Toward Dialogue Modeling: A Semantic Annotation Scheme for Questions and Answers

Annotation Guidelines

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Contents

1 Introduction

An important part of corpus annotation is to provide a concise and, at the same time, general guideline appropriate for the task. This guideline explains different procedures that an annotator should take into account for the task of annotation of question and answers in natural language dialogues. The current version of the guide focuses on the English language, and the SCoSE corpus in particular, but this annotation schema can be adopted to other languages as well, based on our preliminary experiments on Dutch and Spanish.

2 Setting up your environment

Before going through the description of the annotation process, it is necessary to set up the working environment. This section explains how to install and set up the annotation tools and download the corpus.

2.1 Obtaining corpus files

The SCoSE corpus can be downloaded from `https://ca.talkbank.org/access/SCoSE.html`.

In order to annotate, it is sufficient to download the transcriptions, however, it is recommended to also download the corresponding audio files. Listening to the audio files makes the annotation task easier, and, more importantly, there are some cases in which listening to the intonation pattern will help resolve ambiguities in the transcription.

All the transcriptions of the corpora used in this project use the `.cha` format for the dialogues files. It is recommended to read the Symbol Summary document[1] to understand what the symbols in the dialogues represent.

2.2 Setting up ELAN

The annotation tool used is ELAN (ELAN Linguistic Annotator)[2] which allows annotating video and audio files. ELAN can open `.cha` natively, therefore, the files do not need any extra modifications or reformatting.

To install ELAN, please follow the instructions on the official website `https://tla.mpi.nl/tools/tla-tools/elan/download/`. ELAN is available for Windows, Linux and macOS. Once the tool has been installed correctly, it is time for setting up:

- Step 1: Importing files

Launch ELAN, click on the menu 'File' and then click on 'Import'. Select 'CHAT files'. Choose one of the `.cha` files of the downloaded corpora. See figure 1. After selecting the transcript file, ELAN will allow you to add the media file, though this step is not required.

- Step 2: Create Layers

We define layers to separate the different annotations; these layers represent an abstraction of distinct levels of information, for instance, question types and answer types. In ELAN the representation of layers are *tiers*. It is possible to define different layers that will build a modular structure; later this structure can be used as a direct extraction method of a particular segment.

This project uses five layers: QUESTION_TYPE, ANSWER_TYPE, FEATURE, COMPLEXITY, and IS_QUOTED:

Question_Type This layer contains the annotations related to question type. Please see section 3.1.1 for more details about the tag set for this layer.

Answer_Type This layer contains the annotations related to answer type. Please see section 4.1.1 for more details about the tag set for this layer.

Feature This layer should be used in case of a question of type *DQ* or *WH*. It is related to the annotation of features. Please see section 3.1.2 for more details about the tag set for this layer.

Complexity This layer is used to identify multiple questions. Please see section 3.1.3 for more details about the tag set for this layer.

[1] `http://www.bu.edu/linguistics/UG/course/lx865-f02/local/childes-symbols.pdf`
[2] `https://tla.mpi.nl/tools/tla-tools/elan/`

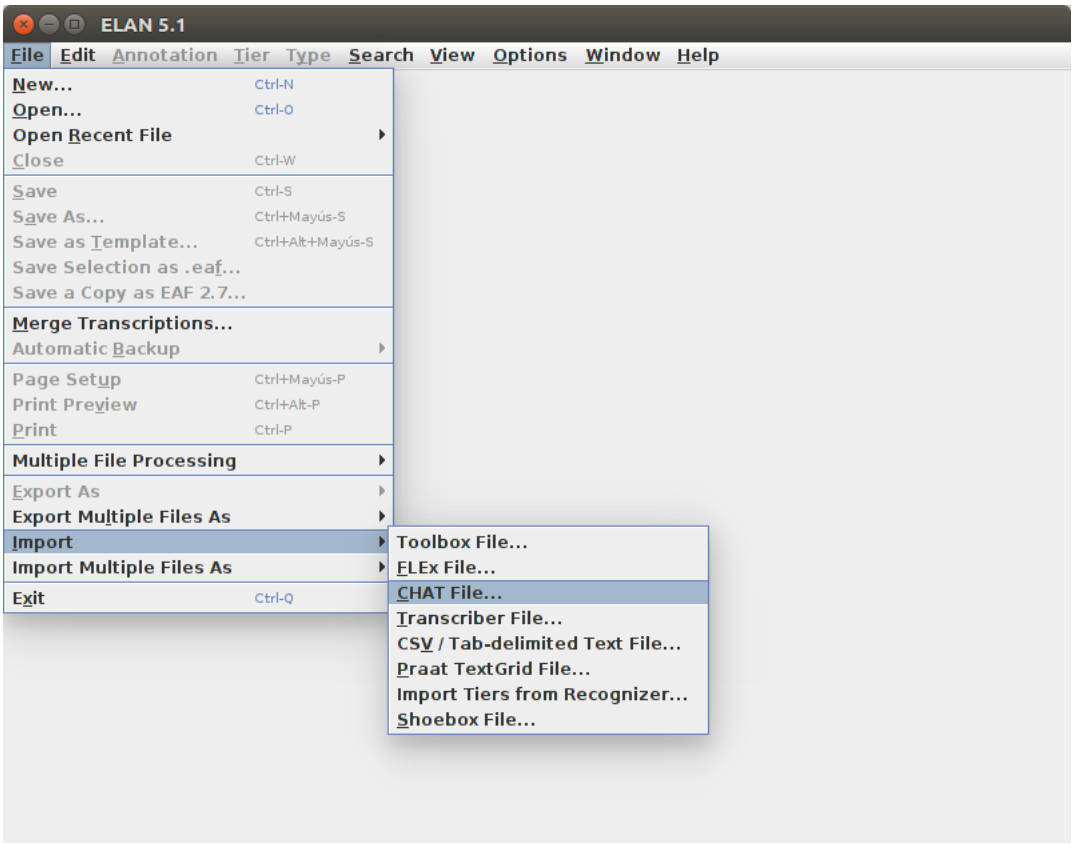

Figure 1: How to import a file from the corpora

Is_Quoted This layer will contain the annotations related to direct and indirect speech. It is used for both questions and answers. Please see section 3.1.4 for more details of possible values.

