Males' and Females' Conversational Behavior in Cross-Sex Dyads: From Gender Differences to Gender Similarities

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We investigated gender differences in conversational behavior in an experimental setting. Twenty men and 20 women were randomly paired in 20 dyads and were asked to discuss a given topic. We examined the transcripts through a varied range of behavioral variables. First we analyzed the sequential ordering of utterances in order to establish the way male and female speakers take the floor and get involved in the sequence and topic structuring of dialogues. Second we coded the male and female utterances according to the language functions they expressed. Contrary to what has often been claimed, it was found that males' and females' conversational behavior betrays more similarities than differences. The discrepancies between these findings and those of previous studies are discussed relative to methodological and situational differences across studies.

INTRODUCTION

According to popular beliefs, men and women behave somewhat differently in that basic form of everyday social interaction which is conversation. The existence of widely held sex-stereotyped representations of

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communicative behavior of males and females is well documented in the sociological and psychological literature. The main idea emerging from surveys carried out among American participants (Kramer, 1974a, 1974b, 1975, 1977; Siegler & Siegler, 1976), among British participants (Giles, Scholes, & Young, 1983), and French participants (Aebischer, 1985; Pillon & Lafontaine, 1988) is that conversations are managed and controlled by men. Men are supposed to take the floor more often, keep it longer than women, show authoritarian or even aggressive behaviors, and to be essentially interested in the pursuit of dominative and competitive goals rather than in cooperative ones. Women, on the other hand, are said to be particularly attentive conversationalists and to be primarily concerned with collaboration and mutual understanding. Furthermore, men are perceived to be more interested in informative exchanges, while women are perceived to prefer engaging in personal and emotional conversations. Evidently, this picture of the "roles" women and men are supposed to play in conversations is highly reminiscent of the roles they are more generally supposed and expected to play in social life (e.g., Block, 1973, for studies on sex-stereotyped attributes and expectations; Broverman, Vogel, Broverman, Clarkson & Rosenkrantz, 1972; and Ellis & Bentler, 1973).

Most of the studies of how women and men actually interact with each other in conversations surprisingly have indicated similar gender asymmetries.³ However, the theoretical and methodological frameworks within which these studies have been carried out must be taken into consideration to properly understand these findings.

The first studies about gender differentiation in conversational style relied on the sociological distinction between task-oriented and socioemotional functions, which was first introduced in the sociological study of small groups (Bales, 1950) and family relationships (Parsons & Bales, 1955). In fact it is based on the division of labor by sex, the father being the instrumental leader (he is involved in outside work) and the mother the socio-emotional leader (her role as the emotional support of her husband). For example, Strodtbeck and Mann (1956) and Strodtbeck, James, and Hawkins (1957) examined the interaction of jurors involved in mock jury deliberations and found that men, in contrast with women, had

³ Gender differences have now been examined in a number of aspects of face-to-face communication. We shall not consider in this paper the nonverbal aspects of communication such as body movement, gazing, interpersonal space, etc. (see, for example, Hall, 1984, 1987; Key, 1975; Smith, 1983; Smith, 1985), nor the strictly linguistic aspects (gender differences in language use; for a review see Coates, 1986; Pillon, 1987). Gender differences in same-sex conversations will not be considered either.

higher participation in and influence on the jury task. These authors concluded that the sex-role differentiation observed was similar to the one Bales and others suggested for adults in the family. Males played an instrumental and females an expressive (social-emotional) role; that is, men produce acts directed at the solution of the task problem while women tended more to react to the contributions of others, by agreeing, complying, understanding, and passively accepting them. Soskin and John (1963), studying the spontaneous talking behavior of a couple in its natural setting, found that the wife produced more expressive, affect-discharging messages while the husband produced more directive and informational statements. The findings of Rosenfeld (1966), Glezer, Gottschalk, and Watkins (1959), Bernard (1972), and Barron (1971) came to the same conclusion, namely, that women produced more emotional and expressive utterances than men.

More recently, Aries (1982) wanted to determine whether these traditional "sex differences in behavioral interaction patterns would obtain even in a sample of very bright, career-oriented men and women raised under the influence of the women's movement and laws prohibiting sex discrimination" (p. 128). Despite the similarities between the sexes with respect to personality attributes and personal aspirations, she still found evidence for task and socio-emotional specialization in the interaction styles of men and women, respectively. Males still devoted a greater proportion of their interaction to proactive behavior (giving opinions, suggestions, and information) and females to reactive behavior (agreeing and disagreeing). Nevertheless, Edelsky (1981) showed that male and female conversational behavior differs according to the type of current interaction. This author analyzed interactional skills of male and female university colleagues involved in a meeting held by members of the same university department. She found that men produced more directive utterances (arguing, making suggestions, asking others' opinions) when the interaction consisted of sequences of turns independent one from the other. However, when the interaction was more informal and when the participants were equally concerned with the subject, women produced more directive statements than men.

Other research into gender differentiation in cross-sex conversations used the descriptive concepts developed by the microsociology of conversation (Duncan, 1972, 1976, Schegloff, 1968; Sacks, Schegloff & Jefferson, 1974). This approach examined dialogue maintenance among partners over several conversational turns by analyzing conversational rules for starting off the conversation, choosing and developing a subject, alternating the turns, initiating, maintaining, and shifting topics, etc.

