

Calling things by their names: Towards a unified account for name-informing and mixed quotation

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Abstract

This paper explores the semantic connection between mixed quotation and name-informing quotation, proposing a unified account for both. While mixed quotation combines direct quotation with indirect reporting, name-informing quotation highlights the linguistic shape of a concept's conventionalized name. We argue that both types of quotation involve a naming predicate – explicit in name-informing quotation and covert in mixed quotation. A pilot questionnaire study, which presented participants with two-turn dialogue contexts, used the notion of at-issueness to probe the naming component across these types, supporting the hypothesis that both share a similar semantic structure. This unified approach contributes to a broader understanding of quotational constructions and their role in linguistic and discourse representation.

Keywords: quotation, mixed quotation, pure quotation, name-informing

1 Introduction

Quotation is a metalinguistic device used to talk about certain dimensions of language, see, e.g., Cappelen & Lepore (1997), Davidson (1979), Saka (1998). In quotational constructions, expressions are mentioned rather than or in addition to being used denotationally. With an assertion like in (1a), for example, in contrast to (1b), the syllabic setup of the word *sofa* is described and the quotation marks around *sofa* indicate this use, which means reference is made to a linguistic dimension of the quoted expression, see, e.g., Quine (1981).

- (1) a. “Sofa” has two syllables.
b. A sofa is a piece of furniture.

The type of quotation displayed in (1a) is an instance of so-called pure quotation. Other types involve direct quotation (see 2a), mixed quotation (2b) and scare quotation (2c), see, e.g., Cappelen and Lepore (1997).

- (2) a. “Something is wrong,” Alan whispered softly to his dolls.
b. Ben declared he’s going to “kick up a huge fuss” today.
c. Flowers “know” when to bloom.

Each of these types marks a different metalinguistic function. Direct quotation in (2a) reproduces someone’s original wording, typically introduced by a speech-report predicate. Mixed quotation in (2b) blends direct quotation and indirect speech, embedding a segment of what someone else has said into the speaker’s own sentence structure. Scare quotation in (2c), by contrast, signals that the quoted term is used in a non-standard, ironic, or distanced way, departing from its literal meaning.

In what we call name-informing quotation, quotation marks serve a different purpose: they highlight the linguistic shape of a conventionalized term for a given concept. Consider the following example.

- (3) The phenomenon is called “sun halo.”

In this example, the quotes highlight the linguistic shape of the expression *sun halo*, thus referring to the conventionalized name that is used to describe a certain optical phenomenon, i.e., a sun halo. In this paper, we claim that name-informing quotation can be unified with mixed quotation, as illustrated in (2b), under a single semantic account. Our main argument is that both types of quotation involve a naming predicate, which is covert in mixed quotation but explicit in name-informing quotation. A pilot questionnaire-based rating study, conducted in German, was designed to determine the naming component of each type by assessing its potential to be treated as at-issue in a comparison between instances of mixed quotation and name-informing quotation.

The structure of this paper is as follows. In Section 2, the main points of two different approaches towards quotation are surveyed. In Section 3, the semantic properties of name-informing constructions are outlined, and we introduce our unified account for the two types of quotation in question. Section 4 reports on the experimental study we conducted to test our claim. Section 5 concludes our investigation, drawing connections to related analyses and addressing remaining open questions.

2 Perspectives on quotation

Theoretical approaches to quotation differ in whether they assume that a quotational meaning is part of the sentence’s compositional semantic structure or arises through pragmatic inference. This distinction has implications for how different types of quotation are analyzed and whether a unified structural treatment is theoretically plausible. A key point in the debate concerns the optionality of quotation marks and whether they signal a semantic contribution or merely reflect a pragmatic interpretation. Proponents of a semantic analysis of quotes often claim the presence of quotes to have truth-conditional effects, and that they are used to produce truth-conditionally relevant content (Predelli 2003, Simchen 1999). On a semantic account, the apparent optionality of quotes is explained in terms of compositional contextual embedding: when embedded under certain predicates such as speech-report (*say*) or naming predicates (*call*), the quoted material semantically contributes its mentioned form to the truth-conditional content. On this view, quotation marks are quasi-obligatory, surfacing either opaquely or at another linguistic level, e.g., the acoustic (cf. Cappelen and Lepore 1999).

The optionality of quotes can also be used as evidence for a pragmatic approach to quotes. Under a pragmatic view, the interpretation of a linguistic segment as a quotation does not depend on compositional embedding but on extralinguistic contextual cues in the broader discourse or situation, which are considered sufficient to yield a quotational reading even in the absence of a dedicated quotation marker. In this way, for example, Washington (1992) argues that neither graphemic quotes nor their gestural and acoustic equivalents are an essential part of a quotational construction. On his account, quotes are no more than a punctuation device and, as such, “are neither mentioning expressions nor parts of mentioning expressions” (Washington 1992: 591). Approaches of this sort imply that quotes are not semantic in the sense that their manifestation is not part of the compositional semantic representation of a quotational construction. Instead, quotes are considered pragmatic in nature. A pragmatic view is maintained in analyses like De Brabanter’s (2013), who, with a focus on mixed quotation, argues that contextual cues alone are sufficient to pragmatically construe a quotational meaning with no need to signal the quotation with a dedicated linguistic marker. Schlechtweg & Härtl (2020) report on spoken data, which indicate that quotes are acoustically pronounced, primarily triggering a lengthening effect, but that this is independent of the compositional environment they occur in. In quotational contexts in which the target item is not embraced by quotes, an acoustic correlate was not found, which is explained by the fact that the mentioning use of the target expression is resolved pragmatically.

