Initiative in Health Care Dialogues

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Abstract

"Initiative", or "control over the flow of conversation", can be superficially mapped to the distinction between "open" and "closed" questions developed by psychiatrists in the analysis of human-human cancer care dialogues. We explore here the linguistic patterns and mechanisms of initiative found in a corpus of health care dialogues [1], and the significance of this data for more general research. The dialogue functions of individual utterances, especially questions, are often ambiguous until seen in the context of a longer sequence.

1.1. "Initiative" in dialogue analysis

Walker & Whittaker (1990) distinguish four utterance types in terms of shifts in control:

assertions, commands, questions - maintain speaker control;

prompts ("utterances which do not express propositional content") - pass control to the hearer.

"Prompt" covers a wider range of syntactic utterance types than indicated: backchannels are the clearest case, but repetitions, reformulations, most types of questions, and even completions can be used as prompts. Our corpus also shows many types of questions. Both wh- and yes-no questions can be used either to maintain or transfer initiative, depending on their semantic content and discourse context.

[1] Our corpus consists of 37 dialogues between Macmillan Cancer Care nurses and patients, each comprising 200-1200 utterances (mostly 300-600). They were collected in a study undertaken by the Psychological Medicine Group, University of Manchester, funded by Cancer Research UK. See Wood 2001, Wood et al 2002 for details.

1.2. Dialogue analysis in cancer care

Cancer patients' mental health improves when they discuss freely whatever they may be worried about. Doctors and nurses aim to speak in a way which encourages this. We thus find a higher than usual proportion of grounding moves to ensure mutual understanding and trust; repetitions, paraphrases, and summaries ensuring factual clarifications; backchannels, and a wide range of other prompting utterance types (Wood et al 2002). Psycho-oncology analyses distinguish questions primarily as "open" or "closed": opening out, or restricting, the range of appropriate answers available to the patient (Maguire et al 1996).

These dialogues are also unusual in combining elements of "tutorial" and "collaborative" style, often in distinct phases within a single dialogue. The nurses' goals are both to learn about the patients' condition, and to inform the patients about their diagnosis and treatment. It is thus no surprise to find patterns of initiative shifting.

1.3. "Initiative" in cancer care dialogues

The concept of "initiative" is obviously valuable in describing the dialogue patterns of interest in psycho-oncology. Some mappings between the two fields of study are fairly clear. In particular, "prompts", relatively rare in well-studied dialogue types, are common here.

The simplest form of prompt is the backchannel (Whittaker et al's paradigm case). Typically, a nurse uses backchannels to encourage the patient to keep talking, actively promoting hearer control. Backchannels are easily recognised, and good indicators of initiative, but perhaps even more significant as embedding contexts for Dialogue Acts which in isolation could be ambiguous, such as certain question types.

2. Questions and control

Questions can be classified along many distinct parameters, including syntactic, semantic, and pragmatic. (These should be kept distinct: confusion and inconsistency are likely to arise in annotation schemes where they are not.) It is tempting to align wh-questions with open questions and hearer control, yes-no questions with closed questions and speaker control, as claimed in Wood (2001), where the utterance `Why did you say that about selectron? Have you had it before?` is analysed as an open question followed by a closed question. Many clear-cut examples do exist, but all four mappings are found in our corpus. Where wh-questions are closed or yes-no questions are open, the function can be determined either by semantic content or by dialogue context. A sequence of specific wh-questions can be highly directive, while a yes-no question in a context rich in prompts can give the hearer control.

Open wh-questions

Wh-questions are commonly open-ended and offer initiative to the hearer. Some are clear even out of context:

`N: What sort of things are frightening you?`

`N: Well what else is remaining to be sorted?`

They are often surrounded by backchannels, making the prompting nature of the question even clearer.

Closed wh-questions

On the other hand, some wh-questions are requests for specific information:

`P: I don't take the what are they called?`

`N: Paracetamol.`

Sequences of wh-questions keep tighter control, although the hearer still has the opportunity to take the initiative by adding more information than is asked for.

Closed yes-no questions

Yes-no questions commonly keep control with the speaker:

`N: Have you had to use your inhaler?`

`P: He's a specialist isn't he?`

Open yes-no questions

Yes-no questions can, however, be open. Again, sometimes this is clear from the semantics of the utterance in isolation:

`N: Is there anything that's worrying you?`

`N: Can you bear to tell me what in particular?`

Other examples show repetition or recapitulation, almost resembling tag-questions. While these do drive the conversation, they drive it in a direction established by the patient, and by indicating empathy encourage him/her to continue. Open yes-no questions are also often embedded in a general hearer-control context of prompts.

3. Conclusions

Initiative in our cancer care dialogues arises from a number of different linguistic features. Syntactic classification of utterances does not support a one-to-one mapping to dialogue control strategies. The semantic content of an utterance is also important in determining its initiative function.

Dialogue context is also essential: extended sequences can be characterised far more accurately than isolated utterances. For example, any question type, even if normally associated with speaker control, can function as a contribution to hearer control if embedded in an environment of backchannels.

Although our dialogue type is more complex than straightforward tutorial or collaborative dialogue, we predict that these findings will be true there too.

4. References

Maguire et al. 1996. *Helping Cancer Patients Disclose Their Concerns.* European Journal of Cancer 32A(1):78-81.

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