

# HUMAN CONVERSATIONAL BEHAVIOR

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Observational studies of human conversations in relaxed social settings suggest that these consist predominantly of exchanges of social information (mostly concerning personal relationships and experiences). Most of these exchanges involve information about the speaker or third parties, and very few involve critical comments or the soliciting or giving of advice. Although a policing function may still be important (e.g., for controlling social cheats), it seems that this does not often involve overt criticism of other individuals' behavior. The few significant differences between the sexes in the proportion of conversation time devoted to particular topics are interpreted as reflecting females' concerns with networking and males' concerns with self-display in what amount to a conventional mating lek.

KEY WORDS: Conversational topics; Humans; Language evolution; Reproductive strategies; Sex differences.

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Despite the fundamental importance of language in human societies, there has been surprisingly little research on what people talk about in informal social situations. A number of early studies eavesdropped on the conversations of passersby on busy city streets or in public bars (Landis and Burt 1924; Moore 1922). These studies suggested that topics of conversation depended on the sex of the participants. Male-male conversations focused predominantly (50% of dyads) on business, with

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sports/leisure (ca. 15%) and the behavior of other males (ca. 12%) being the next most favored topics. In contrast, all-female conversations focused predominantly on men (22–44% of conversations), with clothes (ca. 20%) and other women (ca. 15%) as the next most favored topics. In mixed-sex dyads, speakers followed more or less the same pattern, except that male speakers talked more about leisure/sport activities (ca. 25%) than about business (ca. 20%), and about themselves rather than other men. Women speakers showed a more striking shift in conversation topic in mixed sex groups, and much less consistency between studies, with leisure pursuits, clothing, themselves, other men, and other women all featuring on the list of preferred topics.

There have been a number of attempts to replicate the early Moore/Landis studies (for a review, see Bischooping 1993). Kipers (1987), for example, reported a greater frequency of male conversations concerned with home and family affairs than had been noted in the 1920 studies and suggested that this difference reflects shifts in social norms over the years. However, when Bischooping (1993) controlled for context and situation, she obtained results that were generally in line with those of the early studies. McCormick and McCormick (1992) analyzed undergraduate electronic mail messages and reported a similarly high concentration on social topics (51.7% of all messages). Of these, about half (27.6% of all messages) were classified as intimate. Taken as a whole, then, social topics seem to predominate, irrespective of the location and social composition of the sample.

Aside from this handful of studies, however, most recent studies have tended to focus on the way in which conversations are enacted or managed rather than the topics discussed (e.g., Aries 1976; Beattie 1983; Nelson 1988; see reviews in Coates 1993, Eakins and Eakins 1978). These studies have tended to emphasize the fact that men and women conduct themselves in different ways when conversing, with men being more gladiatorial and women being more interactive and supportive. In mixed sex conversations, men have been found to interrupt women more often than vice versa and to dominate (or lead) the topics of conversation (Zimmerman and West 1975). Other studies have suggested that women's verbal behavior tends to be evocative/emotional whereas men's tends to be more factual (Wood 1966); women's speech also tends to be more conciliatory, often involving the use of more laughter (Cosser 1960; Provine 1993). Coates (1994, 1996), for example, has shown that women's conversations tend to flow more smoothly in that they involve less explicit turn-taking and more reinforcement of the current speaker's utterances.

In most cases, these studies have focused on formal workplace contexts or on contrived situations. By comparison with the wealth of data on sociolinguistics (word use and pronunciation patterns: see reviews in

Beattie 1983; Coates 1993; Milroy 1980, 1987), the number of studies that have focused on the content of conversations in relaxed social settings is very small indeed: Bischooping (1993) lists just seven, including her own, since the original Moore/Landis studies. Moreover, what studies there have been since Moore's classic work have tended to be motivated by the politics of gender roles rather than the functions that language subserves in society as a whole.

The striking recent exception has been the work of Emler (1992, 1994), who sampled conversation topics in a number of situations. He reported that approximately 70% of conversation time was taken up with what he terms "gossip" (broadly defined as the informal exchange of information about contemporary social events, including the behavior and character of either the speaker or of third parties not present). Emler (1992) has argued that the primary functions of conversation are to provide people with the information they need in order to cope with everyday social life and to manage reputations.

