

2 The multifunctionality of utterances in interactive discourse

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Introduction

Words, phrases and entire sentences can be used with different meanings and different functions in different contexts, and are in that sense multifunctional. Utterances in interactive discourse are multifunctional not only in this sense, but also in the sense of having multiple functions within a given context. The following example illustrates this.

- (1) 1. A: To get to the airport, can you tell me what time is the first train on Sunday?
2. B: The first train on Sunday, let me see, is at six forty-two.
3. A: Six forty-two.

B's utterance obviously has the function of answering A's question, but that's not all. The repetition of "*the first train on Sunday*" in the first part of B's utterance has a feedback function, telling A that his question was understood. The part "*let me see*" has the function of stalling for time and additionally indicates that B intends to continue speaking (a turn-keeping function). B's utterance thus has at least four communicative functions. A's second utterance in (1) is also interesting in this respect: What is the function of this repetition? Is it to give feedback, is it to support memorization, or is it for instance because A stalls for time, in order to write the answer down? These functions are not mutually exclusive, so several or all of them may apply, and this utterance may also very well be multifunctional. Proficient language users know how to express and recognize multiple communicative functions, as part of their pragmatic competence.

This chapter analyzes the multifunctionality of utterances in interactive discourse, focusing on two questions: (1) Why are utterances often multifunctional, and consequently, what forms of multifunctionality are found? (2) What is the relative importance of the various forms of multifunctionality in terms of their frequency in corpora of interactive discourse? These questions are approached by analyzing interactive discourse in terms of dialogue acts and their occurrence in the corpora represented in the DialogBank (Bunt et al., 2019), a resource consisting

of dialogues, annotated with semantic and pragmatic information according to the ISO 24617-2 annotation standard.

Communicative functions and dialogue acts

The ISO standard for dialogue annotation

The ISO standard for dialogue annotation, established in 2012 and revised in 2020 (see Bunt et al., 2012, 2020), is based on the analytical framework of dialogue act theory (DIT). In this framework, a dialogue act (DA) is defined as a unit of communicative activity that has a communicative function and a semantic content; a communicative function is defined as a specification of how a DA with that function updates the information states of interacting participants. Utterance meanings are described in terms of the dialogue acts that they express, following the “information-state update” approach to meaning (Bunt, 1994, 2014; Traum & Larsson, 2003).

The description of meaning in terms of actions goes back to speech act theory, as originally developed by Austin (1962) and Searle (1969), which has been a major source of inspiration for DA theory. Different from classical speech act theory, DA theory is data-driven and based on the analysis of recordings of interactive discourse, on communication experiments and on computational modeling and simulation. While retaining the idea of using communicative actions to describe utterance meanings, DA theory differs in many respects from classical speech act theory.

An important difference is that in speech act theory it is often assumed that an utterance normally forms one speech act. But, as Allwood (2000) notes, as soon as we start examining transcriptions of real dialogue, we notice that utterances are both sequentially and simultaneously multifunctional. A starting point of DA theory is that participation in a dialogue involves a range of communicative activities beyond those strictly related to performing a certain task or activity that motivates the dialogue. DIT introduced the term “dimension” to refer to these various types of communicative activity and distinguishes the following ten dimensions: (1) *Task*: Dialogue acts that move the task or activity forward which motivates the dialogue; (2) *Auto-Feedback*: Dialogue acts providing information about the processing of previous utterances by the current speaker; (3) *Allo-Feedback*: Dialogue acts providing or eliciting information about the processing of previous utterances by the current addressee(s); (4) *Turn Management*: Activities for obtaining, keeping, releasing or assigning the right to speak; (5) *Contact Management*: Activities for establishing, checking and maintaining contact; (6) *Time Management*: Acts for managing the use of time in the interaction; (7) *Discourse Structuring*: Dialogue acts dealing with topic management, opening and closing (sub-)dialogues, or otherwise structuring the dialogue; (8) *Own Communication Management*: Actions by the speaker to edit his current contribution; (9) *Partner Communication Management*: Actions to edit a contribution of another current speaker; (10) *Social Obligations Management*: Dialogue acts that

take care of social conventions such as greeting, introducing oneself, apologizing and thanking. The dimensions are “orthogonal” in the sense that the function which a stretch of communicative behaviour may have in a certain dimension is independent of its functions in other dimensions.

In addition to communicative functions, DIT defines the following four aspects of dialogue acts:

- a *Qualifiers*, for expressing that a dialogue act is performed conditionally, with uncertainty, or with a certain sentiment.
- b *Functional dependence relations*, which link a dialogue act to other dialogue acts on which they depend for their semantic content, e.g. for indicating which question is answered by a given answer. This is the case for all dialogue acts that are responsive in nature, such as *Answer*, *Confirmation*, *Disagreement*, *Accept Apology* and *Decline Offer*.
- c *Feedback dependence relations*, which link a feedback act to the dialogue segment that it provides or elicits feedback about.
- d *Rhetorical relations*, which indicate semantic or pragmatic relations between dialogue acts, e.g. that one dialogue act motivates the performance of another dialogue act.

