

by anyone who knows how to talk. While large numbers of specimens of such practices are valuable in determining their nature and function, statistical analysis has played little role in the field, largely because in the matter of interactional practices, as in the case of biological species, large numbers are not essential to establishing their existence. In the field of institutional interaction, however, and especially in its applied aspects, where practices of interaction are being linked to tasks, identities, perceptions, expectations and outcomes, a more statistically-focused methodology is appropriate and is increasingly used.

## 6. Conclusion

CA is a large and diversifying field of study. Its basic outlook and methodology have achieved 'paradigmatic' status in Thomas Kuhn's sense, and is widely accepted across the range of social science disciplines to which it has contributed. It seems likely that its methodology will continue to evolve and that it will contribute, not only to sociology, communication science and linguistics, but also to medicine, neuroscience, artificial intelligence and the life sciences with which its practitioners are in increasing contact.

See also: Action, Theories of Social; Goffman, Erving (1921–82); Interactionism: Symbolic; Labor, Division of; Sociology, Epistemology of; Theory: Sociological

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## Conversation: Linguistic Aspects

Conversations are social creations. They are produced one step at a time as people carry out certain joint activities. A joint activity is one in which two or more people have to coordinate with each other to succeed (Clark 1996). These include not only waltzing, playing a piano duet, playing tennis, but gossiping, planning a party, and negotiating a contract. In waltzing, duets, and tennis, people coordinate moment by moment by means of gesture, touch, and other actions; but in gossip, planning, and negotiation, they use speech as well—they converse. What people do and say is not determined beforehand. It emerges as they negotiate their way through these activities.

Conversations reflect the joint activities they coordinate. Every joint activity has participants—the people actually taking part, who are distinct from non-participants (bystanders, onlookers, overhearers)—and so do the conversations that emerge from them. The participants take particular roles, such as doctor and patient, teacher and student, or friend calling and friend called, and the roles constrain what the participants do and say. Every joint activity has public goals—mutually agreed-upon purposes for carrying them out. The overall goal may be to exchange gossip, plan an outing, or negotiate a contract, and these have subgoals. Although some of these goals are set from the start, most get established as the participants go along. The participants also have private goals—to be polite, not to lose face, or to finish quickly, for example—and these, too, constrain what the participants do and say. Finally, people often engage in two or more joint activities at a time—such as gossiping and eating dinner together—so their conversation switches back and forth between them.

Working together in a joint activity takes commitments and actions by all the participants. Joint activities have boundaries—distinct beginnings and ends, and transitions from one part to the next—but these boundaries don't exist until the participants agree to them. To enter a planning session, for example, two people must agree on (a) what the joint activity is to be, (b) who is to take part, (c) in what roles, (d) at what time and (e) at what place, and (f) whether or not they are each committed to taking part. They must reach these agreements at each transition point as well. What is remarkable is that people

**Table 1**

An adjacency pair

Ann	whereabouts are you going,
Betty	I've got a job at Columbia University, in New York, -
Ann	have you,

**Table 2**

A pre-question

Duncan	Edgar, I I . may I ask you a question, surely,
Edgar	[Duncan and Edgar exchange fifteen turns as Duncan describes an author's claim about Danish usage.]
Duncan	it is it it really so, that that is the common usage in Denmark, I don't know if you've heard, of that,
Edgar	-- umm . I'm . I would be surprised, if it was accepted usage,

accomplish all this locally, turn by turn (Sacks et al. 1974).

One basic unit of conversation is the *adjacency pair* (Schegloff and Sacks 1973), as in the spontaneous example shown in Table 1 (all examples are from Svartvik and Quirk 1980).

Adjacency pairs each have two parts, by different speakers, where part 2 is conditionally relevant given part 1. Part 1 is a *proposal*, and part 2 is expected to be the *uptake* of that proposal. In Table 1, Ann proposes that Betty tell her whereabouts she is going, and Betty takes up the proposal by saying that she's got a job at Columbia University. In just two turns, Ann and Betty manage to coordinate on the content, participants, roles, time, place, and commitments of their joint action. They would have failed if Betty had replied 'What do you mean?' or 'You mean me?' or 'I don't know' or 'I won't tell you.'

Adjacency pairs are available for a wide range of joint actions. These include not only requests for information (as in Ann and Betty's exchange), but greetings ('Hi,' 'Hi'), farewells ('Bye,' 'Bye'), offers ('Have some cake,' 'Thanks'), orders ('Sit down,' 'Yes, sir'), and apologies ('Sorry,' 'Oh, that's okay') (Stenström 1994). They are used for even the simplest exchanges of information ('I've got a job ...' 'Have you?').