Emler's findings are relevant to arguments for the social function of intellect in primates (Brothers 1989; Byrne 1995; Byrne and Whiten 1988), as well as being compatible with the suggestion that the capacity for language may have evolved to facilitate the more rapid and/or wider dissemination of social information within the relatively large groups characteristic of modern humans (Dunbar 1993). This may be especially important in the context of the freerider problem (people who get the benefits of society but don't pay the costs). Enquist and Leimar (1993) have pointed out that control of freeriders is the most significant problem with which humans in their large social groups have to cope (see also Cosmides 1989), and that language (or gossip) may be a powerful mechanism for controlling their activities. In this respect, the management of reputations may be especially important (Emler 1990, 1992).

In order to explore these issues in more detail, we carried out three studies on the content of conversations. The first two were designed to ascertain the broad patterns of conversational topics in two different age/social groups (students and older working adults). The third study explored in more detail the functions of language in the social domain. If language evolved to allow individuals to function more effectively within large social groups, there are at least three ways this could work: (a) exchange of information about the speaker's or someone else's behavior or relationships (Emler 1994), (b) provision of advice on how to handle social situations beyond the limited experience of a single individual (Suls 1977), and (c) negative gossip intended as an informal policing device (Enquist and Leimar 1993).

Our emphasis was quite explicitly on what people talk about in relaxed social settings, and how these topics are influenced by the composition of the conversational group. Human conversations can differ

radically both in their function and in their content, depending on the context. Our concern is not with instructional settings or those situations in which new acquaintances attempt to get to know each other. These are special cases that have their own intrinsic interest. Our concern, rather, is with conversations that take place between individuals who already know each other well—the kind of relationship one might expect to find in the small-scale communities typical of most of human evolutionary history.

## METHODS

The data reported here derive from three separate samples. Nineteen conversations (involving 27 female subjects and 24 male subjects) were sampled by ND in a London university cafeteria during the midday period (group size ranged from 2 to 7 individuals). The subjects were mainly students in the age range 18–25 years. In order to explore the content of conversations in more detail, a further sixteen conversations were monitored by AM in a Liverpool university cafeteria. These conversations involved five single-sex dyads of each sex and six mixed-sex dyads. Subjects were again students. Finally, ten conversations were monitored by RD in public places (mainly bars and trains) in order to obtain a nonstudent sample. In this case, the subjects (11 males, 12 females) were mainly young to middle-aged adults (approximately 25–50 years old) whose employment (as judged from their conversations) ranged from businessmen to teachers and housewives.

In selecting conversations for observation, we tried to ensure that (a) the participants were not strangers to each other (as judged by the general tone of the conversation) and (b) the flow of conversation was relaxed and informal. In each case, the observer was positioned as close to the conversational group as possible without being intrusive. The observer focused on the speaker (there being normally a single speaker at any one time during a conversation: see Dunbar et al. 1995). To assess the content of conversations, the general topic of the speaker's utterances was scored as an instantaneous scan sample taken at 30-second intervals: the topic of conversation at the moment of the sample was judged by the immediately preceding period of conversation. The ND and AM samples were initially taped. However, taped conversations proved difficult to analyze owing to a combination of background noise and the fact that the directional microphones often only picked up the speaker directly facing the microphone; taping was therefore abandoned in favor of direct auditory monitoring.

Table 1. Categories Used in Classifying Conversations

Category	Definition
Personal relationships	Personal experiences rising from social events, social relationships and actual behavior in social situations and the emotional experiences involved
Personal experiences	Factual experiences, events and circumstances as experienced by the speaker or a third party, including emotional responses to these experiences
Future social activity	Arrangements for meetings that will involve social interaction (e.g. dates, dances)
Future nonsocial activity	Arrangements for meetings/events where social interaction is not the principal consideration (e.g., sports events, visits to museums or business locations)
Sport/leisure	Comments on sports or leisure/hobby that relate to the activity rather than the social/emotional life of the personalities/ individuals involved
Culture/art/music	Any comments or value judgements on the arts in the widest sense
Politics	Comments on current or past political events but not personal lives of individuals concerned
Religion/morals/ethics	Impersonal or judgmental comments on any aspect of religion or morality in the abstract or on religious/moral practice
Work/academic	All topics related to technical aspects of work (e.g., attempts to explain concepts and arguments)
Technical/instructional	Attempts to explain how things work or how to locate particular places

