not called Smith — he is not his own name. Suppose we introduce a new name for Smith's name, say, 'Aiza' — so 'Aiza' is a name of 'Smith', not of Smith — and 'Ga' as a name for 'Aiza'. Then Smith is called Aiza, and the sentence 'Smith is called Aiza' contains two names, viz Aiza and Ga, in that order. Our speaker, recognizing that I don't know Smith's name, tries to tell me what it is, and says

He's called Aiza.

I can't understand this sentence unless I understand its components, one of which is Ga (i.e. 'Aiza').

Reach's puzzle should now leap out. It is a paradox. Clearly, we can learn the meanings of words, including names. The puzzle is what seems to be an inability to talk about them. Smith's name is Aiza. If I don't know Smith's name, I cannot understand Aiza, for if I understood it, I would know that it named Smith. But to say that Aiza names Smith, or to be told this (explicitly), I need to understand Ga and Aiza; yet the presupposition is that I don't understand Aiza, and so cannot understand any sentence containing it. If I need to be told, I cannot be, for I will not understand the answer.

Readers of Lewis Carroll may be reminded here of 'Haddock's Eyes'. The White Knight sang Alice a song. The song was called 'Ways and Means', the name of the song was 'The Aged, Aged Man', and the name of the song was called 'Haddock's Eyes'.³ There is a little sophistry in Carroll's account, since he distinguishes between the name of the song and what the song is called. This does happen, of course, though it's unusual. Although the Leader of the British Liberal Democrats is called 'Paddy', his name is actually 'Jeremy John Durham Ash-down'. What Carroll realises, however, which is important for our considerations, is that what the name of the song is called is different from what the song is called

³ L. Carroll (1965): *Through the Looking-Glass*, in *The Annotated Alice*, ed. M. Gardner, Harmondsworth: Penguin, p. 306.

(and from what the song is). Eventually, therefore, in desperation, Alice asks, "Well, what *is* the song, then?" ... [for she] was by this time completely bewildered" (*loc. cit.*).

To repeat our puzzle. I ask what Smith's name is. I am told that his name is Aiza. I remain uninformed. Instead, we introduce a convention of quotation. This time, I am told that his name is 'Smith'. Now I know what his name is. But what has happened? How does "Smith" differ from 'Aiza' so significantly as to become informative in this way? Is "Smith" not a name of 'Smith'?

2. Quotation-names

The standard account says that quotation-names are names of the names which they enclose.⁴ We have a convention, it is said, whereby if we enclose any expression in quotation-marks, we form a new name, a name of the expression so enclosed.

Quotation is not a function. That is, quotation is not a device which takes one object as argument and produces another as value. Consider, e.g., the factorial function. Applied to a natural number, n , as argument, the factorial function yields $n!$, factorial n , as value. For example, $3! = 6$; $5! = 120$; $(n + 1)! = (n + 1)(n!)$. ($0! = 1$.) The function operates on the number n , multiplying n by its predecessors to yield another number, $n!$, as value.

Quotation is not like this. The argument of 'Smith' (in general, of ' x ') is not Smith (or x). For Smith probably has many names. So there would be no determinate answer what the value of 'Smith' was, were Smith its argument. Its input is the expression, not the man. But the expression is 'Smith'. So if quotation were a function on expressions, it would be the identity function. But that is absurd — or rather, it would reduce the whole procedure to absurdity. That's Reach's puzzle: quotation seems to take an expression as input and yield the very same expression as output. So how can any useful information have been conveyed?

⁴ The account is commonly called the "proper name theory". See, e.g., D. Davidson (1984): 'Quotation', reprinted in his *Truth and Interpretation*, Oxford: Clarendon Press, 79-92, p. 82.

We have a dilemma. If quotation were a function, its argument would be either an object or its name. If it were the object, it would not be functional; if it were its name, it would be redundant. So quotation cannot be a function.