The following steps are for creating all these layers in ELAN. To create a layer click on the 'Tier' menu, and then on 'Add New Tier'. In the opened window ('Add Tier'), fill out the form as follows (see figure 2):

- *Tier Name*: enter the name of the layer;
- *Annotator*: enter your name;
- *Input Method*: select 'English (ASCII)'.

Leave the default values in the rest of the fields. Now click on the 'Add' button to create the layer. It is possible to create all of the layers without closing the window.

- Step 3: Annotate

Before continuing, save the document: click on the menu 'File', and then on 'Save'. This step will create an EAF file (`.eaf`), which is ELAN's native file format. ELAN allows to make partial annotations and resume it later using the ELAN file. Before closing the file, always save your work so your annotations will be available for the next time.

To annotate, you should first select the timespan which corresponds to the utterance you want to annotate. Next, you should choose the appropriate tier by clicking on it. Once you have clicked on the layer you now enter the tag, as is shown in figure 3.

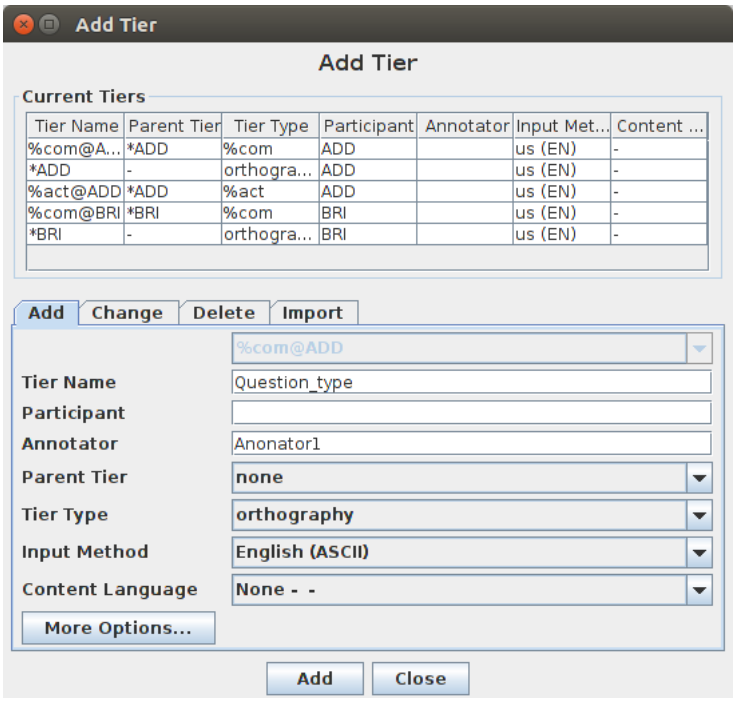

Figure 2: How to create a layer

3 Tagging questions

This section describes how you should tag questions. First, in section 3.1, we explain our tag set, and then, in section 3.2, we provide a step-by-step description of the tagging process.

3.1 Tags

Our annotation scheme uses several layers, each of which is associated with its own set of tags. In this section, we define these tag sets, layer by layer.

3.1.1 Question types

Summary: Classification of questions according to formal and functional criteria. Layer: QUESTION_TYPE. Tags: *YN* (yes/no question), *DQ* (disjunctive question), *PQ* (phatic question), *CS* (completion suggestion), *WH* (wh-question)

In this section, different types of questions are explained, a formal definition is provided and for each one of them some examples are included. We see each question type as a combination of a specific **form**, i.e., a set of syntactic characteristics, and a specific **function**, i.e., the role that a question plays in the discourse.

1. **Yes/no question (*YN*)**: In these types of question, a proposition is expressed and the expected answer will confirm or deny this proposition. Questions of this type have the form 'yes/no' and the function *non-phatic* to distinguish it from *phatic* questions (type #3). Hence, in our schema, just having the form of a *yes/no* question is not sufficient to be classified as a 'real' *yes/no* question.

   Definition 1. A *yes/no* question asks the other participant to confirm or deny a proposition.