Studies on gender differences in conversation focused in this case on the analysis of power relationships established among conversationalists through their differentiated use of conversational rules, particularly turn-taking rules. The general assumption was that conversation is an activity that allows a speaker to show his dominance or his submission to his or her partners. Investigators mainly used, as measures of "power" or "dominance," the amount of speech and the frequency of interruptions produced by each participant. An asymmetrical distribution of the talking time among the speakers was viewed as a denial of the equal right to speak, as was interrupting the current speaker. With regard to the amount of speech, most findings showed that men took the floor more frequently and for far longer periods than women, whether the examined interaction took place in a natural setting without the explicit presence of an observer (Pillon, 1986; Zimmerman & West, 1975) or in an experimental one, in which the subjects were asked to discuss a given topic (Argyle, Lalljee, & Cook, 1968; Duncan & Fiske, 1977; Hilpert, Kramer, & Clark, 1975; Parker, 1973). However, in similar experimental settings, Hirschman (1973, 1974) did not find any significant sex differences in talking time (as measured by the mean length of utterance and the number of words produced) and Aries (1982) found that women initiated more interaction than did men. As for gender differences in interruptive behaviors, Zimmerman and West (1975) found that 96% of all the interruptions produced in dyadic male-female conversations (covertly recorded in public places on the campus of a university) were produced by male speakers. In Pillon's (1986) study, carried out in similar conditions, males did show a tendency to interrupt their partner more often than females (they produced 61% of interruptions), but females made more unsuccessful attempts to interrupt. With respect to studies conducted in experimental settings, West and Zimmerman (1977) reported that men interrupted women more often than women interrupted men (men were responsible for 73% of the interruptions). These authors interpreted this sexual asymmetry in the frequency of interruptions as the way in which men assert and establish their dominance. Accordingly, this asymmetry should be considered in relation to the power relationships between men and women in social life, namely, the interactional dynamics revealed by the asymmetrical distribution of interruptions would just reflect the dominance/submission relationships existing between men and women in our societies. Furthermore, West and Zimmerman (1977) claimed that the conversations between men and women are reminiscent of adult-child conversations, where the child, like the woman in these cross-sex conversations, has restricted rights to speak and to be listened to. However, women unlike

children seem to submit to such an extent that they resign themselves to not finishing their utterance without protesting when they are interrupted. Yet Hirschman (1973, 1974) did not find any sex differences in the distribution of interruptions, while Kennedy and Camden (1981) found that women did more interrupting than men.

That research evidence, with only a very few exceptions, so constantly supports the common sex-roles stereotypes is disconcerting. In our view, the theoretical and methodological frameworks within which most studies took place could account, at least partially, for these stereotyped "replications." Indeed, analyzing the conversational behavior of males and females according to the task-oriented/social-emotional distinction, or according to the dominance/submission attitudes determined by the use of turn-taking rules, means that, explicitly or not, researchers assumed that the differentiation of sex roles in our societies had to be reflected in some way in the male/female conversational dynamics. In other words, the purpose was not really to describe the conversational behavior of males and females, but rather to search for the differences the conversational behavior of the two sex groups was supposed to present.

Furthermore, especially in the studies of power relationships in conversations, very few behavioral variables (sometimes only one, as for example, interruptions) were chosen to show these differences and, more importantly, general interpretations about the nature of participants' relationships were drawn on the sole basis of these isolated variables. Yet there are certainly other kinds of conversational variables to be considered if we want to give an account of the interactional style as a whole, if we want to describe differences as well as similarities.

Moreover, the way the interaction of these variables has been interpreted often reveals a rather circular reasoning. For example, to show gender differences, studies focused on some variables which were precisely assumed to be female- or male-typical; for instance, males were expected to interrupt their partners more often than females. Then, as the conversational behavior was assumed to reflect male/female social relationships, the fact that males interrupt females more frequently than the opposite has been interpreted in reference to the dominant role of males and the subordinate role of females in social life. Consequently, male- and female-typical behavioral variables were attached to the values that are commonly and stereotypically attached to men and women themselves. Female-typical behavioral variables are said to convey submission and male-typical ones are considered as the means to convey their power dominance.

Yet, we may wonder to what extent the number and length of speech turns on the one hand, and the frequency of interruptions on the other, do really signal a speakers' dominance over their addressees. For example, regarding interruptions it has now been suggested that they may be indicative of other social relationships than those of dominance. Aleguire (1978) reported that interruptions may be a means of agreeing with or supporting the partner's utterances. Gallois and Markel (1975) suggested that, in the middle section of a conversation, interruptions may actually signal heightened involvement rather than dominance. Ferguson (1977) did not find any significant relationship between overall measures of interruption and dominance. Finally, Beattie (1981), who investigated interruptions in university tutorials, found that the frequency of interruptions was not correlated with the speaker's sex. However, students were found to interrupt their tutors more often than their tutors interrupted them. The frequency of interruptions therefore is not necessarily linked to the dominance of speakers over their addressees, since the high-status individuals (tutors in university tutorial groups) were interrupted more frequently than they interrupted. Thus, it appears that the relationship between interruption and dominance is much more complex than has previously been asserted.

The study presented here represents an attempt to avoid the two problems mentioned above, by analyzing the interactional style of males and females through a range of conversational variables. So, rather than focusing the analysis on variables that are supposed to reflect power or dominance, we conducted a speech turns analysis with the purpose of determining how males and females behaved in various tasks aiming to organize the dialogue. In order to avoid, as much as possible, arbitrary or stereotypes-based interpretations of the measures used in this speech turns analysis, we further compared the results with observations made about the functions utterances actually fulfil in the interaction.

METHOD

The corpus was composed of 20 dyadic cross-sex conversations, each of them lasting 11 min.

The 40 subjects were 19 to 26 years old; they were students in psychology and all of them were French-speaking. They had never met before the experiment and were randomly paired in the 20 dyads.

Subjects were asked to discuss a given topic, the nuclear catastrophe of Tchernobyl (a recent event at that time), for about 10 min. This topic

was chosen for its effectiveness in promoting discussion, without favoring either gender (ecology does not appear to be a gender-linked topic). Nevertheless, they were told that they could choose another subject if they thought the given topic was exhausted. No other specific task instructions were provided. It was stressed that the purpose of the investigation did not concern the opinions of the participants, nor the way in which they were expressed; the investigation was vaguely presented as a study in linguistics. Participants were informed that they would be audiotape-recorded. The experimenter did not attend the conversations.

Conversations were entirely transcribed in conventional orthography. For the coding of the various variables, the sex of each speaker was obscured in the transcripts. We first analyzed the conversational behaviors related to the social organization of dialogue. Then we focused on the communicative intentions encoded in the participant's messages, i.e., the language functions expressed by speaker's utterances.