If quotation is not a function, what is it? Does quotation form a name? Is "Smith" a name of the expression 'Smith'? Reach's puzzle shows us that it is a mistake to suppose that quotation forms a name. That is the identity horn of the dilemma. For if "Smith" were a name, we would need an account not only of what it names ('Smith') but also how it named. How do names work? A popular account, stemming from Frege, is that with each name there is associated a sense, that the sense of a name determines what it refers to, and that understanding a name consists in grasping its sense. To these general features of the theory of name-meaning must be added the special feature of quotation-names, that one can decode them: that it is transparent from the form of "Smith" that it denotes 'Smith'. In other words, "Smith" denotes "Smith" *a priori*. (This is how it differs from 'Ga denotes Aiza'.)

It is tempting to descend a level here, and focus on "Smith" denotes Smith'. This proposition is true, but it depends on a particular feature of the name 'Smith', not shared with other quotation-names, e.g., 'runs' or 'if' or 'is'. Although "if" denotes "if" is true, we cannot say "if" denotes if, for that is ill-formed (or at least, incomplete). What follows 'denotes' must be a noun-phrase, but we can quote other expressions besides nouns and noun-phrases, e.g., verbs, prepositions, conjunctions, expressions from other languages and nonsense-words.

So our new question is: what is the sense of "Smith", a sense which is such that anyone who grasps it (and that of 'Smith') knows that it denotes Smith? The sense is that it denotes whatever expression lies within the quotation-marks. But that sense is, we have seen, not a function, unless it reduces to identity. Yet Fregean senses are required to be functional: they determine, unequivocally, the references of the expressions whose sense they are. In general, to be sure, they need supplementation by further arguments. For example, the sense of 'the Prime Minister' only determines its reference when the relevant date is known — is it the present Prime Minister, or the PM in 1789, or which? This will be supplied by the context. Once supplied, however, there should be no further doubt. In the present case, there is no additional context. We know *a priori* that "Smith" denotes 'Smith' — there is no need to check the date, utterer or whatever.

Thus if "Smith" has sense, and acts functionally to denote 'Smith', its input must be 'Smith' itself, on pain of failing the test of functionality. It denotes whatever it denotes. But that is vacuous — it conveys no information. We return to Reach's puzzle. Quotation does not form a name, for it is impossible to give a Fregean account of the sense of quotation-names.

The quotation-name theory, therefore, fails as an account of the semantics of quotation. Quotation does not form a further name, a new name to denote the old one, for there would be no way back (no sense for the new name) to return us to the original.

3. The Autonymous-name theory

Reach's own answer to his puzzle was to claim that names equivocate. All names have a secondary function whereby they denote themselves. They act as autonoms.

The effect of the quotation-marks is not, on this account, to form a new name. Rather, they act to remind us that the name, or expression, is behaving differently from usual. In particular, expressions which in their normal use are not nouns or noun-phrases, act as noun-phrases in their autonymous use.

Reach, and many other logicians, go further. They omit the quotation-marks, and allow the sign to stand there ambiguously. Thus we find

$(\phi \rightarrow \psi) \dots$ is called a material implication⁵

or

; has the name Semicolon.⁶

There is a striking irony in this. Logicians more than anyone will reprimand others for omitting quotation-marks. Woe betide the hapless student who writes, e.g., "Russell thought that Scott was a disguised description." First, he will be

⁵ W. Hodges (1982): 'Elementary predicate logic', in *Handbook of Philosophical Logic*, ed. D. Gabbay and F. Guentner, Dordrecht: Reidel, vol. 1, p. 7.

⁶ Reach, p. 100.

rigorously trained to insert quotation-marks; subsequently, he will be encouraged to omit them. For that is what the logician intends when he says⁷ (or more commonly, practices without saying) that he will allow certain signs (e.g., logical constants) to stand for themselves, or be used autonymously.

It is far from clear, however, that this manoeuvre has any effect on Reach's puzzle. In place of 'That man's name is "Smith"', I am now told

That man's name is Smith.

