

## Speech markers in social interaction

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### Abstract

Originally published in 1979, this book presents an interdisciplinary study of the role of social markers in speech. Each chapter explores the nature and functioning of speech markers from a different social, biological or psychological perspective, and the volume offers a systematic survey of facts and ideas concerning the remarkable wealth of information that speech can convey. The final chapter is an attempt to view the subject from an integrated perspective and to develop a vocabulary and foundation for the development of interdisciplinary research. The volume will be of value to anyone with an interest in the general areas of language and communication, whether as anthropologists, linguists, ethologists, sociologists or psychologists.

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GILES, Howard, SCHERER, Klaus R., TAYLOR, Donald M. Speech markers in social interaction. In: Scherer, K.R & Giles, H. *Social markers in speech*. Cambridge, UK : Cambridge University Press, 1979. p. 343-381

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## 9. Speech markers in social interaction<sup>1</sup>

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The concept of speech markers has only recently been incorporated into the domain of sociolinguistics (Abercrombie 1967; Labov 1970).<sup>2</sup> The present volume represents an attempt to assess the current state of knowledge about speech markers particularly, although not exclusively, from a social psychological perspective. This final chapter develops key recurring themes throughout the volume and offers a possible framework for future research on this embryonic concept.

From the detailed chapters in this volume, it would seem that speech markers operate at two different levels. At the most fundamental level, they serve as easily perceived auditory stimuli which permit speakers to reveal their association with broadly defined biological, social and psychological states, and listeners to categorize others accurately in these terms. Level 1 speech markers, then, serve the general function of maintaining the social system by identifying and recognizing members who occupy various roles and hierarchical positions within it. It is interesting to note that most individuals do not have voluntary control over their affiliation with the various biological, social and psychological categories referred to in this volume. For instance, people have little choice over the age, sex and ethnic group membership they present to others, or, albeit to a much lesser extent, their social class, personality, the situations in which they find themselves and the social structures in which these are embedded. Moreover, speech markers indicating these broad level 1 states are more often than not paralleled by other equally potent nonlinguistic cues. We need not attend to an individual's voice in order to decide his gender; in most contexts we can base our decision on cues of physical

<sup>1</sup> We are grateful to Penny Brown, Peter Robinson and Philip Smith for their insightful and valuable comments made in the preparation of this chapter.

<sup>2</sup> For a discussion of Abercrombie, see Laver & Trudgill (this volume: ch. 1, 1) and for Labov, see Brown & Levinson (this volume: ch. 8, 2.6).

appearance and dress style. Similarly, dramatic visual cues are often easily available for the assignment of individuals to an ethnic or racial group, socioeconomic status and age categories as well as for the classification of situations as public or private, formal or informal, and so forth. Despite the potential redundancy of level 1 speech markers, there are many instances when their operation at this level is crucial. There are certain contexts when speech markers are the sole means by which individuals socially categorize others and define the situation when other cues are either unavailable or uninformative. In this sense, level 1 speech markers may attain the status of an independent variable which determines our categorizations of, inferences about, and reactions towards another (cf. Smith, Giles & Hewstone 1979). In addition, level 1 speech markers assume salience when they appear inconsistent with competing nonlinguistic cues emanating from the other. Thus, although young Johnny may look like a 3-year-old, if he speaks 'with the mind' of a 10-year-old, this mode of expression may for the most part determine our behaviour towards him. Hence, the cognitive maps we possess concerning the associations between speech markers and various biological, social and psychological states perhaps constitute the more fundamental template against which others' characteristics and capabilities can be assessed. Similarly, a person may look Black and be 90 years of age and yet nevertheless *feel* 'White' and act 50. Although physiognomy undoubtedly influences considerably reactions to such an individual, greater weight may be attached to the processing of speech markers and other aspects of overt behaviour (cf. Seligman, Tucker & Lambert 1972; Scherer, Scherer, Hall & Rosenthal 1977). Indeed, it is the greater flexibility of speech to mark complex and dynamic states over other sensory channels and modalities which underlines its importance. Thus, level 1 speech markers are psychologically important as they represent an essential baseline for understanding the *dynamics* of speech markers in social interaction.

At a second and psychologically more important level, speech markers permit interlocutors indirectly to communicate important attitudes, beliefs, values and intentions about their own social states as well as processing the emotional significance of the social states of others. From a social psychological perspective, level 2 speech markers are important in social interaction in at least two ways. First, although our assignment to many social categories is largely involuntary, we do have some control over our overt feelings about them. Speech markers assume salience, then, in marking our beliefs about and attitudes towards these social categories. Therefore, it may be obvious which ethnic group a person

belongs to from cues of skin colour and the language spoken, but inferences about whether the person is proud or ashamed of the affiliation, the person's attitudes towards other related social categories, and specific anxieties about various categories and so forth can be communicated by accentuating or attenuating speech markers characteristic of the particular social category in question (see section 3.4 below). Second, speech markers assume salience in social interaction by indicating subtle, perhaps *voluntary*, social and psychological states. In social interaction, there are norms governing the emission and elicitation of information on intimate issues. These might include how the other feels about you, his relationships with others you dislike, and his views on trade unions and socialism. Given that we do not interrogate people directly about their feelings on such issues, and because they may be reluctant to self-disclose particularly threatening information, the monitoring of various speech markers is a singularly important means by which an individual can glean such information (cf. Berger 1979). Moreover, while individuals may wish to avoid verbalizing certain feelings and making specific information about themselves more public, there may be other issues (e.g. their achievements, kindnesses, power) which they would like to make more explicit but about which they feel restrained from communicating directly. Once again, the subtle use of speech markers indicative of these psychological states may be the mechanism whereby these emotionally charged ideas are brought inferentially to the attention of another more appropriately. Speech markers at level 2, then, are characterized by more voluntary linguistic features (although not by implication necessarily intentionally adopted) which are not easily perceived and do not overlap with parallel nonlinguistic cues. It is precisely because we often do not exchange overt feelings (sometimes even in the most intimate, longstanding relationships) about our social states, the situations in which we find ourselves, and our sociopolitical beliefs that the study of speech markers in social interaction assumes the utmost social psychological significance. While there may be some ambiguity in operationalizing the two levels of speech marking functions, they serve as useful conceptual anchorpoints around which to organize our discussion of the nature of speech markers.

The present chapter addresses itself to the nature of speech markers in three distinct parts. The first examines communication in various sub-human species with a view to delineating the basic functions of level 1 markers as they apply at the level of human interaction. In the second part, the more complex psychological functions of speech markers are organized into a framework comprising cognitive organization and iden-

tity maintenance. In the final part, key conceptual dimensions pertaining to the social significance of speech markers are elaborated.

### 1. Social markers in animal communication

In considering the possible origins and functions of level 1 markers, discussion will centre on the phenomena in subhuman species. The relevant behavioural repertoire in animals is usually smaller and less complex in organization, which makes it somewhat easier to gain insights into the operation of speech markers at the first level. At the same time, we have to beware of premature generalizations from mechanisms assumed to underlie animal behaviour to explanations of human behaviour. The comparison between animal and human behaviour has become somewhat suspect since some ethologists and sociobiologists have not been able to withstand the temptation to engage in premature and often questionable generalizations. Consequently, the following review of some examples of social markers in animal communication should be regarded as little more than an attempt to provide scope to the discussion of functions and uses of markers in human social interaction and to point to some considerations which make it likely that marking of biological, psychological and social categories is a basic mechanism for communication in any kind of social system. It should be quite clear, however, that we do not wish to suggest on the basis of the rather sketchy discussion which follows that human marking can be explained by the same mechanisms which we speculatively attribute to account for some of the examples of marking in animal species.

#### 1.1. Examples of marking in animal species

Bird song, which is one of the most intensively studied phenomena in animal communication, shall serve as an example to illustrate the importance of social markers for social organization. It is now well-established that birds not only recognize their conspecifics on the basis of song patterns, but that they are also able to differentiate regional differences on the basis of 'dialects' (Thorpe 1972; Thielke 1969). This differentiation of local subgroups has important functions for the operation of territoriality and for the diversification and multiplication of species due to restriction of genetic variation (cf. Wilson 1975: 237-8). In addition to species and local subgroup recognition, some species of birds appear to be able to recognize individual identity (cf. Beer 1970). For example, in a study of

the indigo bunting, Emlen (1972) has been able to isolate those aspects of the bird's song pattern that are indicative of species, individual identity, and motivational state respectively. The ability to recognize individuals allows, among other things, territorial birds to differentiate between neighbours and strangers. It is not surprising that social animals which are not organized according to a caste system as are the social insects (cf. Wilson 1975: ch. 20) require recognition of individuals. As soon as social organization is based on enduring relationships between individuals over time, such as in stable mating pairs or dominance hierarchies, the identifiability of individuals becomes essential. Thus, in many species with more than rudimentary social organization we find an ability to recognize individual identity – and, as a result of the social structure that is established over time, an ability to recognize caste, rank, and possibly roles via status signals (cf. Wilson 1975: ch. 8).

Given the importance of categorization and identification of individuals for reproduction and social organization, many species have developed a wide array of cues or markers. One of the most obvious cues is of course dimorphism or polymorphism which always differentiates species and which in many species differentiates sex and in some species caste (e.g. in many insect societies; cf. Wilson 1975: ch. 20). Size can serve as an index of age, sex, or both. In most species various aspects of outward appearance carry important cues as to categorical membership, individuality and other characteristics of an organism. For example, one of the most important markers for individual identity in primates (cf. Marler 1965) is facial physiognomy.

