

The role of similarity in quotation marking

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1. This paper focusses on a common way of quotation marking in German making use of *so* 'so/as/like' and *wie* 'as/how/like' clauses. In (1) and (2) these clauses indicate that the matrix clause is a quote of an utterance made by (usually) their subject (i.e. Otto). Note that, in both cases, it is the matrix clause presenting the quoted material, unlike constructions with typographical quotation marks, as in (3).

- (1) Lotte kommt, so sagt (es) Otto, morgen nach Berlin.
- (2) Lotte kommt, wie Otto (es) sagt, morgen nach Berlin.
'Hans will come, as/like Otto says, to Berlin tomorrow.'
- (3) Otto sagt "Lotte kommt morgen nach Berlin."
'Otto says: Lotte will come to Berlin tomorrow.'

The primary questions raised by *so* and *wie* quotation marking are: (i) Why are these expressions particularly suited in quotation marking and, (ii) are *so* and *wie* quotation marking clauses equivalent in meaning? The answer to the first question will be that *so* and *wie* match perfectly in meaning with that of quotation constructions as described by the two state-of-the-art theories of quotation: the *demonstration* theory by Clark & Gerrig (1990) and the *demonstrative* theory by Davidson (1979). The reason is, in short, that *so* as well as *wie* express similarity, which is at the same time at the core of a demonstration in the sense of Clark & Gerrig and, even if less directly, of Davidson's demonstrative theory. The second question will be denied - *so* and *wie* quotation marking clauses not equivalent – raising the issue of what constitutes a genuine quotation.

2. The demonstration theory of quotation by Clark & Gerrig builds on the idea that there are three basic methods of communication: *indicating*, *describing* and *demonstrating*: You can indicate, i.e. point at a serve by McEnroe, you can describe his serve, and you can demonstrate it, i.e. depict it by performing an action that is, in some respects, similar to McEnroe's serve. Quotations are, following Clark & Gerrig, demonstrations of what a person did in saying something. When Otto said that Lotte will come to Berlin you can demonstrate his utterance with the help of the sentence *Lotte kommt nach Berlin*. You can also demonstrate (mimick) her emotional state, her accent, her voice, and even accompanying gestures. Demonstrations are non-serious actions – you don't assert that Lotte will come to Berlin – and there is no need for Otto having used exactly the demonstrated sentence. But, crucially, the demonstration has to be similar to the original utterance in selected respects.

The demonstrative theory of quotation by Davidson (1979) focusses on the role of quotation marks, which are said to point to their interior - they help to refer to the type of the original utterance by depicting a token of this type. This analysis has a number of problems (see Recanati 2001), but the basic idea is close to the demonstration theory: the token at display depicts the original utterance.

3. In cognitive science, similarity has long been recognized as fundamental in explaining cognitive skills like perception, classification and learning. Umbach & Gust (2014) developed an approach putting similarity to use in semantics as a relation of indistinguishability with respect to contextually given features. This relation is implemented using multi-dimensional attribute spaces spanned by relevant features of comparison, \mathcal{F} , and generalized measure functions mapping entities into such spaces (analogous to adjectival measure functions mapping entities to degree scales). Similarity is defined as indistinguishability with respect to relevant features: $\text{sim}(x, y, \mathcal{F}) := \mu(x) \approx_{\mathcal{F}} \mu(y)$.

Similarity shows up in various linguistic expressions. In German, the simplest and most prominent ones are the manner *wh*-word *wie* 'as/like/how', as in *wie Berta tanzte* ('how Berta danced'), and the demonstrative *so* 'so/as', as in *so tanzte Berta* ('Berta danced like this'). They both express similarity, but *so* includes an additional demonstrative component, in short: *so* = *wie dies* ('like this'). Making use of similarity, the manner of an event *e* can be reconstructed as a set of events *e'* which are similar to *e* with respect to relevant features, for example, $[[\text{wie Berta tanzte}]] = \{e' \mid \text{sim}(e', \text{berta-dancing}, \mathcal{F})\}$,

where each *e'* is one way of dancing similar to Berta. This set can be shown to correspond to a kind, or type, or manner (see Umbach et al. 2023).

The demonstrative *so* poses the problem that the speaker points to a token entity while referring to a kind (or type, or manner): When Adam points to a dancing event uttering *So tanzte Berta* ('Berta danced like this.') he refers to the way of dancing exemplified by the token event he is pointing at. The analysis in Umbach & Gust (2014) accounts for this issue by arguing that the relation between the target of the pointing gesture and the referent is not identity (as is in-built in the Kaplanian system), but instead similarity (or rather: indistinguishability with respect to relevant features), $[[so\ tanzen]]^{THIS} = \{e' \mid \text{sim}(e', \text{this-dancing}, \mathcal{F})\}$. Note that this analysis of the demonstrative *so* is close to Davidson's characterization of quotation marks: the type of the original utterance is indicated by pointing to a token.

