Coding scheme for actions in asynchronous (crisis related) conversations

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Different actions have differing functions in conversation: they have different purposes and by using them speakers perform social actions within the conversation, and invite others to participate or take action. Actions are used to build coherence and mutual understanding between participants in conversation (e.g., Schegloff, 1977). Some actions expect an answer and not answering might break social norms (see e.g., (e.g., Stivers and Rossano, 2010; Paakki et al., 2021). Also, some actions (e.g. accusations and challenges) are often seen as face-threatening (Brown and Levinson, 1987). Actions represent what the main functions of a post are within the conversation, i.e. what it does and how it relates to other actions taken in previous posts.

Overview of coding-scheme

Pair initiating actions	Question
	Challenge
	Accusation
	Request (includes proposal, command)
	Statement (includes informing, announcement, answer to question, negative/neutral evaluation)
	Appreciation
Responding actions	Acceptance (acceptance or admission)
	Denial (rejection or denial)

Action descriptions

First actions i.e. actions that start a new social action pair. An action pair is formed of two actions that form a structural unit of conversation, consisting of a pair of posts to an online forum: those which we here refer to as pair initiating actions (first pair part) and responding actions (second pair part). Pair initiating actions project and create expectations of a specific type of response (Paakki et al., 2021). For example, question expects an answer (Schegloff 1968, 2007). Action pairs allow people to behave in a coherent and accountable manner (Paakki et al., 2021).

Question

Requests information, and makes relevant an answer which either provides or confirms the information, or expresses inability or unwillingness to do so (Couper-Kuhlen & Selting, 2018: 217–248.). Questions can be of several types: yes-no-question (syntactic markings of a yes-no-question: subject-inversion or sentence-final tags), or declarative questions. Declarative questions are utterances that function pragmatically as questions but do not have "question form." By this we mean that declarative questions normally have no wh-word as the argument of the verb (except in "echo-question" format), and have "declarative" word order in which the subject precedes the verb (see also Weber, 1993; Stolcke et al., 2000).

NB. sometimes comments may seem like questions (rhetorical questions), but they do not actually seek information – so when a question does not expect information or an answer, it is very likely not a question ("why are you taking time to post a reddit comment? get back to work, lazy, entitled, slacking snowflake").

Example utterances:
- Do you have to have any special training?
- But that doesn't eliminate it, does it?
- Uh, I guess a year ago you're probably watching C N N a lot, right?
- So you're taking a government course?
- Well, how old are you?

Request

This class includes requests for action, proposals and commands.

A request is used to proffer a service for the speaker (Couper-Kuhlen, 2014; Clayman, 2014), expecting an acceptance or rejection (Couper-Kuhlen, 2014: 259–266). We consider them similar to proposals, as both are directives. They can often be recognized from

imperative verb form (like "Please give me the bottle"). Commands are more direct, but here considered as part of the same class for classification purposes, e.g. "go away!".

Example utterances:
- "Stop bothering me!"
- "(Please) Tell me how to find the HR office."
- "Please go to Ruoholahti station by subway and meet me there."

Proposals are similar to requests, but instead of directly requesting for some other person to act, they offer a more indirect suggestion. These are more often more polite than requests. Proposals often do not contain direct imperative forms, as they tend to be more indirect suggestions.

Example utterances:
- "Maybe you could try drinking more tea instead of coffee."
- "The government should buy more masks for the public."

Note that indirect directives can also have the agenda of being requests or proposals, e.g. "Why don't you go first". This has the word "why" which is usually found in questions, but it is really a proposal more than a question.

Accusation

An Accusation conveys a negative stance or complaint, ascribing the responsibility for an unsatisfactory event to a person or a group, thus demanding for accountability (Turowetz & Maynard, 2010). To be clear regarding the difference between *challenge* and *accusation*: an *accusation* relates usually to a moral or social behavior related conflict, rather than epistemic. The accused is expected to deny or contest the accusation (Pomerantz, 1978; Atkinson & Drew, 1979; Buttny, 1993), acknowledge it and explain themselves (Dersley & Wootton, 2000) or perhaps apologize. For example, an accusation can express a complaint about something another person did wrong, something that goes against generally accepted social norms or rules. Accusations often describe some action taken by another person, something that is commonly considered to be wrong or impolite, and then they assign blame for this action to another person or group.

Example utterances:
- "You just called Helen an idiot, basically, that's what you implied. That's so impolite."
- "You are obviously trolling, and not even seriously taking part in the discussion."
- "You are being extremely petty."

Challenge

A challenge conveys a negative stance towards another party (individual or group), denying the epistemic knowledge basis of the interlocutor's priorly expressed claims, position, or feelings, through various forms (e.g. assertive/interrogative; Koshik, 2003). As opposed to *accusations*, we stress here that *challenges* involve an *epistemic* conflict. So, challenges are directed against beliefs, opinions or something that is not necessarily socially or morally wrong – the challenger mainly wants to oppose that belief/opinion, because they disagree. A challenge might include explicit linguistic cues (for example, "you are wrong"). Examples messages of the category:
- "That's a completely ridiculous claim and, may I add, you are totally incorrect."
- "Seems like you can't prove your claims."

Manifest features of challenging: valenced (negatively) strong counter positioning through words e.g. "there are severe problems to…", "The (negative) actions/impacts of X we have already seen", "Well, its is widely known that… unlike you claimed… ", "It is worrying… /troublesome to claim that… ". Similes or metaphors that create polarized/provocative juxtapositions can also be characteristics of challenges.