ISO 24617-2 includes a taxonomy of 65 communicative functions, incorporating elements from several schemes for dialogue analysis, such as DAMSL (Allen & Core, 1997), Switchboard-DAMSL (Jurafsky et al., 1997), MRDA (Shriberg et al., 2004), TRAINS (Allen et al., 1995), HCRC Map Task (Anderson et al., 1991), AMI (Carletta, 2007), DIT (Bunt, 1994, 2000), LIRICS (https://lirics.loria.fr/doc_pub/D4-3.pdf) and DIT++ (Bunt, 2009).

Some of these functions are specific for a particular dimension; for example, *Turn Take* is specific for Turn Management, *Stalling* for Time Management and *Self-Correction* for Own Communication Management. Other functions can be applied in any dimension; for example, “*You misunderstood me*” is an *Inform* in the Allo-Feedback dimension. All types of question, statement and answer can be used in any dimension, and likewise for commissive and directive functions, such as *Offer*, *Suggest* and *Request*. These are called “general-purpose” functions, as opposed to “dimension-specific” ones. Table 2.1 shows the ISO inventory of communicative functions and dimensions.

The DialogBank

The DialogBank¹ is a recently developed language resource that contains dialogues with gold standard annotations according to the ISO 24617-2 standard. The material in the DialogBank has been taken from four English-language corpora (HCRC Map Task, Switchboard, TRAINS and DBOX²) and from four Dutch-language corpora (DIAMOND, Schiphol, OVIS and Dutch Map Task³) and has been (re-)segmented and (re-)annotated using ISO 24617-2 (see Bunt et al., 2019 for details).

Table 2.1 Communicative functions and dimensions in ISO 24617-2.

<i>General-purpose communicative functions</i>	<i>Dimension-specific communicative functions</i>	<i>Dimensions</i>
<i>Information-providing</i>		
Inform	Auto-Positive	Auto-Feedback
Agreement	Auto-Negative	
Disagreement	Allo-Positive	Allo-Feedback
Correction	Allo-Negative	
Answer	Feedback Elicitation	
Confirm	Stalling	Time Management
Disconfirm	Pausing	
<i>Information-seeking</i>		
Question	Turn Take	Turn Management
Set-Question	Turn Accept	
Propositional Question	Turn Grab	
Check-Question	Turn Keep	
Choice Question	Turn Release	
	Turn Assign	
<i>Commissives</i>		
Offer	Self-Error	Own Communication Management
Promise	Retraction	
Address Suggestion	Self-Correction	
Accept Suggestion	Completion	Partner Communication Management
Decline Suggestion	Correct Misspeaking	
Address Request	Interaction Structuring	Discourse Structuring
Accept Request	Opening	
Decline Request	Topic Shift	
<i>Directives</i>		
Suggestion	Init-Greeting, Return Greeting	Social Obligations Management
Request	Init-Self-Introduction, Return Self-Introduction	
Instruct	Apology, Accept Apology	
Address Offer	Compliment	
Accept Offer	Congratulation, Sympathy Expression	
Decline Offer	Thanking, Accept Thanking	
	Init-Goodbye, Return Goodbye	
	Contact Indication	Contact Management
	Contact Check	

Sources of multifunctionality

Utterances may be multifunctional due to their complexity, due to semantic relations among communicative functions, due to conversational implicatures or due to the inherent multidimensional nature of communication. These grounds and their manifestations are discussed in the following sections.

Utterance complexity

The term “utterance” is often used in a rather loose sense, referring to anything that is said. A precise definition, used in this chapter, is due to Allwood (1992) that an utterance is a “unit in spoken dialogue which corresponds to a stretch of speech from one speaker, bounded by lack of activity or another communicator’s activity”. An utterance in this sense may have parts with different functions, as illustrated by B’s utterance in example (1). Utterance parts that have a communicative function but that do not have smaller parts with a communicative function are called “functional segments”, defined as *minimal stretches of communicative behaviour that have a communicative function* (ISO 24617-2). The minimality condition ensures that functional segments do not include material that does not contribute to the expression of their communicative function(s). As a consequence, functional segments may be discontinuous, such as the segment “*The first train on Sunday (...) is at six forty-two*” in (1) and may overlap or embed one another, such as this segment and the segment “*The first train on Sunday*”.

In the ISO standard, functional segments are the carriers of communicative functions. They may carry more than one function, as illustrated by utterance 3 in example (1).

For the material in the DialogBank, the recording situations that were closest to natural interaction are those of the Map Task face-to-face interactions and the Switchboard telephone dialogues. Complex, multi-part utterances occur all the time. A Map Task example is shown in (2), from the HCRC Map Task corpus; “G” is the participant with the information-giving role in the map task, “F” the one with the information-following role. Vertical bars and square brackets have been inserted to mark functional segment boundaries:

(2) F: go underneath the fort?