Semantic and pragmatic approaches differ in how they account for the linguistic representation of quotational expressions. While semantic theories typically posit structural elements – such as an overt or covert quotation operator – that contribute compositionally to the sentence meaning, pragmatic

accounts emphasize contextual inference and interpret quotational meaning as arising from discourse context and speaker intent, even in the absence of explicit markers. Approaches that integrate different types of quotation into a unified theoretical framework are scarce (e.g., De Brabanter 2023). In the following, we will propose that mixed quotation (see 2c) and name-informing quotation (see 3) can be captured under a single semantic account. Our central claim – partly following Maier (2014b) – is that both types involve a naming predicate (or operator), which is overt in name-informing quotation and covert in mixed quotation. This account is semantic in that it assumes a compositional contribution of the naming predicate, but it also incorporates a pragmatic dimension, as the realization of quotation marks is treated as optional and context-dependent.

3 Towards a unified account

Quotations as in (2b) and (3) above are typically considered to represent two distinct categories of quotation: mixed quotation (MQ) and name-informing quotation (NIQ). MQ involves a blend of direct quotation and indirect speech report, where the speaker quotes a portion of what someone else has said. In contrast, NIQ is a metalinguistic device used to demonstrate the linguistic shape of a concept’s conventionalized name in a rule-like fashion.

3.1 Name-informing quotation

Naming predicates are highly polysemous, see, among others, Anderson (2004) and Biro (2012) for analyses. They can be used to express, for instance, an act of baptizing as in (4a), an act of nomination, see (4b), or an evaluative act, as in (4c), conveying a negative attitude of the subject referent toward the target individual.

- (4)
- a. They named their son Arthur.
 - b. She was named the president of the university.
 - c. Max called his neighbor a simpleton.

In what follows, we explore a specific variant of constructions involving naming predicates, namely name-informing quotation, and lay out a semantic analysis. Constructions involving a NIQ typically contain predicates like *call*, *name*, *refer to* etc., as embodied in (3) and in (5) below.

- (5)
- a. One calls this medical condition “cataract.”
 - b. A function that invokes itself is named “recursive function.”
 - c. The purity of gold is referred to with the word “karat.”

Name-informing constructions¹ (NICs) express established naming relations by highlighting the linguistic form of a concept’s conventionalized name. The predicate serves to mark the link between the concept and its linguistic label. This connection arises from an (abstract) act of nomenclature, which assigns a name to a concept, establishing the term for subsequent use. This contrasts with non-name-informing uses of naming predicates as exemplified in (4c), which does not describe an established naming relation but rather an act of evaluative judgment.

We have argued elsewhere that NIQ represents a special case of pure quotation (PQ) (Härtl 2018), i.e., a metalinguistic device used to mention a word or phrase as an object of discussion, emphasizing its linguistic form rather than its meaning (e.g., Davidson 1979, Cappelen & Lepore 1997, Maier 2014a). Similar to PQs, the term quoted in a NIC is not used denotationally but rather to cite a name, highlighting a key feature of PQ: the expression is referenced as a linguistic entity rather than being used in its typical referential function. As an illustration of their metalinguistic status, PQs in NICs can be preceded by appositions such as *the word*, as exemplified in (5c) above.

¹ By “name-informing construction”, we refer to a sentence that contains a name-informing quotation.

Predicates like *call* are three-place predicates, which require an argument that can be interpreted metalinguistically.² In a case like (5a) above, for instance, *call* is used to assert that a certain occurrence of an eye condition is commonly referred to with the word *cataract*. Thus, *call*'s verbal root involves three thematic arguments, an agent x (*one*), a theme y (*this medical condition*) and a relational argument NAME³ that introduces the string “ n ” (“*cataract*”) of the theme argument's name. Observe that the agent argument is bound generically.

- (6) a. $\lambda y \lambda n \lambda x$ [CALL(x , y , NAME(“ n ”, y))]
 b. GEN x [CALL(x , *this medical condition*, NAME(“*cataract*”, *this medical condition*))]

We assume the naming predicate contained in a NIC to imply an underspecified copular relation P (Härtl 2020, Hoekstra 2023).

- (7) $\lambda P \lambda y \lambda n \lambda x$ [CALL(x , y , NAME(“ n ”, y) \wedge P(y , n))]

P identifies the relation holding between the denotation of the name n , mentioned as “ n ” in a NIC, and the theme argument y . This relation entails that calling y “ n ” presupposes that y qualifies as an instance of n , as expressed in (8a). Accordingly, negating the copular relation in such contexts typically results in a contradiction, see (8b).