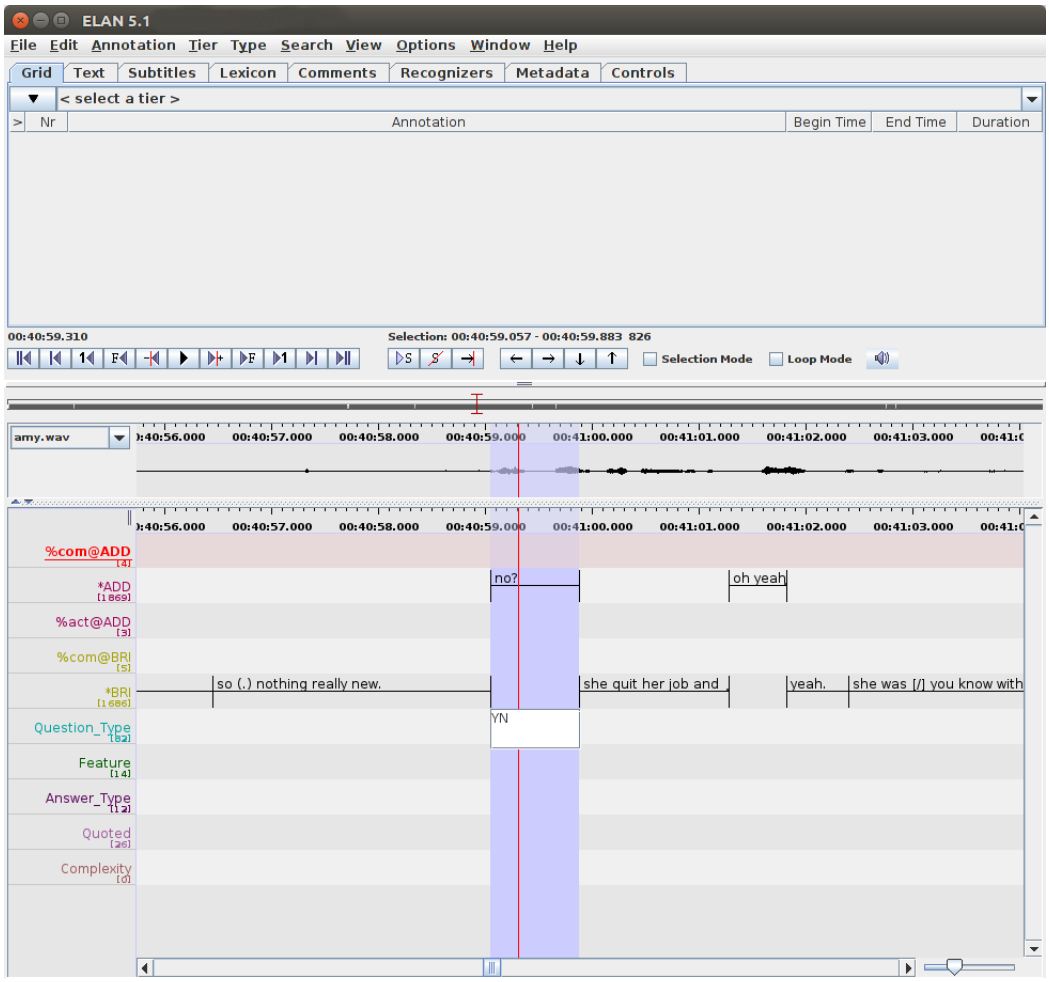

Figure 3: How to annotate an utterance

Prototypical examples

(1) Or will you be just gonna hanging around with Brianne? (SCoSE/Amy, 35)

(2) Oh d'you have a white shirt? (SCoSE/Amy, 130)

(3) Does it? (SCoSE/Amy, 70)

2. **Disjunctive question (*DQ*)**: Questions of this type usually contain "or" to distinguish between different options which are proposed to the hearer. The hearer can choose one of the options or state a third option of her own. The function of these questions is to ask for a feature, which should be annotated on its own tier (see 3.2).

   Definition 2. A disjunctive question asks the hearer to choose between one of several options.

Prototypical examples

(4) Is the wedding on Sunday or is it Saturday? (SCoSE/Amy, 227)

(5) Do you want coffee or tea?

Note. Disjunctive questions always expect a feature as an answer. This means that some questions containing 'or' (e.g. questions ending in 'or not?') are not disjunctive questions.

3. **Phatic question (*PQ*)**: Phatic questions are asked to continue participation in communication or to indicate that the listener follows the conversation or to express surprise, rather than to ask for some kind of information. Phatic questions often contain clichés like 'you know?' or 'right?', but in principle they can have any form and are distinguished by their function rather than by their form.

   Definition 3. Phatic questions are questions that have a purely communicative purpose and that do not expect an informative answer.

   Prototypical examples

   (6) Oh really? (SCoSE/Amy, 28)

   (7) Right? (SCoSE/Amy, 120)

   Note. In some cases, it is hard to decide if a question expects an informative answer or not, and hence, whether it is a phatic question or a question of one of the other types (e.g. YN, WH). Cues from prosody and the discourse context can be helpful for making this distinction.

4. **Completion suggestion (*CS*)**: Sometimes, in the middle or at the end of an utterance, the other participant of a conversation asks a question in a way to suggest an option or multiple options to the first speaker so he/she can complete his/her statement with the information provided in the question. One typical situation is when the speaker hesitates to say what he/she means and the one who asks the question tries to help him/her to finish his utterance.

   The form of a completion suggestion can vary, but in all cases, it logically continues the previous utterance, and often, it interrupts this utterance.

   Definition 4. Completion suggestions are questions that propose an expression to the other participant to be used to finish his/her statement.

   Prototypical examples

   (8) A: It includes heat and, uhm, I think...
   B: Water? (SCoSE/Amy, 747)

5. **Wh-question (*WH*)**: This type of question is easy to spot as it always contains a wh-constituent. Usually, this constituent, introduced by a wh-word, appears at the beginning of the question. Wh-questions ask for a feature (see section 3.1.2) which should be annotated for its function.

   Definition 5. A *wh*-question is a question that contains a *wh*-constituent (introduced by a *wh*-word: 'what', 'who', 'where', 'when', 'which', 'how', 'why', 'whom' or 'whose')

   Prototypical examples

   (9) What are your plans now? (SCoSE/Amy, 241)

   (10) When will you guys get off? (SCoSE/Amy, 243)

3.1.2 Features

Summary: Only for *WH*, *DQ*; indicates the semantic function wh-phrase/disjuncts/expected answer. Layer: FEATURE. Tags: • *TMP* (temporality) • *LOC* (location) • *AG* (agent) • *TH* (theme) • *OW* (owner) • *RE* (reason) • *CH* (characteristic)

Both the *wh*-phrase in a *wh*-question, and the disjuncts in a disjunctive question, have a particular semantic role in the question; the expected answer should contain a constituent with the same role. For example, in '*When* did you leave the party?', the wh-phrase 'when' denotes the time when the addressee left the party, and an appropriate answer to this question (e.g. 'around midnight') should also have this semantics. A similar example for a disjunctive question would be 'Did you leave the party before midnight or later?'.

