Starting a Conversation with Strangers:
Explicit Announcement of Presence

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Background and Motivation

The *Explicit Announcement of Presence* (EAP) (Kendon, 1990) is a phenomenon which naturally occurs in human-to-human conversations during encounters with strangers. Unlike in situations where the participants know each other, and where a greeting phase often fulfills the function of noticing and acknowledging one's presence and initiating a conversation, situations where strangers meet call for something different. As a result, the EAP communicative function has been defined and then implemented into the Icelandic language and culture training application called *Virtual Reykjavik*, which enables human users to interact with embodied conversational agents (ECAs) in a game-like environment for the purposes of learning Icelandic. Some of the main approaches for learning used in this application are game-based learning, task-based learning, and a communicative approach. In this virtual environment, one of the objectives the user (learner) has to complete is to approach an agent and initiate a conversation. The purpose of this research was to describe the natural language as it is used rather than interpret the meaning of words used by the speakers. Therefore, real-life conversations in a specific context were collected and analyzed, which lead to finding grounds for the inclusion of EAP in our discourse modelling.

Aim

The problems we aimed to solve in our project were twofold. Firstly, to define an appropriate communicative function that fits to the way how strangers (native and non-native speakers of Icelandic) approach one another in situations where a greeting-phase does not apply. Secondly, to implement such a function within the *Virtual Reykjavik* application. Our initial hypothesis was: When strangers meet during first encounters, they exhibit a greeting phase. After further investigation, we updated our hypothesis: When strangers meet during first encounters in situations when they ask for directions, the Explicit Announcement of Presence (EAP) is the communicative function underlying the behavior at a start of a conversation. This entailed conversation modelling, allowing for engaging in conversation with ECAs, and prompted the design of a structure that would provide the participants the opportunity to impact how the conversation unfolds.

Method and Results

The examples found in the raw video data, which were collected in downtown Reykjavik, created the ground for using EAP as a communicative function. This data consists of conversations between strangers, and was analyzed with the emphasis on annotating the functions involved within the opening phase of a conversation. Drawing from the collection of 44 videos that include first encounters between native speakers and non-native speakers of Icelandic asking for directions to a specific place in downtown Reykjavik, the data shows that in 33 videos (75% cases) bypassing pedestrians (non-natives) announce their presence to other unknown pedestrians (natives), in 10 videos (23% cases) both notice each other before the announcing phase happens, and in 1 video (2% cases) the phase was described as "other" because it could not be identified. As it appears in the videos, in most of the cases non-native speakers announce their presence in order to cause attention and initiate conversation in order to get directions from native speakers to a particular place. According to the observed behavior in the initial phase of conversation, it became clear that a particular communicative function - the EAP - was conveyed by the non-natives when approaching the natives with the intention to ask for directions. The implementation of this function within the conversation system architecture in *Virtual Reykjavik* gave the ECAs the means for interacting with human users in a more realistic way, which, as a matter of fact, reflected the intent behind the behavior observed on people in real-life conversations. This is exactly what users of this language learning application have to perform in order to fulfill one of their task objectives, i.e. engage with a stranger in the street and ask him/her for directions.

Implementation

The approach we took in order to realize a structure that enabled emergent and collective construction of human-to-agent conversations was inspired by Clark's (1996) *conversation sections*. These are purpose-specific segments of conversation that emerge during the course of face-to-face interaction between humans. In our implementation, the sections are called *blocks* and contain methods that produce the communicative functions appropriate for various situations. One such *block* is the *Approach*, which called for the inclusion of the EAP in order for strangers to initiate a conversation with a virtual agent.

Conclusion

On the basis of data analysis, it was observed that the EAP was the communicative function that most frequently occurred in situations where a stranger sought to initiate a conversation with another stranger for the purposes of asking for directions. This prompted the inclusion of such a function within the discourse models that arise during human-to-agent interaction in particular modules of the *Virtual Reykjavik* application.

Comments

More research on the occurrence of EAP in natural conversation may help to shed a light on where to draw the line between a Greeting and an EAP. Words commonly associated with greetings, such as 'hello', 'good morning', etc., may in fact be EAPs if they are used in the situation as described above and not used for pure greeting purposes.