Clearly dimorphism or other aspects of outward appearance in themselves are not sufficient to guarantee an effective operation of the marking and recognition systems. This is because many species may not have appropriate visual sense organs, or they may need to identify and/or categorize one another at a distance. The particular signals and the sensory channels used for marking are determined by the communication systems that are predominantly utilized by a species. In species that are heavily dependent on chemical communication, like dogs, marking is achieved through the use of odour signals (pheromones). In species relying primarily on auditory and visual communication, as in most primates including humans, marking occurs via vocal patterning and movement. The relative advantages and disadvantages of these communication systems are discussed in Wilson (1975: ch. 10), and need not be taken up here. Thus, in addition to the static structural cues in appearance, most species utilize dynamic cues in communicative behaviour for

marking and recognition. Smith (1969) listed identification as one of the important 'message types' in animal communication. It also seems to be true that there is rarely communication without identification of the sender or marking of sender characteristics. At the same time as the song of a male bird indicates his sexual availability, it also indexes his individual identity, sex, residence and species. A chimpanzee engaging in a threat display at the same time communicates information about his age, status and individual identity. The marking of individual identity, categorical membership and other characteristics of the sender is not only an unavoidable byproduct of any act of communication, in many cases it is necessary for the receiver to be able to interpret and adequately respond to the message conveyed by the sender. For example, a female bird will respond only to the song of a male conspecific and possibly only if he uses the right dialect (Thorpe 1972; Thielke 1969); the recipient of the chimpanzee threat will react quite differently according to whether it was the highest status (alpha) male or one of his equal status age mates who threatened him.

Thus, in many cases, the functions of identification and recognition which are most important for the establishment and maintenance of social organization in social species are achieved through marking of essential social categories and characteristics of individual organisms.

### 1.2. The functions of marking in social systems

While it is clear that identification and recognition are central functions of markers, the question of which categories or characteristics are marked and in what way this is achieved needs some further discussion. The role that the respective categories or characteristics play in serving the functions of the system they subserve—population, social group, or individual—seems to be of major importance. While this is not the place to engage in a functional analysis of socially organized species we shall try to sketch briefly the functions that markers serve on the level of the population as a system, the social group as a system and the individual as a system.

Without getting involved in the quarrels within biology and genetics, it seems reasonable to assume that on the level of the population as a system there are at least the following two attributes necessary for a successful species: nonrandom selective mating and adaptation of organisms to a changing environment. For social species, among the mechanisms that have evolved to serve these functions, territoriality and bonding and more generally grouping seem to be the most important

ones. In order for these mechanisms to operate the members of the species must be able to recognize individual identity or at least categorical membership. As mentioned above, mating does seem to require that sex and age of the potential partner can be assessed; if, as postulated, selection for adaptive traits is involved, the female will have to process additional information such as whether the male owns a territory or is sufficiently high in the dominance hierarchy. In species organized by small groups of animals, e.g. groups of chimpanzees, the stability of the group depends on the ability to differentiate group members from strangers. In territoriality, owners of territory must be differentiated from nonowners and neighbours must be differentiated from total strangers. Thus, among the relevant categories to be marked if territoriality and bonding/grouping are to operate on the population level, are sex, age, individuality, area or home base and group membership. The animal communication literature abounds with examples of how these categories or characteristics are marked by specific features of signals or displays (Marler & Hamilton 1966; Sebeok 1968, 1977; Smith 1977).

On the level of the group as a system we can postulate at least the following two purposes of the system: continued existence of the group, which requires protection from external danger and avoidance of excessive internal conflict, and goal attainment such as obtaining food, rearing the young, and providing social stimulation. Some of the mechanisms that serve these purposes are the formation of relationships between individuals and a coordination of effort, the development of status ranking and dominance hierarchies, and the presence of group cohesion and xenophobia. Again, the minimal requirements for the operation of these mechanisms are the ability to recognize age, sex, individuality and group membership. It seems obvious that without the ability to recognize individual identity, no stable relationships of any kind can be formed. While the marking of these fundamental categories is necessary for the development of social structure in a group, the stability and maintenance of this structure require marking of the positions that individuals have attained on the basis of their past interactions with other individuals in the group. For example, a dominant male rhesus monkey walks around with a brisk, striding gait, with his tail held erect and curled back at the tip, gazing calmly and confidently at other monkeys catching his attention, while subordinate males display virtually a contrasting set of signals (Altman 1962; cf. also Wilson 1975: 191). Clearly, this type of status marking stabilizes the social structure in a group and renders the pattern of interaction much more predictable.

The interactions of individuals within groups in most species are not limited to mating and dominance fights. Consequently, who interacts with whom and how, may be dependent on a number of additional factors, one of which might well be individual differences in behaviour disposition, of which there is increasing evidence in many animal species. Reynolds (1975: 38) provides the following example: 'when you get to know a monkey group well, you eventually learn which vocalizations go with which individuals. Who says it is a major determinant of how it is responded to. Some individuals, for example, who are known to be nervous nellys, consistently have their alarm barks ignored.' Thus, the marking of individual differences in behaviour dispositions (for humans we will call this personality) in communicative signals may play an important role in the formation and maintenance of enduring relationships and types of interactions.

To specify in a few sentences the system purposes and the mechanisms required to serve them for the level of the individual is virtually impossible, considering the centuries of philosophical and psychological debate on this issue. Adopting a somewhat simplistic approach we can argue that the purposes of the individual as a system are personal survival and optimal satisfaction of personal needs. Out of the mechanisms that serve these functions two seem to be most closely connected to the functions of markers of social categories and other characteristics of individuals: processing of information about the social environment and the maintenance of an effective state for coping with the environment. Obviously, social markers have an important function for the information-processing mechanism: accurate recognition of species, age, sex, individuality, group membership, status, local origin, etc., of a sender will not only facilitate decoding and interpretation of the message but also reduce uncertainty about the receiver and his probable course of action, and will allow the individual to adjust accordingly his own strategy for the interaction (cf. also Berger 1979). Maintenance of an effective coping state is a much more complex mechanism, of which two aspects are particularly important for the issue of marking: maintenance and presentation of self identity. While the latter can be easily exemplified in humans and animals (e.g. a dominant ape can 'parade' his status in situations where potential contenders are present), the former is difficult to show in animal species. For this mechanism, markers contribute in establishing and maintaining the self-identity of an individual both for himself and for others in his social environment.

In summary, there are many instances of marking in animals which

show remarkable parallels with markers in human interaction. Given that marking of important characteristics of individuals and social categories they belong to seems to fulfil important requirements for the functioning of living systems on the level of the individual, the group and population as systems, it seems rather likely that there is some degree of evolutionary continuity in marking. Thus, the comparative analysis of social markers in animal and human communication is a most promising area for further research.

## **2. Social psychological functions of markers in human speech**

The animal literature makes it clear that through speech markers functionally important social categorizations are discriminated and that these have important implications for social organization. For humans, speech markers have clear parallels. From evidence presented in this volume, it is evident that social categories of age, sex, ethnicity, social class and situation can be clearly marked on the basis of speech, and that such categorization is fundamental to social organization even though many of the categories are also easily discriminated on other bases.

There are however fundamental ways in which human social categorization differs. Like animals, humans belong to social categories but in addition they have feelings and attitudes about belonging to these categories as well as about others who belong to these categories. It is precisely the emotional significance of the social categories which distinguish level 2 markers from those at level 1. For example, while it may be relatively easy to assign a person to the female sex on the basis of very primitive markers, a more subtle set of level 2 markers is needed to ascertain the person's emotional attachment to the category 'female' and perhaps their need to change the meaning of the category for themselves and others. Similarly, speech markers very easily categorize a person as an immigrant, but the immigrant who is made to feel ashamed of this category may very well wish to disguise the speech markers associated with it. Finally, certain categories may be too broad. A person may be socially categorized as English but may have more emotional commitment to being a certain class of English or from a more specified part of England and may well use level 2 speech markers to denote this emotional commitment to the finer category.

Clearly then, while level 1 human speech markers denote social categories and psychological states, there is a need to understand the more important and complex process of how the emotional significance of

these categories is perceived and communicated by means of level 2 speech markers. The numerous functions of level 2 markers are categorized on the basis of two overriding functions: cognitive organization and identity maintenance.<sup>3</sup>

### 2.1. The cognitive organizational function

The manner in which people organize their perceptions of the social environment is a complex process. Although formal subcategories of the organization function are deemed premature at this stage, there are a number of components to this function which have been recognized. An excellent brief discussion of several of the features is provided by Triandis (1971) from whom we have drawn in the present chapter.

First, the organization function involves categorization. When social stimuli are categorized on the basis of speech markers, as for example when all members of a race, age or sex are placed in a category, all members of the category are treated in a similar fashion. On the one hand this form of categorization allows the complex social environment to be reduced to manageable units; however, in the process important information regarding individual differences within the category may be lost.

Following categorization, structures develop in the form of organized relations between categories. Triandis describes three such dimensions of organization. First, a *horizontal* dimension of discrimination in order to permit appropriate differential response patterns to different categories. Thus, Blacks, Whites and Orientals may be categories discriminated along such a dimension, and the utility of the category discrimination would lie in the person orienting him or herself differently to each category.

The second dimension is depicted as a *vertical* level of category abstraction. Someone wishing to make a very general statement about speech markers, for example, may refer to an abstract category (all speakers), whereas the same person may use a more concrete category when a more specific marker is referred to (English speakers) and so forth.

The third dimension of organization is the *centrality* of the category (see Rokeach 1967, 1968). The important implication of this dimension is that the more central categories are more resistant to change, and if change

<sup>3</sup> A variety of theorists in social psychology have included implicitly within their frameworks of social perception notions similar to those we have referred to as the cognitive organizational and identity maintenance functions.

should occur in a central category, such as religious beliefs for some people, other vertically and horizontally related categories will be affected as well (see also Jones & Gerard 1967).

How then do horizontal category discrimination, vertical abstractness of category, and category centrality, assist in the process of perceptual organization? From the point of view of the *decoder* the organizational structures allow for more efficient interaction with the social environment. Without such structures it would be necessary for the decoder actively to seek out and interpret detailed information about every other stimulus person encountered in the course of social interaction; even for the most superficial and routine of interactions. A set of categories organized in terms of horizontal discrimination, abstractness and centrality places at the decoder's discretion a set of guiding principles for social behaviour. Clearly, for such cognitive structures to develop and then serve as a guide to behaviour, it is necessary for the decoder to process markers which will accurately reflect where in the organization scheme a specific stimulus person belongs. A number of attributes such as physical appearance, dress and situation are important in this process, but many significant markers are found in spoken language, the most important human communication system.