In our annotation scheme, semantic roles are called 'features'. All wh-questions and disjunctive questions (but no questions of any of the other types) should be annotated with a tag, on the FEATURE layer, indicating their respective feature. Answers should never be tagged with a feature; this would be redundant since the feature applies both to a constituent in the question and to the corresponding constituent in the answer. There are eight different tags for features:

1. Temporality (*TMP*): the constituent refers to a moment or a period related to the event described in the question;
2. Location (*LOC*): the constituent refers to a location related to the event described in the question;
3. Agent (*AG*): the constituent refers to the person (or, less commonly, the entity) that performed the action described in the question;
4. Theme (*TH*): the constituent refers to the person or entity that underwent the action described in the question;
5. Owner (*OW*): the constituent refers to the person (or other entity capable of ownership, such as an organization) who owns (in a broad sense that also includes, for example, family relations) the entity that is described in it;
6. Reason (*RE*): the constituent refers to the the reason or motive behind the event described in the question;
7. Characteristic (*CH*): the constituent refers to a characteristic of the event described in the question.

In wh-questions, the feature of the wh-constituent is closely linked to the wh-word that is used. These correspondences are summarized in Table 1.

3.1.3 Complexity

Summary: Indicates if the utterance contains one or more questions. Layer: COMPLEXITY. Tags: • *SQ* (single question) • *MQ* (multiple questions)

In some cases, a single utterance, or even a single sentence, can comprise multiple questions. These questions do not necessarily have the same type and should therefore be tagged separately; however, since they are part of the same utterance they have a strong pragmatic relationship, they should also be tagged as a whole. Hence, we define two types of utterances:

1. Single-question utterances (*SQ*): utterances that contain only one question;
2. Multi-question utterances (*MQ*): utterances that contain at least two questions.

Wh-word	Features	Code
What + focus phrase	Feature(focus phrase)	
When	TEMPORALITY	TMP
Where	LOCATION	LOC
Who	AGENT	AG
Whom	THEME	TH
Which + focus phrase	Feature(focus phrase)	
Whose	OWNER	OW
Why	REASON	RE
How	CHARACTERISTIC	CH

Table 1: Wh-words and features

Obviously, there also exist utterances which contain no question at all, but these should not be tagged.
Note. We define an 'utterance' as a speech fragment uttered by a single speaker. In the `.cha` version of the transcriptions, the beginning of each utterance is marked by `*SPEAKER:` (where `SPEAKER` is the speaker's code); in ELAN, each utterance is marked as a single annotation. An utterance consists of one or more sentences (each of which ends in a period, a question mark, or an exclamation mark).

3.1.4 Quotations

Summary: Indicates if the question is used in direct or in indirect (quoted) speech. Layer: IS_QUOTED. Tags: • *QQ* (quoted question) • *NQ* (non-quoted question)

Conversations sometimes include quotations; for example, a speaker might be recounting a conversation that they had earlier with someone else, or a conversation between other people that they overheard. We call this 'quoted speech': it is speech that is reporting other people's speech, rather than speech that is directly aimed at the other discourse participants. 'Non-quoted speech' is all other speech: it is speech that is not part of a quotation. Questions can occur in both types of speech, and should be classified accordingly:

- Quoted questions (*QQ*): questions that are part of a quotation, and, as such, are not expected to be answered by the addressee.
- Non-quoted questions (*NQ*): all other questions

Note. Although *QQ* questions are not expected to be answered by the addressee, this does not necessarily mean that there will be no answer at all: in some cases the speaker might also recount the answer that was given in the original discourse (e.g. 'They asked me …, and then I said …').

3.2 Tagging procedure

When annotating (part of) a corpus, go through it line by line. Each line should be treated as a separate utterance. For each utterance, follow the following steps:

- Step 1: Identifying questions

Summary: Only annotate utterances that end in a question mark (in the transcription).

The first step is to identify whether or not the utterance contains at least one question. Note that, in principle, this is not a trivial task: there are many factors (including syntax, prosody and the pragmatic context) that determine whether or not the utterance has an interrogative meaning. It would be too complex and time-consuming to do a full analysis of all of these factors for each sentence, so you should not attempt to do this. Instead, simply use the analysis of the original transcribers of the corpora: all utterances that they considered to be questions are marked with a question mark at the end of the sentence.[3]

- **If you find a question mark:** go to step 2. 5
- **Otherwise:** skip this utterance and go to the next one.

Note (1). Beware that transcriptions can and do contain mistakes; in some cases, questions marks might have been placed or left out in error. If an utterance is not ended by a question mark, never tag it, even if you believe that the question mark was omitted erroneously. If there is a question mark, and if you think that this might be a transcription error, first analyze the utterance carefully with the help of the media files of the corpus (if available) and try to rule out that this utterance is a question with a non-canonical form (e.g. a yes/no question without inversion) or a non-canonical function (e.g. a rhetorical question). If you still believe that it is a transcription error, ignore the utterance and mark in the log that you did so.
Note (2). Even if only part of an utterance is interrogative, the entire utterance should be tagged as a question.

Example 1. The following sentences are ended by question marks, and from their semantics it is obvious that they are indeed questions:

(11) Oh really? (SCoSE/Amy, 28)

(12) What colour is it? (SCoSE/Amy, 75)

Example 2. Question (13) lacks a question mark, and as such should not be tagged, even if its semantics would justify doing so.

(13) *Cómo se llama.* 'What is his name.' (TalkFriend/Spanish, 274)

Example 3. (14) is an example of an utterance that, judging by the transcription, clearly looks like a question. However, when taking into account the intonation of this utterance (using the audio recordings), it becomes clear that the transcription is mistaken: in fact, the utterance that was produced is not a question, but an affirmative sentence (*'Si ya no estarían trabajando los dos sino uno.'*) followed by a discourse marker that expresses regret on the part of the speaker (*'Noo...'*). Confusingly, in Spanish, *'no'* can also be used at the end of (tag) questions, but this *'no'* has a very different intonation than *'no'* as a discourse marker, and it is easy for a native speaker to detect the difference.