On average, each subject spoke for a total of 11.0 minutes per conversation (mean of 22.0 scan samples for females and 19.7 scan samples for males, range 3–51 scans) in the ND sample, 9.6 minutes (19.25 scans, range 4–49 scans) in the AM sample, and 9.1 minutes (18.3 scans, range 3–59 scans) in the RD sample. Any participant who spoke for less than 3 minutes (6 scan samples) was excluded from the analysis.

The methodology adopted in this study differs from that adopted in all previous studies. Those studies have invariably treated the conversation as the unit of analysis and classified the conversation as a whole as being in a particular category. We have sampled individual conversations in greater depth in order to determine the proportion of time devoted to different topics by individual speakers.

The topic of conversation was classified into one of fourteen major subject areas (Table 1). We delineated the topics a priori so as to reflect functionally relevant categories. However, some categories were added

as the first (ND) study progressed. In the ND and RD studies, utterances about an individual's behavior as well as the relationships in which he/she was involved are lumped under the single heading of "relationships": our interest here is primarily in the exchange of information concerning an individual's social behavior in the broad sense. In the AM sample, however, an attempt was made to differentiate between the different uses to which social information exchange might be put, and a finer division of social categories into positive/neutral and negative comments on third parties, the soliciting/giving of advice on social matters, and discussions of hypothetical social situations was used. In the few cases where the topic of conversation could have been classified in a number of possible categories, the observer was forced to make a single choice based on interpretation of the speaker's intentions. We endeavored to ensure standardization of classification in the three samples by detailed discussion of definitions as the studies progressed. However, in general, observers experienced little difficulty in categorizing the topic of conversation.

## RESULTS

Table 2 presents the data on conversation topic for the 83 subjects recorded in the three samples whose records satisfied the criterion of at least six scan samples. Only the overall frequency of conversation topics for each sex is shown. In general, a surprisingly high proportion of conversation time (averages of 55.0% for males and 66.7% for females) was devoted to discussion of socially relevant topics (relationships and experiences), with a further 4–5% devoted to arrangements for future social activities. Relatively small quantities of conversation time were devoted to such matters as sport (overall mean of 8.7%), politics and religion (2.9%), culture and art (3.9%), and academic or work-related topics (13.5%).

There are surprisingly few differences between the sample populations, aside from the greater emphasis on sport and leisure activities in the nonstudent RD sample (confirming the earlier findings by Moore [1922] and Landis and Burt [1924]) and the suggestion that personal relationships become a less important topic of conversation with age, particularly for males. Older males (sample RD) devoted a significantly smaller proportion of their *social* conversation time to personal relationships than younger males did (Mann Whitney tests on individual subjects: with sample ND males,  $z = 2.251$ ,  $P = 0.024$ ; with sample AM males,  $z = 2.491$ ,  $P = 0.013$ ;  $n_1 = 8$ ,  $n_2 = 22$  in each case, all  $P$ -values two-tailed).

Table 2. Distribution of Conversation Topics for the Three Samples

Speaker's Sex:	Percent of Speaking Time					
	Sample ND		Sample AM		Sample RD	
	male	female	male	female	male	female
Personal relationships†	35.1	41.2	49.5	46.1	15.3	37.5
Personal experiences	23.1	24.3	16.9	19.4	25.1	31.5
Future social activity	6.4	9.0	4.0	2.8	2.9	2.4
Future nonsocial activity	4.2	2.9	4.2	3.1	1.1	5.4
Sport/leisure	4.4	3.7	2.0	3.0	25.1	13.7
Culture/art/music	4.6	4.7	3.2	10.6	0	0
Politics	2.6	2.2	0.2	1.9	1.7	0
Religion/morals/ethics	0.4	1.8	4.4	1.8	0.6	0
Work/academic	12.6	9.3	18.9	7.8	19.4	6.5
Technical/instructional	6.4	0.8	0	0	8.0	1.8
Total sample‡	453	614	275	341	175	168
Number of subjects	24	27	16	16	10	9
Number of conversations	19		16		9	

†Includes comments on behavior as well as relationships in the more conventional sense.