For routine interactions the decoder may well attend only to those speech markers that invoke relatively undifferentiated abstract categories, and act on that basis. For more intimate and important interactions the decoder may attend to more subtle speech markers with a view to invoking the appropriate category more precisely and concretely.

Using speech markers to invoke the correct category within the decoder's organizational structure does more than merely provide an automatic set of rules for behaviour. It provides for the decoder a functional 'understanding' of the social environment by identifying the social positions of the significant others, which allows him to make predictions about their interactive strategies. Current theories in social psychology emphasize the need people have to feel a sense of control over their environment. The term control is sometimes used by theorists in areas such as learned helplessness (Seligman 1975), the locus of control (Lefcourt 1976; Rotter 1966) and attribution (Kelly 1973) to refer to the opportunity for the person actively to manipulate others or create change in the environment. McKirnan (1977, 1978) has pointed out, however, that a more fundamental sense of control is derived from merely 'understanding' the cause-effect relationships in the social environment. This view is consistent with Kelly's assertion that attribution processes are motivated

by a need people have to arrive at some 'meaning' of the world in cause-effect terms.

Thus, speech markers may serve to develop and then invoke appropriate categories within the decoder's cognitive structure and these may in turn provide the decoder both with a fundamental understanding of the environment as well as a set of guidelines for appropriate behaviour.

The second important aspect of the organizational function focuses upon the encoder. Not only does the receiver try to structure the incoming message in order to achieve communicational efficiency but, in addition, the sender monitors and organizes his output often to facilitate this process. In other words, speakers will, particularly in cooperative encounters, assess the communicational and emotional needs of their listeners and structure their message in an attempt to secure cognitive similarity by adopting speech markers they associate, rightly or wrongly, with the receiver. Indeed, some ways in which speakers adjust or accommodate to the level of their listeners have been observed with regard to many linguistic features in many dyadic situations, such as adult-to-child interactions (Ferguson 1964; Fraser & Roberts 1975), older-to-younger child (Shatz & Gelman 1973), one ethnic group to another (Giles, Taylor & Bourhis 1973), as well as to the specific requirements of the situation (cf. Brown & Fraser, this volume: ch. 2). Indeed, the study of this organizational function is related to the area of speech diversity – the 'hallmark of sociolinguistics' (Hymes 1972) – as well as being a central concern of all the chapters in this volume.

A number of hypotheses can be suggested regarding the organizational function of speech markers. First, it would be expected that amount of contact would be related to the way in which speech markers are encoded and decoded. Thus, for individuals representing groups which are not interacted with frequently or intimately, there would be little desire to do other than a very abstract and undifferentiated form of categorization on the basis of very salient speech markers. For example, some individuals may have so few international contacts that categorization is based on the very obvious marker – do they or don't they speak my language? Such individuals may even go so far as not to distinguish among foreign languages. Such an English speaker might place all speakers of Russian, Spanish, French, German, etc., under one abstract and undifferentiated category – 'different', or 'foreigner'. This form of categorization would not suggest anything about the intelligence of the decoder but only that making further distinctions might be unnecessary given the person's history of contact with such people.

With increased contact comes the need for more sophisticated categorization and structure, along with a greater need to be accurate in the assignment of people to such categories. In these conditions, the speech markers being emitted by the encoder and perceived by the decoder should be more differentiated. When a teacher orients him or herself to the child, it should not be sufficient to note merely markers of social class and ethnicity. Markers of personality, emotion, mood and relationship to authority may also be important for social evaluation and interaction outcomes.

A second issue related to the organization function of speech markers concerns the ambiguity of the situation. One of the important dimensions of situation is the extent to which the situation places normative constraints regarding speech (cf. Price & Bouffard, 1974). The advantage of constrained situations is that they require little guesswork on the part of interlocutors about appropriate speech styles. Participants know what is expected, for example at a church service or formal cocktail party, and execute their roles accordingly. There is however one important paradox. If a person chooses to use speech markers to communicate 'hidden' messages in a constrained situation, it will be necessary to employ very subtle cues, given the constraints of the situation.

Unconstrained situations pose a different difficulty. Since the situation defines the appropriate speech patterns less, it is left to the participants to define the situation for themselves. In this case the interlocutors must attend more carefully, and therefore use more particularistic categories. A meeting in an informal, unconstrained situation may become defined as an opportunity for idle chatter, ingratiation, a chance to engage in sensitive business matters, or as a means of appearing to others that one is socially active. Which one of these the situation evolves into may sometimes depend on the participants, the speech markers they employ, and the extent to which these are perceived, reciprocated, and jointly acted upon. Again, there exists the paradox that unconstrained situations may be so poorly defined that only very obvious speech markers can define the nature of the interaction. A person might, over a drink following a golf game, simply adopt an obviously formal speech style and openly announce 'let's get down to business'. In either case hypotheses centring around the ambiguity of the situation, and the use of speech markers, as well as their relationship to the organization function, can be generated and tested empirically.

A third set of hypotheses related to the organizational function can be derived, not from the ambiguity of the situation as in the last example, but



rather from ambiguities related to the self. To a certain extent at least our 'selves' are defined socially: that is by how we are reacted to by significant others. In order for these reactions to be incorporated meaningfully as part of self-definition they must be attended to and then internalized. Thus, upon moving to a new neighbourhood, a teenage boy might well wish to become accepted into the local street gang. By monitoring the extent to which he is spoken to in the unique 'style' of the gang members, our newcomer will receive clear but implicit social indicators as to if and when he has been fully accepted as part of the gang.

Similarly, once a sense of social self has been articulated the person can use speech markers to signify that definition. Thus our newly accepted gang member can with assurance consistently reinforce his own identity as a gang member by adopting the gang's 'unique' aspect of speech both within and sometimes without the group.

It would seem reasonable to hypothesize that attention to and use of speech markers for the purposes of self-definition would be enhanced in contexts where ambiguities about the self emerge. Changes of role, occupation or status may be examples where attention to speech markers is enhanced. The foreman who has just been elevated to a position in management may have a need to overemploy those speech markers of his new role of which he is aware, while at the same time being particularly attentive to the other markers of his new reference group which he has not yet internalized. Similarly, encountering novel social or ethnic groups, especially outside one's normal sphere of relationships, may produce the same focus on speech markers. If one finds oneself in a dramatically different culture, for example, the normal speech markers which permit one to categorize others and more importantly categorize oneself in relation to others, may cease to be available. In extreme conditions this may lead to feelings of alienation and a total lack of social understanding.

## 2.2. The identity maintenance function

In terms of self-definition, precisely because the decoder orders the social world by attending to speech markers, the encoder is provided information about the self by being reacted to in an organized manner. As writers in the symbolic interaction theory tradition (Cooley 1902; Mead 1934) have persuasively argued, much of our understanding of self is derived – entirely or partially – from how others react to us. Self-definition is a dynamic process involving interpreting others' reactions to

us and at the same time providing others with stable cues as to our self-identity. For the encoder speech markers provide one functional way of presenting one's 'self' to others in a stable and organized manner. For example, a person for whom ethnic group membership plays an important role in self-identity will ensure that speech markers associated with his or her ethnic group are emitted in the course of all interactions with others (see Giles, this volume: ch. 7). By so doing, others can meaningfully interpret the encoder's values, attitudes, beliefs and so forth, and interact accordingly. A secondary function is that the encoder's stable speech markers may evoke consistent reactions from others thereby reinforcing the encoder's definition of self.

The second important aspect of the identity maintenance function focuses on emotional needs rather than efficiency of interaction. A number of related but not identical concepts have been described in the social psychological literature including self-image, self-esteem, ego defence and positive social identity, to name a few. The underlying notion is that people are motivated to see themselves, and those whom they view favourably, in positive terms. It is conceivable then that decoders will actively seek out or attend to markers that positively reinforce that self or ego, and sometimes may even deliberately avoid or fail to process markers which convey unpleasant information about the self. Similarly, encoders will concentrate on emitting speech markers which they believe to present their self in the most favourable light.

The importance of the identity maintenance function should not be underestimated. People feel free to communicate about many topics, but the ones they guard jealously are those which may unveil threatening information about the self. The social psychological literature on self-disclosure (Cozby 1973; Jourard 1971) attests to the reluctance with which people provide personal information about themselves, and indeed extent of disclosure itself is a very good barometer of the intimacy of a relationship. The reasons for lack of disclosure are not clear but presumably self-disclosure renders the person vulnerable and hence the motivation for nondisclosure may be strongly linked to notions of ego protection and identity maintenance. Since disclosures are not communicated directly, they are inferred from subtle behaviours generally, and an important feature of these is level 2 speech markers. Thus, our fears, anxieties, affections and values are communicated and interpreted on the basis of subtle markers rather than direct statements.

A fundamental hypothesis regarding the identity maintenance function is that under conditions of threat the identity maintenance function

will become more prominent with a corresponding lessening of attention to organizational needs. Thus, the threatened (and perhaps the upwardly mobile) individual will both emit and attend to others' speech markers that will serve to enhance his self-image and will attend less to markers that under normal circumstances may be useful cues for effective interaction. An example might be the case of a teacher, threatened by intelligent queries from the class, who adopts an exaggerated, prestigious style of speech himself while at the same time concentrating on markers of that student's inferior status. In the process of so doing, of course, the teacher is not attending to other markers (e.g. uncertainty, nervousness) which would render the interaction more effective as a learning experience.

Some empirical evidence already exists of the above formulation. Giles and his colleagues have conducted two experiments which demonstrate shifts in speech markers as a function of introducing threat in the course of interaction. In one study (Bourhis & Giles 1977) the speech marker in question was accent: it was found that if a Welsh person, conscious of cultural identity, was threatened in this domain by an English interlocutor, the Welsh subject would diverge from his normal speech style and adopt a broader than usual accent when answering the English speaker's question. In a second study (Bourhis, Giles, Leyens & Tajfel 1979), the issue was choice of language: Flemish subjects who were threatened by a Walloon speaker about their ethnic identity chose more often to reply in Flemish than when they were not so threatened.

