



Silent pauses as clarification trigger

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ABSTRACT

Among possible pragmatic feedback that an interlocutor can use to acknowledge the degree of understanding of an utterance, clarification requests (CRs) are to be considered. The functional role of CRs can furthermore be expressed via silent pauses - or failed turn-giving moves - which express an understanding problem and are solved through a clarify speech act. Therefore, in this work we investigated silent pauses that, in specific conditions, may also have an interactional role which is interpreted by the speaker as a clarification need.

INTRODUCTION

In conversations, interlocutors constantly need to signal or check the understanding of the latest utterance.

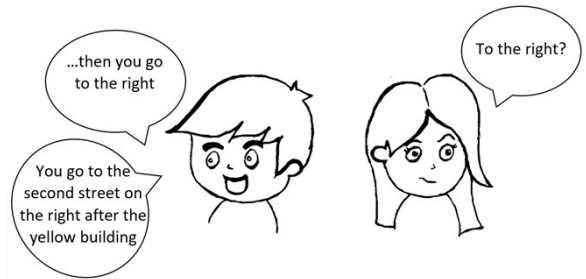
Clarification Requests :

anaphoric feedback initiated when the processing of a preceding utterance occurs [1] in order to acknowledge the degree of understanding of the input [2].

polar questions, wh-questions, alternative questions... expressing specific communicative problems, i.e. acoustic, lexical, syntactic, logical, and inferential problems [3].

⇒ CRs' perlocutive effect is the **clarify** speech act [4]: additional information to one's own or other speaker's previous utterance

Communicative values of **long silences** in conversation (> 1 s duration):
between-speakers long silences (gaps) perceived as a cue for troubles in conversation [5,6]
within-speaker long silences (pauses) discourse structuring, speakers' hesitation due to troubles in information processing [7,8]



RESEARCH QUESTION

Could the pragmatic function of **clarification request** be conveyed **implicitly** – interlocutors' silent pauses interpreted by the speaker as clarification need and triggering clarification – as well as **explicitly**?

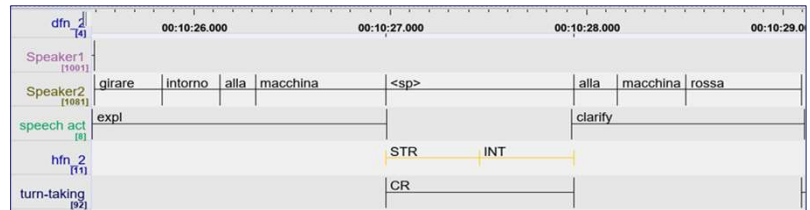
METHOD AND MATERIAL

Corpus

- 8 Italian task-oriented dialogues (CLIPS Corpus) [9]
- 16 speakers (Naples/Rome)
- 1h 30' speech (about 12' per dialogue)

Annotation levels:

- Clarification Requests (CRs) [3]
- Gaps and pauses [10]
- Pauses' functions [11]
 - structuring (STR) > syntactic and intonation levels
 - interactional (INT) > speech processing in interaction
- Contextual dialogue moves (PRATID) [4]



Example of STR-INT silence triggering a clarify move [speaker2: (you) turn around the car <sp> around the red car]

STR-INT pauses that occur after a speech act requiring a response and trigger a clarify speech act → **«Implicit CRs»**

RESULTS

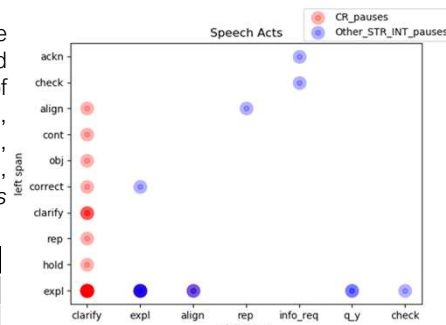
- In 1h 30' speech **168 CRs** were found - **135 explicit, 33 implicit**.
- Std. dev. values reveal high inter-dialogue (=> inter-speaker) variability

dialogue	duration (min)	turns/min	n° CRs	turns/CRs	Explicit CRs	Implicit CRs
mean	11:53	20,3	21,6	13,4	78%	22%
std.dev.	04:30	3,7	15,8	5,8	8%	8%

- Implicit CRs are **longer** and mostly **preceded by an explanation** and **followed by a clarification**. Here, a not clear enough explanation caused the hearer not to take the given turn and the speaker continued with a clarification.

- Other STR-INT pauses are mostly followed by detailed explanations or other kinds of speech acts, such as align (i.e., *Did you get it?*), questions (i.e., *Can you tell me what you see?*), and check (i.e., *Do you have this woman in the small display?*).

type of silence	mean dur (sec)
gap	0,52
pause	0,46
STR-INT pause	1,46



CONCLUSION

The work has shown that the presence of troubles in conversation due to understanding problems could be signaled explicitly, through requests (explicit CRs), or implicitly, through structuring and interactional silent pauses (implicit CRs).

Implicit CRs express the interlocutor's information processing difficulties which are not yet verbalized and are solved by the speaker before being explicitly expressed. They covered a **smaller, though consistent, amount of CRs**.

The analysis of silences duration confirmed the tendency previously described [5] as STR-INT pauses resulting from failed inter-turn silences – expressing some kind of troubles – are **longer** than intra-turn silences (pauses) and successful inter-turn silences (gaps).

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