G: go underneath the fort | uh-huh | and come out at the left-hand side of the fort and finishing | ehm | not beside but on the same level as [the carved wooden pole | the base of the carved [wood wooden] pole]

The successive parts of G’s utterance can be described as having the functions *Positive (Auto-) Feedback, Confirm, Instruct, Stalling + Turn Keep, Inform, Self-Correction* and (within that) *Self-Correction*.

The participant who plays the role of information-giver (G) produces relatively complex utterances containing instructions, whereas the contributions from the participant in the information-follower (F) role are often short backchannels. G’s

utterances in this corpus contain on average 2.8 functional segments, F's just 1.2. In comparison, the utterances in the Switchboard corpus contain on average 2.8 functional segments, those in the TRAINS corpus 2.7, and those in DBOX 2.7.

The multifunctionality of utterances due to their complexity is not of great theoretical interest, but it is of practical relevance in automatic discourse parsing and generation, and points to the importance of careful segmentation of complex utterances into functional segments.

The multidimension nature of communication

The most fundamental reason why utterances in interactive discourse are in general multifunctional is the inherent multidimensional nature of communication. The participants in a natural conversation constantly "evaluate whether and how they can and wish to continue, perceive, understand and react to each other's intentions" (Allwood, 2000). They share information about the processing of each other's messages, elicit feedback, monitor contact and attention, and among other things manage the use of time and taking turns. Communication is thus a multi-faceted activity. This insight is behind the introduction of dimensions in the analysis of communicative behaviour, as mentioned in Section 2.1. Since discourse participants are often dealing with more than one aspect of interacting at the same time, their behaviour often has multiple communicative functions (Allwood, 1992; Bunt 1994, 2000; Popescu-Belis, 2005; Traum, 2000), belonging to different dimensions.

A communicative function is often expressed/recognized by the use of certain syntactic, lexical, prosodic or other utterance features, called "ifids" (*illocutionary force indicating devices*, Searle, 1962), as occurring in a certain context. The context dependence of ifids is essential, allowing an ifid to express one communicative function in one context, and another one in another; moreover, ifids can be indicators of more than one function in a given context. The use of hesitations illustrates this. Hesitation is not a communicative function, but a particular form of behaviour. The most common function of a hesitation is that it gives the speaker more time to decide what to say. This is a dimension-specific function (*Stalling*) in the Time Management dimension. A hesitation that occurs at the beginning of a turn raises the question of why the speaker does not wait to say something until he has decided what to say. This must be because he wants to indicate that he is going to say something, so turn-initial hesitation has the additional function *Take Turn* (or *Accept Turn*, depending on the context). Similarly, hesitations within a turn often indicate that the speaker intends to continue speaking, and so have a *Turn Keep* function in addition to a *Stalling* function.

The DialogBank contains numerous examples of multifunctional hesitations, repetitions, and feedback combined with turn management, acceptance of directives, or discourse structuring. Hesitations, most frequently in the form of a filled pause, are found with the following functions: (1) Winning time for finding an appropriate formulation of some thought, or for retrieving some information; (2) taking or accepting the turn; (3) keeping the turn; (4) relinquishing the turn; (5) preparing a self-correction; (6) requesting help in completing the current utterance;

and (7) expressing uncertainty.⁴ Their multifunctionality can be explained by the orthogonality of the dimensions of Time Management, Turn Management and Own Communication Management, and uncertainty being a dimension-independent qualifier.

Repetitions are found with the following functions: (1) reporting successful perception of what was said (*Auto-Feedback Positive*); (2) verifying the correct perception of what was said (*Auto-Feedback Check Question*); (3) answering a check question confirmatively (*Confirm*); (4) supporting the memorization of what was said; (5) winning time (“I’m thinking/searching/...”) (*Stalling*). Except for (1) and (2), all these functions are mutually compatible, and often more than one of them applies.

Typical feedback expressions, like *okay and right*, may also be indicators of a function for structuring the discourse. Take the following fragment from the Map Task corpus:

- (3) 1. G: go slightly up underneath the flat rocks and above the stone creek
 2. F: right
 3. G: okay then go slightly to your right beyond the flat rocks until above the buffalo

The *okay* in utterance 3 indicates that G is proceeding to the next part of the route that F should follow, assuming that the previous instruction has successfully been carried out. The occurrence of *then* reinforces this interpretation. So the *okay* has a topic-shifting function, besides a feedback function.

Feedback expressions also occur frequently at the very beginning or at the end of a dialogue, where they signal that the speaker wants to start the dialogue or to terminate it, respectively; see (4).

- (4) a. G: okay now you’re starting above the diamond mine
 b. G: right that’s the end

G’s utterance in (4a) is the opening of a Map Task dialogue; the one in (4b) is a closing utterance.