- (8) a. This medical condition is a cataract.
 b. One calls this medical condition “cataract,” ζ but this medical condition is not a cataract.⁴
 c. The phenomenon is called a “sun halo.”
 d. This substance is referred to as a “biomaterial.”

A copular account also explains why the quoted noun can in principle occur with a determiner in NICs, see (8c & d) above. The determiner accompanying the quoted noun hints to the copular sentence entailed in NICs, in which the noun fulfills a referential function as the predicative element and, thus, projects within a determiner phrase. This is indicated by the presence of the accusative suffix *-en* with weak nouns in German like *Zeuge* (‘witness’) in such NIQ sentences, e.g., *Eine solche Person nennt man einen Zeugen* (‘a such person calls one a witness-ACC’, *One calls such a person a witness*) in contrast to NIQ sentences with no determiner, where the noun is morphologically unmarked, cf. *Eine solche Person nennt man „Zeuge“* (‘witness-NOM’).⁵

The type of copula involved in NIQ is an identificational copula. Typically, identificational copular sentences contain a demonstrative or definite nominal expression as subject and are used to teach the names of people or things, introduced in the postcopular phrase, e.g., *This fabric is velvet*, see, among others, Higgins (1979), Mikkelsen (2011). The subject in identificational copular sentences has a different semantic type than the subject of predicational copular sentences, see Geist (2006) and Mikkelsen (2005) for analyses. Grammatical evidence for this assumption comes from the fact that in a left-dislocation configuration in German, the subject of a copular sentence like (8a) is referred to using a non-

² We remain agnostic regarding the specifics of the lexical entry for the naming predicate. An underspecified representation $\lambda n \lambda y \lambda x$ [CALL(x , y , n)] may serve as a plausible base for deriving different interpretive variants contextually.

³ The NAME predicate is included to capture the relational nature of naming, linking a linguistic expression to a referent within a given linguistic and conceptual system.

⁴ The contradiction arises if there is formal identity between the first and the second conjunct. Examples which target metaphorical naming or misnomer do not yield a contradiction, e.g., *This insect is called a butterfly, but it is actually not a fly*. The same holds for false labeling (*The doctor called the lump a tumor, but it turned out not to be a tumor*), which likewise does not produce a contradiction.

⁵ I wish to thank Jan Wiślicki for bringing this point to my attention. Analogous effects can be observed in Polish.

referential pronoun (*das* ‘that’), cf. *Diese Erkrankung, das / ?? die ist ein grauer Star* (‘this condition-FEMININE that-NEUTER / ??the-FEMININE is a cataract’), see Mikkelsen (2005: 74f).

Observe that the semantic form in (6) is meant to represent the meaning of *call* in its name-informing use. We believe an underspecification approach to be desirable, with the different manifestations of the naming predicate to be derived compositionally (cf. footnote 3 above). The verbal event and the agent argument have, for example, a generic meaning in NICs like in (5) above but adopt a specific interpretation in the description of a speech act like (4a). Our account highlights the argument-structural and semantic properties of the naming predicate explicitly contained in a NIC. The analysis entails that both the agent argument and the naming predicate itself exhibit generic properties in NIQ.

3.2 Mixed quotation

The established view on mixed quotations (MQs) is that they are blends of direct quotation and indirect report. The speaker quotes a segment of what someone else has said, integrating it into their own sentence structure (Cappelen & Lepore 1997, Tsohatzidis 2003). Consider the following example.

(9) Ben declared he’s going to “kick up a huge fuss” today.

In MQs, expressions are both mentioned and used denotatively at the same time. This dual role of mentioning and using distinguishes MQs from purely direct or indirect speech, allowing speakers to preserve fidelity to specific wording while adapting the utterance to suit their own purposes or context. Recanati (2001) analyzes MQ as a case of so-called open quotation, in which the speaker quotes an exact wording while still integrating it into the sentence semantically. This is done without treating the quoted material as semantically inert, instead allowing it to contribute fully to the sentence’s meaning. Thus, the quoted phrase is used for demonstration purposes while preserving its usual semantic function, reflecting the dual nature of mixed quotation as both a linguistic and demonstrative act.

MQs are not necessarily introduced by a speech-report predicate but can serve the same function. Parts of the expression are quoted (and refer to the exact wording), while other parts are formulated in the speaker’s own words. Consider the example in (10).

(10) Tom’s theory: The “protective state” could morph into a “surveillance regime that exhibits authoritarian features.”