‡Number of scan samples taken at 30-second intervals.

A comparison of values for individual subjects shows no significant differences between the two sexes in the proportion of conversation time devoted to personal experiences in general (all relationships and experiences combined: sample ND,  $z = 0.349$ ,  $n_1 = 22$ ,  $n_2 = 27$ ,  $P = 0.726$ ; sample AM,  $z = 0.726$ ,  $n_1 = n_2 = 15$ ,  $P = 0.468$ ; sample RD,  $z = 0.985$ ,  $n_1 = 7$ ,  $n_2 = 8$ ,  $P = 0.325$ , all  $P$ -values two-tailed) or in the proportion of all social topic conversation that concerns the speaker's own personal experiences (as opposed to other people's) (sample ND:  $z = 1.48$ ,  $P = 0.139$ ; sample AM:  $z = 1.162$ ,  $P = 0.288$ ; sample RD:  $z = 0.463$ ,  $P = 0.643$ ; all  $P$ -values two-tailed). Only in the case of work/academic topics was there a significant difference between the sexes: typically, males devoted more of their conversation time to this topic than females did (sample ND:  $z = 1.385$ ,  $P = 0.166$ ; sample AM:  $z = 3.815$ ,  $P < 0.001$ ; sample RD:  $z = 2.323$ ,  $P = 0.020$ ; all  $P$ -values two-tailed; pooling  $P$ -values using Fisher's method [see Sokal and Rolf 1969] yields  $\chi^2 = 25.231$ ,  $df = 6$ ,  $P \ll 0.001$ ). The apparent difference in the instructional/technical category is probably real, in that it supports the widespread perception that males tend to dominate conversations when instruction is called for (see Eakins and Eakins 1978), but the sex difference here is obscured by large numbers of zero values. For no other topics listed in Table 2 were the differences between the sexes statistically significant.

Table 3. Influence of Sex of Speaker and Audience on Topics of Conversation

Speaker: Group Type:	Mean Speaking Time (%)†			
	Females		Males	
	All-female	Mixed	All-male	Mixed
<b>A. Sample ND (London)</b>				
Personal relationships: own	18.3	18.5	31.0	20.6
other's	19.3	21.9	16.4	12.4
general	3.1	0.6	2.6	1.1
Personal experiences: own	20.3	15.5	21.6	13.8
other's	6.6	6.1	7.8	7.9
Future social activity	11.0	7.0	0	7.6
Future nonsocial activity	1.7	4.0	9.5	2.5
Sport/leisure	2.4	4.9	1.7	4.0
Culture/politics/religion	8.2	9.2	3.5	7.7
Academic matters	9.0	12.5	6.0	22.3
Number of subjects	11	16	7	17
<b>B. Sample AM (Liverpool)</b>				
Personal relationships: own	23.1	14.9	20.0	24.3
other's	21.4	26.4	25.3	16.6
general	4.3	4.2	3.1	3.7
Personal experiences	21.4	23.8	11.2	21.9
Future social activity	2.7	1.4	5.2	2.5
Future nonsocial activity	1.7	5.9	5.7	3.7
Sport/leisure	2.4	3.0	1.7	2.5
Culture/politics/religion	13.5	7.5	0	15.9
Academic matters	10.1	10.1	27.9	8.9
Number of subjects	10	5	9	6

†Mean of values for each individual sampled.

There was a significant sex difference in the proportion of conversation time devoted to social relationships that concerned the speaker's own relationships (as opposed to other people's) in sample ND (males spent 65.4% of the time talking about relationships discussing their own compared with 41.9% for females: Mann Whitney test,  $z = 2.827$ ,  $n_1 = 22$ ,  $n_2 = 27$ ,  $P = 0.004$ , two-tailed), but not in the other two samples (sample AM: males 46.0% vs females 51.6%,  $z = 0.481$ ,  $n_1 = 14$ ,  $n_2 = 15$ ,  $P = 0.630$ ; sample RD: males 0% vs females 15.6%,  $z = 1.215$ ,  $n_1 = 2$ ,  $n_2 = 7$ ,  $P = 0.224$ ).