The Social Organization of Dialogue

Using the scheme designed by Pillon (1984) for classifying the dialogue-organizing behaviors, we examined the sequential ordering of utterances in order to establish the following:

- 1. The way each speaker's turn occurs
- 2. The effect each turn produces on the structure of the discourse
- (1) Turn-Taking. The analysis first aims at coding the way turn-taking occurs. If the turn does not follow a pause, we have to establish whether or not it takes place at a legitimate point of speaker switch, i.e., whether or not it represents what is called interruption. The distinction between these two types of speaker switch is based on several syntactic, semantic, prosodic, and functional cues (see Fig. 1). Hence the following types of turn-taking are distinguished:
 - 1. Turn-taking occurring at a legitimate place of speaker switch
 - 1.1. After a pause
 - 1.2. Smooth turn-taking
 - 1.3. Legitimate interruption
 - 2. Turn-taking occurring at a nonlegitimate place of speaker switch
 - 2.1. Nonlegitimate interruption
 - 2.2. Unsuccessful attempt to interrupt
 - 3. Turn-taking for which it is impossible to determine whether or not it constitutes an interruption
 - 3.1. Borderline cases

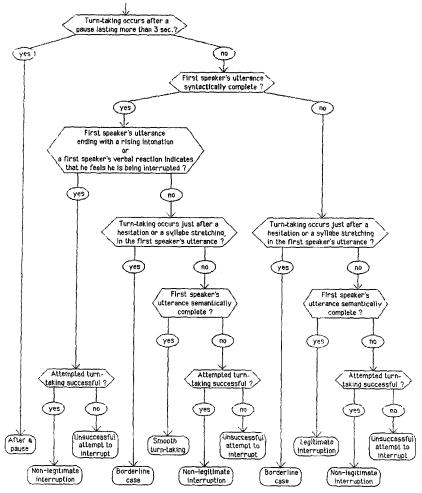


Fig. 1. Turn-taking categorization scheme (adapted from Pillon, 1984).

Minimal responses such as oui, huhum, c'est ça, etc., are classified in a distinct category, called back-channel utterances (Duncan & Fiske, 1977): They don't amount to a turn; rather they are a way of indicating the listener's positive attention to the speaker, and thus a way of supporting the current speaker (cf. Schegloff, 1968).

There is lack of space here to give an extensive account of the principles underlying this scheme and to explicate how it relates to other taxonomies of turn-taking and interruptions, for example, those of Zim-

merman and West (1975), Ferguson (1977), and Roger, Bull, and Smith (1988). Let us indicate only that all taxonomies, except Roger, Bull, and Smith's, have in common that they recognize the fact that different types of intrusions into the actual speaker's turn have to be distinguished, for all of them do not represent a true violation of turn-taking rules; some intrusions can be viewed as more legitimate intrusions than others, when, for example, they occur very near a possible speaker-switch place. These legitimate intrusions were called "overlaps" in Zimmerman and West's and Ferguson's taxonomies, while Pillon (1984) preferred to name them "legitimate interruptions," because they do not always occur by overlapping the first speaker's turn. Some taxonomies make further distinctions. Ferguson (1977), as well as Pillon (1984) and Roger et al. (1988), also distinguished two types of nonlegitimate interruptions, depending on whether the interrupter succeeds in taking the floor or not. So, "butting-in interruptions" in Ferguson's taxonomy relate to "unsuccessful interruptions" in Pillon's and Roger et al.'s taxonomies. Pillon (1984) further showed that, in some cases, it is not possible to categorize some speaker-swiches unequivocally ("borderline cases"); these cases relate most often to the "silent interruptions" of Ferguson. However, apart from the differences relating to the number of categories of interruptions distinguished and to how these categories are referred to, taxonomies differ more basically in regard to the operational definition given to them. In this context, Pillon's (1984) categorization scheme was preferred, because it represents the sole attempt to provide unambiguous clues for categorizing speaker-switches.

(2) Discourse Structuring. Close examination of turn sequencing first reveals that conversations are composed of a series of small discourse units which can be called "paragraphs" or "conversational sequences." Within these sequences the successive turns are closely linked together and each is functionally dependent upon the previous one; in fact, each turn-taking taking place within a conversational sequence replies to the previous turn and stimulates the next one. Sometimes, a turn does not reply to the previous one although it stimulates the next one, thus operating a conversational sequence shift by starting a new sequence. Independent turns also occur, which neither reply to the previous turn nor stimulate any response. We examined the way speakers engage in this aspect of dialogue structuring by classifying each turn in one of the three categories thus defined, that is: (1) speech turns within a conversational sequence, (2) speech turns starting a conversational sequence, and (3) independent speech turns.

Second, examining discourse structuring in dialogues, one can no-

tice that shifting from a conversational sequence to another sometimes occurs in an even more discontinuous manner, i.e., when conversation shifts towards a new topic.

We should remember here that the participants could freely choose another topic if they thought the imposed topic had been exhausted. Furthermore, the imposed topic included more specific topics such as the role of ecologists, inconsistencies in the measures taken after the catastrophe, the relationships between Eastern and Western countries, etc. So, in order to assess the influence each speaker had on topic structuring, we shall distinguish the new topics freely introduced from the topic shifts occurring within the general given topic. Besides, we found it interesting to single out in the analysis the topic shifts induced by the research situation (called "situational topics"), that is, shifts caused when participants spoke about the research situation itself (for example with utterances like Ce n'est pas facile de parler sur un sujet imposé/It is not easy to speak on an imposed topic, Je me demande quel est le sujet de la recherche/I wonder what the purpose of this research is, Combien de temps est-ce qu'il nous reste?/How much time have we got left?, etc.).

The Communicative Intentions

To further the analysis of the way speakers take the floor and get involved in discourse structuring, we coded utterances on the basis of a functional criterion, i.e., the communicative intentions they expressed.

At present, many systems are available for coding the range of communicative intentions. Nevertheless, we designed our own system in order to highlight the specific speech acts induced by our experimental setting; in addition, we needed a system allowing us to compare our results with both the previous data and the stereotyped representations on this issue.

So, we first considered the utterances according to the discourse type they embodied: argumentative utterances (the speaker gives his or her opinion about the topic discussed), informative utterances (the speaker mentions several facts or pieces of information), personal utterances (in which personal expression is dominant), and finally phatic utterances (aimed at maintaining contact). In addition to these four types of utterances, we distinguished particular utterances, in which the discourse is the subject of discourse, which we call meta-conversational utterances.

Since within a given discourse type, utterances do not express the same communicative intentions and do not have the same interactional functions, we next brought out the functional diversity of turns by distinguishing the 21 language functions presented in Table I.