Here, the speaker who produces (10) quotes the expressions *protective state* and *surveillance regime that exhibits authoritarian features*, as used by Tom, and merges them into their own utterance, i.e., the rest of the sentence. To explain cases where mixed quotation occurs without quotation marks or overt quotative indicators (e.g., *This sentence doesn’t contain a HYperbole, it contains a hyPERbole*), Kirk-Giannini (2024) proposes a covert operator that refers to an unpronounced element in the syntactic structure that introduces MQ even when there are no explicit quotation marks or visible quotative indicators.⁶ This covert operator is linked to the MQ’s not-at-issue (i.e., secondary) content that encodes the fact that an expression was uttered verbatim by a particular individual at a certain point in time. This contrasts with the at-issue content, which is the main propositional information being asserted or discussed. Kirk-Giannini’s key insight is that MQ arises from the interaction between PQ and covert material within the sentence structure. This perspective supports a reductionist analysis, in which different types of quotation – such as MQ and PQ – are unified under a single theoretical framework. In this vein, the fact that the boundary between MQ and scare quotation is not always clear-cut further strengthens the case for such a unified account, since the indeterminacy can give rise to ambiguity in interpretive resolution. Consider example (11).

(11) Kim reported that she had received a “pink slip.”

⁶ I wish to thank Stefan Hinterwimmer for his valuable input on this point.

In this example, the quotes around *pink slip* could suggest that Kim previously used the expression (indicative of a MQ) or that the speaker is using scare quotes to signal that the term *pink slip* is linguistically noteworthy. This ambiguity is crucial evidence for a pragmatic argumentation towards quotes, such as De Brabanter’s (2010), that challenge a strict distinction between MQ and scare quotation.

3.3 Linking NIQ and MQ

The idea that one type of quotation can be at least partially reduced to another has been discussed elsewhere. For example, Maier (2007) acknowledges that MQ shares features with both indirect discourse and PQ, which allows quoted words in MQ to retain specific characteristics of PQ, such as maintaining the original speaker’s indexical expressions. In our context, the question arises whether NIQ cases like *The phenomenon is called a “sun halo,”* in which the quoted noun is accompanied by a determiner, should in fact be analyzed as instances of MQ. Such cases of NIQ contain quoted material that are apparently both used and mentioned, the latter indicated by the determiner. With a copular account (see 3.1. above), the denotational use in such examples arises naturally as the corresponding noun functions as the predicative element rooted in the implied copular relation. We will leave this issue open at this time.

Our main claim is that there is no principled distinction between NIQ and MQ regarding a certain semantic element, which we assume to be involved in both types. Specifically, we claim that MQ, like NIQ, involves a naming predicate, which is covert in cases like (9) above. The proposed account aligns with Maier’s (2014b) analysis, which emphasizes that mixed-quoted expressions mean what a source speaker referred to with certain words, thereby invoking a presupposition about the original utterance. In Maier’s dynamic semantic account, the predicate *refer to* as in *what x referred to as “y”* plays a crucial role in the compositional structure of MQs by establishing a link between the original utterance and its reference in the current speaker’s discourse.

Evidence for the assumption that a naming predicate is implied in MQs comes from examples where a naming predicate is explicated (cf. Maier 2014b). Consider the following example.

- (12) Bryant said he did *what he called* more “explosive movements” at practice
Wednesday [...].

CBC News, February 06, 2023

The italics are ours. They mark a parenthetical relative clause that denotes a naming event (*called*). It introduces a mentioned expression (“*explosive movements*”⁷), representing the NAME argument of *call*. The NAME argument denotes the name of the theme argument of *call*, i.e., of *what* in this case. The theme-argument position is linked with material from the host clause, that is, with the host clause’s direct object (*explosive movements*). This is similar in reporting *as*-clauses as in (13).

- (13) [...] he did, *as he called it*, “computer stuff in support of space programs” [...].

Middlebury Magazine, September 16, 2022

Here, the external argument of *as* is identified with content expressed in the matrix clause. In their analysis, Pittner and Frey (2023) state that German *wie* (‘as’) encodes a two-place relation expressing congruence of its arguments, thus, relating an expression contained in the matrix clause (*computer stuff in support of space programs*), i.e., *wie*’s external argument, to its internal argument (*it*). Semantically, *wie* sets the internal argument equal to the external argument. Thus, the paraphrase of (13) entails that he did something, and he referred to it as “*computer stuff in support of space program*.”

⁷ Note that two constituent structures are feasible regarding the relative clause in (12), see below. We postpone the discussion of this point to a later time.

- a. ... [he did [what he called more “explosive movements” ...]]
- b. ... [he did [what he called] more “explosive movements” ...]

Observe that a naming predicate can also be argued to be covertly implied in examples like (9), repeated in (14) below, that do not overtly contain a naming predicate. The negation test in (14) suggests this, as by negating the calling content a contradiction is produced.

(14) Ben declared he’s going to “kick up a huge fuss” today (↯but never called it that).⁸

Thus, (9/14) denotes that, at a certain time of speaking, Ben produced an utterance about some intended act of complaining or protesting, which he referred to as “*kicking up a huge fuss*.”

(15) CALL(*Ben*, *doing something*, NAME(“*kicking up a huge fuss*”, *doing something*) ^ P(*doing something*, *kicking up a huge fuss*))

We assert that the copular relation involved here is, once again, an identificational copula. The intended act of Ben’s doing something constitutes an instance of kicking up a huge fuss. Or put in slang: Ben’s doing something is a kicking up a huge fuss. Note that, while the agent argument (*Ben*) is specific, the type of binding for the calling event in example (9/14) is not specified. Ben may generally refer to the corresponding act as “*kicking up a huge fuss*,” or he may have used this term only for this particular act. This contrasts with the example in (13), where the calling event (described in the past tense perfective) is specific and not generic.