Although these studies were designed to test hypotheses derived from accommodation theory (Giles & Powesland 1975; Giles 1977), they do not bear directly on the present formulation. The evidence therefore is limited to accent and choice of language, and no direct interpretations regarding identity maintenance can be made. Nevertheless, it would seem that speech markers were affected under threat and, although speculation is required, it would seem that the nature of the speech shifts were consistent with the present formulations. That is, the adoption of a broader accent or choice of ingroup language would probably reduce communication efficiency (cognitive organizational function) and the motivation for the shift was probably related to group and personal pride (identity maintenance function).

More indirect evidence for the ability of identity maintenance functions to alter the perception of speech markers is to be found in the literature on perceptual defence. The so-called 'new look' in perception work which flourished in the 1950s subsequently received a good deal of criticism. In total, the evidence suggests that there is a vigilance in the perception of

positively valued stimuli and that negatively valued or threatened stimuli are repressed as a defensive reaction or as a means of identity maintenance (Erdelyi 1974). If this is the case for stimuli such as the recognition threshold of taboo words, then it would suggest these vigilant and defensive processes operate even more freely in the case of subtle speech markers.

Finally, Scherer's discussion of personality markers (this volume: ch. 5) supports the present view. He notes, for example, that one reason for the faster speech rate of highly anxious subjects may be their 'greater sensitivity to listener response and/or greater need for social approval', explanations which evoke the concept of identity maintenance. Further, Scherer suggests that the anxious (threatened, stressed) person's need for positive self-presentation (identity maintenance) may also explain the significantly shorter latency times for their responses. These two isolated examples demonstrate that identity maintenance functions may also be involved in speech markers such as voice quality and filled and unfilled pauses. And, as the author notes, these particular speech marking devices are often detrimental to communicational effectiveness.

In summary, the cognitive organizational and identity maintenance functions of speech markers are both concerned with the encoding and decoding processes as schematized in figure 1. However, there is little doubt that both functions operate simultaneously. The use of any speech marker either by the encoder or the decoder is serving a dual function and these will be difficult to separate empirically. Theoretically, it may be useful to imagine the relative importance of the two functions in a particular situation as lying on a hypothetical continuum defined at one end by cognitive organization, and at the other by identity maintenance. It is possible to imagine at one extreme someone employing speech markers solely for their organizational value with zero attention to matters of identity maintenance, as in the case of Professor Higgins, diagnosing

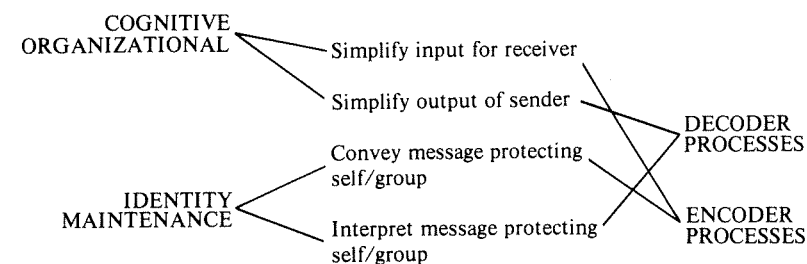


Figure 1. The functions of human speech marking

Eliza's birthplace from behind a column at Covent Garden. Conversely, at the other extreme of the continuum someone might process speech markers totally as a means of self-presentation with little or no regard for their organizational value as when Eliza tries to pass the test of ladylikeness at the tea party.

### 3. The nature of speech markers

In the remainder of this chapter, we will discuss the different types of markers that can be used by a speaker and the manner in which these are decoded by relying on a semiotic framework (Morris 1946; cf. also Laver & Trudgill, this volume: ch. 1). Throughout, we will attempt to amalgamate this orientation with the previous sections on functions.

#### 3.1. Speech markers: a semiotic approach

Speech markers are defined as those extralinguistic, paralinguistic and linguistic cues which differentiate between various biological, social and psychological categories or characteristics of speakers which are important – actually or potentially – for social organization and social interaction. In other words, marking is concerned with the relationship between speech and social variables. As can be seen from Laver & Trudgill (this volume: ch. 1, 2.3), linguistic constraints over the production of speech sounds are not so great as to restrict to a mere handful the number of variables having social psychological significance. Indeed, the nature of speech variables having such surplus meanings is very wide, ranging from isolated phonological features, to lexical items, to pitch features, to styles of speaking and discourse types, and, in fact, to discrete languages and the manner in which they intermix. In this vein, we have the sociolinguistic notion of a 'speech repertoire' (see, e.g., Gumperz 1964; Hymes 1967) from which speakers can select speech markers appropriately to meet the needs of the specific social interaction and their cognitions concerning it. Similarly, the range of biological, social and psychological variables (which shall be called the 'marked' variables) is equally wide. In general terms, linguistic variables are available for the marking of the speaker's own characteristics such as his biological (see this volume: chs. 3, 4) and psychological states (ch. 5) as well as his place in the social structure (ch. 8). In addition, marking of the receiver's perceived characteristics (chs. 2, 7), together with the nature of the relationship between speaker and addressee (ch. 8) and the character-

istics of the situation in which the interaction takes place (ch. 2), can also occur in speech.

Marking is, of course, a very complex process and the phenomenon can be examined by means of at least four orthogonal distinctions: namely, discrete vs. continuous; invariant vs. conditional/probabilistic; unique vs. equivocal; and extrinsic vs. intrinsic. These and other considerations will be discussed in terms of a semiotic framework of the semantic, syntactic and pragmatic aspects of marking.<sup>4</sup>

#### 3.2. Semantic aspects of marking

In this section, we are concerned with the specific nature of the coding relationship between speech variables and marked variables in terms of its form, strength and origins respectively.

*Coding form.* One of the prime dimensions of the nature of a social marker is its linguistic form with regard to the dimension, discrete–continuous. Speech markers which are more *discrete* in form, i.e. either the speaker has it or does not, can be exemplified by means of the presence or absence of key lexical items or phrases, such as the use or not of curse words or tag questions. Most speech markers, however, appear to be more *continuous* in their composition, to the extent that there are various degrees of the linguistic feature in question. For instance, Brennan, Ryan & Dawson (1975) have shown that in the southwest of the United States, not only are there at least eight phonologically distinct degrees of Mexican accentedness identifiable across Spanish–English bilingual speakers' English, but that these points along the mild–broad continuum are also identifiable by linguistically untrained listeners. At other levels of linguistic analysis, we find speech markers which are continuous in form, such as pitch height and range, grammatical complexity, type-token ratios, etc. In all these cases, the possession of the linguistic feature is not an all-or-none matter; speakers use or adopt various degrees of it and thereby signal different degrees of the marked variable (cf. Laver & Trudgill, this volume ch. 1, 2.3). Linguistic forms can, however, be continuous in two senses. Some are intrinsically continuous (e.g. absolute pitch, loudness, rhythm) such that variations along the continuum are not aiming at a particular endpoint which has a structural locus in the linguistic system. Phonetic

<sup>4</sup> Parts of the conceptual distinctions introduced below are derived from a semiotic discussion of the functions of nonverbal behaviour in speech (Scherer 1977) which, in turn, was influenced by a conceptual scheme introduced by Ekman & Friesen (1969).

articulation, on the other hand, is continuous but varies around a focal point (the phoneme) which has structural meaningfulness. The distinction may be important because the former, being inherently continuous for all speakers, cannot carry social meanings (i.e. be markers) in the same way that Labovian-style continuous variables (e.g. New York /r/) can (Labov 1970); the latter are continuous for some speech communities but not for others.

The social, biological and psychological states to be marked by linguistic features can also be discrete or continuous. Thus, for example, membership of sex and ethnic categories are more discrete than continuous, whereas the formality of a situation and the fact you are angry are more continuous than discrete. Indeed, given that most situations, social structures and psychological states in which we are engaged are never clearly discrete, it is not surprising to discover that most speech markers are continuous in linguistic form. Nevertheless, it is possible to have discrete linguistic forms being associated with continuous marked states such as the occurrence of curse words at a certain level of expressed anger, and also to have continuous linguistic forms being associated with discrete marked states such as the use of different pitch ranges by the two sexes.

*Coding strength.* Let us now move away from aspects of the form of speech markers and marked states to the nature of the relationship between them in terms of the strength of their correspondence. Two independent sets of distinctions are important in this respect. The first relates to the proportion of correspondent occurrences between linguistic features and marked states; the invariant vs. condition/probabilistic distinction.<sup>5</sup> A speech marker is considered *invariant* when it is always associated with a particular marked variable, i.e. it is perfectly correlated with the marked state for all people in a given cultural context in all situations and in all linguistic environments. Instances of this are somewhat rare, although interethnic situations where monolingual groups in contact speak their own distinct languages might be illustrations *par excellence* of invariant markers. In fact, invariant markers can be subdivided into *universal* or *culturally specific*, where the former, of course, would be signalling biological, social or psychological states which are found irrespective of the cultural background of the speaker. Obviously, speech markers of the

<sup>5</sup> Cf. Brown & Fraser's discussion of invariant vs. probabilistic markers (this volume: ch. 2, 1.2) and Smith's discussion of sex-exclusiveness vs. sex-preferential usage (this volume: ch. 4, 1.2).

biological states would be better candidates for universality than other marked variables, and perhaps paralinguistic markers such as pitch height and range for males and females may be accorded this status after more cross-cultural work has been conducted.

Most speech markers are either probabilistic or conditional, and more the former than the latter. *Conditional* speech markers would be those where the relationship between a linguistic feature and a marked state appears only in specifiable situations, linguistic contexts, or for certain types of people.<sup>6</sup> Thus, for example, Labov's (1966) New York City /r/ would be conditional in that it is associated with certain social contexts and social classes in particular linguistic environments (cf. Laver & Trudgill, this volume: ch. 1, 2.3). In a similar vein, not all manual labourers use working-class speech markers (see Robinson, this volume: ch. 6), while speech markers of trait state anxiety are found only in threatening situations and not others (see Scherer, this volume: ch. 5); i.e. they are conditional on the type of person and situation involved respectively. *Probabilistic* speech markers would be those which mark a particular state some percentage of the time for some percentage of people without the actual determinants of its occurrence being known. Thus, for example, men and women differ in the use of prestige phonological variants (see Smith, this volume: ch. 4, 1.1). However, it is not that women use them whilst men do not, but rather that both use them with women adopting them far more often. At the moment, it is difficult to predict precisely the conditions under which women use more prestige variants during a conversation than men. When more information is known about the determinants of probabilistic speech markers, to such an extent that we can specify the conditions of their occurrence, they may then assume the status of conditional speech markers (cf. section 4 below).