Table I. Total Number of Words Produced by Males and Females According to the 21 Language Functions

Language Functions	Males $(n = 20)$	Females $(n = 20)$
	(11 – 20)	(# = 20)
Argumentative utterances (A)	700	401
A1. Simply explaining the partner's statement in	792	431
other words A2. Simply disagreeing	94	46
A3. Arguing and agreeing with the partner's	34	40
statement	4.297	4,994
A4. Arguing and disagreeing with the partner's	4-271	4,224
statement	1.502	1.911
A5. Arguing without any connection with the	1.502	1.711
partner's statement	4.410	2.982
A6. Inviting the partner to give his/her opinion	328	411
A7. Giving his/her opinion after having been asked		
to do so	1.309	855
A8. Expressing his/her inability to take a stand	326	122
Informative utterances (I)		
I1. Asking information	302	172
Giving the information sought	438	599
 Spontaneously giving information 	895	481
Personal utterances (P)		
P1. Asking a personal question	707	567
P2. Answering a personal question	1.561	1.392
P3. Spontaneously giving personal information	2.536	2.370
Phatic utterances (Ph)		
Ph1. Agreeing, approving	209	310
Ph2. Checking the partner's awareness of the fact	154	141
Ph3. Asserting his/her awareness of the fact	85	96
Ph4. Spontaneously asserting his/her awareness	42	26
of the fact	43	26
Ph5. Spontaneously asserting his/her unawareness of the fact	107	132
Ph6. Personally reinforcing his/her partner	242	143
Meta-conversational utterances (MC)	242	143
MC1. Speaking about the situation	167	180
Totals	20,504	18.451
10/4/5	20.304	10.431
Unclassified utterances	883	813
Supporting statements	326	325

We must point out that this analysis does not justify taking the speech turn as a unit of measurement, for several functions are sometimes expressed during a single turn and several turns sometimes play a single function. Moreover, it seems to us that by simply adding up occurrences

of the different functions we would not give an appropriate description of the interactional events: A given function probably does not assume the same interactional value if it appears in a 10-word utterance that it does in a 200-word utterance. We therefore use a measure based on the number of words: For each speaker, the number of words produced to express each of the 21 considered functions will be noted.

Note that the scheme used for the classification of the dialogueorganizing behaviors is based on criteria that are objective and mechanical enough to prevent arbitrary decisions by the coder. Therefore, the coding of these behaviors by only one of the authors seemed sufficient to ensure reliable categorization. However, communicative intents are difficult to define through strictly objective clues; they necessarily require the coder to interpret the speaker's utterances to bring out the underlying intent. In order to avoid arbitrary decisions about these utterances that proved difficult to classify unambiguously, two of the authors, who were well trained in the coding procedure, participated in this coding. All the corpus was first coded by one of the authors, who temporarily disregarded utterances for which categorization could not be made without doubt. These utterances were then independently classified by the other coder. In cases of disagreement, they were entered into the "unclassified utterances" category.

RESULTS

Degree of Involvement in Conversations. The results related to the measures of involvement in conversations are presented in Table II. To compare the sex groups as a whole, we found it irrelevant to use the total number of words produced by men and women, respectively, as if these words were taken from independent samples. Instead we calculated the following index:

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DWORD(i) = [FWORD(i) - MWORD(i)] / [FWORD(i) + MWORD(i)]

where FWORD(i) = number of words produced by the female speaker of the i pair

MWORD(i) = number of words produced by the male speaker of the i pair
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This weighted difference index allowed us to take into account the pairing

1085.7

M

22.3

			ex of the S	peaker		
Dyad	Number of words		Number of turns		Mean length of turns	
n^r	Males	Females	Males	Females	Males	Females
1	1050	1269	30	34	35	37
2	773	703	25	19	31	37
3	895	611	71	60	13	10
4	867	559	44	42	20	13
5	652	722	53	51	12	14
6	1210	1082	56	57	22	19
7	1352	1042	35	44	39	24
8	881	1242	65	64	14	19
9	1039	910	49	49	21	19

42.8

43.7

25,4

Table II. Measures of the Involvement in Conversations: Number of Words, Number of Turns, and Mean Length of Turns in the 20 Dyads, According to the Sex of the Speaker

of men and women within each pair (and then to avoid statistical problems created by dependency; cf. Kraemer & Jacklin, 1979) and to lend the same weight to the different pairs, regardless of the total number of words produced by each pair.

Concerning the number of turns, the weighted difference index was calculated as follows:

The mean length of females' and males' speech turns was also compared through a weighted difference index:

DAVER(i) = [FAVER(i) - MAVER(i)] / [FAVER(i) + MAVER(i)]

where FAVER(i) = mean number of words per turn
produced by the female speaker of
the i pair

MAVER(i) = mean number of words per turn
produced by the male speaker of the

To test the null hypothesis that there is no difference between females and males in regard to these measures of involvement in conversations, we used a MANOVA on the vector of the three indexes presented here above. We found no significant difference (F = 1.5, p = .25). So, on the whole, males and females' involvement in conversations did not appear to be different.

i pair

Turn-Taking. In order to examine the way men and women take the floor (Table III), we calculated, for each category of turn-taking, the following weighted difference index:

$$D(i) = [F(i)/FT(i)] - [M(i)/MT(i)]$$

where F(i) = Number of turns classified in this category produced by the female speaker of the i pair

M(i) = number of turns classified in this category produced by the male speaker of the i pair

FT(i) = total number of turns taken by the female speaker of the i pair

MT(i) = total number of turns taken by the male speaker of the i pair.

Considering the six categories of turn-taking globally, no significant difference appeared (F = 0.91, p = .50).

In regard to the back-channel utterances (Table IV), it appears that they were not differently produced by male and female speakers of the different pairs (t = 0.07; p = .94).