Statement

A statement provides information or an opinion, either without someone asking for it or as a reply to someone asking for information. In other words, we mainly consider statements to be part of the 'pair initiating' actions, but it can also be in used in the position of responsive action. In our data, statements were often used as responses to questions without answer specific characteristics that would make them different from other statements. This class includes informing statements, announcements, negative/neutral evaluation and answers to questions:

Informing statement: asserts a fact or a claim; provides information or opinion. They do not set a high expectation for a response (Stivers & Rossano, 2010). They can be "descriptive, narrative, or personal" statements or "other-directed opinion statements" (Stolcke et al., 2000).

Example Utterances:
- I have a cat.
- He's about five months old.
- I believe the earth is warming. I believe this is driven primarily through human-caused CO2 emissions.
- I think he has autism.

Opinion statements often include such hedges as I think, I believe, it seems, and I mean.

Announcement: Announcements that e.g. report a general rule or information are seen as similar to statements. However, they differ from statements somewhat in that they usually announce some new general information, e.g. piece of news in a forum discussion group:
- "Breaking news: England just left the EU!"

Or they report or announce a general rule:
- "From this day on trolling will be completely banned from this discussion group."
- "This group uses bots as moderators, so please note that if you misbehave your comments will be deleted by our moderator bot."

Answer to a question: Answers (to question) Answers are also semantically significant since they are likely to contain new information. I.e. important characteristic of an answer is that it often contains novel information that has been requested by someone else in the discussion. (Stolcke et al., 2000).
- "My name is Hannah."
- "I'm Finnish."

Note that while in earlier work yes-answers include yes, yeah, yep, uh-huh, and other variations on yes, when they are acting as an answer to a yes-no-question or declarative question, and answers also include no-answers, here 'yes'/'no' marked responses are usually included in the 'acceptance' or 'denial' category, and possible subsequent new information stated is considered a statement. This is for the purpose of computational modelling.

Evaluation: Sometimes called assessment. Evaluations (or assessments) are utterances that are positively or negatively valenced through use of specific lexically assessing terms (e.g. adjectives such as wonderful, difficult, awful). This class includes evaluations that are neutral or negative in valence (sentiment), evaluating something through e.g. the use of adjectives ("This is a terrible thing.") (cf. Couper-Kuhlen, 2015). NB! In this annotation shceme we will include positively valenced in the category appreciation. Evaluations can be very similar to informing statement (or appear together with them); this is why, based on our annotation scheme and guideline development process, we decided to include them in the *statement* class.

Example utterances:
- "I think it would be kind of stressful."
- "That's horrible, another virus. This year is just the worst year in the world."

The focus of evaluations can also be on the speaker's personal assessment/evaluation of an item/topic:
- "the book is not very good,it has some interesting parts but it's too long"
- "Everybody knows that cats can be difficult"
- "I think cats are difficult".
- "Politics is difficult" → evaluation
- "War crimes are disgraceful, not even 'following orders' is an excuse because you have a choice, you always have a choice, I'd die to protect civilians, even of the enemy"

Appreciation

Appreciation includes various forms of positive evaluative reactions, evaluations and thanking (Cheng, 2010), which can invite a response but do not strongly require it. Basically, these are evaluations, but we want to specifically include a category that distinguishes positive evaluations from other types of evaluations, because they tended to often be used differently and separately from informing statements.
- "An interesting idea"
- "it is cool, that's great"
- "Thanks that's a really great thing you posted."

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Responsive actions that reply to other pair initiating actions that normatively expect a response:

Acceptance

Acceptance includes both *admission* and *acceptance* response action types.
Acceptance: (usually similar to some extent with agreement) marks the degree to which a speaker accepts some previous proposal or invitation (e.g. to a party), plan, opinion, or statement. These are very often marked with 'yes' or 'yeah' at the beginning, acceptances/agreements often follow opinions, requests or proposals, so distinguishing these can be important for the discourse (Stolcke et al., 2000).

Example utterances:
- "yeah it does, they all do."
- "yes, I'd love to come. I'll swing by at 8pm."
- "Saturday sounds fine."
- "that's exactly it"

Admission: This is the positively positioned counterpart of denial. As a denial contests an accusation (or challenge), an admission is to admit that the accusation is actually true and the accused agrees they have done what they have been accused of.

Example utterances:
- "Yes, you're right, I did call Helen an idiot. And I meant it."
- "Yes I am trolling."

Denial

We decided, based on our annotation scheme development, to include rejections and denials in one category due to their similarities. In a case where the message includes at least two actions, often clear features that point to the message being a responding message with a denial or rejection include e.g. starting with "No, it's definitely not like that", "Yes. But…. ").

Rejection: this is the negatively positioned counterpart to acceptance – rejections mark the degree to which a speaker does not accept or rejects (or resists) some previous proposal or invitation (e.g. to a party), plan, opinion, or statement.

Example utterances:
- "I don't think so."
- "No Friday I'm booked all day."

Denial: this is the negatively positioned counterpart to admission. Denials and admissions are essentially related to accusations or challenges, as they are the most natural responses to these action types. For instance, a person who is accused of some wrong-doing is expected to deny or contest the accusation (Pomerantz, 1978; Atkinson & Drew, 1979; Buttny, 1993), admit the wrong they have done, explain themselves (Dersley & Wootton, 2000) or perhaps apologize. Denials essentially contest the accusation (or a challenge) e.g.:
- "No I'm not trolling."
- "You're wrong, I did not say she is stupid, I did not mean such a thing!"

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