The second distinction of interest concerning the strength of the covariation between a linguistic feature and a marked variable relates to whether the former marks one and exclusively one biological, social or psychological state, or whether it marks two or even more states. Examples of the former variety, which shall be termed *unique* speech markers, are very difficult to find although the use of a certain language or dialect by only one particular ethnic or racial group would qualify. Most speech markers seem to be of the latter variety and can be termed *equivocal* (see Brown & Fraser, this volume: ch. 2, 1.2, for their discussion of 'ambiguity'). Thus, for example, the use of low prestige phonological

<sup>6</sup> Cf. Smith's discussion of saturated vs. unsaturated usage (this volume: ch. 4, 1.2).

features could mark an informal context as well as be correlated with a low SES speaker. Similarly, a loud voice could be the marker of an extrovert, angry mood, noisy environment, or of a large physical distance between interlocutors. Although in many instances the correct social meaning attached to the speech marker will be seen as intended by the speaker if other nonlinguistic cues are available, sometimes attribution problems can arise. For instance, the introduction of low prestige features in another's speech during a conversation could either signal that the speaker wishes to make the situation more informal and relaxed or that his social origins had up till then been masked by the use of high prestige speech features.

*Coding origins.* Let us now consider our fourth dimension, intrinsic-extrinsic. As can be inferred from the earlier discussion, it must be the case that some of our speech markers are evolutionarily inherited and biologically determined; in other words, *intrinsically* derived. In this regard Scherer (this volume: ch. 5, 5.1) discusses the biophysical determinants of the speech production of different personality types, and other examples abound throughout this volume. For instance, sex is marked in males and females differently due to certain anatomical differences in vocal tract shape and elsewhere, and age is also marked by reference to certain biological (and cognitive) maturation processes (see Laver & Trudgill, this volume: ch. 1, 2.1).

However, the origins of many speech markers are best represented by an interaction of biological (intrinsic), and *extrinsic* factors at the psychological and sociostructural levels. Moreover, given the tendency for most speech markers to be probabilistic in nature, it can be argued that the emphasis in this intrinsic-extrinsic interaction should be laid at the latter door. Indeed, even some of the speech markers of the elderly, females and extroverts, which at first sight could be considered intrinsically derived, may in large part be extrinsically determined. For instance, it would seem reasonable to suppose that in most cultures, women, the elderly and extroverts are expected to speak in particular ways (the notion of speech stereotyping will be taken up below, section 3.4). It would not be surprising to discover then that members of these social categories are socialized into self-fulfilling these prophecies. Furthermore, the mere fact that there are cross-cultural differences in such supposedly similar cultures as West Germany and the United States in terms of personality speech markers (Scherer 1972, 1979, this volume: ch. 5) underlines the salience of extrinsic influences. The interface of the biological and the

social psychological is obviously very difficult to disentangle empirically particularly as one mutually affects the other.

A particularly interesting set of extrinsic influences affecting the origins of speech markers in social interaction is sociostructural variables. Indeed, it may even be the case that different structures, hierarchical organizations and ideological perspectives induce their own particular speech markers (see Brown & Levinson, this volume: ch. 8, 1.2). Giles, Bourhis & Taylor's (1977) notion of 'vitality factors' may provide us with a means of classifying objective social structures and also of discovering how they are defined subjectively by the speaker (cf. Giles, this volume: ch. 7, 2.2). Nevertheless, particular social structures do impose constraints on interactive patterns particularly when participants in a social encounter derive from two social categories who occupy different positions in the status and or power hierarchy. Thus, women adopt a so-called 'powerless speech style' with men, ethnic minorities with majorities, children with adults and so on (see this volume: chs. 4, 2.2; 7, 1; 3, 4, respectively). In other words, many of the linguistic variables intuitively associated with social categories like sex, ethnicity and age are not intrinsically derived, but rather are determined by structural relations operating between the social categories. Hence, if the power positions between dominant and subordinate were changed or even reversed then one would expect a corresponding change in the linguistic variables associated with these categories. However, we must be cautious as to how we assign these linguistic variables the status of speech markers. Although these speech features may serve as *cues* to which member of a particular dyad is the man or woman, working- or middle-class person, subordinate or dominant (given background knowledge of the social structure), they are speech markers of a power *relationship* and not speech markers of the social category itself (see Brown & Levinson, this volume: ch. 8, 3.1). Indeed, the attribution of linguistic variables either to speech markers of a particular relationship or to a social category is of considerable pragmatic importance. Many inferences that have been made about the relationship between language and social class (see Robinson, this volume: ch. 6) may have been the result of a misunderstanding about the origins of speakers' linguistic patterns. Thus, if one explores the notion that the speech patterns of a working-class boy when being interviewed by a middle-class interviewer in a formal setting on an abstract topic are not class markers *per se*, but markers of his perceived position (subordinate) in a particular relationship, then quite different inferences can be made about the boy's capabilities, potential and competences, etc.

A final note of caution should be made about the identification of the origins of speech markers. Giles *et al.* (in press) in a couple of studies found that profeminism in women was associated with a particular speech style. However, a recent study by Giles & Nuttall (forthcoming) suggests that profeminism is not the determinant of these linguistic variables at all. Their study found that the same speech differences which exist between female profeminists and nonprofeminists are found in men as well. It also showed that profeminism in men correlated extremely highly ( $r = +0.93$ ) with liberal ideologies. In other words, it is likely that profeminism in the original studies was only a smaller part of a larger sociopolitical constellation, and it was the latter that was being marked, not profeminism *per se*.

Our discussion of the semantics of speech markers has suggested that we have to be cautious in the appropriateness of which linguistic-social psychological covariations are assigned the status of speech markers, and when they are, which marked variables are correctly being referred to. This section has also pointed to the fact that many speech markers are more continuous than discrete in their linguistic form, more conditional or probabilistic than invariant in the proportion of their correspondent occurrences, more equivocal than unique in their associations with various marked states, and more extrinsic than intrinsic in origin. In the following section, we will examine the relationship between different speech markers.

### 3.3. Syntactic aspects of marking

It is the case, of course, that usually more than one speech marker is associated with a particular marked variable, i.e. different speech markers covary. For instance, formality is marked by syntactic structures, a nominal style, a high incidence of polite forms and of prestige phonological variants. Because of this and similar examples, it could be argued that the notion of 'style' could be favoured as that more meaningfully correlated with a marked variable than isolated, single speech markers. While this may be the case in many instances, one should also be open to the possibility that the isolated occurrence of a single speech marker associated with a particular psychological state may be socially significant for listeners. For instance, it has been suggested that just the 'drop' of one low prestige variant in an otherwise flawless middle-class speech style is enough for listeners to detect a speaker's background as working class (Mackay 1969; see section 4 below).

Speech markers are not only multicomponential in terms of the number

of linguistic features involved, but also in the number of marked states that can be manifest at any one point in time. In other words, speakers may wish to – and undoubtedly do – communicate their youthfulness, personality traits, ethnicity, social class, sex, and definition of the situation simultaneously. Therefore, a speaker's message may include speech markers with the obvious implication, for example: 'I'm an outgoing young man brought up in a working-class district in Glasgow who sees this situation as quite informal.' Naturally enough, marked variables are marked not only by linguistic features but by visual ones as well. Ultimately then, the area of speech markers will need to be integrated with the area of nonverbal communication<sup>7</sup> if a complete picture of the complexity of marking is to emerge.

A number of empirical questions can be asked about the syntactic aspects of speech marking in social interaction. Does the encoder transmit all the necessary markers at one and the same time, or does he convey them hierarchically in terms of their centrality to the speaker at that point in time? Similarly, does the decoder process these markers simultaneously, or does he decode them according to his own priorities? In this latter sense, it is possible that the decoder will not detect certain markers if they are low on his receptive priorities. Once the listener has established a cognitive map of the speaker's states according to his central dimensions, he is liable to expend some energy making finer discriminations about these other markers if he wishes to understand the encoder better (cf. Berger 1979). Moreover, the decoder's knowledge of the encoder's understanding of the situation and social structure, and what he thinks the encoder believes it means to the decoder, is important in the attribution of speech markers. We have now moved on to the pragmatic aspects of speech marking and it is to this issue we now turn. Suffice it to say that at present we have not enough descriptive information about the linguistics nor the social psychology of speech marking to enable us to formulate an explanatory model of its syntax.

### 3.4. Pragmatic aspects of marking

In this section, the ways in which speech markers are encoded and decoded will be discussed in relation to the functions they were proposed to perform earlier, i.e. in terms of cognitive organization and identity maintenance.

<sup>7</sup> It is to be stressed that given the structural relations between kinesic, paralinguistic and linguistic systems, as they are all part of a communication system, one cannot study each in isolation and later expect to come up with a simplistic union.

*Sender perspectives.* An important distinction related to the sender's encoding of speech markers is the *informative-communicative* one (cf. Lyons 1972; see also Laver & Trudgill, this volume: ch. 1, 1). It refers to the extent to which speech markers are intentionally delivered (communicative) vs. being unintentionally conceived (informative).<sup>8</sup> Some speech markers are undoubtedly more of the latter type in that they are not deliberately managed or represented, but are nevertheless picked up by the listener as an identification cue without the knowledge of the speaker. The reasons for the occurrence of informative speech markers are at least threefold. First, the unintentionality may derive from the sender's attention being directed to other salient aspects of the communication (Labov 1970). For instance, he may be angry or depressed and thereby not be in a position to monitor certain, for example, class markers in his speech. Second, the sender may be ignorant about the existence of certain linguistic variables being correlated with a given marked state and hence be unaware of their social significance. Third, the sender may be aware of the fact that a linguistic feature is associated with a particular psychological state but may refuse to acknowledge the fact that *he* uses it in his speech. Wilkinson (1965) reports this phenomenon with regard to Birmingham secondary school pupils in Britain and states that 'very many English people who have not heard their voices on tape imagine they have R.P. whilst their neighbours have an "accent". Even when they have heard it themselves, the prestige of R.P. is so high that they are often unwilling to admit to themselves that they deviate from it.' There are methodological problems in determining whether a speech marker is informative or not, since simply to ask a speaker retrospectively about his awareness at the time concerning the use of a linguistic feature disposes him to think he must have used it otherwise he would not have been asked. Alternatively, some people may not want to admit having used a particular linguistic variable in an attempt to maintain a valued degree of cognitive and/or behavioural consistency.