(14) *Si ya no estarían trabajando los dos sino uno, no?* 'Yes, they would no longer be working together but only one, no?' (TalkFriend/Spanish, 642).

[3]Note that this notation is sometimes different from the normal convention for marking questions in written language. For example, in written Spanish, questions not only have a question mark at the end, but also an inverted question mark at the beginning. In the TalkBank corpora this is not the case.

- Step 2: Determining complexity

Summary: Check if the utterance contains multiple questions (if so, annotate *MQ*) or just one question (if so, annotate *SQ*).

Look for signs that the utterance contains more than one question. If the utterance comprises more than one sentence, and if there is more than one question mark, this is a strong indication that there are multiple questions. Also, if you see a question that contains a coordination (typically with 'and'), check if each of the coordinates is a question of its own.

- **If there is more than one question:**
  1. Mark the entire sentence with *MQ* on the COMPLEXITY layer.
  2. For each sub-question, find and mark its timespan.
  3. For each sub-question, execute step 3 and subsequent steps.
- **Otherwise:** go to step 3.

Example 4. The utterance in (15) contains two questions, 'And him in what?' and 'In golf?'. The complete utterance should be tagged with *MQ* on the COMPLEXITY layer. The first part should be tagged as *WH* (QUESTION_TYPE), *TH* (FEATURE), and *DS* (COMPLEXITY). The second part should be tagged as *YN* (QUESTION_TYPE) and *DS* (COMPLEXITY).

(15) *Y e-, él, él en qué? En golf.*[4] 'And him in what? In golf?' (TalkFriend/Spanish, 557)

- Step 3: Assigning question types

Summary: Check the definitions of *WH, DQ, YN, CS, PQ* and apply the first matching tag.

Go through all of the question type definitions and check if the current question matches that definition. Once you have a match, stop and tag the question accordingly. If nothing matches, assign the last tag on the list (i.e., *PQ*), unless you have a very strong suspicion that the utterance you are looking at is not in fact a question (i.e. that the question mark in the transcription was added erroneously) – see the note in step 1.

Use the following order for trying definitions:

1. Wh-questions (*WH*)
2. Disjunctive question (*DQ*)
3. Yes/No questions (*YN*)
4. Completion suggestion (*CS*)
5. Phatic questions (*PQ*)

- **If you assigned *DQ* or *WH*:** go to step 4.
- **Otherwise:** go to step 5.

For examples for each of the question types, go to section 3.1.1.

- Step 4: Assigning feature types

Summary: For wh-questions with *when, where, who, whom, whose, why, how*: choose the feature from the list. In all other cases, find the most likely feature based on semantics.

[4] Note that the second question (very likely mistakenly) does not end in a question mark, so it should not be tagged; the tags given here are for illustration purposes only and apply to the hypothetical situation in which it would have been marked with a question mark.

- **For wh-questions (*WH*):** first find the main wh-phrase in the sentence. The 'main' wh-phrase is defined as:

  (a) The fronted wh-phrase (in English and other languages with wh-movement), if there is one;

  (b) More generally, the wh-phrase that, according to your semantic judgement, refers to the piece of information that the asker of the question would like to know.

  – If the main wh-phrase starts with *when, where, who, whom, whose, why,* or *how* (in English) or the translation equivalent of one of these wh-words in a different language, choose the corresponding feature from Table 1 (page 8).

  – If the main wh-phrase starts with *what* or *which* plus a 'focus phrase' (e.g. 'what *[book]*', 'which *[wealthy country]*'), choose the feature from the table that comes closest to describing the semantic role of the focus phrase. Do this by using your own semantic judgment, but look, where possible, for clues in the syntactic structure of the sentence (see the note at the bottom of this step).

  – If the main wh-phrase only consists of *what*, without a focus phrase, choose the feature from the table that comes closest to describing the semantic role of the wh-phrase. Again, use your semantic judgement and syntactic cues.

- **For disjunctive questions (*DQ*)**: identify the disjuncts in the sentence. Then, choose the feature from the table that comes closest to describing the semantic role of these disjuncts. Again, use your semantic judgment and clues from the syntax of the wh-phrase (see the note below).

Go to step 5.

Note (1). If the semantic role of the phrase that you are tagging does not correspond to any of the feature type definitions, default to the tag *TH*.

Note (2). The following syntactic clues can be helpful for identifying the feature of a focus phrase or of a disjunct in a disjunctive question:

(a) *Syntactic role/position:* agents (*AG*) are often subjects; themes (*TH*) are often objects.

(b) *Prepositions:* in prepositional wh-phrases, the preposition (or postposition) can sometimes give clues about the semantic role of the phrase (but note that some are ambiguous):

- 'in', 'at', 'under', 'behind', … ⇒ location (*LOC*)
- 'in', 'at', 'after', 'during', … ⇒ temporality (*TMP*)
- 'because of', 'thanks to', … ⇒ reason (*CH*)

Example 5. In (16), the wh-constituent is easy to find: it is 'what', located at the front of the sentence. It is not followed by a focus phrase, so we have to try to find the semantic role of *what* itself. In this case, *what* represents the contents of the plans of the addressee of the question; the semantic role that comes closest to describing this is theme (*TH*).

(16) What are your plans now? (SCoSE/Amy, 241)

In (17), the wh-constituent, *where*, is not fronted, but is still easily identifiable. For *where*, the feature can be found in the table: it is 'location' *LOC*.

(17) To where? (SCoSE/Amy, 2483)

- Step 5: Determining 'is quoted' status

Summary: If the transcription indicates quoted speech (or if there are other strong clues): annotate *QQ*; otherwise annotate *NQ*.

Check if the question you are looking at was uttered in the context of direct or of indirect speech. To do this, look for clues in the transcription. Indirect speech is indicated in one of the following ways:

(a) It starts with `` and ends with '';

(b) It is introduced by +";

(c) Is is ended by +".