Table 2.2 gives a quantitative impression of the multidimensionality in the DialogBank due to the occurrence of multiple or multifunctional ifids. Time- and Turn Management functions often go together; the relative importance of the various combinations varies considerably over the different corpora. The multifunctionality due to entailments and implicatures is discussed next.

Entailed communicative functions

The existence of entailment relations is easily explained by viewing dialogue acts as update operations on information states (Bunt, 2014). Every type of dialogue act has a characteristic set of intended update effects, depending on its communicative function. For example, upon understanding a *Confirmation* with

Table 2.2 Percentage of functional segments with communicative functions in multiple dimensions, due to the occurrence of multiple or multifunctional ifids.

<i>Manifestation</i>	<i>Map Task</i>	<i>SWBD</i>	<i>TRAINS</i>	<i>DBOX</i>
Stalling + Turn Keep	4.2%	7.4%	8.0%	11.2%
Stalling + Turn Take	1.2%	4.3%	2.5%	8.7%
Feedback + Discourse Structuring	0.6%	1.2%	1.0%	2.3%
Repetition	0.7%	0.1%	2.9%	0%
Exec.-level Feedback + Commissive	11.2%	0%	0%	0%
Feedback + Turn Take	1.5%	0.2%	2.4%	0.7%
Totals	19.4%	13.2%	16.8%	22.9%

content p , the addressee's information state is updated to include the following elements:

- (C1) Speaker wants addressee to know that p ;
- (C2) Speaker believes addressee wants to know whether p ;
- (C3) Speaker believes addressee suspects that p .

The fact that a *Confirmation* is a special kind of answer is reflected in that it shares the update effects (C1) and (C2) with the communicative function *Answer*, the difference being effect (C3). The *Confirmation* function therefore entails the *Answer* function (which, in turn, entails the *Inform* function).

Entailment relations between communicative functions turn up when discourse is analyzed in terms of communicative functions taken from an inventory where some functions are specializations of others. This is the case for every articulate analysis scheme, even if it is presented as a flat list, like SWBD-DAMSL. In a hierarchically presented inventory, like the ISO taxonomy, the cases of subsumption are immediately visible as mother-daughter relations. The information-seeking, information-providing, commissive and directive functions all form specialization hierarchies, as shown in Table 2.1. An utterance with a more specific function can be considered to be multifunctional in also having the less specific functions: A *Correction* is by implication also a *Disagreement*, a *Disagreement* is also an *Inform*, and so on.

Multifunctionality due to specialization occurs at the level of functional segments. While the amount of multifunctionality due to specialization depends on the repertoire of communicative functions that is used, certain core communicative functions with varying degrees of specialization are shared by virtually all analysis schemes. In the DialogBank, the Map Task data display a high amount of multifunctionality (+28%) since the directive function *Instruct* is a specialization of *Request*, and some 25%–30% of the instruction giver's dialogue acts are *Instruct* acts. The material from the Switchboard, TRAINS and DBOX corpora displays multifunctionalities of +23%, +24% and +19%, respectively – see the middle column in Table 2.3.

Table 2.3 Entailed multifunctionality due to specialization and responsiveness, as percentages of functional segments with an additional communicative function.

<i>DialogBank corpus</i>	<i>Specialization entailments</i>	<i>Responsive entailments</i>
HCRC Map Task	28%	19%
Switchboard	23%	10%
TRAINS	24%	14%
DBOX	19%	16%

Another source of entailments among communicative functions is the inherently responsive nature of many dialogue acts (such as accepting or rejecting an offer, answering a question or correcting a statement). Such DAs depend for their semantic content on the content of the act that they respond to, a “functional dependence relation”. The performance of a responsive DA implies that the speaker has (or at least believes or pretends to have) successfully processed the utterance expressing the DA that he responds to, therefore a functional segment with a responsive communicative function by implication also has a positive feedback function. Figure 2.1 shows the relation between responsive DAs and implied feedback.

In the DialogBank, responsive DAs in the Map Task material come mainly as reactions to instructions by the instruction-giver, and as answers by either participant to questions about each other’s map. In DBOX dialogues, in which a quiz game is played where a participant has the goal of identifying a famous person through a sequence of questions, responsive acts occur mainly in the form of the quiz master's answers to the participant’s questions. The information-seeking dialogues of the Schiphol and OVIS corpora (about flights and trains, respectively) have a backbone of question-answer pairs, with the responsive feedback that comes with answers. The problem-solving dialogues of the TRAINS corpus, about shipping goods using a railroad freight system, contain many answers to questions about the trains domain.

The more free-flowing conversations of the Switchboard corpus hardly contain any directive acts, but they do contain many *Inform* acts describing participants’ experiences and opinions, linked by rhetorical relations and questions for clarification and support. Expressions of agreement and empathy are among the most frequently occurring responsive DAs in this corpus.