In summary, we explored the role of the naming predicate in unifying the analyses of NIQ and MQ. While the naming predicate is implicit in MQ, covertly integrating quoted material into the speaker’s narrative, it is overt in NIQ, explicitly highlighting the linguistic form of a concept’s conventionalized name. This dual approach allows both types of quotations to establish a referential link between the linguistic expression and its denoted concept, albeit with differing levels of visibility.

4 Experimental study

This pilot study aims to test whether the at-issueness methodology previously applied in related work can be effectively used to investigate the case at hand. Specifically, we are interested in determining whether MQs contain an implicit *call* component, compared to NIQs, which functions as baseline that lexically contains the predicate *call*, and compared to PQs, which we do not assume to contain a *call* component. Note that our assumption – that MQs contain an implicit *call* predicate – does not imply that MQs lack other types of quotative features, for example, that someone has literally uttered the words in quotes. However, our main interest lies in the *call* component as a reflection of an act of nomenclature.

To determine whether a *call* component is present in MQs and NIQs, we make use of the distinction between direct and indirect rejections as a measure of how explicitly the *call* component is represented in each type. The underlying assumption is that semantically active content is more likely to give rise to direct rejections, while inactive or pragmatically inferred content tends to elicit indirect rejections. The distinction between direct and indirect rejections has typically been associated with the notion of at-issueness – the spectrum between primary and secondary content –, which we adopt in this context to capture gradations in how different parts of an utterance are treated in discourse. On the standard view, at-issue content represents the main assertion and directly addresses the question under discussion. Therefore, at-issue content is responsive to a direct negation like *No, that is not true*. Not-at-issue content, in contrast, is linked to secondary aspects of an utterance and does not, or only indirectly, contribute to the question under discussion (e.g., Fintel 2004, Potts 2015, Tonhauser 2012). A typical instance of not-at-issue content is an appositive relative clause as in *Kim, who lives in Berlin, fascinates Joan*, whose content can only be indirectly rejected by means of a discourse-interrupting protest like *Wait a minute – Kim lives in Rome!*

⁸ It remains an empirical question to what extent the effect is actually pronounced. Note that the contradiction is not produced if the quotes are not present or if the quotes are interpreted as scare quotes. This could be used as an argument for a semantic analysis of quotes, at least in the case of MQ (see Section 2). We will refrain from further elaboration at this point.

We believe that at-issueness is a useful factor for examining the informational status of content within a linguistic expression. The key idea is that not only different expressions contained in a sentence, like main clause and subordinate clause, can exhibit different levels of at-issueness, but even more fundamentally, whether certain semantic information is present at all in an expression can be systematically investigated using at-issue-sensitive tests. This view implies that even information that is only implicitly conveyed by an utterance may display degrees of at-issueness, as we find it, for instance, in the critical-attitudinal content encoded in an ironic utterance. In this way, and this is the perspective we follow in the subsequent study, at-issueness test also helps uncover whether a particular content, even if it is not inherently at-issue, has the potential to manifest as at-issue in a discourse. If a given content has this potential, it should exhibit a stronger tendency toward at-issue rejections; conversely, if this potential is diminished, the corresponding content should show a stronger tendency toward not-at-issue objections. Reasonings of this sort can be found, for example, in the discussions of the different contents of slurring expressions (with respect to their descriptive versus derogatory content; Carrus 2017, McReady 2010) and ironic expressions (non-literal versus attitudinal content; Härtl and Bürger 2021). Note that the perspective pursued here suggests that (not-)at-issueness as well as a content's ability to be rejected is a gradual feature and is therefore present to varying degrees in an utterance (Cepollaro 2015, Härtl & Bürger 2021, Gutzmann 2023).

Our main assumption is that content associated with *call* is present in MQs. We thus hypothesize that this content has a greater potential to be treated as at-issue in MQs compared to PQs, which we assume to not contain a *call* component. The latter condition is labelled PQ_NAI in the experimental design. Our comparative measure is NIQs, which lexically contain a *call* predicate. MQs should thus gravitate towards NIQs with respect to their *call* component's at-issueness potential. Our at-issue controls are utterances that involve false statements about PQs, thus giving rise to at-issue rejections (PQ_AI).⁹

- (16) Degrees of at-issueness
 H_A: PQ_AI > NIQ & MQs
 H_B: NIQ ≈ MQ (*no difference predicted*)
 H_C: NIQ & MQ > PQ_NAI

When formulating the hypotheses and interpreting the results, it is essential to consider the potential influence of politeness on participants' responses. This effect, driven by a social preference for rejections perceived as more polite, may cause a systematic shift towards not-at-issue ratings, even for content that is inherently at-issue.¹⁰ The connection between politeness and not-at-issue rejections has been noted, for example, by Syrett und Koev (2015). It necessitates careful consideration when analyzing the results, as the politeness effect introduces a bias that should ideally be accounted for in the interpretation of any observed differences between conditions. Recall, however, that our study focuses on the gradient potential of a content to be treated as at-issue, rather than a strict binary categorization of at-issueness versus not-at-issueness. This approach acknowledges that even content primarily perceived as not-at-issue can exhibit a stronger potential to be treated as at-issue depending on its contextual embedding. Therefore, while the politeness effect may influence absolute ratings (affecting all conditions), it does not undermine the relevance of the observed gradience, which remains central to our investigation. To