As before, 'Smith' cannot here be being used as a name of Smith, for he is not his own name. It's irrelevant that it might have a strange use as name for some other name, say 'Jones' (or autonymously, Jones). Let's concede that we recognize its autonymous use: it stands for itself. But we have not escaped the circularity which Reach's puzzle brings out. Quotation, we saw, construed as a function, collapses into identity. So to be told the value (assuming one is ignorant of it) one must know the argument — but if they are identical, one has been told nothing. The same is true of autonymy. To be told that the name designates itself is uninformative unless one recognizes what name it is. Thus one presupposes that one knows the answer even in asking the question, 'Whose name is Smith?'

One thing is right about the autonymous-name theory: the presence of quotation-marks is not essential to quotation. At best, their teachers' insistence on displaying such marks has a useful pedagogic effect on students. It forces them to consider the different uses of words, differences of which we are usually implicitly aware, but find hard to recognize — and describe — explicitly. What the quotation-name theory overlooks — even denies — is that it is the very same word which is used or mentioned. Quotation-marks can alert us to the fact that a difference in use is in play. Many other features — avoidance of being construed as saying something stupid, for example — can do that, as they do with other cases of ambiguity and uncertainty. So quotation-marks are inessential, at least when those other features are there to disambiguate. It is on those features that the actual autonymous use of expressions — e.g., of the logical constants — depends.

What is wrong about the autonymous-name theory is its claim that in this secondary use, the expressions are still functioning as names. That, we have seen,

⁷ E.g., A. Church (1956): *Introduction to Mathematical Logic*, Princeton: Princeton U.P., p. 63.

they cannot be, for no theory of naming can explain their semantic function. They refer to whatever they refer to. But one cannot say what they refer to without presupposing the correctness of the theory. Semantics, it seems, is impossible. But as Reach says, "if it is not the business of language to explain the meaning of its symbols then the introduction of the [concept of naming] would be useless" (p. 99). If quotation-expressions were names then we should be able to say what they name. But we cannot.

4. The Demonstrative theory

The main fault with the quotation-name and autonymous-name theories is their concentration on the naming function of quotation and their disregard of its picturing function. This is encapsulated in the polarity of the use/mention distinction: is the word being used or mentioned? Often both, and indeed mentioning is a particular kind of use. When we quote an expression, we display it for our audience. In displaying it, we may also use it. This fact, and the need to give a systematic theory of quotation as a device led Davidson to propose his "demonstrative" theory.⁸ In a quotation, two linguistic acts are performed: an expression is displayed — a particular token; and thereby reference is made to that type of which a token is displayed. It is a paratactic analysis, similar to his account of indirect quotation,⁹ so that, e.g., 'That man's name is "Smith"' is analysed as

That man's name is this: Smith.

'This' refers to the expression following it, 'Smith'. Davidson suggests that in quotation itself the function of the quotation-marks is to refer to the token within them; that token itself has no function other than to display the type of which it is a token.

Davidson's presentation of his account is unclear in two ways, perhaps intentionally. For the unclarity seems to fit the facts. First, he says that the quotation-marks refer to "the token" (p. 91), although the point of the theory is that

⁸ Davidson, 'Quotation', pp. 89-90. The account is also given in W. Quine (1947): *Mathematical Logic*, Cambridge, Mass.: Harvard U.P., p. 26.

⁹ D. Davidson, 'On saying that', reprinted in *Truth and Interpretation*, 93-108.

what is referred to is the type — "they help refer to a shape by pointing out something that has it." So it seems he wants to say that a type is referred to by virtue of the quotation marks' referring to a token. Perhaps it is right to suggest that we can refer to a type by referring to one of its tokens. After all, the type is nothing more than its tokens.