The situation described above, albeit complex, is nevertheless too static to encompass the dynamics and richness of speech markers in social interaction. Hence, speech markers must be viewed as dynamic, meaningfully anchored to an underlying baseline but continually being modulated to meet changing circumstances. The nature of these modulations

<sup>8</sup> There has been much debate in the literature on the definition of intentionality and the concept's relationships with awareness and consciousness. Given that after decades, if not centuries, the issues remain largely unresolved, we will not complicate the discussion further by unveiling the problems inherent in the notion of intentionality.

will, of course, be reflections of the underlying organizational and identity maintenance functions.

At the outset of section 3, it was stated that linguistic variables exist which not only mark the speaker's states but which also mark aspects of the receiver's states as well. It has been found, for instance (see Helfrich, this volume: ch. 3, 4), that speakers take into account the fact that their listeners are younger or older than them and modify their speech appropriately. One of the ways of doing so is to make one's speech more like the person being addressed. In fact, such accommodations occur with regard to a wide variety of linguistic features and between members of a number of different social categories besides the age ones, e.g. different ethnolinguistic groups (see Giles, this volume: ch. 7). These 'convergences', as they have been called in other theoretical contexts (Giles & Powesland 1975; Jaffe & Feldstein 1970), occur in such a manner that the sender becomes linguistically more similar to his receiver, and hence they will be termed 'attenuation markers' because the differences between them are reduced. It can be argued that these linguistic variables are introduced – and in bilingual contexts this could involve a complete switch of language – to increase communicational effectiveness. In other words, the sender has adopted the speech patterns peculiar to his receiver which in all likelihood facilitates cognitive similarity and hence information flow and communicational satisfaction as well. The sender can then control his markers to the receiver by means of linguistic attenuation strategies in order to fulfil an organizational function of interactional efficiency.

Attenuation markers can often serve the dual function of both cognitive organization and identity maintenance. For instance, Giles (1977) claims that individuals adapt to one another, and ingroup speakers to outgroup speakers, because they wish to gain social approval or because they wish to be socially integrated. Indeed, the strategy of attenuation often results in positive reactions from the recipient when the reduction of linguistic dissimilarities is attributed positively and when the convergence is perceived to occur at an optimal level (Giles & Smith 1979; Simard, Taylor & Giles 1976). However, within the age context, one can also envisage situations where an adolescent would not adapt (or attenuate) to the speech of a younger or even older person, but would *diverge away* from it (cf. Bourhis & Giles 1977; Bourhis *et al.* 1979). Such a strategy, involving 'accentuation markers', could serve the dual identity maintenance function for the speaker of not only dissociating him from other individuals or members of outgroup categories but of associating him positively with speech markers characteristic of his own peer group (Giles *et al.* 1977).

Thus, receiver markers can function dynamically in terms of attenuation (where there is a move towards the receiver) or accentuation (where there is a move away from the receiver), depending on the sender's definition of the social interaction.

Both these types of receiver markers, and particularly the latter, can involve strategies of what Goffman (1959) calls 'self-presentation' (cf. Scherer, this volume: ch. 5, 5.3). Speech markers of self-presentation reflect the sender's need to mark a particular social category or psychological state in order to project a particular image of himself for the listener. Although self-presentation markers encapsulate the identity maintenance functions of attenuation and accentuation, conceptually they must stand on their own. For instance, a sender may wish to present a self- (or group) image of a particular type, such as that of a confident, assured person, irrespective of whether this is similar to, or dissimilar from, that perceived to be apparent in the decoder. Interestingly, it is possible that a sender may wish to self-present his perspective on the social situation in a particular manner (e.g. markers of formality) so that he may control the interaction better for his self-interests given his perceived advantages at other linguistic levels (e.g. by means of middle-class speech markers). Moreover, such is the flexibility of human communicative behaviour that speakers may be able to attenuate, accentuate and self-present three quite distinct, and yet parallel, images at one and the same time. For instance, a speaker may attenuate his grammatical markers for a younger person and thereby appear a little more comprehensible and accommodating, yet also accentuate certain ethnic markers (e.g. phonological features) to emphasize the fact that he proudly claims membership of a particular minority group, while at the same time use speech markers (e.g. paralinguistic features) suggesting that he is a humble, flexible and negotiable person with whom to talk. In this sense then, the pragmatics of speech markers are intricately bound up with their syntax. Of course, the extent to which a sender can effectively adopt a particular representation of himself, whether it be by masking his social origins or his true abilities by attenuation markers or by means of self-presentation markers, depends on the extent of his speech repertoire and the linguistic flexibility he possesses within it. This now introduces us into the realm of the decoding of speech markers.

*Receiver perspectives.* Just as the sender may or may not be aware of marking his speech in particular ways, so too the decoder may or may not be aware of processing such speech markers. From the receiver's perspec-

tive, the dimension etic-emic seems important (Brown & Fraser, this volume: ch. 2, 1.2; Robinson: ch. 6, 1.1). Emic speech markers are those which have social meaningfulness, while etic markers refer to those which may be highly correlated with, for instance, a social category or psychological state yet are not used in any sense by listeners in terms of recognition, evaluation or behavioural response. While not all of the authors in this volume have used the etic-emic distinction, there seems to be general consensus on the importance of the issue, i.e. the usability or the effectiveness of speech differences for the attribution processes of naive actors in social interaction. The Brunswikian lens model introduced by Scherer (see this volume: ch. 5, 1) may serve to illustrate the distinctions that have been drawn by different authors. Figure 2 shows the different terms used in this volume in the context of the lens model.

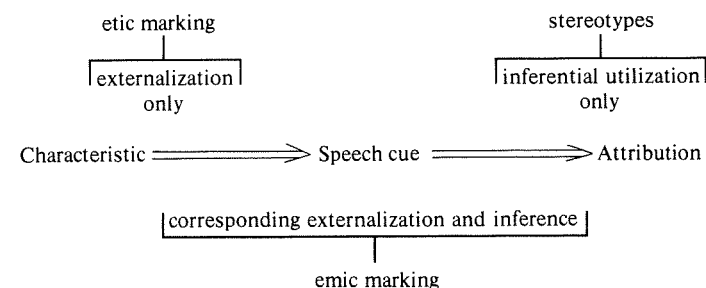


Figure 2

While most authors state or imply that there must be some degree of 'emicness' (or accurate inference by naive observers without the help of sophisticated apparatus and digital computers), it would be misleading to assume that some speech cues are always or are never an emic marker of a specific characteristic. As Scherer (see ch. 5, 6) has pointed out, externalization may *develop* due to self-presentation mechanisms, if there are sufficiently strong stereotypical inference rules. Furthermore, given that humans are excellent information processors, people may become aware of etic markers and start using them in attribution. Just because in the immediacy of the situation the receiver has given no indication (to the scientist at least) that he used a speech marker for recognition or evaluation does not mean that he has not stored it for future reference in a subsequent interaction. Indeed, in attribution terms, he may have noted it and judged that he required some cross-situational evidence before committing himself to an attribution of a particular sender state on the basis of these markers. Moreover, it is often not possible to be sensitive



enough to all the relevant attitudinal and behavioural dimensions so that one can be confident that all the dimensions on which the marker might have emic relevance for the receiver have been tapped in a scientific investigation. Perhaps more importantly however, it is also the case that what is etic can be *potentially* emic in some future space or time. For instance, certain English speech markers of social class may not have achieved emic status in the middle of this century until other markers of group identity (e.g. nonlinguistic ones such as dress and housing) had dissipated somewhat. In other words, what are today's etic markers may be tomorrow's emic ones. Hence the social psychological processes underlying the shift from etic to emic status, particularly in the context of the dynamics of intergroup relations (cf. Giles, this volume: ch. 7, 2.1), might have important consequences for the processes of linguistic change (Labov 1970; Peng 1976). Added to this, the state of the art (even as reflected in the preceding chapters) is etic-biased, given that researchers have in the first place, understandably enough, tended to establish the objective existence of linguistic and social psychological correlations prior to testing for their social relevance across a range of evaluative dimensions for the decoder.

Having now established ourselves within decoding perspectives, let us discuss how speech markers function for the receiver pragmatically, in terms of the cognitive organization and identity maintenance functions.

Berger & Calabrese (1975) devised a theoretical framework for understanding the development of interpersonal relationships and accorded the notion of 'uncertainty' a central role within it. They argue that when two strangers meet for the first time their uncertainty levels are high in the sense that they are initially doubtful about the alternative behaviours and beliefs the other is likely to manifest or hold and, consequently, are uncertain themselves as to how to behave appropriately. Berger & Calabrese propose that acquaintanceship is concerned with reducing such uncertainty so that once the other is perceived to be more predictable, a decision can be made about the likelihood of future interactions, and the probable intimacy of them. In order to reduce uncertainty in first encounters, interactants need to elaborate a basis for predicting the other's behaviours and attitudes. Berger & Calabrese argue that these predictions, called 'proactive attributions', are made early on in the interaction and based on input cues from the situation and the behaviour of the other. Naturally enough, uncertainty reduction is a continuously developing process, and the construction of proactive attributions is but one of

the strategies Berger proposes interactants adopt to increase predictability (Berger 1979).