⁹ A reviewer asked why we do not group NIQ with PQ_AI, given that the NIQ condition targets lexically encoded content that could be considered equally at-issue as PQ-related content. From previous work we know that factual inaccuracies (e.g., *A whale is a fish*, $2+2=5$ or *The term "white flag" consists of three words* (i.e., a PQ) tend to elicit more direct (i.e., at-issue) rejections, whereas NIQ and MQ inconsistencies, which are based on conventionalization, discourse knowledge, or lexical information, invite more indirect rejections, presumably because they are more strongly influenced by politeness considerations (see below).

¹⁰ Based on our previous studies employing the paradigm used in this study, the bias caused by this effect is estimated to result in a distortion of approximately one point on a 5-point Likert scale, meaning that genuinely at-issue content may be rated around 2 as at-issue.

test our hypotheses, we devised a rating study, the methodology and results of which we will now present.

4.1 Method

To clarify whether a *call* component is involved in the meaning of MQs as we can assume it to be present in NIQs, MQs were compared to NIQs concerning their compatibility with at-issue vs. not-at-issue rejections of a *call* component. Our presumption is that semantic information implicitly conveyed by an expression should exhibit a greater potential for compatibility with an at-issue rejection. Conversely, information that is not entailed and must be accommodated pragmatically should lean to be compatible with a not-at-issue rejection.

4.1.1 Participants

Forty German native speakers participated in the online survey (aged < 20 N = 2, 20–25 N = 28, 26–30 N = 7, > 30 N = 3). Participants were not paid.

4.1.2 Material and design

The entire experiment was conducted in German. The experimental items followed a consistent structure in which a situation was presented introducing two individuals. Then a statement containing a quotation was made by one of the two interlocutors. All quoted expressions contained conventionalized adjective-noun names like *blauer Brief* ('blue letter', *pink slip*), *weiße Fahne* (*white flag*), etc., which were controlled for lexical frequency using the *Wortschatz* corpus.¹¹ Finally, two options were given that represented the second interlocutor's rejection of a part conveyed with the preceding statement. Across all conditions, rejections referred to a *call* component and were designed as corrective rejections, i.e., as denials that included a reason for why the corresponding content is rejected.

As critical conditions, instances of NIQ and MQ were included in the statements, cf. (17a & b).¹² In the MQ condition, the quoted material consisted of a VP placed in quotation marks to ensure that the quotation is interpreted as a quoted utterance rather than as an instance of scare quotation. In the corresponding MQ rejections, the theme argument of *call* was realized by a demonstrative pronoun (*das* 'that') referring to the semantic content of that VP, see (17b).

As controls, we used PQs. In the first control type, all statements made by the first interlocutor were false, calling for at-issue rejections (PQ_AI). In the second control type, PQs were followed by rejections targeting a *call* component, i.e., a component that can only be interpreted through accommodation and, thus, prompting a not-at-issue rejection (PQ_NAI). Consider the examples of the four conditions below.

(17) a. Name-informing quotation (NIQ)

Ingo erzählt Anna von einem Schreiben in seinem Briefkasten. Anna stellt in Frage, was Ingo sagt.

'Ingo tells Anna about a letter in his mailbox. Anna questions what Ingo says.'

Ingo: *Ein solches Schreiben nennt man „blauer Brief.“*
a such letter calls one "blue letter."
'Such a letter is called "pink slip".'

Anna: (A) *Das ist falsch, das nennt man anders.*
'That is wrong, that is called something else.'

¹¹ wortschatz.uni-leipzig.de

¹² A possible criticism of including quotational sentences like those in (17b) in the material could focus on the fact that they involve a subordinate clause, which sets this condition apart from all others. Such a criticism would presumably argue that the quoted content is more deeply embedded in this condition, making the content potentially harder to access for direct rejection. However, such an argument would only hold if we predicted MQs to differ from the second critical condition, i.e., NIQs. Such a difference is neither hypothesized, see (16) above, nor observed in the data.

(B) *Sekunde, das nennt man anders.*
 ‘Wait a second, that is called something else.’

b. Mixed quotation (MQ)

Finn unterhält sich mit Uta über Oliver. Uta stellt in Frage, was Finn berichtet.

‘Finn is talking to Uta about Oliver. Uta questions what Finn is reporting.’

Finn: *Oliver verriet vorhin, man würde „möglichlicherweise eine
 Oliver revealed earlier one would “possibly a
 rote Karte sehen.”
 red card see.”*
 ‘Oliver revealed earlier one would “possibly see a red card”.’

Uta: (A) *Das ist unwahr, Oliver hat das niemals so genannt.*
 ‘That is not true, Oliver never called it that.’