Secondly, although he claims that the quoted material is not semantically part of the wider sentence (pp. 90, 91), he sensibly relaxes this feature. For one of the unattractive features of the quotation-name account is that it overlooks the not uncommon case of (what Cappelen and Lepore call)¹⁰ "mixed quotation". These are cases where an expression is both used and quoted. There is an example at the end of the last section: "As Reach says, 'if it is not ...'." Here Reach's words are used — I endorsed what he said — but also quoted — I acknowledged that the words were his, not mine. I shared the words, and the sentiment, with him.

On the quotation-name and autonymous name theories, what happens here would be at best a pun — a clever construction whereby the words were used with two different meanings in the same moment. But the phenomenon is both too common (Cappelen and Lepore in fact claim it is the commonest use of quotation — *loc. cit.*) and too systematic for such an answer to be plausible. Those other accounts dare not admit such a use, on pain, they fear, of admitting substitutivity of co-referential names in quotation contexts. If the words really are used in their ordinary sense, why does substitution lead to absurdities? Thus they make the quotation-context opaque to what it contains. Davidson, however, can admit the mixed use. For the expression is, on his view, both used and mentioned — the expression within the quotation marks is used (and displayed) in its ordinary meaning (if it has one), while the quotation-marks refer to that display. It is that second claim, the token-reference of the quotation-marks, which prevents the substitution, since such a replacement would affect the reference of those marks. That, he claims, is the reason for the "opacity" of quotation.

The role of display in Davidson's account is clearly right — that is the purpose of quotation. But his retaining the element of naming (by the quotation-marks themselves of the token contained) is a mistake, for Reach's puzzle arises yet again. It shows that naming is the wrong way to think of quotation. For we now ask: what do quotation-marks name, for example, in 'This man's name is

¹⁰ H. Cappelen and E. Lepore (1997): 'Varieties of quotation', *Mind* 106: 429-50, p. 429.

"Smith"? They name 'Smith'. Yet again, the question presupposes we do not know what "'Smith'" names and the answer presupposes we do. We, therefore, need a way of *showing* what Smith's name is without naming it — without *saying* what it is, as Wittgenstein put it.¹¹ His name must be displayed and not referred to, not displayed and referred to.

5. The pure paratactic theory

Reach himself showed the solution, not, however, in his own autonymous-name theory, but in his careful exposition of his puzzle. He presented what he emphasized should be called a museum, not a table¹² — though he proceeded to call it a "name table":

;	Semicolon	Secol
Semicolon	Secol	Sco

Here *objects* in the top row are correlated with their names in the bottom row. Describing the left-most column, we might say that Semicolon (the object in the top row) has the name Secol (in the bottom row). But that is unhelpful. The "museum" succeeds by displaying the objects and their names, so that ';' (displaying the object in the top row) has the name 'Semicolon' (displaying its name in the bottom row). The function of quotation is to display, not to name, expressions. Naming them obscures them; displaying them, as in the museum, and so as in quotation, makes all clear.

R.W. Holmes, discussing Carroll's conundrum over the White Knight's song, claims that he slips up in the final step, when he says, "The song really *is* 'A-sitting On A Gate'" (Carroll, p. 306). "To be consistent, the White Knight, when he had said that the song *is* ..., could only have burst into song itself."¹³

¹¹ L. Wittgenstein, *Tractatus Logico-Philosophicus* (1961): tr. D.F. Pears and B.F. McGuinness, London: Routledge and Kegan Paul, § 4.121; cf. G.E.M. Anscombe (1959): *An Introduction to Wittgenstein's Tractatus*, London: Hutchison, pp. 83-6.

¹² Reach, p. 99.

¹³ R.W. Holmes (1959): 'The philosopher's Alice in Wonderland', *Antioch Review*, Summer issue, 133-49, p. 139.

This is not quite true. Having earlier said that "the name really *is* 'The Aged, Aged Man'" (*loc. cit.*), Carroll must accept that the song *is* The Aged, Aged Man. (Just as, if a man's name is 'Smith', then he *is* Smith.) Similarly, the sign in the top-left cell of the "museum" above is Semicolon, ';'. When we say what the song is, or what the expression is, we can name it (The Aged, Aged Man, or Semicolon) or we can display it. To display the sign, we quote it, thus: ';'. To display the song, the White Knight sings it:

"I'll tell thee everything I can
..."