Discourse Structuring. In regard to the previous analysis, we tested the influence of men's and women's speech turns on the sequence structuring of discourse (Table V) by calculating for the three considered categories of turns (turns starting a sequence, turns within a sequence, and independent turns) a difference index within each pair, weighted by the respective total numbers of turns taken by each subject in the pair. The MANOVA indicated a significant difference between the vectors of males and females (F = 4.54, p < .03). More specifically, the t statistics

Table III. Number of Turns Taken by Males and Females in the 20 Dyads, According to the Categories of Turn-Taking

						Categories of turn-taking	f turn-fak	ing				
						angones o	ו וחוזו-ומע	ung.				
							Bor	Borderline				
			Legi	Legitimate			2	cases		Nonleg	Nonlegitimate	
Dvad	After	After a pause	Smoo ta	Smooth turn- taking	Legi	Legitimate interruption			Nonle, interr	Nonlegitimate interruption	Unsucce tempt to	Unsuccessful attempt to interrupt
'n	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1	2	3	18	11	9	5	2	9	1	7	1	2
7	7	œ	13	6	7	l	Э	Т	1		ı	,
n	15	4	45	48	œ	9	æ	Н	I		1	ļ
4	7	2	31	27	4	7	2	4	т	2 0	2	I
S	9	œ	37	37	9	7	7	7	7	2	, !	j
9	6	S	38	42	6	7	7	2	l 199	ı		•
7	I	1	24	18	4	14	S	7		m	٠,	٠,
∞	∞	9	43	47	9	7	ю	8	S		, 1	, 1
6	9		40	38	-	S	7	S	1	ıİ	J	1
10	4	т	20	15	4	∞	4	l	7	ς.	2	۷.
11	7	0	œ	12	Э	4	4	1	, ,		۰) rc
12	1	ᆏ	35	23	₩	11	i	8	-	ı m	, 1	, -
13	1	9	41	31	4	7	4	7	-	m		, 1
14	9	S	14	21	14	11	1	9	∞	'n	. 2	60
15	m	7	43	32	7	11	ю	9	2	11	· w	4
16	9	3	9	10	I	œ	l	2	ю	ŀ	1	. 1
17	т	9	21	16	S	7	1	S	1	4	2	ı
18	1	_	41	4	S	5	7	1	1	I		-
19	1	j	30	38	7	ĸ	7	2	2	₩	I	-
20	%	l	22	21	7	S	7	8	S	4	1	ю
M	4.2	3.3	28.5	27	4.9	6.7	2.4	3.1	2.1	2.6	8.0	1.1

	remares in the 20 Dyads	
Dyad n'	Males	Females
1	29	11
2	11	8
3	16	15
4	6	12
5	11	9
6	9	38
7	10	15
8	3	4
9	14	22
10	18	7
11	11	5
12	13	23
13	22	13
14	11	38
15	38	34
16	22	3
17	11	19
18	12	11
19	51	14
20	8	24
M	16.3	16.3

Table IV. Number of Back-Channel Utterances Produced by Males and Females in the 20 Dyads

on each variable revealed that women took their turns within conversational sequences more often than their male partners (t = 3.08; p < .01); on the other hand, men started more sequences than women (t = 2.93; p < .01); but there was no significant difference concerning the independent turns (t = 0.42; p = .65).

The comparative analysis concerning the three categories of topic shifts (see Table VI)—performed with the calculating method used for the analysis of turn-taking and the sequence structuring explained above—did not reveal any significant sex difference (MANOVA: F=0.10, p>.90)

Communicative Intentions. Finally, the functional analysis of utterances (see Table I) was also carried out on the basis of intrapair difference indexes weighted by the total numbers of words produced by each individual. In this case, it was impossible to compute a MANOVA on the 21 functions, since there were only 20 pairs of subjects. We then summed the weighted differences on the functions within each of the five main

Table V. Number of Turns Taken by Males and Females in the 20 Dyads, According to the Categories Defining Their Influence on the Sequence Structuring of Discourse

		Inf	luence on sec	quence structur	ing	
Dyad	Turns within a conversational sequence		Turns starting a conversational sequence		Independent turns	
n ^r	Males	Females	Males	Females	Males	Females
1	17	24	9	7	4	3
2	10	11	7	6	8	5
3	42	46	24	14	5	2 3
4	31	29	10	10	3	3
5	36	32	14	10	3	9 6
6	34	35	17	16	5	6
7	24	30	10	10	1	4
8	42	45	17	14	6	5
9	29	33	16	15	4	1
10	15	22	10	8	11	3
11	13	14	5	5		1
12	24	32	12	6	2	6
13	34	28	10	17	8	2.
14	29	32	11	11	5	6
15	28	43	22	11	11	11
16	4	14	8	2	3	5:
17	21	25	10	7	2	6
18	29	36	14	12	6	3
19	29	28	12	11	1	5
20	21	29	14	6	4	1
M	25.6	29.4	12.6	9.9	4.6	4.4

types of discourse (argumentative, informative, personal, phatic, and meta-conversational) and tested whether these five sums were different from zero. There was no significant difference (F=0.24; p=.93). So, on the whole, there did not appear to be any differences between male and female speakers for the five main types of discourse.

We then tested, type by type, whether the weighted differences computed for each function were different from zero. No significant sex difference was found for the functions of argumentative, informative, personal, and phatic types (0.54 < F < 2.16; .67 > p > .13). For the unique function of the meta-conversational type, the t statistic was not significant (t = 0.32, p = .75).

Table VI. Number of Topic Shifts of Each Category Produced by Males and Females in the 20 Dyads

Dyad			Categories	of topic shifts		
	Topic shifts within the general topic		Topics freely introduced		Situational topics	
n^r	Males	Females	Males	Females	Males	Females
1	8	4	1	_		1
2	3	4	3	2	2	2
3	7	1	5	7	3	3
4	1	1	6	3		
5	2	3	5	5	3	_
6	2	2	4	1	1	2
7	5	3	2	6	_	1
8	3	3	8	4		1
9	4	2	2	1	6	3
10	5	4	1	4	3	_
11	5	4		1		
12	2	2	7	1		1
13	3	3	3	7	3	_
14	5	7	_			
15	2	2	8	8		
16	6	4	_	_	1	_
17	3	4	1	_	2	_
18	4	3	3	2		2
19	1	_	5	8	1	-
20	8	5			1	_
M	3.9	3.1	3	3.2	1.3	0.8

DISCUSSION

Our findings do not corroborate the data reported in the sociological studies mentioned above and in most of the previous papers relating to time speaking and interruption. Moreover, the conversational behavior we noticed is very far from squaring with the common stereotyped representations about sex differences in conversation. Our study shows that in an experimentally induced interaction males' and females' conversational behavior differs very slightly, whatever the level of analysis we consider.