The rightmost column in Table 2.3 shows the amount of responsively entailed feedback in the English-language corpora in the DialogBank.

Con conversationally implicated functions

Implicit feedback

Natural interactive discourse derives its naturalness to a large extent from the occurrence of communicative feedback, often expressed non-verbally. Negative

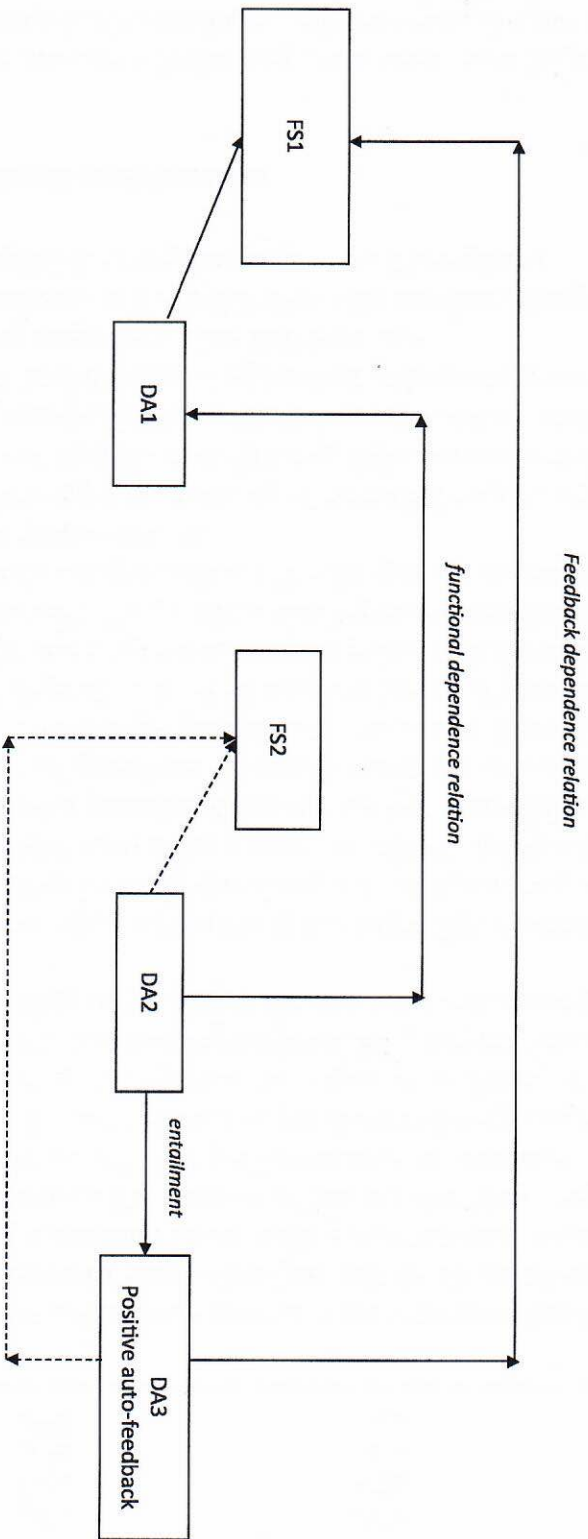


Figure 2.1 Positive feedback entailed by responsive DAs. FS = functional segment; dashed arrows indicate anchoring of DAs in FSs.

feedback is nearly always expressed explicitly; positive feedback is much of the time implicit. Three forms of implicit feedback are considered here: (a) implicatures from the topical progression in a conversation; (b) implicatures from explicit partial feedback; and (c) implicatures from feedback acts at a specific level of processing.

Implicatures of topical progression

In natural discourse there is usually a smooth progression from one topic (or aspect of a topic) to another. When a discourse participant A smoothly moves on to a related topic, or to another aspect of the same topic, this is typically understood by other participants as an indication that the previous topic/aspect has successfully been dealt with. More precisely, the implicatures arise that (1) A has successfully processed the preceding contribution by previous speaker B and (2) B has successfully processed A's contribution before that. This is depicted schematically in Figure 2.2. For example, if in example (1) A would respond to B's utterance by saying "*And do you know what time it arrives?*", instead of giving explicit feedback, then it would be assumed by both participants that A has successfully processed B's utterance, but also that B's utterance was based on successful processing of A's original question.

Moving from one topic to another, unrelated topic, by means of an explicit topic management act (in the dimension of discourse structuring acts) such as e.g. "*Something else I wanted to ask you...*", "*Can we just go back to the placement of the microphone*" gives rise to the same implicated feedback as smooth implicit topic change. Table 2.3 shows the amount of extra feedback functions implicated by (implicit or explicit) topic changes for functional segments in the DialogBank.