4. The *so*- and *wie*-clauses in (1) and (2) both employ similarity expressions in order to mark the matrix as something Otto said. But they are not equivalent. Differences can be seen, e.g., with respect to negation, speaker commitment and questions. The example in (4) shows that *wie*-clauses can be within the scope of negation, whereas *so*-clauses cannot. The example in (5) shows that with a *wie*-clause the speaker is committed to the matrix proposition, while when using a *so*-clause commitment can be shifted. Similarly, in (6), commitment to the question speech act can be shifted by using a *so*-clause, whereas the *wie*-clause cannot access the speech act. There is, however, a caveat: Many verbs of speech have, following Bondarenko (2021), a *content-of-theme* reading (like *behaupten* 'claim') and also a *content-of-utterance* reading (like *äußern* 'express').¹ The contrasts in (4)-(6) seem to be related to the fact that *wie*-clauses are restricted to *content-of-theme* interpretations while *so*-clauses allow for a *content-of-utterance* reading of the verb.²

- (4) a. Kandidat A wird nicht die Wahl gewinnen, wie Otto sagt, ✓ sondern Kandidat B.
b. Kandidat A wird nicht die Wahl gewinnen, so sagt Otto, *sondern Kandidat B.
'Candidate A will not win the elections, as/like Otto says, but instead candidate B.'
- (5) a. Lotte kommt, wie Otto sagt, morgen nach Berlin, # aber ich glaube das nicht.
b. Lotte kommt, so sagt Otto, morgen nach Berlin, ✓ aber ich glaube das nicht.
'Lotte will, as/like Otto says, come to Berlin tomorrow, but I don't believe it.'
- (6) a. *Kommt Lotte, wie Otto fragt, morgen nach Berlin?
b. Kommt Lotte, so fragt Otto, morgen nach Berlin?
'Will Lotte, as/like Otto says, come to Berlin tomorrow?'

Pittner & Frey (2023) present an analysis of (what they call) reporting clauses introduced by *wie* and *so* as in (1) and (2). *Wie*-clauses are shown to be constituents of their matrix clause occupying positions of various types of sentence adverbials. *So*-clauses, on the other hand, are parentheticals. Employing Krifka's (2023) layered theory of assertive clauses, *wie*-clauses are (mostly) modifiers in TP (*tense phrase*, hosting the proposition to be asserted), while *so*-clauses are modifiers in JP (*judge phrase*, which includes epistemic and evidential modifiers). This difference in syntactic position reflects the contrasts in (4)-(6): Only *so*-clauses are suited to target the utterance level. Accordingly, it can be

¹ Bondarenko (2021) demonstrates the two readings with the help of English *explain*: The sentence *Lena explained that there's no bread* has a reading such that Lena explained the fact that there's no bread, e.g., by saying that Katya made sandwiches last night (content-of-theme). On the second reading, Lena said "there's no bread" as, e.g., an explanation for some other fact (content-of-utterance).

² A reviewer suggested to compare different attitudinal verbs, like *behaupten* vs. *ausdrücken* ('claim' vs. 'express') with respect to their combination with *so* and *wie* quotation marking. Both allow for *behaupten* (enforcing a content-of-theme interpretation) as well as *ausdrücken* which in the case of *so* yields a content-of-utterance interpretation. In the case of *wie*, part of the quoted sentence will in addition be highlighted by quotation marks (as in mixed quotation cases) giving the impression that the verb refers to this part while the *wie*-clause as before serves as a reportative (see the final remark on future issues).

5. In (7) and (8) the semantics of *wie* and *so* quotation clauses is sketched. We start from *wie* denoting similarity, (7b). The propositional anaphor *es* 'it' is resolved by the proposition expressed by the matrix clause, i.e. *Lotte kommt morgen nach Berlin*. The *wie*-clause is interpreted such that Otto's claim is included in a set of similar Otto-claims, all of which entail that Lotte will come to Berlin, (7c). Thus the *wie*-clause asserts that Otto claimed that Lotte will come to Berlin and that this claim is one in a set of similar ways of Otto claiming this proposition.⁴

- The interpretation of the *so*-clause is based on slifting (Koev 2021), turning the parenthetical into a secondary assertion, (8a). Utterances are represented by pairs of form and meaning, $u = \langle u_{\text{FORM}}, u_{\text{SEM}} \rangle$ (Potts 2007, simplified), plus the requirement that the denotation of the form component entails the meaning component (u_{FORM} denotes ϕ & ϕ entails u_{SEM}). The similarity demonstrative *so* targets either the form, $\text{THIS}_{\text{FORM}}$, or the meaning, THIS_{SEM} , of the quoted linguistic material, LKMB, (8b). The propositional anaphor *es* 'it' is resolved by the proposition that Lotte will come to Berlin (which coincides with THIS_{SEM}). Finally, the deictic element *THIS* is resolved by either the form or the meaning of LKMB, creating a set of utterances similar either in form or in meaning. This set includes Otto's original utterance u , (8c). Thus the *so*-clause asserts that Otto's utterance is in a set of utterances which are similar either in form or in meaning to the quoted sentence.