The only gender difference that appeared among all the behavioral variables taken into consideration concerned the way males and females engaged in the sequence structuring of dialogues: Males started new conversational sequences more often than did females, whose speaking

turns were more often replies to the previous turn. Taken in isolation, this finding could lead to the conclusion that males displayed more "directive acts" than females, who showed more "responsive acts." In this view, the conversation dynamics would reflect in some way the inequality between the roles of men and women in social life. However, such a conclusion would be distorted, because it does not take into account the fact that males and females did not differ with respect to other critical behaviors. For example, the results indicated that women produced topic shifts and restarted the conversations after pauses as frequently as men. These two behavioral categories can be considered as "directive acts," as much as starting sequences, for they are aimed at managing and directing the course of a dialogue. Thus, our findings do not reveal a dichotomical opposition in the way men and women engage in the management of dialogues: Men and women rather appear to take an equally active part in developing the conversation—when, for example, they start it again after a pause or when they take up a new topic—even if women seem to be more inclined to maintain a conversational sequence than to initiate a new one. In addition, the data drawn from the functional analysis of utterances betray similar tendencies. None of the 21 functional categories differentiated the sexes. Yet some of them involve directive acts (A5-A6-I1-I3-P1-P3), and some others responsive acts (A1-A2-A3-A4-A7-I2-P2).

Moreover, contrary to what has often been claimed, the use of discourse types did not show sex-preferential tendencies: Male discourse did not appear to be more specifically of an argumentative or an informative type, and female discourse did not preferentially have a personal or expressive content. Besides, males and females did not differ either in regard to the production of utterances aiming at maintaining, furthering, and improving the contact, or in regard to showing interest toward their partners' speech (phatic utterances). So these behaviors, which undoubtedly relate more to a supportive attitude than a competitive one, did not prove to be women's special endowment. This fact must be linked to a similar observation made about back-channel utterances, which can also be considered as active listening cues, as signs of the attention paid to the partner's speech: These utterances were equally produced by males and females.

Even though we have underlined the fact that our findings contrast radically with those of most previous studies, we do not want to claim that gender differences in conversational behavior might not exist at all. First, we did find a gender-linked effect: Male and female speech turns did differ as to their influence on the sequence structuring of dialogues.

However, there is no ground to view this gender difference as a clear case of male directivity and female responsivity in conversation, since males and females did not differ with respect to other directive or responsive acts. Second, we only analyzed overt behaviors, when in fact the same behavior might have different meanings for men and women. It has been suggested, for example, that back-channel responses mean "I'm listening, please continue" for women, whereas they mean agreement for men (Maltz & Borker, 1982). Several studies have also showed that interruptions might serve different purposes according to gender and/ or situation (Edelsky, 1981; Tannen, 1984, 1986). Finally, our contrasting findings are based on the failure to reject the null hypothesis for almost all the variables we considered. Unfortunately, nonsignificant differences raise difficult problems regarding their interpretation. Particularly, the fact that no reliable gender effect has been found for these variables cannot be interpreted as evidence for the lack of a gender difference: It means that the gender effect was not detectable for these variables. However, it is hard to dismiss the possibility that the effect under consideration might be detectable with a larger sample size. We can only make the point here that our data analysis generally did not yield values approaching significance (in fact, there is only one, i.e., F = 2.16, p = .13, obtained for the informative utterances).

The previous difficulty, however, does not permit one to rule out another explanation: Possibly the gender effect was undetectable in our study due to *specific circumstances* which caused other situational effects to be of greater saliency.

Let us remember that the data analysis indicated that differences essentially occurred between pairs rather than within pairs. The meaning of this might be that subjects, once involved in a common interactional task, tend to adopt similar attitudes, behaviors, and goals, probably because of mutual influences which incite them to adjust to one another. In such an interactional process, what becomes relevant for the behavioral differentiation is the particularity of the situation created by the actual participants, where the gender of the partners appears to play a really minor role.

The fact that participants in interactions are influenced by the communicative behavior of their partners is now well documented in the literature (Andersen & Andersen, 1984; Capella, 1981; Capella & Greene, 1982). The Speech Accommodation Theory developed by Giles and his colleagues (Giles & Powesland, 1975; Giles & Smith, 1979; Street & Giles, 1982) could also account for the similarities between males and females in our study. Indeed, this theory suggests that when interacting

with individuals not of their own social group, people shift their speech styles so as to diminish (real or perceived) differences between themselves and their partners. Our findings also fit Maltz & Borker's (1982) socialization hypothesis about male and female conversational styles. According to these authors, men and women come from different subcultures and have different patterns and norms for communication; but when they come together, those norms have less force and more behavioral latitude is possible.⁴

However, we may wonder why the effect of partner influence or the "convergence" effect appeared to be more determinant than the gender effect in our study, and not in other studies of cross-sex conversations, i.e., what might be the underlying causal factors responsible for the discrepancy between the present findings and those of prior research?

Several explanations can be put forward, relating to methodological as well as to situational differences between studies. These explanations have to be viewed as complementary rather than alternative proposals. Indeed, it seems that none of them, taken separately, can provide a sufficient account for the discrepancy.

First of all, some contradictions can certainly be explained by the fact that specific conversational behaviors were not given the same operational definitions across studies: For instance, the violation of turntaking rules by interruption was defined through purely syntactic criteria in the Zimmerman and West (1975) and West and Zimmerman (1977) studies, while the scheme we chose used syntactic, semantic, prosodic, and functional criteria to categorize interruptions. Thus, the different measures probably cannot be given similar interpretations. Other methodological differences may have caused divergent findings. We used a weighted index of the display of a given behavior while testing for the overall differences between females and males. This index was used in order to control dyad-specific effects. Previous studies did not control these effects; it might be that many findings of gender differences which took into consideration the relative frequency of specific behaviors were an artifact of the method of analysis. Moreover, the possible differences

⁴ Let us note that the Speech Accommodation Theory and the Socialization Hypothesis both assume the existence of gender differences in conversational style, while predicting that differences should diminish in cross-sex conversations (gender differences are predicted to be more pronounced between males and females in same-sex dyads than between males and females in mixed-sex dyads). In regard to interruption, some evidence supports this prediction (Hogg, 1985); however, the gender effect has been found to be not significant in single-sex dyads in other studies (Roger & Schumacher, 1983; Rogers & Jones, 1975).

between sex groups in our analysis was not tested by comparing the occurrence of given variables in males' behavior to their occurrence in females' behavior. A parametric analysis of variance would have been irrelevant with such an index, since observations were not taken from independent samples, but from interacting pairs of subjects. Thus we used measures based on intrapair differences in our analysis, which resolved the problem of the independence assumed by the statistics employed.