Implicatures of partial feedback

Partial feedback is the phenomenon that a speaker explicitly provides feedback about a part of a partner's utterance, for example not having understood that part. In such a case, an implicature arises that the rest of the utterance did not give any problems (an implicature which, like any implicature, can of course be cancelled as the discourse continues). Examples of negative and positive partial feedback, respectively, are shown in (5) and (6), both from Map Task dialogues in the DialogBank.

- (5) G: ... keep going down south
 F: mmhmm
 G: past a forge on your right
 F: past a what?
 G: a forge
- (6) G: do you have cliffs to the right?
 F: to the right, uh-huh.

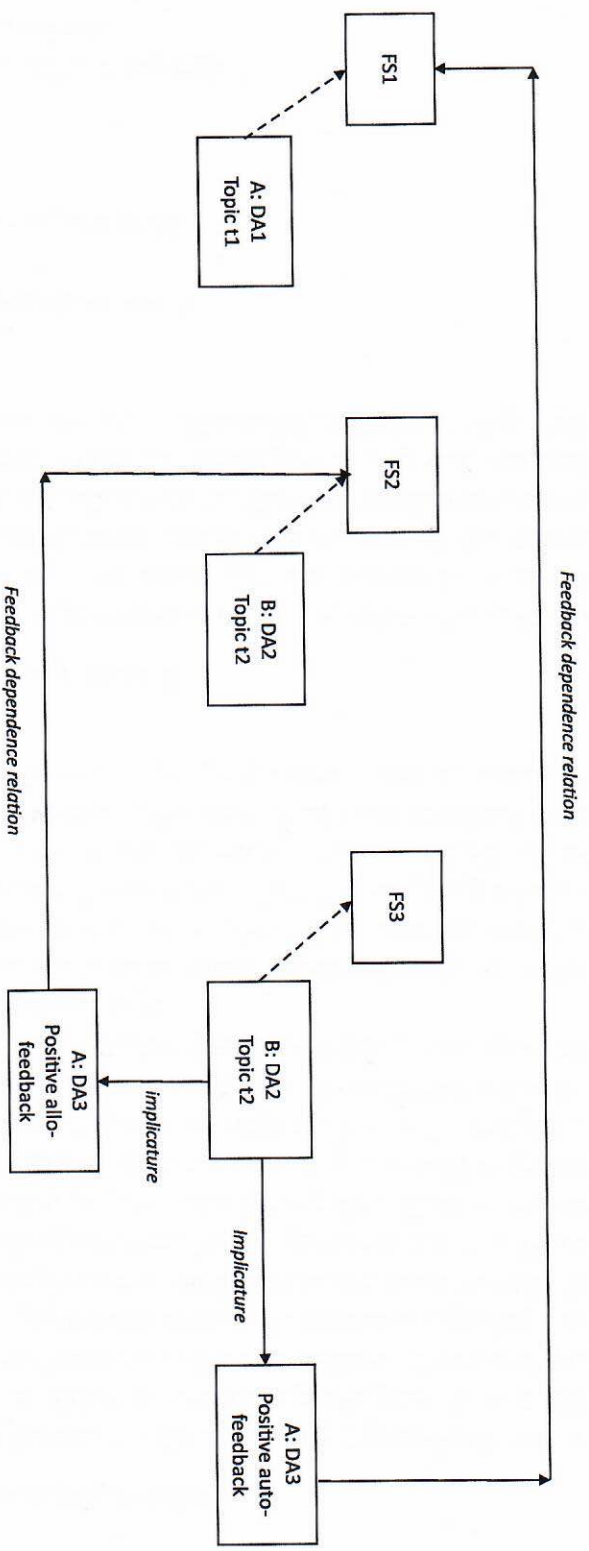


Figure 2.2 Positive feedback implicated by topic progression. FS = functional segment; dashed arrows indicate anchoring of DAs in FSSs.

Table 2.4 Implicated multifunctionality due to topic progression and partial feedback, as percentages of functional segments with an additional, implicated communicative function.

<i>DialogBank corpus</i>	<i>Topic progression</i>	<i>Partial feedback</i>
HCRC Map Task	8%	2%
Switchboard	12%	0.5%
TRAINS	9%	1%
D BOX	10%	1%

F's repetition of *past a* signals successful understanding of these words, the *what* signals not understanding the word *forge*, and as an implicature the rest of G's utterance (*on your right*) is assumed to not pose a problem for F's understanding. This utterance is thus 3-way multifunctional, with two explicit functions and one implicated.

Partial feedback acts are annotated in the DialogBank with feedback dependence relations to segments that are smaller than functional segments. Table 2.4 shows that this does not occur much.

Implicatures of level-specific feedback

Some analytical frameworks distinguish several levels of processing, such as the DIT++ taxonomy with five levels to which feedback acts may refer: (1) attention, (2) perception, (3) understanding, (4) evaluation, and (5) execution. "Execution" refers to the action that the addressee of a dialogue act undertakes as a direct effect, such as accepting the information in an answer or gathering the information needed to answer a question. A response like "*I don't know*" is an example of negative feedback at execution level in response to a question.