- This interpretation accounts for the restriction to the *content-of-theme* interpretation for *wie*-clauses, and it attributes the *content-of-utterance* interpretation to the *so*-clause since the demonstrative targets linguistic material. The similarity may then go either way: Ottos original utterance may have been similar in form to the sentence *Lotte kommt morgen nach Berlin* while its meaning is entailed, or it may have been similar in meaning to the sentence.

³ Another indication in this direction is the behavior of indexical expressions like *tomorrow*, which may be shifted to the context of the original utterance in the case of *so* but not in the case of *wie*.

⁴ As for the internal structure of the quotation marking clauses, *wie* as well as *so* are assumed to be base-generated in the left periphery. Thus modification by the similarity set combines with a token ($\langle p/\langle u \rangle$) instead of a type, and is appositive/non-restrictive, resulting in set inclusion, $p \in \{p' \mid \text{sim}(p', p, \mathcal{F})\}$ (for details see Umbach et al. 2023). We assume in addition that p is minimal in the sense that any other element in the similarity set is "richer" in information, i.e. entails p .

(1979) are based on the idea that the linguistic material in a quotational construction is "at display", which is implemented in this paper with the help of similarity: Being at display means being presented as one way in a set of similar ways of conveying a particular information.

Finally, coming back to the introductory questions: The above analysis of *so*- und *wie*-clauses explains why these two expressions are suited for quotations marking – it's because they express similarity. This idea is supported by the fact that marking quotation by similarity expressions is widely observed across languages (e.g., Guz 2024, Gentens & Boye 2024, Güldemann 2008).

The present analysis raises one particular issue for future work: (4)-(6) provide evidence that only *so*-clauses qualify as genuine quotation markers, since they target utterances. *Wie*-clauses, however, remain on the propositional level and serve as reportatives. But what is the role of similarity in reportatives? A clue might be found in the analysis of depictive manner clauses in Umbach et al. (2023).

Bary, Corien & Emar Maier (2021). The landscape of speech reporting. *Semantics and Pragmatics* 14(8). <https://doi.org/10.3765/sp.14.8>.

Bondarenko, Tatiana (2021) How Do We Explain That CPs Have Two Readings with Some Verbs of Speech? Handout

Clark, Herbert & Richard J. Gerrig (1990) Quotations as Demonstrations. *Language*, 66 (4) 764-805.

Davidson, D. (1979). Quotation. *Theory and Decision*, 11(1), 27–40. Reprinted in his *Essays on Truth and Interpretation*, Oxford: Clarendon Press, 1984, 79-92.

Davidson, Donald (1979). Quotation. *Theory and Decision*, 11(1), 27–40. Reprinted in his *Essays on Truth and Interpretation*, Oxford: Clarendon Press, 1984, 79-92.

Gentens, Caroline, & Kasper Boye (2024). Manner and Clause Linkage: The Grammaticalization of Manner Expressions into Complementizers or Quotatives. Special Issue in *Linguistics*.

Güldemann, Tom (2008) *Quotative Indexes in African Languages*. Mouton de Gruyter, Berlin, New York.

Jędrzejowski, Łukasz & Carla Umbach (eds.) *Non-interrogative subordinate wh-clauses*. Oxford University Press, 2023.

Krifka, Manfred (2023) Layers of assertive clauses: Propositions, judgments, commitments, acts. In Hartmann, Julia & Angelika Wöllstein, (eds), *Propositionale Argumente im Sprachvergleich*. Tübingen: Gunter Narr, 115-181.

Koev, Todor (2021) Parentheticality, assertion strength, and polarity. *L&P* 44(1), 113-140.

Pittner, Karin & Werner Frey (2023) German *wie*-comment and reporting clauses. A comparison with *so*-parentheticals. In Jędrzejowski & Umbach, 328-364.

Potts, Christopher (2007) The dimensions of quotation. In: Braker, C., Jacobson, P. (Eds.), *Direct Compositionality*. Oxford University Press, 405–431.

Tversky, A. (1977) Features of similarity. *Psychological Review* 84: 327-352.

Recanati, François (2001) Open quotation. *Mind* 110(439). 637–687. doi:10.1093/mind/110.439.637.

Umbach, Carla & Helmar Gust (2014) Similarity demonstratives. *Lingua* 149: 74–93.

Umbach, Carla, Stefan Hinterwimmer, and Cornelia Ebert (2023) Depictive manner complements. In Jędrzejowski & Umbach, 124-157.