(d) The preceding utterance is ended by +"/.

If the transcriptions indicate that an utterance, or part of an utterance, is quoted, always annotate it as such. However, if there is no such indication, it is still possible that the utterance is quoted speech. If you believe that this might be the case, use the following two factors to guide your decision:

(a) *Prosody:* listen carefully to the audio recording of the utterance (if available). If the speaker is using an unusual intonation (e.g. imitating someone else's voice), this could be an indication of indirect speech.

(b) *Pragmatic context:* if the question you are looking at is part of a story (or conversation) that the speaker is telling from the perspective of someone else, it is likely that it is indirect speech. However, be careful: it is also possible that the speaker interrupts their story to ask a question 'as themselves'; in this case, the question is obviously not indirect speech.

- **If the question is (part of) indirect speech:** annotate *QQ* on the QUOTED layer.
- **Otherwise:** annotate *NQ* on the QUOTED layer.

Example 6. (18) is quoted speech: it is marked with quotation marks and from the context it is clear that the speaker is not asking this question to her conversational partner, but is simply reporting that someone else asked this question. By contrast, (19) is not marked with quotation marks and is asked directly to the speaker's interlocutor.

(18) "So you're gonna be home then?" (SCoSE/Amy, 33)

(19) What colour is it? (SCoSE/Amy, 75)

- Step 6: Checking your annotations

Check your own annotations for the current question. Please pay attention to the following:

- Check that you included a tag in each layer that you needed to tag (e.g., if you annotated a question as WH or DQ, make sure that you also include a feature);
- Check that every tag was placed in the correct layer;
- Check that there are no typos in the tags that you used

Question_Type (Code)	Anwer_Type (Code)	Description
YN, CS	PA	Positive Answer
YN,CS	NA	Negative Answer
DQ, WH	FA	Feature Answer
YN, CS, DQ, WH, PQ	PHA	Phatic Answer
YN, CS, DQ, WH, PQ	UA	Uncertain Answer
YN, CS, DQ, WH, PQ	UT	Unrelated Topic
YN, CS, DQ, WH, PQ	DA	Deny the Assumption

Table 2: Possible answers types according to question types

4 Tagging answers

This section explains how to annotate answers. First in section 4.1.1 we explain the different tags and in section 4.2 we explain the process you should follow to tag the answers.

4.1 Tags

This section contains the description of each type of answers and the tags that correspond to those types.

4.1.1 Answer types

Summary: Classification of answers. Layer: ANSWER_TYPE. Tags: *PA* (positive answer), *NA* (negative answer), *FA* (feature answer), *PHA* (phatic answer), *UA* (uncertain answer), *UT* (unrelated topic), and *DA* (deny the assumption)

In this section, different types of answers are explained, a formal definition is provided and for each one of them some examples are included. Contrary to the questions, we do not make a distinction between form and function. Instead, answer types are based on the types of questions that they respond to. The correspondences between question types and answer types are summarized in table 4.1.1.

1. **Positive answer (*PA*)**: This type of answer is expressed to confirm the proposition contained in the question. Usually, but not always, positive answers include positive tokens (such as yes, right, okay, sure ah, oh yeah,...). Positive answers are expressed in response to yes/no and completion suggestion questions.

   Definition 6. A positive answer is an utterance that indicates that the proposition of a question is true.

   #### Prototypical examples

   (20) Q: Are you still friends with all those same people if it doesn't work out?
   A: Exactly (SCoSE/Amy, 2707- 2808)

   (21) Q: Yeah, do you really?
   A: Yeah! (SCoSE/Amy, 218-219)

   Note. If an answer expresses some uncertainty, but is clearly more positive than negative, it should still be tagged as a positive answer.

2. **Negative answer (*NA*)**: Negative answers are opposite of positive answers. This type of answer denies the proposition contained in the question. It is very likely that the answer includes negative tokens (such as no, not, never,...). Negative answers are expressed in response to yes/no and confirmation suggestion questions.

   Definition 7. A negative answer is an utterance that indicates that the proposition of a question is false.

   Prototypical examples

   (22) Q: Are you going too?
   A: Oh I can't. (SCoSE/Amy, 323- 324)

   (23) Q:do you know anyone that goes there?
   A: No! (SCoSE/Amy, 218-219)

   Note. If an answer expresses some uncertainty, but is clearly more negative than positive, it should still be tagged as a negative answer.

3. **Feature answer (*FA*)**: In feature answers, the speaker refers to the feature that has been asked for in the question. This type of answer answers either a wh-question or a disjunctive question.

   Definition 8. A feature answer expresses the feature or features that have been asked in the question.

   Prototypical examples

   (24) Q: What colour is it?
   A: It is midnight blue. (SCoSE/Amy, 75- 76)

4. **Phatic answer (*PHA*)**: Phatic answers play a role that is similar to that of phatic questions. Phatic answers can be expressed in response to any type of question.

   Definition 9. Phatic answers are utterances with a purely communicative purpose which do not have any informational content.

   Prototypical examples

   (25) Q: So what is the point?
   A: Yeah! (SCoSE/Amy, 3497- 3498)

5. **Uncertainty answer (*UA*)**: These type of answers is used when the speaker does not know the answer or cannot provide the information that is asked in the question. This type of question often contains expressions like 'I don't know' or 'I am not sure'.

   Definition 10. An uncertainty answer indicates that the speaker does not know or cannot provide the information that is asked in the question.

Prototypical examples

(26) Q: Is the wedding on Sunday or is it Saturday?
A: It's ... I don't even know. (SCoSE/Amy, 227- 228)

Note (1). In some cases, an answer expresses uncertainty, but also provides the information that the question asked for. In such cases, the answer is not an uncertainty answer but has the type of the provided information.

Note (2). A disjunctive answer to a yes/no question should be considered to be an uncertainty answer. For example, in (27), the first part of the answer ('that') confirms the proposition in the question, while the rest of the answer ('or else ...') denies it and proposes an alternative. Overall, the answer does not confirm or deny the proposition and should be tagged as an uncertainty answer.

