Grammaticalizing mixed quotations

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Pure/direct quotation (mention)

Quine says ‘quotation has a certain anomalous feature’.

Indirect quotation (use)

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Mixed quotation (Davidson 1979)

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Mixed quotation by presupposition (Geurts & Maier 2003)

Bush is proud of his ‘eckullectic’ reading list.

‘eckullectic’ $\approx \underline{x}\ \underline{e}\ \underline{Q}\ \underline{E_e(x, Q, \text{‘eckullectic’})}\ Q$

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$$\approx \underline{e\ Q\ E_e(\text{Bush}, Q, \text{‘eckullectic’})}$$

Bush is proud of his Q reading list

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Quine says quotation has a certain anomalous feature.

Mixed quotation (Davidson 1979)

Quine says quotation ‘has a certain anomalous feature’.

$\approx \exists e.\ \underline{Q}\ \underline{E_e(\text{Quine}, Q, \text{‘has a certain anomalous feature’})}$

Quine says$_e$ quotation Q

‘has a certain anomalous feature’

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The syntax of mixed quotation

Hard vs soft presupposition failure?

1. Bush is proud of his ‘eckullectic’ reading list.

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2. Bush is proud of his ‘misunderestimate’ reading list.
3. Bush says his reading list ‘eckullectic’.

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4. Bush met the king of France.

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This talk

What	To enshrine presupposition failure in mixed quotation as ungrammaticality
How	A modal interface between syntax and semantics
On the way	Semantic interjection Quoted languages are like possible worlds

Starting point

$$A ::= A/B \;\; B$$
$$A ::= B \;\; B\backslash A$$

$$\mathrm{DP} ::= \text{Quine}$$
$$\mathrm{DP} ::= \text{Bush}$$
$$\mathrm{DP} ::= \text{quotation}$$
$$(\mathrm{DP}\backslash\mathrm{S})/\mathrm{S} ::= \text{says}$$
$$\mathrm{TV} ::= \text{is proud of} \qquad (\mathrm{TV} = (\mathrm{DP}\backslash\mathrm{S})/\mathrm{DP})$$
$$\mathrm{N}/\mathrm{N} ::= \text{eclectic}$$
$$\mathrm{N} ::= \text{reading list}$$

Starting point

Abusing notation: $[\![A]\!]$

$$A ::= A/B \;\; B \qquad [\![A]\!](w) = [\![A/B]\!](w)\,([\![B]\!])$$
$$A ::= B \;\; B\backslash A \qquad [\![A]\!](w) = [\![B\backslash A]\!](w)\,([\![B]\!])$$

$$\mathrm{DP} ::= \text{Quine} \qquad \vdots$$
$$\mathrm{DP} ::= \text{Bush}$$
$$\mathrm{DP} ::= \text{quotation}$$
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$$\mathrm{N}/\mathrm{N} ::= \text{eclectic}$$
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The type of $[\![A]\!]$ is $\tau(A)$, defined to be $\langle s, \sigma(A)\rangle$, where

$$\sigma(A/B) = \sigma(B\backslash A) = \langle \tau(B), \sigma(A)\rangle, \quad \sigma(\mathrm{DP}) = e, \quad \sigma(\mathrm{S}) = t, \quad \ldots.$$

Presupposing mixed quotes

$$A ::= \text{`}\ldots\text{'} \qquad [\![A]\!] = \underline{x}\ \underline{e}\ \underline{Q}\ \underline{E_e(x, A, Q, \text{`}\ldots\text{'})}\ Q$$

The type of Q is $\tau(A)$.

$$\exists e.\ \exists Q.\ E_e(\text{Bush}, \text{N/N}, Q, \text{`eckullectic'})$$
$$\exists e.\ \exists Q.\ E_e(\text{Bush}, \text{TV}\ \ , Q, \text{`misunderestimate'})$$
$$\neg\exists e.\ \exists Q.\ E_e(\text{Bush}, \text{TV}\ \ , Q, \text{`eckullectic'})$$
$$\neg\exists e.\ \exists Q.\ E_e(\text{Bush}, \text{N/N}, Q, \text{`misunderestimate'})$$

Quoted ungrammaticality is presupposition failure.