Since females have been reported to follow male leads in conversations in mixed-sex groups, the data for samples ND and AM were re-analyzed separately for single-sex and mixed groups (Table 3). Females spent more time talking about their own experiences and future social activities in single-sex groups and more time talking about other people's relationships, sports, and academic matters in mixed-sex

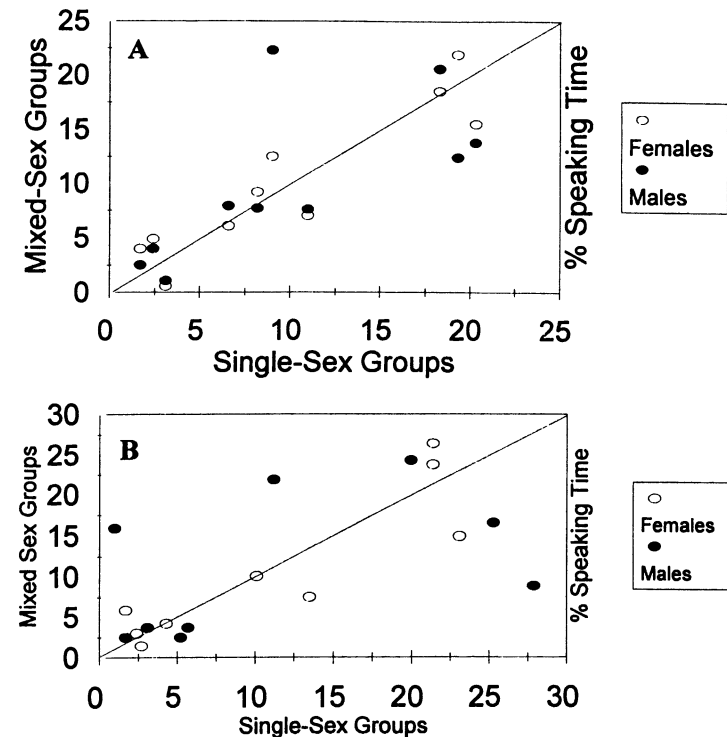


Figure 1. Mean percentage of total conversation time devoted to individual topics by male and female speakers in mixed-sex groups ( $y$ -axis) plotted against the equivalent values in single-sex groups ( $x$ -axis) for (a) sample ND (London) and (b) sample AM (Liverpool). Source: Table 3.

groups, but the differences are not significant. This is reflected in the fact that the relative frequencies of the various topics in single-sex and mixed groups are significantly correlated for females in both samples (Figure 1; Spearman correlations: sample ND,  $r_s = 0.88$ ,  $N = 10$ ,  $P < 0.01$ ; sample AM,  $r_s = 0.78$ ,  $N = 9$ ,  $P = 0.05$ ; both one-tailed with  $df = N - 1$  to allow for the nonindependence of the final category in percentage-based data).

In contrast, males appear to show marked changes between single-sex and mixed groups. Although there are differences in specifics between the two samples, the general pattern is consistent: males tend to talk more about themselves (than other people) and about intellectual topics (cultural/political and/or academic matters) in mixed-sex groups. As a

Table 4. Relative Importance of Different Social Functions of Language in Conversations (values are the perception of all social conversation time that were devoted to different social topics)

Speaker: Group Type:	Mean Percent of Social Conversation Time†			
	Females		Males	
	All-female	Mixed	All-male	Mixed
Personal experiences	30.5	34.3	18.8	32.9
Personal social/emotional	32.9	21.5	23.7	33.4
Third party social/emotional	23.9	37.5	40.6	18.5
Critical comments on third parties	6.6	0.6	1.8	6.5
Asking/giving advice	0	0	9.9	3.2
Hypothetical social situations	6.1	6.1	5.2	5.6
Total time devoted to social topics (%)	70.2	69.3	59.6	66.5
Number of subjects	10	5	9	6

Source: sample AM

†Mean of values for each individual sampled.

result, the correlations in the topic frequencies between single-sex and mixed groups are not significant for males (Figure 1; Spearman correlations: sample ND,  $r_s = 0.53$ ,  $N = 10$ ,  $P > 0.05$ ; sample AM,  $r_s = 0.36$ ,  $N = 9$ ,  $P > 0.05$ ; both one-tailed with  $df = N - 1$ ).