Adjacency pairs take only two turns, but they can be used to project larger sections, as in Table 2 (the disfluencies are in the original).

Duncan's first turn is a *pre-question* (Schegloff 1980). With it he proposes to ask Edgar a question, and Edgar agrees. Duncan now has the freedom to take up preliminaries to his question, and it takes the two of them fifteen turns to do that. Only then does he ask his question, and Edgar answers it. Pre-questions

**Table 3**

Types of pre-sequences

Pre-request	Customer	Do you have hot chocolate?
	Waitress	Yes, we do
Pre-invitation	Man	What are you doin' Nothin.' What's up?
	Woman	Did I tell you I was going to Scotland
Pre-narrative	June	
	Kenneth	No
Pre-conversation	Caller	[rings telephone]
	Recipient	Miss Pink's office

**Table 4**

Opening of telephone conversation

Karen:	(rings Charlie's telephone)
Charlie:	Wintermere speaking? -
Karen:	hello?
Charlie:	hello
Karen:	Charlie
Charlie:	yes
Karen:	actually it's
Charlie:	hello Karen
Karen:	it's me
Charlie:	m
Karen:	I (- laughs) I couldn't get back last night, [continues]

project not only the eventual question, but preliminaries to that question.

Pre-questions and their responses are one of a large family of so-called *pre-sequences*. Table 3 gives a few more examples.

Each pre-sequence prepares the way for another joint action. The pre-request sets up a request ('I'll have one'); the pre-invitation sets up an invitation ('Would you like ...'); the pre-narrative sets up a narrative; and the pre-conversation sets up an entire telephone conversation. So pre-sequences are useful in organizing longer sections of conversation.

Opening a conversation takes special coordination as two or more people move from not being in a conversation to being in one. Table 4 gives the opening of a telephone conversation between acquaintances.

First, Karen and Charlie coordinate contact through a proposal to have a conversation (the telephone ring) and its uptake ('Wintermere speaking?'). Next, they mutually establish their identities. Karen tells Charlie that she recognizes him in line 5, but Karen has to say 'hello?' 'Charlie,' and 'actually it's' before he identifies her in line 8. Only then does Karen introduce the first topic. It took ten turns for them to coordinate on the participants, roles, time, place, and commitment to the conversation.

Closing conversations is no easier (Schegloff and

**Table 5**

Closing of telephone conversation

June	and I'll . I'll ring again, as soon as I can on the tenth, uhh to definite confirm it,
Kathryn	right,
Kathryn	okay,
June	right,
June	thanks a lot,
Kathryn	r . right,
June	bye bye,
Kathryn	bye

**Table 6**

A pre-narrative exchange

Nancy:	I acquired an absolutely magnificent sewing-machine, by foul means, did I tell you about that
Kate:	No
Nancy:	well when I was . doing freelance advertising - [proceeds to give a five minute narrative]

**Table 7**

A pre-narrative exchange

Connie:	did I tell you, when we were in this African village, and [- they were all out in the fields, - the]
Irene:	[yes you did, yes, - yes]
Connie:	babies left alone, -
Irene:	yes .

Sacks 1973), as illustrated in Table 5 (an ending to a telephone conversation).

Although June and Kathryn finish a topic in lines 1 and 2, they cannot hang up without agreeing to hang up. So in line 3, Kathryn proposes to close the conversation ('Okay'), and although June could now introduce a new topic in line 4, she agrees to Kathryn's proposal ('Right'). That opens up the closing in which the two exchange thanks ('Thanks a lot' 'Right') and then goodbyes. The two must *agree* to close the conversation before they can actually close it.

Conversations are opportunistic: The paths people take depend on the opportunities that become available with each agreement. Consider the pre-narrative and its response in Table 6.

Nancy proposes to tell Kate a story ('Did I tell you about that'), and Kate accepts ('No'). But partners can also decline, as in Table 7.

Irene interrupts Connie (the speech in brackets is overlapping) to say that she *has* heard the story, and the two of them then go down a different path. Nancy and Connie used their pre-narratives to discover how best to proceed and, receiving different replies, took different routes.

**Table 8**

A side sequence

Duncan	well wha- uhh what shall we do about uh this boy then, - -
Ed	Duveen?
Duncan	m,
Ed	well I propose to write, [continues]

People help signal which opportunities they are taking by using *discourse markers* (Schiffrin 1987). For example, Nancy used 'well' to signal that she was introducing a change in perspective as she began her story. Other discourse markers indicate such boundaries as the start of a new topic (e.g., 'so,' 'then,' 'speaking of that'), the start of a digression ('incidentally,' 'by the way'), or the return from a digression ('anyway,' 'so'). All of these help in coordinating on what is happening next.

