

Do speakers align at the discourse level? The role of discourse segments in task-oriented dialogue

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Spoken discourse is constituted by a sequence of conversational discourse units (CDUs) that are involved in the encoding and decoding of spoken language. In a previous corpus-based study, we proposed an objective method for identifying CDUs based on the mapping of syntactic, prosodic, and pragmatic units, yielding several types of CDUs (Anonymous, 2022). In this study, we investigate to what extent interlocutors converge regarding the type of CDU used when undertaking a similar action at a given sequential position as the instructive dialogue unfolds.

We use a description-drawing task in which two native speakers of English form one conversational pair ($N_{\text{pairs}} = 10$; $F = 10$, $M = 10$; $M_{\text{age}} = 30.3$). In the first trial, Participant A, who serves as the *describer*, describes a novel 2D object (cf. Rasenberg et al. 2022). Participant B functions as the *drawer*, who draws the object according to A's description. Then, they reverse roles and repeat the process until all 12 objects have been drawn. In the dataset, four types of CDUs have been observed (see Table 1), and every trial is roughly composed of four types of instruction giving sequence pairs: understanding confirmation, understanding display, repair initiation, information request (Table 2). We focus on examining the type of CDU used at the instruction-giving and information-request positions, because these positions show relatively complex language production.

Type of CDU	Inside structure of CDU (Pragmat.U: < >; SU: //; IU: each line stands for one IU)	Example
Congruent	1 Pragmat.U + 1 SU + 1 IU	<You see it kind of straight on.//>
Pragmatics-syntax-bound	1 Pragmat.U + 2 SU + 1 IU	<The first shape? looks like a cup? with a bunch of stuff attached to it.//>
Pragmatics-prosody-bound	1 Pragmat.U + 2 SU + 1 IU	<But// other than that it's a regular rectangle.//>
Pragmatics-bound	1 Pragmat.U + 2 SU + 2 IU	<And then// they go, in like a, like a staircase?//>

Table 1. Type of CDU

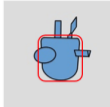
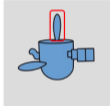
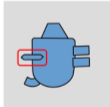
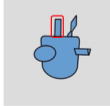
Descriptive sequence	Contents of the sequence			Target of description
Type 1 IGUC	Instruction giving Speaker 1: So, hum, there is a cup that is rounded at the bottom. Speaker 2:	Understanding confirmation	- Okay.	
Type 2 IGUD	Instruction giving Speaker 1: It's gonna coming right off the top of it, but it has that same feather-type shape coming right out of the middle of the top. Speaker 2:	Understanding display Confirmation Yeah Right out of the middle of the top. Okay.		
Type 3 IGRI	Instruction giving Speaker 1: And the short ends of the rectangle are points. Speaker 2:	Repair initiation Repair solution Understanding confirmation Are what? Rather than just ending like this. It's a little point. Okay.		
Type 4 IGIR	Instruction giving Speaker 1: Then more or less in the middle of the cup at the top, there's a long rectangle sticking out Speaker 2:	Information request Further explanation Understanding confirmation Just going straight up? Yeah just going straight up in the middle Okay.		

Table 2. Type of instructive sequence (□: Instruction-giving position; □: Information-request position)

It is argued that if interlocutors repeat a communicative action several times, they tend to converge onto a similar mental representation of action and thus a similar way of using language to achieve the communicative goal (Garrod & Anderson, 1987; Pickering & Garrod, 2021). Accordingly, we expect to see participants converge on the choice of CDU to describe objects or to request more information at the same sequential positions as the dialogue unfolds. For instance, if, at the instruction-giving position, the frequency of the congruent type becomes less used for Speaker 1 as the dialogue extends, it is expected to observe a similar tendency for Speaker 2. Preliminary results show that this is indeed the case.

References

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