One of the ways in which receivers can form such proactive attributions and thereby reduce cognitive uncertainty about the other and the validity of their own reactions in social interaction is by processing potential speech markers in the sender's stream of discourse. In other words, receivers use and are constantly modifying their interpretations of speech markers in order to organize cognitively the input cues from the sender. Speech markers then allow the receiver to place the sender on his cognitive map. How this process works more specifically is not yet well understood, and receivers undoubtedly make inferences from one set of speech markers for reducing uncertainty about a whole range of supposedly correlated sender states according to their implicit personality theories. Indeed, in terms of the unfolding of an interaction over time, processes of social comparison (Festinger 1954) and the reinterpretation of speech markers in the context of increasing information are very complex processes. Probably further understanding of the organizational functions of speech markers from the perspective of the receiver can only come about when existing and future work in the cognitive sciences concerning perceptual processes and higher cognitive functions are introduced into the theoretical framework. Needless to say, the receiver's interpretation of speech markers does not assume accuracy either in terms of correctly decoding underlying states of the sender, or in terms of correctly attributing states the sender intended to be projected. In other words, barring physical constraints such as interpersonal distance and ambient noise, speech markers are often cognitively organized in such a manner as to fulfil the identity maintenance function.

In general terms, receivers perceive speech markers according to certain evaluative biases laid down in their cognitive structures which maintain their own self-esteem or positive group identity (Aronson 1972; Tajfel 1974). In this regard, Smith (see this volume: ch. 4, 2.3) makes a distinction between speech markers and *speech stereotypes*. He suggests implicitly that people possess cognitive maps of what they think people ought to sound like when they derive from certain social categories, are entertaining particular psychological states, and/or are engaged in specific social situations. Indeed, the stereotypes that exist (for example, between the sexes, see Smith: ch. 4, 2.3) about how members of two social categories should speak do not always overlap objectively with the actual speech markers used by them. It is likely that some speech stereotypes

and speech markers do overlap, hence the availability of self-presentation speech markers, whereas in others they may be completely contradictory as in the male-female situation (see Smith: ch. 4, 2.3). In this respect, Scherer (this volume: ch. 5, 4) also points to instances where inference rules regarding the relationships of voice to certain personality traits completely contradict the actual marking patterns.

A number of questions can be posed about the relationship between speech markers and speech stereotypes for all marked variables. For instance, when overlaps do not occur, is it due to receivers' ignorance concerning the conditionality of the occurrence of speech markers, or is it due to people wishing to differentiate themselves from relevant out-groups on valued dimensions (Giles *et al.* 1977)? What happens when speech stereotypes are in the receiver's cognitive map and yet are not confirmed in the sender's speech patterns? Does the receiver perceptually bias the behaviour in terms of the stereotype anyway? In this vein, although women may use more unassertive remarks (probabilistic marker) than men, a situation where men and women produced the same moderate amounts of unassertiveness could be seen as confirming the stereotype for the latter, whereas for the former it would be afforded no social relevance whatsoever; men are not assertive all of the time anyway! In addition, are there hierarchies of speech markers in people's speech stereotypes (as suggested implicitly earlier) such that some markers are associated more saliently with a particular marked variable than other markers? In such a case, then, the receiver, failing to find the 'top few', might simply go down the list and identify less salient ones, thereby perhaps enabling him to confirm his stereotype. Even if the receiver has to go further down the list and still cannot substantiate the speech stereotype, he may attribute the lack of markers externally in attribution terms, i.e. to situational constraints (to conditionality in our own terms). On other, more typical, occasions the receiver may imagine that the appropriate markers have been emitted (cf. Gardner & Taylor, 1968). Should the listener ultimately be incapable of escaping the fact that the sender does not conform to the stereotype, he may, in an attempt to maintain cognitive consistency, be attributed role deviance and a range of negative attributions.

It may be that the social significance of speech stereotypes is at least equal to the meaningfulness of naturally occurring speech markers. Certainly, that is the case if people perceive discourse in terms of their biases and the identity maintenance function anyway. Moreover, if one defines speech differences with respect to what people feel they hear rather than

what actually occurs in their speech<sup>9</sup> then the former may well be psychologically more important. In short, then, receivers' not noticing, or their lack of attentiveness to, certain speech markers, let alone their creation of ones that do not exist, (see Williams 1976), functions in such a manner as to organize the speech input according to their own predetermined and valued cognitive structures.

#### 4. Concluding remarks

This chapter has attempted to show that man reveals much information about his basic psychological dispositions through a range of level 1 and level 2 speech markers. Level 1 speech markers are in certain situations redundant because they yield information about biological, social and psychological states that can be arrived at by means of other, often more potent, cues. In this sense, level 1 speech markers function most often at a lower level of psychological complexity. Marking at level 2 has been shown to be determined by social psychological factors which provide a basis for the encoding of more complex states of the speaker. Indeed, in social interaction we spend a lot of time trying to understand the other person's intentions, attitudes and values, at the same time also attempting to present an appropriate image of ourselves. Yet it is clear that we do not do this explicitly. We do not approach a person and say, 'What is your political ideology?' or 'Why are you being my friend?', etc. In similar vein, we do not readily offer information about our achievements, or provide precise assessments about the other and his weaknesses. If we did these things and people actually believed the responses, there would be no need for speech markers. It is because we do not interrogate others on fundamental issues and do not divulge revealing statements about our true selves that level 2 speech markers are vitally important for our complex needs. At this higher functional level, then, level 2 speech markers provide the receiver with information that can be processed along with other knowledge available about the sender's social attitudes, group memberships and perspectives concerning the ongoing interaction. Just as importantly, man can communicate and organize his speech output for his receiver's efficient interpretation of it as well as presenting many complex and simultaneous messages about how he wants to be perceived on a number of dimensions, and how he wants to define the

<sup>9</sup> Cf. Giles & Powesland (1975: 6) for a similar social psychological perspective on language vs. dialect differences. Note also the relevance of this discussion to Robinson's notion of the 'rhetoric roundabout' (this volume: ch. 6, 1.1).

social relationships and tenor of the situation. In these senses, level 2 speech markers serve the functions of cognitive organization and identity maintenance.

From our review of the characteristics of speech markers it is clear that there is rarely a simple one-to-one relationship between a particular speech variable and a corresponding social group or psychological state. Rather, there are a host of linguistic and paralinguistic variables which tend to be continuous in nature and probabilistic with regard to their association with marked states. Attempts to discover clear-cut linguistic and social relationships, then, are not likely to be fruitful. However, conceptualizing speech markers as deviations from a community's speech norms may help to explain how, despite their complexity and irregularity, speech markers may be potent conveyors of social information. Presumably a community has latitudes of acceptable speech for different situations to which all members of the community are expected to adhere. Speakers will then attempt to comply with these norms by ensuring their speech falls within the acceptable latitude. Speech becomes marked in a level 2 sense when it deviates from these norms. As such, it is not necessary for the speaker to be antinormative all of the time in all situations on all linguistic variables. Often a single deviation will suffice. There are at least two important implications for deviation in terms of speech markers. Speakers may purposely deviate in order to present themselves in what they consider to be a more favourable light. For example, a person who wishes to present himself as highly educated need only introduce one or two appropriate linguistic features that deviate from normal speech requirements in a half-hour's conversation to convey this message. Secondly, a speaker may rigidly adhere to speech norms in order to disguise what he believes to be negatively valued information about himself. Thus, for example, one speech marker implying anxiety is often sufficient to convey a sense of the speaker's stress to the listener. Given that it may only require a *single* deviation from linguistic norms to communicate important information, it is understandable that speech markers are often only probabilistically associated with marked states. Viewed from this perspective, research directed at cataloguing invariant relationships between speech and social variables is not likely to be constructive. Rather, the aim should be to examine a community's speech norms and evaluate the effects of even single deviations from these.

It is, of course, essential for the future development of our understanding of the role of speech markers in social interaction that we work very

closely with linguists and other social scientists; indeed, the present volume is an initial attempt in this direction. Throughout we have proposed, as have others in the preceding pages, potentially fruitful avenues of empirical work. Undoubtedly, this will move us on from albeit necessary descriptive systems of speech markers in social contexts to more fundamental *explanatory* ones. It is now in order to make a few suggestions concerning specific priorities to which workers in the field of speech markers (whether it be sex, ethnicity, personality, or whatever) should attend. First, we need to know far more about how speakers and listeners in an encounter define the situations they are in during the developing course of an interaction. For instance, how do they see the purpose of the interaction? What strategies of understanding are being introduced over the course of the development of the conversation? Is the interaction being viewed more as a confrontation of two representatives from two different social categories (intergroup situation), or as two different individuals discussing an issue (interindividual situation)? The work in progress by Wish & Kaplan (1977) on the dimensions of interpersonal relationships, by Berger (1979) on the strategies of uncertainty reduction in the development of interpersonal relations, and by Tajfel (1978) on the dynamics of intergroup behaviour and social change, are likely to provide useful guidelines for theoretical frameworks. Second, we need to be more adventurous and wide-ranging in our investigation of speech markers in a linguistic sense. Too many ('one-off') studies are being conducted exploring the relationship between one social and one linguistic variable. Investigations should not only aim to consider more than one social variable at a time but ensure that their linguistic analyses cover grammatical, paralinguistic and discourse parameters simultaneously. In this way, we might be able to explore the manner in which social and linguistic variables cluster together. Third, and more methodologically, we need to move beyond recognition and identification measures of speech markers in a 'behaviour dynamic' direction (Giles & Bourhis 1976). That is, we should investigate a greater range of attitudinal and behavioural dimensions in the reactions of listeners who are attending to the speech markers of their interlocutors, and determine the manner in which the latter respond to these in turn. In addition, the decoder significance of certain speech markers in many studies up till now has been determined by passive listeners evaluating a tape-recording. Such people do not have access to all variables salient at the time of the interaction to which they are listening, and, in any case, the message in which these markers are conveyed is not addressed to them personally. Indeed, the discrepancy in

interpretation of messages by actors and observers has been clearly demonstrated by Storms (1973). It seems, therefore, important in future work to obtain decoders' evaluations of markers in the immediacy of the situation in which they themselves are participating. If we can refine future research in many different cultural settings more sophisticatedly on these three fronts, the resultant progress would surely move us towards our ultimate goal, namely, a viable 'marker theory'. In the meantime, it is to be hoped that this book will provide a much needed framework for understanding the nature and uses of speech markers in social interaction.