People carry out joint activities against their common ground—their mutual knowledge, mutual beliefs, and mutual assumptions. They infer their common ground from past conversation, joint perceptual experiences, and joint membership in cultural communities. When Ann asked Betty 'Whereabouts are you going?' she presupposed certain common ground—for example, that Betty has been looking for a university job in America, and that Ann doesn't know where. Ann also adds to their common ground that she wants to know. Conversations proceed by orderly increments to the participants' current common ground.

Conversations cannot succeed, therefore, unless the participants *ground* what they say. To ground what is said is to establish the mutual belief that the addressees have understood the speakers well enough for current purposes (Clark and Schaefer 1989). One technique for grounding is the adjacency pair itself. When Betty said 'I've got a job at Columbia University,' she displayed to Ann how she had interpreted her question. If Ann hadn't been satisfied with that interpretation, she could have corrected it, e.g., by replying 'No, I meant ...' (Schegloff et al. 1977). In fact, she followed up Betty's reply with 'have you,' displaying to Betty that she accepted her interpretation. Another technique is the *back-channel response*, *acknowledgment*, or *continuer* (Schegloff 1982). In two-party conversations, addressees are expected to add 'uh huh' or 'mhm' or 'yeah' at or near the ends of certain phrases. With these, they assert that they have understood the speaker so far and imply that the speaker should continue.

Grounding is sometimes achieved through *side sequences* (Jefferson 1972), as illustrated in Table 8.

When Ed didn't understand to whom Duncan was referring as 'this boy,' he initiated an embedded adjacency pair, a side sequence, to clear up the problem. Only when he had cleared it up did he answer

Duncan's original question. Side sequences are initiated to clear up not only mishearings and misunderstandings, but also other pre-conditions to taking up the first part (e.g., 'Why do you want to know?'). Grounding is also accomplished sometimes by overlapping speech. When Irene interrupted Connie's offer 'Did I tell you ...' to say, 'yes you did, yes, yes,' she was signaling to Connie that she already understood and Connie didn't need to go on.

The structure of conversations, in summary, is not determined from the outset. It emerges step by step as people coordinate on each new move in joint activities. People have to coordinate on the content, participants, roles, time, place, and commitment to each joint action, and they do that in a sequence of local, opportunistic agreements. It is these techniques that lead conversations to have the structure they do.

*See also:* Conversation Analysis: Sociological; Expression and Interaction: Microfoundations of Expressive Forms; Inferences in Discourse, Psychology of; Verbal Communication, Psychology of

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## Cooperation and Competition, Psychology of

### 1. Introduction

During the twentieth century, there have been a series of social forces that have highlighted the importance of cooperation and competition and often created a creative tension between them. In the early 1900s, the advent of the industrial revolution and the ending of colonialism focused attention on (a) the importance of well functioning, cooperative groups, and (b) competition as the secret to increased economic success. During the 1920s and 1930s, with the worldwide depression and the rise of dictatorship in Europe, the importance of cooperation was again highlighted. Business and industry groups, such as the Liberty League in the USA, increased their emphasis on competition in business and industry, education, and other areas of life. In the aftermath of the Second World War there was great concern about the future of democracy and the need to better understand how democratic organizations could be made to function more effectively. The health of a democratic society, it was thought, depended on the effectiveness of its component groups. Strengthening of the quality of cooperation in the family, the community, and the multitude of groups within society was viewed as the primary means of ensuring the vitality of democracy and the successful solving of the existing social problems. At the same time, the rise of social Darwinism promoted competition as the natural order of life. In the early 1960s, anthropology and ethnology proposed that competition over weapon systems sparked human evolution. The civil rights movement and concerns about the possibility of nuclear war, on the other hand, created great interest in cooperation among diverse individuals. The tension between, and interest in cooperation and competition sparked discussions in three major theoretical orientations: cognitive-developmental, behavioral, and social interdependence.

### 2. Cognitive-developmental Theory

The 'cognitive developmental perspective' is largely based on the theories of Piaget (1950), Vygotsky (1978), cognitive science, and academic controversy (Johnson and Johnson 1995). To Jean Piaget (1950), cooperation is the striving to attain common goals while coordinating one's own feelings and perspective with a consciousness of others' feelings and perspective. From Piaget and related theories comes the premise that when individuals co-operate on the environment, socio-cognitive conflict occurs that creates cognitive disequilibrium, which in turn stimulates perspective-taking ability and cognitive devel-

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