

Abstracts for Annotating QUDs: Desiderata and Approaches (QUDAнно)

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Ort	Online, ZAS & U Bochum

Craige Roberts, Ohio

[Some Desiderata for QUD Annotation ABSTRACT](#)

In linguistic discourse, interpretation is the solution of a simultaneous equation in multiple variables. One of these is the QUD. But the QUD is related to a number of other parameters of variation in discourse, often mutually constraining. Accordingly, ideally a corpus annotated for QUD would recognize the following features (inter alia) of the underlying phenomenon of relevance to a QUD: the ways in which the QUD reveals and is subsumed by the intentional structure of the discourse; the tight relationship between QUD and Focal alternatives, as reflected in the prosodic structure of utterances; the similarly tight relationship between the information structure of an utterance, including prosodic focus, and gesture; and especially the relationships between QUD and the rhetorical relations displayed between utterances. Similarly, there is a meta-level of discourse management which includes clarification questions and their responses. All of these aspects of discourse structure have themselves been investigated in annotation systems. Even if one's purview is more narrow, I strongly suspect that a given annotated corpus will ultimately prove to be more useful if these other factors are taken into account in designing the annotation procedure.

Arndt Riester, U Bielefeld

[Recent specifications regarding QUD annotation](#)

Analysing and annotating written discourse in terms of pragmatic properties is a challenging task, if the result is not to be arbitrary, but is to meet recognised standards of inter-annotator agreement. In this talk, I will address some recent developments in the application of the QUD-tree method (Riester et al. 2018), which seeks to analyse text with regard to both information structure and topical organization, by enhancing it with implicit questions under discussion. Information-structural principles of givenness and contrast can account for large parts of discourse structure, although they sometimes lead to conflicting predictions, which I will comment on. Information-structure-related QUDs may have their limits when two sections of text are linked primarily via non-literal interpretation or world knowledge. In such cases, the formulation of QUDs can benefit from reasoning with coherence relations. I will furthermore specify the process of information-structural discourse segmentation, which postulates finer-grained discourse units than, for instance, Rhetorical Structure Theory (Mann & Thompson 1988), especially with regard to sub-clausal coordination and adjuncts. Lastly, I will present the handling of so-called cataphoric QUDs, which come into play in cases where — in RST terms — a satellite precedes a nucleus.

Christoph Hesse, Ralf Klabunde, Anton Benz, ZAS & U Bochum

[QUD-annotation of argumentative pragmatically rich texts](#)

We annotated QUD-trees in a corpus of 30 driving reports from German motoring & car magazines. These driving reports are pragmatically rich texts because of their intricate blend of (a) objective technical specifications and (b) subjective evaluations. Evaluation is done through a variety of linguistic devices such as adverbs, adverbials, adjectives, not-at-issue content (in the sense of Simons, Tonhauser, Beaver, Roberts, 2010), expressives, and relative clauses. Evaluative content is so pervasive in this particular text genre that it is the focal point in how authors structure their argumentation. We, therefore, do not treat subjective evaluations as comments on factual information, but rather incorporate them together in one QUD-tree, where factual information (often) stands in an Evidence relation to evaluative content. At least as far back as Carlson (1983), QUD approaches assume that sentences and text segments are answers to implicit or explicit questions. The way we annotate QUDs in tree structures is inspired by Büring (2003) and Riester (2019) who extend on Roberts' (1996) idea of QUD-stacks of super- and sub-ordinated questions, where answers to sub-questions provide partial answers to a super-question. Despite theoretic interest in QUDs, to our knowledge there has been only one attempt at annotation guidelines (Riester, Brunetti, and Kuthy, 2018) and one tool to annotate QUD-trees (Kuthy, Reiter, and Riester, 2018; Riester, 2019). Faced with the aforementioned challenges of evaluative content, we developed our own annotation guidelines. The key feature of the resulting QUD-trees is that they are a combined representation of focus structure, rhetorical relations, text sections, all the way up to discourse questions in one tree structure. The leaf nodes of these QUD-trees are easily mapped to database queries, and the level of conceptual abstraction increases towards the root of the tree.

Edgar Onea, U Graz

[Questions in Perspective. From narrative text to a narrative web](#)

Ever since the seminal work of Klein and von Stutterheim (1978) narrative texts have often been analyzed as exhibiting “erotetic structure”. In other words: every statement in a narrative text is contributing to some sort of erotetic strategy and thus naturally lends itself for annotation within some variant of QUD-trees theory. In this talk, I will discuss the way in which the perspective of narrative figures complicates any theory of an erotetic structure of narratives. This applies both at the level of speech, thought and intermediate levels such as internal focalization, free indirect speech etc. I suggest a tentative new recursive theory of narrative texts that essentially assumes that perspective is a transition point between separate narrative texts. In other words: a narrative is not a homogeneous text with erotetic structure but instead a web of different stories each with their own erotetic structures and perspective of narrative figures governs the relation between erotetic structures.

Tatjana Scheffler, U Bochum

[Computational approaches to annotation of QUDs](#)

QUDs have gained popularity in formal semantics and pragmatics as a representation of how the discourse proceeds. However, there is so far little standardization in QUD structures, as QUDs are usually assigned only for short dialog segments in a relatively ad-hoc fashion. This makes it difficult to decide on the 'correct' or even the 'best' QUD for a given point in discourse. The few existing manual

corpus annotation projects for the main part rely centrally on prosodic information and/or focus/background distinctions (De Kuthy et al., 2018). However, prosodic information is often unavailable (for example for written text) and in any case expensive to obtain. Instead, we propose to further operationalize the pragmatic conception of QUDs in order to pave a way for computational efforts toward automatic QUD assignment. (One example of a manual effort in this direction is (Westera et al., 2020).)

We discuss two possible strategies. The first sketches an NLP pipeline for annotating QUDs, that consists of the following steps: (i) Generating potential questions (Onea, 2013) after each utterance in the discourse. (ii) Ranking these potential questions by their adherence to known QUD constraints (Schricker/Scheffler, 2019). (iii) Selecting the optimal QUD based on the following discourse context, by taking into account answerhood relations.

The second strategy for QUD annotation is based on the idea that QUD structures are discourse structures and represent information similar to discourse structure information encoded in RST or SDRT trees (cf. Riester, 2018). It should therefore be possible to generate QUD structures by converting existing RST/SDRT annotations. We sketch such an approach and discuss remaining problems that indicate mismatches between the discourse theories.

The talk presents work in progress, but we show some initial results based on QUD annotations for the multi-layer Potsdam Microtext Corpus (Peldszus/Stede, 2015).

Maurice Langner & Ralf Klabunde, U Bochum

[QUDA: A web-based tool for QUD annotations](#)

We present our annotation tool QUDA that has been designed for the specific tasks in annotating QUDs and the information structural units that can be derived from them. QUDA has been developed in a back-and-forth shifting pipeline of adjusting the tool and formulating corresponding annotation guidelines. A well-structured user interface and functions for, e.g., shifting linear precedence, copying and deleting subtrees, rebranching, adding new elements and free text modification guarantee a simple and straightforward usage, while QUDA automatically validates the generated tree structure by integrating constraints on tree modifications and classification in adherence with the guidelines. The annotations can be exported as XML markup. The QUDA annotation tool is available on github at <https://github.com/MMLangner/QUDA>.