

## PARALINGUISTICS

DAVID CRYSTAL

Unlike many of the other topics covered by this volume, defining the starting-point for a discussion of paralinguage's currency and trendiness is not a difficult task. There has already been one well-organized attempt to summarise the state of the art, in this subject, with the 1962 Indiana University Conference on Paralinguistics and Kinesics, which was later published under the heading *Approaches to semiotics* (Sebeok, Hayes, and Bateson 1964). In retrospect, it is clear that this conference performed two major roles. First, it brought together the rather scattered material which had been published or mimeographed in the few years since the stimulating specification of the field by Trager, Smith, and their associates, and attempted to establish explicitly the general principles which seemed to underlie the various approaches. Secondly, in trying to define the subject, and to relate it to the other branches of semiotics, a number of promising lines of enquiry were suggested, and sometimes very specific research topics outlined. In these ways, the conference participants provided considerable bibliographical information, and presented a fairly complete picture of the pre-1960 period in paralinguistic studies. It therefore should not be too much of a simplification to consider current trends in paralinguage as running from the date of that conference to the present. Indeed, much of the research which has taken place over the past ten years has in fact been influenced, directly or indirectly, by the work of this conference.

In my view, there are three main trends in paralinguistic study in the sixties: (a) further development of the approach outlined mainly in Trager (1958), including its increasing application to other (non-linguistic) areas; (b) the development of other approaches not within the Trager-Smith framework; and (c), partly as a result of these first two trends, the development of considerable theoretical confusion. It is profitable to begin by suggesting some reasons for the latter.

Part of the reason for the confusion which surrounds paralinguistic study at the present time is certainly due to the way in which linguistics developed during the sixties. The early definitions of paralinguage, and the descriptions of paralinguistic effects, as we shall see, were made exclusively within the theoretical and descriptive framework provided by Trager and others (see Trager 1949, Trager and Smith 1951, Smith 1952, Trager 1958); but to follow their account of paralinguage, one had really to understand their whole approach to linguistic analysis. For example, it

was not possible to appreciate the basis of their distinction between some types of pitch movement and others (e.g. between overhigh/overlow pitch heights, which were considered paralinguistic, and the four pitch levels, which were phonemic, and hence linguistic) without understanding their 'emic' approach to prosodic features, and this in turn would have to be seen in the context of what in their view constituted 'linguistics proper' (see below). But in the sixties, the theoretical approach begun by Trager and Smith became largely of historical interest within linguistics (though certain aspects of their description continued to be used); and with this, the status of paralinguistic study became unclear. A number of factors contributed to this situation.

The absence of any reassessment of the theory in the light of other developments in the course of the past ten years is particularly important. When a theory (in this case, generative theory) is so much in the ascendant, any earlier linguistic approach which does not take cognizance of the claims of that theory, and attempt some comparison with its own claims, is necessarily going to distance itself from the eye of the majority of linguists and become, in effect, of historical interest. In the present case, it would have been beneficial for the development of paralinguistic study if Trager, or someone, had discussed it in the light (or darkness) of the competence/performance distinction, for its accountability in terms of this dichotomy is by no means clear. Or again, paralinguistic effect could usefully have been brought into the discussion of meaning-relations, in the sense of Fillmore (1968a), or of syntactic presuppositions (cf. Fillmore 1968b, Chomsky 1971), in view of the close relationship between paralanguage and intonation, and the relevance of these effects in determining certain types of structural contrast.<sup>1</sup> But as far as I am aware, such matters have not been raised, and the general differences between the views of Trager as presented in *The field of linguistics* or *The outline of English structure*, and generative grammar, have simply become more marked with the passage of time.

Trager and Smith themselves seem to have recognized the passing of an era, as the rather wistful foreword to the seventh, and final printing of the *Outline* (in 1966) indicates.<sup>2</sup> And neither they nor their colleagues have answered in print the

<sup>1</sup> The application of case grammar in the University of Edinburgh (Dept. of Child Life and Health) project on language acquisition allows for paralinguistic features in the interpretation of utterances: 'an utterance needs to be interpreted before it may be categorised, and interpretation may depend on the syntax and semantics of the utterance, on its prosody, on its co-text (discourse relations), or on extralinguistic information'. Paralinguistic features are in fact specifically mentioned in the presyntactic section of their analysis. (Information from a preliminary draft of an Appendix outlining their descriptive apparatus, May, 1968.)