Sample AM examined the social content of conversations in finer detail in order to assess the relative importance of the various possible social functions for language. Table 4 suggests that both negative gossip (directly critical of third parties) and the soliciting and giving of advice (including the discussion of hypothetical examples of social situations) account for relatively small proportions of overall social conversation time. In contrast, most social conversation time is devoted to statements about the speaker's own emotional experiences and/or relationships or those of third parties not present. There appear to be no significant sex differences in this respect.

## DISCUSSION

We have shown (a) that social topics tend to dominate conversations in casual conversations between acquaintances, (b) that there appear to be a number of audience-dependent shifts in the pattern of conversation topics (particularly for males), and (c) that, at least within the context of this particular sample of subjects, social information exchange appears to be the predominant use to which language is put. There is no particu-

lar reason to expect conversations in informal social settings to be dominated by social topics: culture, politics, and sport are topics that people claim to be interested in (and do occasionally talk about) and could thus have turned out to be the most common topics. That the focus on social topics should be so overwhelming (at least in European and North American societies) was unexpected.

In the light of this, it seems reasonable to conclude that conversation serves at least two functions in the social domain. First, it allows the speaker to convey to other individuals a lot of information about him/herself as a person. Second, it facilitates the acquisition of knowledge about other individuals within the social group. Without language, such knowledge can be acquired only by direct observation; suitable opportunities to observe crucial events may be very rare. With language, the speaker is able to tell a listener how he/she would behave under those same circumstances (or, at least, provide the listener with enough information to enable an appropriate judgment to be made). This marks a significant improvement over what nonhuman primates can achieve, especially when it comes to predicting how another individual might behave under circumstances which, although rare, may have a crucial impact on fitness.

The fact that our samples were inevitably limited in their cultural and contextual range raises questions about the generality of these findings. Although the "workplace" has introduced a new environment that does not exist in traditional societies, there is little evidence to suggest that the patterns of social behavior in the workplace are much different from those observed in other contexts: the workplace may provide an opportunity for the acquisition of a wider range of social contacts, but it does not seem to change either the fundamental nature of those contacts or their role in people's lives (see Dunbar and Spoons 1995; Emler and McNamara 1996). The social environment in which humans in modern industrial societies live is, in actual fact, little different from that found in small-scale societies in either its size or its composition. Although people inevitably spend some time engaged in technical exchanges in the workplace, it seems unlikely that workplace conversations differ significantly from those in the kinds of social environments studied here. However, more empirical work clearly needs to be done in this area.

The question of cultural norms is perhaps more difficult to resolve. Few studies of conversation contents have been published from other cultures. What has been published does, however, suggest that our results may not be untypical. Haviland (1977), for example, classified some 2,842 topics of discussion recorded during casual conversations among Zinacantan Indians in southern Mexico. Of the 1,754 conversations that contributed to the 27 topics that individually accounted for

more than 5% of the sample, 78% involved social topics in the sense defined here. Of these, no less than 366 related explicitly to sexual activities (illicit sex, adultery, courtship), and the rest related to topics such as divorce and child support, drunkenness, kin disputes, violence, quarrelling, murder, and nicknames. Only a relatively small proportion dealt with nonsocial topics such as the world of work, wealth, and religion (e.g., witchcraft and curing). The Zinacantan, it seems, do not differ too much from modern Europeans.

Enquist and Leimar (1993) have suggested that a principal function for gossip may be to control freeriders in large social groups. Emler (1994) has also emphasized the role of language in influencing other people's reputations. Our results suggest that, in this sample at least, only about 3–4% of conversation time centers around "malicious" (or negative) gossip in the colloquial sense. One interpretation of this would be that the social control function of language is less important than Enquist and Leimar suppose. Alternatively (and perhaps more plausibly), it could be argued that social control is more often exercised indirectly through reportage ("Did you know that X did. . .") rather than by explicit censure ("Wasn't X's behavior awful. . .") (see also Emler 1994). A third possibility is that the more overtly censorial functions of language are confined to more intimate situations rather than public places. This possibility would seem less plausible since it would largely obviate the censorial value of the exchange by limiting it to a very small clique when a larger one could be reached just as easily—especially given that the value of censorial gossip is probably an exponential function of the size of the group that can be reached. More detailed studies will clearly be needed to clarify this.