(B) *Sekunde, Oliver hat das niemals so genannt.*
 ‘Wait a second, Oliver never called it that.’

c. PQ – At-issue rejection (PQ_AI)

Laura erklärt Daniel etwas während der Konferenz. Daniel bezweifelt Lauras Aussage.

‘Laura explains something to Daniel during the conference. Daniel doubts Laura’s statement.’

Laura: *Der Begriff „weiße Fahne“ besteht aus drei Wörtern.
 the term “white flag” consists of three words.
 ‘The term “white flag” consists of three words.’*

Daniel: (A) *Das ist falsch, der Begriff besteht aus zwei Wörtern.*
 ‘That is wrong, the term consists of two words.’

(B) *Moment mal, der Begriff besteht aus zwei Wörtern.*
 ‘Wait a moment, the term consists of two words.’

d. PQ – Not-at-issue rejection (PQ_NAI)

Lea erklärt Tom etwas während der Teamsitzung. Tom zweifelt an, worauf sie sich bezieht.

‘Lena explains something to Tom during the team meeting. Tom doubts what she is referring to.’

Lea: *Der Ausdruck „goldene Regel“ beginnt mit dem Buchstaben ‚g‘.
 The term “golden rule” starts with the letter ‘g’.
 ‘The term “golden rule” starts with the letter ‘g’.*

Tom: (A) *Falsch, niemand nennt es „goldene Regel.“*
 ‘That’s wrong, nobody calls it “golden rule”.’

(B) *Wart mal, niemand nennt es „goldene Regel.“*
 ‘Wait, nobody calls it “golden rule”.’

The material was consistently structured but varied regarding the lexical material as well as the proper names used. The rejections contained in all three “naming” conditions (NIQ, MQ, and PQ_NAI) involved naming predicates (e.g., ‘Wait a second, Oliver never called it that’). Condition PQ_AI contained a correction of the false statement. To avoid repetitiveness, a variety of discourse-interrupting phrases (*Wart mal* ‘Wait’, *Sekunde* ‘Wait a second’, *Moment mal* ‘One moment’, etc.) was used for the not-at-issue rejections, and varying direct negations (*Das ist nicht wahr* ‘That’s not true’, *Das stimmt*

nicht ‘That’s not correct’, *Das ist falsch* ‘That’s wrong’, etc.) were used for the at-issue rejections. To maintain concentration and warrant lexical processing, six content questions (e.g., *Kam im letzten Dialog der Ausdruck „schwarzer Humor“ vor?* ‘Did the expression “black humor” occur in the last dialogue?’) were included in the material. These yes-no questions contained an equal balance of true and false statements and occurred after four to six experimental items. For each condition, ten items were included, with no fillers. The study used a within-subjects design, with a single randomized and manually balanced item order to avoid condition clustering.

Participants were asked to decide which rejection they perceived as more appropriate. To do this, they rated the rejections on a 5-point Likert scale, with value 1 representing the at-issue rejection on the left side of the scale and indicating a clear preference for the direct rejection, and value 5 representing the not-at-issue rejection on the right side, indicating a preference for the indirect rejection. This alignment of the values was kept constant to avoid random guessing. Both rejection options were placed below value 1 and value 5, respectively, of the scale. Participants were able to rate both rejections as equally (in)appropriate by choosing the mid value. Moreover, they could rate one rejection as more appropriate than the other by using the values in between, without being forced to indicate a clear preference towards one option.

4.1.3 Procedure

In an online questionnaire on the platform SoSci Survey¹³, participants were asked to evaluate forty experimental items. Every participant received the same questionnaire. Prior to the study, participants had to answer questions regarding their native language to be allowed to further partake in the survey, as well as their age. An explanation was given (in German) about the procedure of the study: the participants had to assess how appropriate certain short negative reactions are in a dialogue between two people. Further, it was mentioned that in all dialogues, a term or expression appears in quotation marks and that these denote either fixed terms (e.g., “*pink slip*”) or parts of direct speech illustrated by an example (e.g., *Max says he enjoyed the day “to the fullest.”*). An example item was given in the instruction as well as an explanation of the rating scale. Further, participants were informed that they would be asked a brief (yes-no) content-related question at irregular intervals. Afterwards, participants had a short training period that included three items exemplifying the range of conditions and a content question. After that, the first test item was presented. The entire experiment lasted about 20 minutes.

4.2 Results

Only questionnaires in which all items were rated were included in the statistical analysis. The accuracy of the responses to the content questions was not considered. A repeated-measures ANOVA was performed with MINITAB’s¹⁴ General Linear Model procedure by subject for the dependent variable (Rating). The independent variable was Condition (NIQ, MQ, PQ_AI, PQ_NAI), which was included as a fixed factor. The factor Subject was treated as random. Table 1 summarizes the mean ratings for each condition.