<sup>2</sup> 'The hoped-for writing of a completely revised *English structure* has not come to pass, but a considerable amount of progress has been made and the results of this research is beginning to appear now in various places. Consequently, the sixth printing being exhausted, it has been decided to make this final printing of the *Outline of English structure*, to meet the continued demand for copies. But users are urged to remember the original date of publication, to search out the comparatively few publications that have appeared since then which stem from the



fairly steady flow of criticism which has been levelled at their approach over the past twenty years (e.g. by Bolinger [1949, 1951], Stankiewicz [see Sebeok, Hayes, and Bateson 1964: 265-7], Crystal and Quirk [1964] or Lieberman [1965]).<sup>3</sup> Perhaps part of the reason for the failure to defend the approach lay in its pioneering status, which seemed to generate a certain complacency over theoretical matters. Markel's comment at the Indiana Conference is indicative of this, and other examples of the same attitude can easily be collected: 'I think we will find, if we go over the list, that everything we want to call paralanguage is covered by Trager's system. We would also find those things that are not covered are not paralanguage; they are psycholinguistics or metalinguistics.' Trager himself takes a more reasonable view of the limitations of his approach (as the foreword quoted in fn. 2 suggests), referring to it only as a 'guide to observation' (1964: 22); but one would never guess this from the subsequent applications of his approximation by others in such fields as psychotherapy or anthropology, where the completeness of the description and the adequacy of the underlying theory is assumed. Trager's 1958 paper is however a first approximation towards a description, not a theory. It is not a 'system' in any theoretical sense (cf. Duncan 1969: 119), but rather an inventory and notation of effects made on fairly ad hoc principles.

There were other reasons for a restricted interest in paralinguistic studies amongst linguists in the sixties, to the extent that it is given no mention at all in such standard textbooks as Gleason (1961), Robins (1964), Hall (1964), Lyons (1968) or Malmberg (1968). The link with semiotics, for instance, has in a way been a hindrance as well as a help, in that its description along with the relatively indiscrete and unstructured non-vocal modes of communication has tended to minimize attention to any features of a more clearly 'linguistic' character that it might display. And the almost exclusive emphasis on paralanguage's affective function was doubtless a further factor which made many linguists feel that this was not an area which it was of importance to investigate. Most linguists were — and are — of the opinion that paralanguage is at best of marginal significance to linguistics, and equally well or more appropriately studied by other disciplines. The 'marginal' view is of course reinforced by the (rather unfortunate) terms used. Labels like 'para'language (cf. 'supra'segmental) reflect a theoretical viewpoint which sees effects of this kind as 'additional' — as indeed does the classification of paralanguage as a related art/science in this volume.<sup>4</sup> It is by no means easy to wriggle out of this terminological straightjacket in order to argue a more central linguistic view of these phenomena,

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same analytical foundation, and to use the book's conclusions not as the final word on anything but as points of departure for further analyses.'

<sup>3</sup> Trager's (1964) reaction to Crystal (1963) simply reasserts his original position, and does little more than clarify the extent of the difference between the two positions.

<sup>4</sup> Cf. such definitions of 'prosodic features' as Carrell and Tiffany's (1960: 260): 'the variables which add the "plus" values to communication . . .'.



but it is important to try; and one of the major trends in paralinguistic study in the sixties has been to present this alternative.<sup>5</sup>

Paralanguage was of course a marginal field for Trager too, but at least there its relationship with aspects of language which were considered more central was fairly explicit, and the techniques of classification and description were modelled on familiar linguistic lines. The term 'paralanguage' filled a slot in Trager's over-all descriptive framework, entering into the definition of the whole, and receiving its own definition and status from its relationships with other categories of the theory. And once the parent-theory came to be considered inadequate as a view of language, then necessarily paralanguage's status became unclear. The mid-sixties saw the retention and development of many of the *descriptive* insights of the approach, but with less and less reference being made to the theoretical principles which had earlier been established to account for them. The development of paralinguistic ideas within semiotics, and their application to such fields as psychotherapy, anthropology, or language teaching, was almost entirely a descriptive development, which was of course welcomed by scholars from these fields, who had lacked any means of formalizing these features of behavior hitherto. Similarly, the Trager/Smith description of phonology, and the accompanying notation, continued to be used as a basis for teaching about English and about linguistics in many influential textbooks (e.g. Gleason 1961), and has been given a new lease on life by Chomsky and Halle (1968). But exposition and examination of the theoretical basis of the description has not taken place during this time. One thus finds the development of a situation in which a widely used descriptive framework rests on a largely implicit theoretical foundation; and in the absence of analytic criteria being made explicit, one naturally finds arbitrary descriptive decisions, ambiguous cases being forced into one or another of the set of choices provided by the framework, and, following on this, inconsistency in the use of terms by various scholars.