By underlining methodological differences and possible artifacts, we do not mean to minimize the influence of the nature of the research setting on findings. In fact, situational variables such as the role, status, and degree of intimacy between participants, the topic, the nature of the setting (laboratory vs. natural, formal vs. informal), etc., most probably interfere with gender to produce specific conversational dynamics, where gender may be less or more salient. In this context, it is interesting to note that the only findings similar to ours, i.e., those of Hirschman (1973, 1974), were collected in an experimental setting, where situational factors were very similar to the ones defining the situation in the present study: Subjects were randomly paired in dyads, they had never met before, and they were given a topic to discuss. These factors were also present in the West and Zimmerman's (1977) study (which indicated striking gender differences), except for one: Subjects were instructed to talk together informally in order to become acquainted with each other.⁵ Thus, we can hypothesize that a precise contextual demand—i.e., the extreme formality of the setting-have determined our findings. Possibly, the more formal the setting, the more enhanced will be the "convergence" effect (see Kramarae, 1981, and Lakoff, 1975, for similar views).

We must finally mention that differences between the present study and previous ones (most of which were American) might be due to cultural differences. Whereas, as far as we know, there are no data pertinent to this question, French and American conversational norms may indeed differ for the sexes.

Evidently, the design of our study and the data available at the

⁵ While being beyond the scope of this paper, we recognize that a complete meta-analysis of gender differences and similarities would be useful to further theoretical understanding of interference effects between gender and other situational factors (as it would be useful too to perform experiments in which specific variables were manipulated). However, in the present state of research, a meta-analysis could not really be applied, since it would be very difficult to disentangle the possible effects caused by situational factors and those caused by the methodological variations mentioned above.

moment do not allow us to identify unequivocally the factor(s) responsible for the discrepancy between our findings and the previous ones. But, while we are confined to only highly speculative conclusions regarding this point, our study nevertheless clearly demonstrates the advantage of using more varied and more fine-grained measures than is typically (if ever) done when male/female conversational relationships are under consideration. Shifting in this way the methodological approach to the issue provides at the same time grounds for shifting the main question. Rather than searching for the clues that reflect social gender asymmetries of power and role in male/female conversation through isolated variables, it would be more judicious to study *how* males and females actually get involved in the various tasks aiming to organize a dialogue. In such a context, theories and evidence about cultural differences in gender communicational norms could constitute a valuable interpretative framework for the findings.

REFERENCES

- Aebischer, V. (1985). Les femmes et le langage. Paris: Presses Universitaires de France. Aleguire, D. (1978). Interruptions as turn-taking. Paper presented at the Ninth Congress of Sociology, Uppsala, Sweden.
- Andersen, P. A. and Andersen, J. F. (1984). The exchange of nonverbal intimacy: A critical review of dyadic models. *Journal of Nonverbal Behavior*, 8, 327–349.
- Argyle, M., Lalljee, M. & Cook, M. (1968). The effects of visibility on interaction in a dyad. *Human Relations*, 21, 3-17.
- Aries, E. J. (1982). Verbal and nonverbal behavior in single-sex and mixed-sex groups: Are traditional sex roles changing? *Psychological Reports*, 51, 127-134.
- Bales, R. F. (1950). Interaction process analysis. Cambridge, MA: Addison-Wesley.
- Barron, N. (1971). Sex-typed language: The production of grammatical cases. *Acta Sociologica*, 14, 24-72.
- Beattie, G. W. (1981). Interruptions in conversational interaction and its relation to the sex and status of the interactants. *Linguistics*, 19, 15-35.
- Bernard, J. (1972). The sex game. New York: Atheneum.
- Block, J. H. (1973). Conceptions of sex role: Some cross-cultural and longitudinal perspectives. *American Psychologist*, 28, 512-527.
- Broverman, I., Vogel, S., Broverman, D., Clarkson, F., & Rosenkrantz, P. (1972). Sex-role stereotypes: A current appraisal. *Journal of Social Issues*, 28, 59-78.
- Capella, J. N. (1981). Conversational involvement: Approaching and avoiding others. In J. M. Wiemann & R. P. Harrison (Eds.), Nonverbal interaction. Beverly Hills, CA: Sage.
- Capella, J. N., & Greene, J. O. (1982). A discrepancy-arousal explanation of mutual influence in expressive behavior for adult-adult and infant-adult interaction. Communication Monographs, 49, 89-114.
- Coates, J. (1986). Women, men and language. New York: Longman.