Composing mixed quotes

Assumption: the quoted language is compositional (enough).
Payoff: *semantic interjection*.

Bush says ‘I have an [eclectic] reading list’.

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Add a syntactic category A' to the quoting language
for each syntactic category A of the quoted language.

$$A ::= \text{`}A'\text{'}$$

$$A' ::= \ldots$$
$$A' ::= (A/B)' \;\; B'$$
$$A' ::= B' \;\; (B\backslash A)'$$
$$\vdots$$
$$A' ::= [A]$$

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$A ::= \text{`}A'\text{'}$ $\qquad [\![A]\!] = [\![A']\!](\underline{x}\ \underline{e}\ I_e(x))$

where $I_e(x)(A ::= q) = \underline{Q}\ \underline{E_e(x, A, Q, q)}\ Q$

$A' ::= \ldots$ $\qquad [\![A']\!](i) = i(A ::= \ldots)$ —may be undefined

$A' ::= (A/B)'\ \ B'$

$A' ::= B'\ \ (B\backslash A)'$

$\vdots$

$A' ::= [A]$

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$$A' ::= \ldots \qquad [\![A']\!](i) = i(A ::= \ldots) \qquad \text{—may be undefined}$$

$$A' ::= (A/B)'\ \ B' \qquad [\![A']\!](i) = i(A ::= A/B\ B)\ ([\![(A/B)']\!](i), [\![B']\!](i))$$

$$A' ::= B'\ \ (B\backslash A)' \qquad [\![A']\!](i) = i(A ::= B\ B\backslash A)\ ([\![B']\!](i), [\![(B\backslash A)']\!](i))$$

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$$\vdots \qquad \vdots$$

$$A' ::= [A] \qquad [\![A']\!](i) = [\![A]\!] \qquad \text{—ignoring the interpreter } i$$

Enshrining quoted grammaticality

Syntax: Environment classifiers (Taha & Nielsen 2003)

Replace A' by $A^{\alpha}, A^{\beta}, \ldots$:

$$A ::= \text{`}A'\text{'}$$

$$A' ::= [A]$$

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Syntax: Environment classifiers (Taha & Nielsen 2003)

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Replace the catch-all rule by individual rules:

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Semantics 1: Code switching (Recanati; Stainton?)

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Semantics 1: Code switching (Recanati; Stainton?)

Fix a finite number of environment classifiers.
Use one classifier to quote each speech event e (and speaker x).
Then, just get rid of the interpreter.

Enshrining quoted grammaticality

Syntax: Environment classifiers (Taha & Nielsen 2003)

Replace A' by $A^{\alpha}, A^{\beta}, \ldots$:

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Replace the catch-all rule by individual rules:

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Semantics 2: Closures (Kameyama, Kiselyov & Shan)

Every president is proud of their ‘eckullectic’ reading list.

Enshrining quoted grammaticality

Syntax: Environment classifiers (Taha & Nielsen 2003)

Replace A' by $A^\alpha, A^\beta, \ldots$:

$$A ::= \text{`}A^\beta\text{'} \qquad [\![A]\!] = [\![A^\beta]\!]\overbrace{(\text{eclectic}, \text{misestimate})}^{\text{could be undefined, but early}}$$

$$A^\beta ::= [A] \qquad [\![A^\beta]\!](i) = [\![A]\!]$$

Replace the catch-all rule by individual rules:

$$(\mathrm{N}/\mathrm{N})^\beta ::= \text{eckullectic} \qquad [\![(\mathrm{N}/\mathrm{N})^\beta]\!](e, m) = e$$

$$\mathrm{TV}^\beta ::= \text{misunderestimate} \qquad [\![\mathrm{TV}^\beta]\!](e, m) = m$$

Semantics 2: Closures (Kameyama, Kiselyov & Shan)

Fix a finite number of environment classifiers.

Some classifiers may be used to quote multiple speech events.

Then, pass a 'slim interpreter' like a world. $\tau(A^\beta) = \langle \beta, \tau(A) \rangle$

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Semantics 3: Extensible parsing? Dependent types?

A man walks in the park.
He uses the word ‘eckullectic’ as an adjective.
He is proud of his ‘eckullectic’ reading list.

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