(27) Q: You go through four years of regular school, and then to art school or what?
A: That, or else I transfer to a university that has a stronger art department. (SCoSE/Amy, 908-909)

6. **Unrelated topic (*UT*)**: Unrelated topic answers are those answers whose informational content is not related to the question in a direct way. In other words, the question asks some particular information and the answer does not provide that required information directly or the answer speaks about a completely different proposition.

   Definition 11. Unrelated topic answers are answers that are not related to the question.

   Prototypical examples

   (28) Q: when will you guys get off?
   A: my last exam is like. I don't know.[5] (SCoSE/Amy, 243- 244)

7. **Deny the assumption (*DA*)**: 'Deny the assumption' answers are expressed when the question has some presupposition about a phenomenon and the answer negates that presupposition. For example, the question 'have you stopped smoking?' presupposes that you used to be a smoker, even if it is answered negatively. By answering along the lines of 'I never smoked', you denied this presupposition. 'Deny the assumption' answers are quite different from negative answers, although, in many cases, they have a similar form (e.g. they contain a negation); which of the two types applies in a specific situation depends on the context.

   Definition 12. Deny of assumption answers, deny the assumption that the question has taken into account.

   Prototypical examples

   (29) Q: what are your plans now?
   A: I don't have any plans. (SCoSE/Amy, 241- 242)

[5] In this particular example, 'I don't know' is an expression about the date of the exam and not an answer to the question

4.1.2 Quotations

The definitions and tags as described in section 3.1.4 apply to questions as well as to answers.

4.2 Tagging procedure

- Step 1: Identifying answers

Summary: The answer should be a single utterance that occurs shortly after the corresponding question, is pragmatically and/or semantically related to the question, and is not itself a question.

The hardest part of answer tagging is identifying what and where exactly the answer is. What you should do is try to find a single, complete utterance that satisfies the following conditions:

- The utterance should be uttered shortly after the question.
  - Unfortunately, 'shortly' cannot be defined objectively. In many cases, the answer will be the utterance directly after the question, but in some cases, it can be one or a few utterances after that.
  - In some cases, the answer will interrupt the question, i.e., the answer will be given while the question is still being formulated.
- The utterance should be pragmatically and/or semantically related to the question that it answers.
  - Prototypically, the answer will be uttered in response to the question (pragmatics) and contain the information that was requested in the question (semantics).
  - In some cases, the utterance can be indirect, or be semantically unrelated to the question. However, if it is uttered as a response to the question, it should still be considered to be an answer.
  - If the utterance is uttered in response to either an external stimulus or to an utterance other than the question, it should not be tagged as an answer.
- The utterance is not itself a question.
  - If a question is directly followed by another question, this second question should always be tagged as a question rather than as an answer, even if it is asked in response to the earlier question.
- Interjections (e.g. 'uhm', 'mhm mhm') can also be answers.

Note (1). In some cases, there is no answer at all. In such cases, you do not have to tag anything.
Note (2). The only case in which you should annotate more than one utterance as the answer is in cases where a speaker is interrupted by another speaker, and continues their answer in the next utterance.

Example 7. (30) is an example of a prototypical case where the answer is simply the first utterance after the question. On the other hand, in (31), the situation is more complex: the answer to the question in the first line is given in the third line ('Is it a guy or a girl?'/'It's a guy'), and the answer to the second question is given in the fourth line ('A woman teacher?'/'A guy teacher')

(30) Q: What colour is it?
A: It's midnight blue. (SCoSE/Amy, 75-76)

(31) Q: Is it a guy or a girl?
Q: A woman teacher?
A: It's a guy.
A: A guy teacher. (SCoSE/Amy, 2296-2300)

Example 8. The answer in (28) above is an example of an utterance that does not directly answer the question that was asked, but is clearly uttered in response to it. Utterances like this should be tagged as an answer and assigned the type *UT*. By contrast, in (32), from the context it is clear the utterance that follows the question is uttered in response to a stimulus that is external to the conversation (i.e. the 'handsome man' that the speaker sees), not to the question that was asked; and the question itself is never answered. In such cases, nothing will be tagged as an answer.

(32) Q: *Wat doet-ie?* ('What does he do?')
A: *Ik zie een mooie man.* ('I see a handsome man.') (CGN/fn008003, 91-92)

- Step 2: Assigning answer types

Summary: For answers to *YN, CS* questions, first try *PA, NA*; for *WH, DQ*, first try *FA*; after this, and for other question types, try *DA, UA, UT, PHA* (in that order).

For assigning answer types, first check the type of the question that the answer responds to.

- **If the question has type *YN* or *CS*:** first check if the answer matches the definition of *PA* (Positive Answer) or *NA* (Negative Answer). If either of these matches, apply one of these two tags, as appropriate. If not, go to 'All question types' below.
- **If the question has type *WH* or *DQ*:** first check if the answer matches the definition of *FA* (Feature Answer). If it does, apply this tag. If not, go to 'All question types' below.
- **All question types:** check the following answer types in the specified order, and apply the first one whose definition matches:
  - *DA* (Deny the Assumption)
  - *UA* (Uncertainty Answer)
  - *UT* (Unrelated Topic)
  - *PHA* (Phatic Answer)

For examples of each of the answer types, go to section 4.1.1.

- Step 3: Determining 'is quoted' status

Follow the same steps as in step 5 of the tagging procedure for questions.

- Step 4: Checking your annotations

Follow the same steps as described in step 6 of the tagging procedure for questions.

5 Troubleshooting

This section lists the possible problems you may face while annotating.

- **I have mistakenly created an annotation in a layer. How can I erase the annotation?** Select the annotation, right-click on it and then choose 'Delete annotation'.