Feedback is often not specific about a particular level of processing, but sometimes it is. Literal repetition of something that was said with a questioning intonation and puzzled face, is for example often a signal that the speaker is not sure she heard well. For other level-indicating ifids see Petukhova and Bunt (2009).

According to Gricean principles, positive feedback is expected to be given at the highest successful level of processing, negative feedback at the lowest unsuccessful level. Positive feedback at a certain level therefore implicates negative feedback at the higher levels; negative feedback at a certain level implicates positive feedback at the lower levels. The ISO scheme does not distinguish levels of feedback, so most of the material in the DialogBank does not contain this information.

Indirect speech acts

A much studied form of conversational implicature that gives rise to utterance multifunctionality is the phenomenon of "indirect speech acts", defined by Searle

(1969) as “utterances in which one speech act is performed indirectly by performing another”. An utterance such as (7a) is thus viewed as expressing a request to switch the light on or off, depending on the situation, by asking whether the addressee is able to perform that request. Similarly, the response in (7b) indirectly answers the question “*Have you seen Peter?*”.

- (7) a. Can you reach the light switch?
 b. Peter is at a meeting with clients in Munich.

On the classical analysis of this phenomenon, the addressee of an indirectly intended utterance first constructs the literal interpretation, and then uses context information and Gricean maxims to infer the speaker’s “real” intention. Evidence in support of this analysis is that it is common to respond to an indirect request like (7a) by saying *Yes*, which seems to be an answer to the literal interpretation of the utterance as a question, before carrying out the request. On this analysis, indirect interpretations are conversational implicatures of direct interpretations.

This analysis runs into a problem that becomes apparent when we consider an information-state update semantics of dialogue acts. The meaning of an indirect request of the form *Can you do X?* would consist firstly of the direct question *Are you able to do X*, which has the triggering condition (8.1) and the supporting precondition (8.2), and indirectly of the request *Please do X*, which has (8.3) among its preconditions.

- (8) 1. Speaker wants to know whether Addressee is able to do X
 2. Speaker does not know whether Addressee is able to do X
 3. Speaker believes Addressee is able to do X.

Since the conditions (8.2) and (8.3) contradict each other, it is logically impossible for a speaker to be in an information state that would account for the performance of such an indirect DA. This problem arises for those conventionalized forms of indirectness in which one of the preconditions of the indirect act are questioned, and these forms are particularly common.

One way to resolve this issue is to assume that indirect speech acts do not really have the communicative function of the direct interpretation (so for example the conditions (8.1) and (8.2) would not apply). This move is especially attractive for those cases of indirectness that are highly conventionalized.⁵ Expressions like “*Do you know X*”, “*May I have Y*”, “*I’m looking for Z*” are conventional forms of expressing *Please tell me X*, *Please give me Y*, *Where can I find Z*, and so on. Although contextualized Gricean reasoning could be used also in such cases, the conventionalization allows discourse participants to make a shortcut and treat the conventional form as an ifid for directly getting at the “indirect” interpretation. Evidence in favour of this analysis is that it is common to perform indirect requests like “*May I have two croissants please?*” in situations where it is entirely obvious that the speaker is allowed to have two croissants, such as in a bakery – hence the literal interpretation does not seem to apply (although a shop assistant

could reply: “*You certainly may*”). On this analysis, utterances with a conventionalized form of indirectness only have an indirect interpretation.

An alternative solution, offered by DIT, supports an analysis where indirectly expressed dialogue acts are not quite the same as directly expressed ones. Cases like “*Can you do X?*” and “*Would you mind to do X?*” where the indirect request to do X calls one of the preconditions of a request to do X into question, are analyzed in DIT not as indirectly expressing the request *Please do X*, but as expressing the *conditional* request *If possible, please do X*. This is represented in ISO annotations by adding a *Conditional* qualifier to the *Request* function. Replies such as “*Sure*” or “*Yes I can*” before starting to carry out an “indirect” request can then be interpreted as saying that the condition, indicated by the qualifier, is satisfied, rather than as an answer to the literal interpretation of the utterance.

The condition in a conditional interpretation expresses in what way an indirect DA makes fewer assumptions about the addressee than its direct counterpart would, which is often seen as explaining why indirect DAs are seen as more polite than direct ones (see e.g. Clark, 1979).

Indirect question forms such as “*Do you know when/where/who/whether/which...?*”, “*Can you tell me...?*” and “*Have you seen...?*” are known to abound in information-seeking interactions, e.g. in shops, in bus stations, in call centres and in offices (see e.g. Miura, 2017). The use of indirect forms of communicative acts depends on language and culture, for example, Leech (2014) claims that English is one of the languages that favours indirectness in requests the most; on the other hand, Japanese speakers have been reported to use more indirect speech than native speakers of English (Takahashi & DuFon, 1989).