¹³ soscisurvey.de

¹⁴ minitab.com

Condition	Mean rating	SD
PQ_AI	2.1	1.4
NIQ	3.1	1.3
MQ	3.3	1.3
PQ_NAI	3.7	1.2

Table 1. Rounded mean ratings and SDs for the individual conditions

The analysis revealed highly significant differences between the individual conditions, $F(3,156) = 59.1622$, $p < .0001$. Pairwise comparisons between conditions were conducted using dependent samples t -tests. To control for the risk of Type I errors, a Bonferroni correction was applied. The results revealed significant differences between the PQ_AI and MQ conditions, $t(39) = -13.45$, $p < 0.001$, the PQ_AI and NIQ conditions, $t(39) = -11.66$, $p < 0.001$, and the PQ_AI and PQ_NAI conditions, $t(39) = -17.78$, $p < 0.001$, indicating consistently lower (i.e., at-issue) ratings for PQ_AI compared to all other conditions. Additionally, significant differences were found between MQ and PQ_NAI, $t(39) = -3.51$, $p = 0.001$, and NIQ and PQ_NAI, $t(39) = -5.91$, $p < 0.001$, suggesting higher (i.e., not-at-issue) ratings for PQ_NAI. In contrast, the comparison between MQ and NIQ showed no significant difference after Bonferroni correction, $t(39) = 2.51$, $p = 0.012$, suggesting no reliable difference between these conditions.

4.3 Discussion

The results reveal that false statements concerning PQs (see 17c) tend to elicit at-issue rejections more than any other condition, providing clear support for hypothesis H_A (see Section 4 above). Notably, the NIQ conditions, despite their lexical inclusion of a *call* predicate, lean towards not-at-issue rejections. This can be explained by the politeness effect discussed above, where at-issue rejections are generally perceived as more face-threatening or less polite than not-at-issue rejections. Politeness considerations can influence participants' judgments, causing them to favor less direct forms of rejection (Koev 2018, Syrett & Koev 2015). This bias introduces a systematic shift towards not-at-issue ratings (affecting all conditions), even for content that is inherently at-issue.

Moreover, the results indicate that the PQ_NAI conditions elicit not-at-issue rejections more frequently than any other condition, providing support for hypothesis H_C . Crucially, no significant difference was observed between the MQ and NIQ conditions, which is consistent with hypothesis H_B . Taken together, the overall pattern underscores the gradient potential of content to be treated as at-issue in discourse, rather than a binary distinction. Even content primarily perceived as not-at-issue can exhibit a stronger potential to be treated as at-issue, depending on its contextual embedding.

5 Conclusion

This paper has investigated the semantic connection between NIQ and MQ, proposing a unified account. NIQs emphasize the linguistic form of a concept's conventionalized name, while MQs integrate direct and indirect speech. Both types of quotation involve a naming predicate, which is explicit in NIQs but covert in MQs. In a pilot questionnaire-based rating study, we applied a method used in previous research, which proved effective in this context. By embedding the target expressions in short dialogue sequences, the study provided evidence for similar degrees of the naming component's potential to be treated as at-issue in both MQs and NIQs, supporting the hypothesis that they share a related semantic structure. Our account aligns with the views of Kirk-Giannini (2024) and Maier (2014b), both of whom argue for a pure-quotational element in types of quotations in question. Additionally, it follows Maier's (2014b) assumption of a free relative clause (i.e., *what x referred to as "y"*) in MQs. However, we offer a more nuanced analysis by positing that the predicate in question describes a naming relation. Furthermore, our analysis parallels Kirk-Giannini's (2024) proposition that MQs involve a covert operator, which refers to an unpronounced element in the compositional structure. This operator introduces MQ

even when there are no explicit quotation marks or overt quotative markers. In contrast, our proposal suggests the presence of a covert naming operator in MQs. As concerns the unification aspect of our account, Stern's (2022) proposal that quotations can be understood as pictures may provide a framework for refining the unified semantic approach proposed in this study. Stern's pictorial analogy underscores the dual role of quotations in both representing and exemplifying linguistic content. Such a perspective aligns closely with the dual use-and-mention function that is central to both NIQ and MQ. By conceptualizing quotations as simultaneously conveying representational and demonstrative content, Stern's account offers a theoretical foundation that strengthens the case for a shared semantic basis between NIQ and MQ.

A couple of open questions remain. First, it is still an open question whether the naming predicate, which we claim to be present in MQs, is semantically entailed or pragmatically accommodated, especially in cases where no parenthetical relative clause makes the naming predicate explicit, as in the example in (11) above. To address this, online processing data could provide further insight. Second, a compositional analysis is still pending, showing how the *call* projection in MQs integrates with the projection of the embedding speech report, on the one hand, and, on the other, how a parenthetical relative clause that explicates the naming predicate integrates with the rest of the clause. We believe the accounts from Grosu (2003), Tsohatzidis (2005), and Pittner & Frey (2023) provide good starting points. Finally, an explanation still needs to be delivered as to whether our analysis also applies to direct quotation (e.g., *Ben declared, "I am going to kick up a huge fuss today."*). We do not believe this to be the case, with the main reason being that direct quotations are not compatible with expressions of a *call* predicate (cf., *Ben declared, (?what he called) "I am going to kick up a huge fuss today."*).

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