- **Two utterances need to be tagged, but in the transcription, they appeared overlapped. How can I annotate both of them?**
  First, identify the shortest one. If this utterance is in the beginning or middle of the overlapping, you should tag from the beginning of the overlap until the end of the utterance, and then begin the second annotation for the longest one. In the other case, you should tag the longest one from the beginning until the second utterance starts and then tag the second utterance. See figure 4.

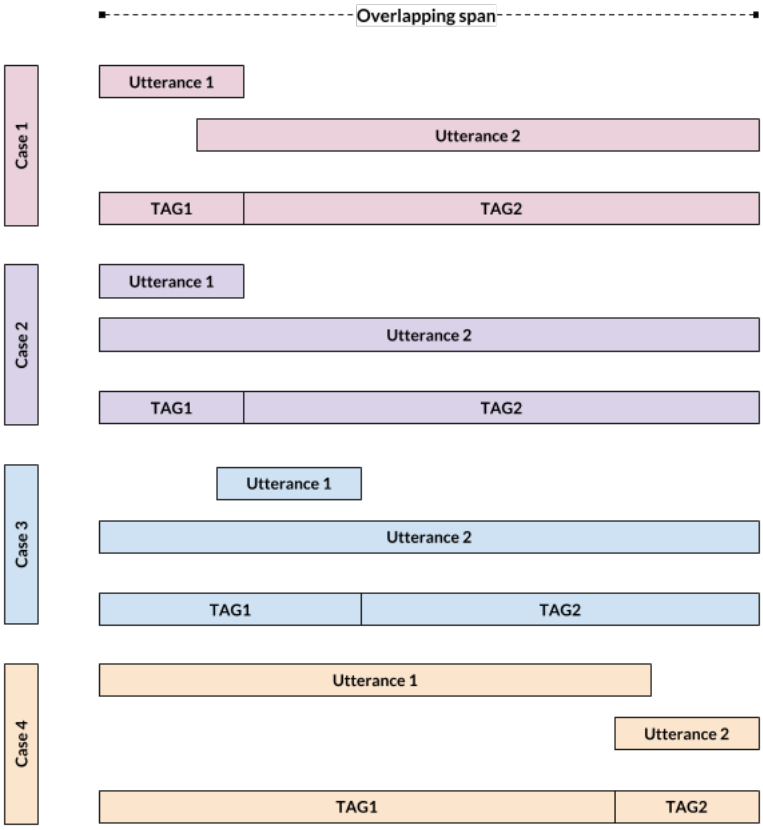

Figure 4: How to annotate overlapping utterances

- **The answer to a question is not the following utterance. (This can be the case when the speaker adds more information or there exists more than one question, and the hearer answers first one of the questions.) Is there any identifier of which answer belongs to which question?**
  There is not such identifier. You should annotate the question and the answer as usual, without extra information.

- **There is an interruption in the question or answer I am annotating. What should I do?**
  The strategy to obtain the whole question/answer will be to enumerate the tags. That is, in the QUESTION_TYPE layer, whenever there is an interruption, you should annotate the question as usual, but add an underscore and number (which will identify the order) starting from 1. For example, you classify the question as a *WH* question, but the question is split into two utterances, then your tags for each utterance that made the complete question will be *WH_1* for the first utterance and *WH_2* for the second one. The Figure 5 illustrates this.

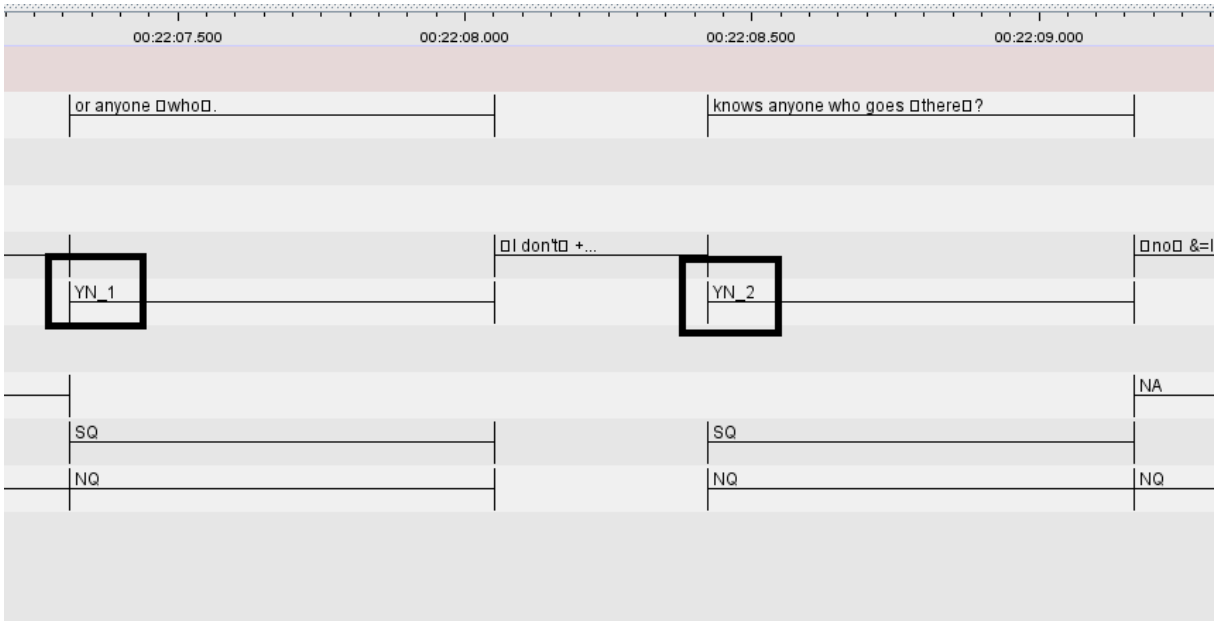

Figure 5: How to annotate interrupted utterances. Question: *or anyone who ...* + *... knows anyone who goes there?*