- Duncan, S. J. (1972). Some signals and rules for taking speaking turns in conversations. Journal of Personality and Social Psychology, 23, 283–292.
- Duncan, S. J. (1976). Language, paralanguage and body motion in the structure of conversation. In W. C. McCormack & S. A. Wurm (Eds.), Language and man: Anthropological issues. The Hague: Mouton.
- Duncan, S., & Fiske, D. (1977). Face to face interaction: Research, methods and theory. Hillsdale: Erlbaum.
- Edelsky, C. (1981). Who's got the floor? Language in Society, 10, 383-421.
- Ellis, L. J., & Bentler, P. M. (1973). Traditional sex-determined role standards and sex stereotypes. *Journal of Personality and Social Psychology*, 25, 28–34.
- Ferguson, N. (1977). Simultaneous speech, interruptions and dominance. British Journal of Social and Clinical Psychology, 16, 295-302.
- Gallois, C., & Markel, N. (1975). Turn taking: Social personality and conversational style. *Journal of Personality and Social Psychology*, 31, 1134-1140.
- Giles, H., & Powesland, P. F. (1975). Speech style and social evaluation. London: Academic Press.
- Giles, H., Scholes, J., & Young, L. (1983). Stereotypes of male and female speech: A British study. Central States Speech Journal, 34, 255-256.
- Giles, H., & Smith, P. M. (1979). Accommodation theory: Optimal levels of convergence. In H. Giles & R. N. St Clair (Eds.), *Language and social psychology*. Oxford, England: Basil Blackwell.
- Glezer, G. C., Gottschalk, L. A., & Watkins, J. (1959). The relationship of sex and intelligence to choice of words: A normative study of verbal behavior. *Journal of Clinical Psychology*, 15, 182-191.
- Hall, J. A. (1984). Nonverbal sex differences: Communication accuracy and expressive style. Baltimore: Johns Hopkins University Press.
- Hall, J. A. (1987). On explaining gender differences: The case of nonverbal communication. In P. Shaver & C. Hendrick (Eds.), Review of personality and social psychology, 7. Sex and gender. Beverly Hills, CA: Sage.
- Hilpert, F. P., Kramer, C., & Clark, R. A. (1975). Participant's perception of self and partner in mixed-sex dyads. *Central States Speech Journal*, 26, 52-56.
- Hirschman, L. (1973, December). Female-male differences in conversational interaction.
 Paper presented at the meeting of the Linguistic Society of America, San Diego,
 CA
- Hirschman, L. (1974, July). Analysis of supportive and assertive behavior in conversations. Paper presented at the meeting of the Linguistic Society of America.
- Hogg, M. A. (1985). Masculine and feminine speech in dyads and groups: A study of speech style and gender salience. *Journal of Language and Social Psychology*, 4, 99-112
- Kennedy, C. W., & Camden, C. T. (1981). Gender differences in interruption behavior: A dominance perspective. *International Journal of Women's Studies*, 4, 18-25.
- Key, M. R. (1975). Male/female language. Metuchen, NJ: Scarecrow Press.
- Kraemer, H. C., & Jacklin, C. N. (1979). Statistical analysis of dyadic social behavior. Psychological Bulletin, 86, 217-224.
- Kramarae, C. (1981). Women and men speaking: Frameworks for analysis. Rowley, MA: Newbury House.
- Kramer, C. (1974a). Folklinguistics. Psychology Today, 8, 82-85.
- Kramer, C. (1974b). Women's speech: Separate but unequal? Quarterly Journal of Speech, 60, 14-24.

- Kramer, C. (1975). Stereotypes of women's speech: The word from cartoons. *Journal of Popular Culture*, 8, 624-638.
- Kramer, C. (1977). Perceptions of female and male speech. Language and Speech, 20, 151-161.
- Lakoff, R. (1975). Language and women's place. New York: Harper and Row.
- Maltz, D. N., & Borker, R. A. (1982). A cultural approach to male-female miscommunication. In J. J. Gumperz (Ed.), Language and social identity. Cambridge, England: Cambridge University Press.
- Parker, A. M. (1973). Sex differences in classroom intellectual argumentation. Unpublished master's thesis, Pennsylvania State University, University Park.
- Parsons, T., & Bales, R. F. (1955). Family, socialization and interaction process. New York: Free Press.
- Pillon, A. (1984). Un outil pour analyser les échanges conversationnels. Les Cahiers du Crelef, 19, 63–80.
- Pillon, A. (1986). Hommes actifs et femmes passives: Des rôles sexuels aux attitudes et aux conduites interactionnelles. In J. Creten, G. Geerts, & K. Jaspaert (Eds.), Werkin-uitvoering: Momentopname van de sociolinguïstiek in België and Nederland (pp. 275–288). Leuven-Amersfoort: Acco.
- Pillon, A. (1987). Le sexe du locuteur est-il un facteur de variation linguistique? Revue critique. La Linguistique, 23, 35–48.
- Pillon, A., & Lafontaine, C. (1988). Les attributs linguistiques de la féminité et de la masculinité. Enquête sur les représentations des adolescents. Social Science Information, 27, 421–438.
- Roger, D., Bull, P., & Smith, S. (1988). The development of a comprehensive system for classifying interruptions. *Journal of Language and Social Psychology*, 7, 27–34.
- Roger, D. B., & Schumacher, A. (1983). Effects of individual differences in dyadic conversational strategies. *Journal of Personality and Social Psychology*, 45, 247–255.
- Rogers, W. T., & Jones, S. E. (1975). Effects of dominance tendencies on floor holding and interruption behavior in dyadic interaction. *Communication Research*, 1, 113– 122.
- Rosenfeld, H. M. (1966). Approval-seeking and approval-inducing functions of verbal and non-verbal responses in the dyad. *Journal of Personality and Social Psychology*, 4, 597–605.
- Sacks, H., Schegloff, E., & Jefferson, G. (1974). A simplest systematics for the organisation of turn-taking in conversation. *Language*, 50, 696-735.
- Schegloff, E. (1968). Sequencing in conversational openings. *American Anthropologist*, 4, 1075–1095.
- Siegler, D., & Siegler, R. (1976). Stereotypes of males' and females' speech. *Psychological Reports*, 39, 167-170.
- Smith, A. (1983). Nonverbal communication among black female dyads: An assessment of intimacy, gender and races. *Journal of Social Issues*, 39, 55–67.
- Smith, P. M. (1985). Language, the sexes and society. London: Blackwell.
- Soskin, W. F., & John, V. P. (1963). The study of spontaneous talk. In R. Baker (Ed.), *The stream of behavior*. New York: Appleton-Century-Crofts.
- Street, R. L., & Giles, H. (1982). Speech accommodation theory: A social cognitive approach to language and speech behavior. In M. E. Roloff & C. R. Berger (Eds.), Social cognition and communication. Beverly Hills, CA: Sage.

- Strodtbeck, F. L., James, R. M., & Hawkins, C. (1957). Social status in jury deliberations. *American Sociological Review*, 22, 713-719.
- Strodtbeck, F. L., & Mann, R. D. (1956). Sex role in jury deliberations. Sociometry, 19, 3-11.
- Tannen, D. (1984). Analysing talk among friends. Norwood, NJ: Ablex.
- Tannen, D. (1986). That's not what I meant! How conversational style makes or breaks your relations with others. New York: Morrow.
- West, C., & Zimmerman, D. H. (1977). Women's place in everyday talk: Reflections on parent-child interaction. Social Problems, 24, 521-529.
- Zimmerman, D., & West, C. (1975). Sex roles, interruptions and silences in conversations. In B. Thorne & N. Henley (Eds.), Language and sex: Difference and dominance (pp. 105-129). Rowley, MA: Newbury House.