### References

- Abercrombie, D. 1967. *Elements of General Phonetics*. Edinburgh.
- Altman, S. A. 1962. A field study of the sociobiology of rhesus monkeys, Macaca Mulatta. *Annals of the New York Academy of Sciences*, 102, 338-435.
- Aronson, E. 1972. *The Social Animal*. San Francisco.
- Beer, C. G. 1970. Individual recognition in the social behavior of birds. *Advances in the Study of Behaviour*, 3, 27-74.
- Berger, C. 1979. Beyond initial interaction: uncertainty, understanding, and the development of interpersonal relationships. In H. Giles & R. St Clair (eds.) *Language and Social Psychology*. Oxford.
- Berger, C. & Calabrese, R. J. 1975. Some explorations in initial interaction and beyond: toward a developmental theory of interpersonal communication. *Human Communication Research*, 1, 99-112.
- Bourhis, R. Y. & Giles, H. 1977. The language of intergroup distinctiveness: In H. Giles (ed.) *Language, Ethnicity and Intergroup Relations*, London.
- Bourhis, R. Y., Giles, H., Leyens, J.-P. & Tajfel, H. 1979. Psycholinguistic distinctiveness: language divergence in Belgium. In H. Giles & R. St Clair (eds.) *Language and Social Psychology*. Oxford.
- Brennan, E. M., Ryan, E. B. & Dawson, W. E. 1975. Scaling of apparent accentedness by magnitude estimation and sensory modality matching. *Journal of Psycholinguistic Research*, 4, 27-36.
- Cooley, C. H. 1902. *Human Nature and the Social Order*. New York.
- Cozby, P. C. 1973. Self-disclosure: a literature review. *Psychological Bulletin*, 79, 73-91.
- Ekman, P. & Friesen, W. V. 1969. The repertoire of nonverbal behavior: categories, origins, usage, and coding. *Semiotica*, 1, 49-98.
- Emlen, S. T. 1972. An experimental analysis of the parameters of bird song eliciting species recognition. *Behaviour*, 41, 130-71.
- Erdelyi, M. H. 1974. A new look at the New Look: perceptual defense and vigilance. *Psychological Review*, 81, 1-25.
- Ferguson, C. A. 1964. Baby talk in six languages. In *American Anthropologist*, 66 (Supplement no. 6), 103-14.
- Festinger, L. 1954. A theory of social comparison processes. *Human Relations*, 7, 117-40.

- Fraser, C. & Roberts, N. 1975. Mothers' speech to children of four different ages. *Journal of Psycholinguistic Research*, 4, 9-16.
- Gardner, R. C. & Taylor, D. M. 1968. Ethnic stereotypes: their effects on person perception. *Canadian Journal of Psychology*, 22, 267-74.
- Giles, H. 1977. Social psychology and applied linguistics: toward an integrative approach. *ITL: a Review of Applied Linguistics*, 35, 27-42.
- Giles, H. & Bourhis, R. Y. 1976. Methodological issues in dialect perception: a social psychological perspective. *Anthropological Linguistics*, 19, 294-304.
- Giles, H. & Nuttal, Z. Forthcoming. The voice of feminism: a follow-up investigation.
- Giles, H. & Powesland P. F. 1975. *Speech Style and Social Evaluation*. London.
- Giles, H. & Smith, P. 1979. Accommodation theory: optimal levels of convergence. In H. Giles & R. St Clair (eds.) *Language and Social Psychology*. Oxford.
- Giles, H., Bourhis, R. Y. & Taylor, D. M. 1977. Toward a theory of language in ethnic group relations. In H. Giles (ed.) *Language, Ethnicity and Intergroup Relations*. London.
- Giles, H., Smith, P., Browne, C., Whiteman, S. & Williams, J. A. In press. The voice of feminism. In R. Borker, N. Furman & S. McConnell-Ginet (eds.) *Language and Women's Lives: a feminist perspective*. Ithaca, NY.
- Giles, H., Taylor, D. M. & Bourhis, R. Y. 1973. Towards a theory of interpersonal accommodation through speech: some Canadian data. *Language in Society*, 2, 117-92.
- Goffman, E. 1959. *The Presentation of Self in Everyday Life*. New York.
- Gumperz, J. J. 1964. Linguistic and social interaction in two communities. *American Anthropologist*, 66 (Supplement no. 6), 137-53.
- Hymes, D. 1967. Models of the interaction of language and social setting. *Journal of Social Issues*, 23, 8-28.
1972. Models of the interaction of language and social life. In J. J. Gumperz & D. Hymes (eds.) *Directions in Sociolinguistics: the ethnography of communication*. New York.
- Jaffe, J. & Feldstein, S. 1970. *Rhythms of Dialogue*. New York.
- Jones, E. E. & Gerard, H. B. 1967. *Foundations of Social Psychology*. New York.
- Jourard, S. 1971. *Self-Disclosure: an experimental analysis of the transparent self*. New York.
- Kelly, H. H. 1973. The process of causal attribution. *American Psychologist*, 28, 107-28.
- Labov, W. 1966. *The Social Stratification of English in New York City*. Washington, DC.
1970. The study of language in its social context. *Studium Generale*, 23, 66-84.
- Lefcourt, H. M. 1976. *Locus of Control: current trends in theory and research*. New York.
- Lyons, J. 1972. Human language. In R. A. Hinde (ed.) *Non-Verbal Communication*. Cambridge.
- Mackay, J. R. 1969. A partial analysis of a variety of nonstandard Negro English. Doctoral dissertation, University of California, Berkeley.
- McKirnan, D. J. 1977. Some thoughts on the 'unit of analysis' in social psychology. Paper presented at the Canadian Psychological Association Meeting, Vancouver.

1978. Community perspectives on deviance: some factors in the definition of alcohol abuse. *American Journal of Community Psychology*, 6, 219-38.
- Marler, P. R. 1965. Communication in monkeys and apes. In I. De Vore (ed.) *Primate Behaviour: field studies of monkeys and apes*.
- Marler, P. R. & Hamilton, W. J. III. 1966. *Mechanisms of Animal Behaviour*. New York.
- Mead, G. H. 1934. *Mind, Self and Society: from the standpoint of a social behaviourist*. Chicago.
- Morris, C. W. 1946. *Signs, Language and Behaviour*. New York.
- Peng, F. 1976. Language change: a sociolinguistic approach. *Forum Linguisticum*, 1.
- Price, R. H. & Bouffard, D. L. 1974. Behavioural appropriateness and situational constraints as dimensions of social behaviour. *Journal of Personality and Social Psychology*, 30, 579-86.
- Reynolds, P. 1975. Comments on Marler's paper. In J. F. Kavanagh & J. E. Cutting (eds.) *The Role of Speech in Language*. Cambridge, Mass.
- Rokeach, M. 1967. Attitude change and behavioural change. *Public Opinion Quarterly*, 30, 529-50.
1968. *Beliefs, Attitudes and Values*. San Francisco.
- Rotter, J. B. 1966. Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, 80 (whole no. 609).
- Scherer, K. R. 1972. Judging personality from voice: a cross-cultural approach to an old issue in interpersonal perception. *Journal of Personality*, 40, 191-210.
1977. Kommunikation. In T. Herrmann et al. (eds.) *Handbuch psychologischer Grundbegriffe*. Munich.
1979. Voice and speech correlates of perceived social influence. In H. Giles & R. St Clair (eds.) *Language and Social Psychology*. Oxford.
- Scherer, K. R., Scherer, U., Hall, J. A. & Rosenthal, R. 1977. Differential attribution of personality based on multi-channel presentation of verbal and non-verbal cues. *Psychological Research*, 39, 221-47.
- Sebeok, T. A. (ed.) 1968. *Animal Communication: techniques of study and results of research*. Bloomington, Ind.
- (ed.) 1977. *How Animals Communicate*. Bloomington, Ind.
- Seligman, C. R., Tucker, G. R. & Lambert, W. E. 1972. The effects of speech style and other attributes on teachers' attitudes toward pupils. *Language in Society*, 1, 131-42.
- Seligman, M. E. P. 1975. *Helplessness*. San Francisco.
- Schatz, M. & Gelman, R. 1973. *The Development of Communication Skills: modifications in the speech of young children as a function of listeners*. Society for Research in Child Development Monographs, 38.
- Simard, L., Taylor, D. M. & Giles, H. 1976. Attribution processes and interpersonal accommodation in a bilingual setting. *Language and Speech*, 19, 374-87.
- Smith, P. M., Giles, H. & Hewstone, M. 1979. Sociolinguistics: a social psychological perspective. In R. N. St Clair & H. Giles (eds.) *The Social and Psychological Contexts of Language*. Hillsdale, NJ.
- Smith, W. J. 1969. Messages of vertebrate communication. *Science*, 165, 145-50.
1977. *The Behaviour of Communicating: the ethological approach*. Cambridge, Mass.
- Storms, M. D. 1973. Videotape and the attribution process: reversing actors' and

- observers' points of view. *Journal of Personality and Social Psychology*, 27, 165-75.
- Tajfel, H. 1974. Social identity and intergroup behaviour. *Social Science Information*, 13, 65-93.
- (ed.) 1978. *Differentiation Between Social Groups: studies in the social psychology of intergroup relations*. London.
- Thielke, G. 1969. Geographic variation in bird vocalizations. In R. A. Hinde (ed.) *Bird Vocalizations: their relation to current problems in biology and psychology*. Cambridge.
- Thorpe, W. H. 1972. Vocal communication in birds. In R. A. Hinde (ed.) *Non-Verbal Communication*. Cambridge.
- Triandis, H. C. 1971. *Attitude and Attitude Change*. New York.
- Wilkinson, A. 1965. Spoken English. *Educational Review*, Supplement 17(2), Occasional Publication, no. 2.
- Williams, F. 1976. *Explorations of the Language Attitudes of Teachers*. Rowley, Mass.
- Wilson, E. O. 1975. *Sociobiology: the new synthesis*. Cambridge, Mass.
- Wish, M. & Kaplan, S. J. 1977. Toward an implicit theory of communication. *Sociometry*, 40, 234-46.