'Paralanguage' itself, as a term, was particularly affected by the lack of any explicit theoretical foundation. In the mid-sixties, one finds an increasing number of references to the 'language and paralanguage' of a community, without further comment — as if the latter were in some way a reality which existed independently of one's specific approach to language.<sup>6</sup> Scholars of radically different theoretical

<sup>5</sup> The fallacy of assuming that those areas of language that one's available linguistic techniques cannot handle are therefore less important was stressed by Birdwhistell in a paper in 1959: 'It is all too easy to assume that there is in any social interchange a *central*, a *primary* or a *real* meaning which is only modified by a redundant surround . . . Our temptation so to classify certain aspects of a transaction as the central message and other aspects serving only as modifiers rests upon untested assumptions about communication.'

<sup>6</sup> Cf. Abercrombie (1968 : 55): 'the term paralanguage . . . seems to me potentially misleading: it can give the impression that, because there exists a (more or less) homogeneous entity called *language*, there must be, existing beside it, a comparably homogeneous entity called *paralanguage*. I believe this is not so . . . These non-verbal, though conversational, activities to which the word paralanguage refers are far too diverse, too little codified, too uninvestigated, and too insufficiently understood, to be given the air of unity which a noun confers on them.'



persuasions, who had cause to refer to paralanguage, would refer to Trager (1958) and assume that the conceptual relationship between that paper and their own approaches was obvious. Significantly, the number of references to Hill's brief remarks (1958:408-9) increases during this period — which is significant, since paralanguage for Hill subsumed kinesics, an extension of the term which most of the early workers in the field did not intend, and which is still very much a minority view. Thus, while the existence and relevance of paralinguistic effects has been recognized by many scholars in various disciplines, in the absence of any theoretical nucleus to provide a baseline for comparing and assessing modifications and extensions in the use of terms, a multiplicity of definitions and characterizations of paralanguage have developed, and produced a general state of confusion. In trying to classify some of these differences, I shall concentrate on those papers which explicitly refer to their subject-matter as falling under the heading of paralanguage. There are of course other studies which deal with similar effects, though not labelling them 'paralinguistic', and I shall refer to these in passing later.<sup>7</sup>

A preliminary point which has to be made is to indicate the quite remarkable range of subject-matter which is allowed under the heading of paralanguage. In the process of accumulating information for this paper, I wrote to a number of scholars asking them what work, if any, they were doing within this field. The term 'paralanguage' was deliberately not defined in my letter. Excluding those who expressed uncertainty as to whether their work did fall under this heading or not, there was still considerable variability in interpretation. All of the following were suggested: animal vocalization (or some aspect of it), memory restrictions on language, recall ability for language, utterance length, literary analysis, environmental restrictions on language use (accounting for such matters as word or phoneme frequency differences in social groups), glossolalia, and emotional expression in general language disturbance — in effect, a fair proportion of sociolinguistics and psycholinguistics. These were, however, marginal interpretations of paralanguage, compared with the senses classified below, which I would consider to be the most widespread and influential uses of the term. The fact that there are seven distinct 'basic' senses, of course, simply indicates the distance this subject has to travel before its claims to scientificness can be taken seriously. I shall illustrate these senses in terms of the increasing restrictedness of the phenomena allowed in under the heading of paralanguage.

<sup>7</sup> For general coverage of this field and related areas in the sixties, see Birdwhistell (1961), Barbara (1963), Ostwald (1963), Kramer (1963, 1964), the papers by La Barre, Hayes, and Mahl and Schulze in Sebeok, Hayes and Bateson (1964), Crystal and Quirk (1964: chapter 2), Austin (1965, in press), Diebold (1965), Ekman (1965), Crystal (1966, 1969a), Egorov (1967), Abercrombie (1967:chapter 6), Weakland (1967), Duncan (1969), Vetter (1969), Markel (1969b), and the papers by Bateson and Hockett in McQuown (in press). M. R. Key, of the University of California, is engaged in the compilation of a collection of papers within the field of paralinguistics; J. Laver and S. Hutcheson of the University of Edinburgh have also edited a collection of readings in which paralanguage figures prominently (*Communication in face-to-face interaction*, Penguin, 1972).



1. *Including non-human as well as human vocalization.* Austin's (in press) 'sound-signal systems' are illustrated from various animal species as well as man, and referred to as paralinguistic. Abercrombie (1968:56) restricts the term to human behavior, but implies a parallel with animal communication. Hockett (1960) refers to paralinguistic phenomena in his discussion of animal communication and the origin of speech, but it is unclear whether the term should be construed in a purely 'human' sense. Increased study of human paralinguistic over the past few years has, however, shown more rather than less difference between animal species and man in this area. There is little suggestion in animal communication of the 'systems' of paralinguistic effects postulated for man (see below); nor is there any comparison with the number and complexity of the phonetic variables which enter into the definition of human paralinguistic effects, and the nature of the semantic contrasts which they expound. The few broad similarities which do exist seem trivial by comparison.