Carroll rightly inserts quotation-marks before and after the presentation of the song (*op. cit.*, pp. 307-313). That is their function, to introduce and terminate the display of a linguistic object — name, sign, song or whatever.

That quotation functions in this way by displaying expressions — by "producing" them — and not by naming (or "mentioning") was claimed by Whiteley, Christensen and Searle.¹⁴ Although he later mentions Reach's puzzle (as rehearsed by Anscombe), Christensen does not use it as a general argument against construing mention as naming. Rather, he accuses Anscombe of confusion. For he thinks that "hearing a name of [Smith's] name" is no different in kind from "hearing a name of [his] nationality" (p. 366). But this is completely to miss an argument in favour of his own theory. There is a function from men to their nationalities; but there is not, as we saw, one from men to their names. Semantics is impossible — unless we stand outside the semantic relation and display the objects it connects.

When we display such objects, we can use quotation-marks to show such a use; or we can use such devices as displaying the expression on a separate line (often called "display" mode). Searle notes that we can display other items than language. "For example, an ornithologist might say 'The sound made by a California Jay is ...'. And what completes the sentence is a sound, not a proper name of a sound" (p. 76). These displays sit paratactically in apposition to our introduction of them.

¹⁴ C.H. Whiteley (1957): 'Names of words', *Analysis* 17: 119-20; N.E. Christensen (1967): 'The alleged distinction between use and mention', *Philosophical Review* 76: 358-67; J. Searle (1969): *Speech Acts*, Cambridge: Cambridge U.P., pp. 73-6.

It is a mistake to deny that, when so displayed, the expression has no semantic function. The fact that it does retain its semantic function is highlighted by mixed quotation (to continue Cappelen and Lepore's terminology). It is precisely because the words keep their sense that we enclose them in quotation-marks (or whatever device we use — tone of voice, italics, indented display or whatever), to demonstrate our own detachment from that semantic function. Nonsense-words are no exception to this. They lack a semantic function, and so in quoting them we detach ourselves from that senselessness — their lack of sense does not infect our utterance and rob it of sense. When we say, e.g., “‘Ba’ is a nonce-word”, we display the nonce-word ‘Ba’, and describe it in a way that is unaffected by its lack of normal semantic function. But when we say, e.g., “‘Mair’ was the name of an early Rector of St Andrews University”, ‘Mair’ retains its semantic function of referring to a certain sixteenth century philosopher — and has that semantic function, not that it would have in, say, “‘Mair’ is the Scots form of ‘major’.”

The fear with making this concession is that the theory will lose its ability to explain the apparent opacity of quotation — its resistance to substitution. But that is a mistake. If we display something, in order further to describe it, our act may be frustrated if, by mischance, or by someone else's design, what is displayed is altered in any way. The Law of Substitutivity of Identicals applies to names, replacing one name by another. This assumes that the sole semantic function in play is naming. It preserves that particular function. It may well not preserve other functions which may be relevant, e.g., alliteration, display or euphony. In quotation we present an expression, an expression in its appropriate use, for comment. That presentational function is important — it is the focus of quotation. Replacement can frustrate it. So replacement is inappropriate.

Reach's puzzle is a powerful conundrum. It shows that many commonly accepted theories of quotation are unacceptable. Quotation does not form a name of the expression quoted, nor does it introduce a novel autonomous naming use of them. Were that so, we could not describe its effects, which we clearly can. What in fact happens in quotation is that an expression is displayed, coordinate with a description of it. That is why quotation is pure parataxis. The two expressions are not conjoined, nor does one refer to the other. They function side by side as separate and parallel semantic units. “‘Smith’” is not a name of ‘Smith’, but a display of it. That is how we can be told someone's name — by having it displayed for us.