The information-seeking contexts of the DBOX and OVIS data in the DialogBank, and the problem-solving contexts of the Map Task and TRAINS data, apparently call for direct rather than indirect questions and answers. The Map Task data are a rich source of indirect instructions, but it can be hard to decide whether an instruction is direct or indirect, due to the context-dependence of the ifids. This is illustrated by the utterance forms of *Instruct* acts that occur in Map Task dialogues, shown in Table 2.5, with a possible classification as “direct” or

Table 2.5 Forms of *Instruct* acts in the Map Task dialogues in the DialogBank.

<i>Utterance form</i>	<i>Example</i>	<i>Directness</i>
imperative	Go South from the diamond mine	Direct
You have to...	You have to avoid the saloon bar	Direct
You've got to...	You've got to avoid a carved wooden pole	Direct
You need to...	You need to go up on a sort of hill	Direct
I want you to...	I want you to go between the flat rocks...	Direct
You [do]	You go just round the bakery	Direct
You're [do]ing	You're starting above the diamond mine	Indirect
You're going to...	You're going to proceed North	Indirect
You're gonna...	You're gonna pass the graveyard	Indirect
You want to...	You want to have the old mill on your right	Indirect
We are [do]ing	We are doing a U shape	Indirect

“indirect”. The form at the bottom, illustrated by “*We are doing a U shape*”, is rather clearly indirect, as it could well be a description rather than an instruction, even in the context of a way-finding dialogue. All other forms could be debated for being direct or indirect. Using the direct/indirect classification of Table 2.5, around 25% of the *Instruct* acts in the Map Task dialogues in the DialogBank are indirect.

Dialogue acts in language acquisition

Speech acts are generally considered to be among the core concepts of pragmatics, and the knowledge of when and how to use them in a given language is one of the core competencies of a proficient and culturally aware speaker of the language. The notion of pragmatic competence, originally introduced by Chomsky (1980) as the “knowledge of conditions and manner of appropriate use (of the language), in conformity with various purposes”, has been defined more specifically as

the knowledge of the linguistic resources available in a given language for realizing particular illocutions, knowledge of the sequential aspects of speech acts, and finally, knowledge of the appropriate contextual use of the particular language’s linguistic resources, in short, the knowledge of how to do things appropriately with words.

(Barron, 2003, with reference to Austin, 1980)

Speech acts are thus squarely placed in the heart of pragmatic competence, and the study of their use and form is of primary importance in the acquisition of pragmatic competence by foreign- or second-language learners, as argued by e.g. Thomas (1983), Cohen (2005), Taguchi (2006), Cutting (2008) and Zhao and Throssell (2011).

In this connection, DA theory adds to classical speech act theory the empirically based multidimensional approach to communication, with communicative functions relating to a variety of dimensions that have not or only marginally been considered in speech act theory, such as time management, turn management, feedback with its distinctions of auto- and allo-feedback, and own and partner communication management. The multidimensional approach provides a natural basis for understanding the inherently multifunctional meaning of utterances in interactive discourse. The additional multifunctionality of utterances due to conversational implicatures, which by themselves form a cornerstone in successful communication, plays out in DA analysis in many ways. The existence of specialization relations among communicative functions means for example that, according to the Gricean principles, speakers are expected to choose the most specialized functions that are appropriate in the given context. Similarly, the implicated functions of utterances due to feedback at different levels of processing means that speakers are expected to be optimally informative in their choice of feedback level: Not unnecessary low for positive feedback, not unnecessarily high for negative feedback.

In conclusion

In this chapter we have shown that utterances in interactive discourse in general have multiple communicative functions, and we identified four main sources of multifunctionality: (1) The multidimensional nature of communication; (2) the complexity of utterances as made up of functional segments; (3) entailments among communicative functions with different degrees of specialization; (4) conversational implicatures. The annotated material from various spoken and multimodal dialogue corpora, represented in the DialogBank, provides empirical evidence of utterance multifunctionality and gives an impression of the relative importance of the different sources of multifunctionality.

Knowledge of the dimensions and pragmatic principles of communication, which are at the roots of understanding the multiple functions of utterances, is fundamental to the pragmatic competence of proficient language users and thus of central importance in language learning and teaching.

Notes

- 1 Accessible at <https://dialogbank.uvt.nl>.
- 2 See Anderson et al. (1991), Jurafsky et al. (1997), Allen et al. (1995) and Petukhova et al. (2014), respectively.
- 3 See Geertzen et al. (2004), Prüst et al. (1984), www.let.rug.nl/vannoord/Ovis and <http://doc.ukdataservice.ac.uk/doc/4632/mrdoc/pdf/4632userguide.pdf>.
- 4 Clark and Fox-Tree (2002) mention a total of 15 reasons why speakers may hesitate. See also Swerts (1998).
- 5 Asher & Lascarides (2003) treat indirect speech acts in terms of rhetorical relations, making a distinction between conventionalized and non-conventionalized forms.

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