Comparisons within and between the three samples suggest that a number of important sex differences exist. One is a tendency for males to devote more conversation time to intellectual or work-related topics. A second is for this pattern to become exaggerated when females are present. A third is for male conversations to change more dramatically with age than those of females, with a significant shift of emphasis from personal relationships to factual experiences. While older females show the same shift to leisure/sports topics as males, they continue to maintain a more even balance between personal and factual topics, suggesting that females may be more interested than males in servicing the relationships within their social networks. In addition, children and family matters (not specifically separated out in this study) clearly dominated the conversations of older women, though they were rarely mentioned in male conversations.

We suggest that these patterns can best be understood in the context of sex differences in reproductive tactics. Female conversations can be

seen to be directed mainly towards social networking (ensuring the smooth running of the social group), whereas males' conversations are more concerned with self-promotion in what has all the characteristics of a mating lek. This is particularly striking in the two university samples where academic matters and culture/politics, respectively, suddenly become topics of intense interest to males when females are present.

Hawkes (1991) has argued that, in hunter-gatherer societies, hunting large game is a strategy for "showing off" rather than a form of indirect parental investment. Hunting large game is not economically worthwhile for hunter-gatherer males, and their continued insistence on doing it can be interpreted as a form of honest display in the context of a wider mating game. In the changed circumstances of modern life, we should expect males to seek other equivalent cues of quality. Performance at sport or other leisure activities may function in this way and may account for males' greater competitiveness in most such contexts. We suggest that, in the rather specialized contexts of institutions like universities, academic prowess may be interpreted in the same way, and that males' emphasis on academic/cultural/political topics (especially in conversations that involve females) is in fact a form of lekking behavior (where females sample the available males, who seek to display their respective qualities in visual, vocal, or, in this case, verbal form). Context is probably all-important here: under other circumstances, different topics may come to the fore (musical expertise in a music society, knowledge of bridge at a bridge club, knowledge of politics in a political organization, and so on). These data would seem to lend support to Miller's (1996) suggestion that humans use their large brains mainly to entertain prospective mates (the "Scheherazade effect").

In conclusion, these findings are in line with recent views on the nature of social relationships in nonhuman primate societies (see Dunbar 1988; Smuts et al. 1987). Women's conversation can be seen as being largely concerned with social networking (the acquisition of knowledge with which to create and/or service key social relationships). In contrast, men's apparent preoccupation with themselves and with technical subjects seems to have much more to do with self-advertisement (a phenomenon of primary relevance to female choice as the major process dictating males' mating access to females). Most conversations thus seem to be concerned either with imparting information about the kind of person you are or with commentary on a wider network of social acquaintances.

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## A REEXAMINATION OF GILLIGAN'S ANALYSIS OF THE FEMALE MORAL SYSTEM

Distaff Altruism Will Not Succeed

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Gilligan's (1982) refinement of Kohlberg's theory on moral development operates on two theses: (1) females, more so than males, reach moral decisions based on the personalities of the relevant individuals; and (2) female behaviors stemming from moral decisions are based upon "care" and "responsibility for others." This article accepts the first thesis but argues that the second is incorrect. That is, self-interest—i.e., aiding "blood" kin and/or carefully monitoring reciprocity—rather than "altruism" is argued to be the operant dynamic in forging distaff morality and resultant behavior. Six empirical examples are presented as contraindicative of Gilligan's second thesis. Finally, it is suggested that selection for the psychological traits of independence and the mastery of subtle social chess yielded ancestral females who had more descendants—us—than did females with alternative profiles.

KEY WORDS: Evolutionary psychology; Gender roles; Gilligan, Carol; Moral development.

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A key facet of any culture is its system of morals, a system of "do's and don'ts," a catalog of prescriptions and proscriptions. Although the specifics vary across cultural boundaries, the theme is the same. Some ways of behavior are judged to be just, good, and proper, and thereby encour-

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