2. *Including non-vocal as well as vocal features of human communication.* This sense is the one normally implied by the use of the term 'non-verbal' in, e.g., social psychology. Specifically, kinesics is brought under the heading of paralinguistic. This is an influential sense, as it is the one used by Hill (1958:408-9); and Abercrombie has given some reasons for his use of the term in this way in his 1968 paper (p. 56). But, as Hayes suggested, in discussion at the Indiana Conference (see Sebeok, Hayes, and Bateson 1964:153), this is a potentially confusing sense — and it is one which the title of the Conference carefully avoided. Despite the attempt to foist onto kinesics essentially linguistic categories, it is highly unlikely that kinesic behavior has sufficient structural complexity, discreteness, or semantic organization to warrant its analysis in the same terms as linguistic behavior; and spurious terminological identity is best avoided.

3. *Including all non-segmental ('suprasegmental') features and some segmental ones.*<sup>8</sup> In this sense, Smith's vocal identifiers (1952), e.g. 'uh-uh', or Trager's vocal segregates (1958), including hesitation features, amongst other things, are allowed under the heading of paralinguistic. Any segmental utterance not having the normal

<sup>8</sup> The generally held distinction between segmental and non-segmental phonology is retained as a framework for discussion in this paper. Segmental phonology is defined purely in terms of vowels, consonants, and their combinatorial properties. Non-segmental phonology comprises all contrastive sound-effects which have an essentially variable relationship to the segmental or lexical component of utterance, and which are not describable with reference to single segments (except insofar as single segments can be exponents of syllables); specifically, these are effects which operate continuously over a stretch of utterance, minimally one syllable (as in a pitch contour), or which are specified in terms of a number of segments, some adjacent, some not, all of which are affected by a single 'setting' or configuration of the vocal organs, to produce a single perceptual impression and a single semantic interpretation (e.g. labialization, velarization). 'Suprasegmental' features, in the sense of Trager, Smith, and others, thus comprise one sub-set of the totality of non-segmental features of a language. 'Intonation', and 'paralinguistic', would be defined with reference to other sub-sets. It is not the purpose of this paper to make any terminological decisions as to how non-segmental phonology may best be compartmentalized, however.



phonemic structure of a language (e.g. [ɹ] in English) is usually included. This is an unhelpful sense, it seems to me, as it is using the term 'paralanguage' in a catch-all, negative way, i.e. for every vocal effect which *cannot* be accounted for in other, previously defined, more central (in some sense) linguistic categories. In fact, the boundary-line between the more generally accepted paralinguistic features (in the sense of 4-6 below) and these segmental vocalizations is unclear, because of their functional overlap: durational variations which are non-segmental require reference to silence as a structural marker; but silence is linear (used sequentially and not concomitantly with segmental (verbal) utterance), and can also be used as an exponent of hesitation; hesitation, however, can be vocalized segmentally (cf. Blankenship and Kay [1964] and footnote 14 below); and once this is allowed in, then a wide range of formally similar utterances can equally well be called paralinguistic. But any such extension produces some terminologically bizarre situations, reflecting a conceptual confusion: for example, a segregate uttered on overhigh pitch would be a paralinguistic feature varied paralinguistically. It would seem to be clearer, as well as more consistent, to restrict paralanguage to the non-segmental component of utterance; though even here there are differences of opinion as to how much should be included under this heading, as the next three senses show.

4. *Including voice quality as well as (all or most) non-segmental features.* The distinction between voice quality — in the sense of a permanently present background person-identifying vocal characteristic — and language is generally accepted in some form or other within linguistics, though the terminology for the former varies (e.g. 'timbre', 'voice set', 'personal articulatory setting').<sup>9</sup> Voice quality is considered idiosyncratic, biologically controlled, irrelevant to the semantic interpretation of the message; language is considered to be shared, culturally controlled, the basis of semantic interpretation.<sup>10</sup> Paralanguage subsumes voice quality in e.g. Cammack and Van Buren (1967:7), where it is defined as 'variations in voice quality, tempo, register, and volume';<sup>11</sup> or Bronstein and Jacoby (1967:83), where it is characterized as 'special qualities of voice or special changes in the tempo or

<sup>9</sup> See, for example, Abercrombie (1967:91), Laver (1968), and other references there. It is not the purpose of this paper to survey research into voice quality; but insofar as paralinguistic analysis presupposes an ability to distinguish voice quality from other effects, then some awareness of current research in this area will clearly be helpful. Some recent papers on speaker identity, norms of articulation, etc. are the following: Fónagy and Magdics (1960), Kersta (1962), Siertsema (1962), Hargreaves and Starkweather (1963), Berger (1964), Floyd (1964), Voiers (1964), Akiyama and Yumoto (1965), Han (1966), Janota (1967) and Laver (1968). Special emphasis on the physical analysis of voice quality (or some aspect of it) may be found in: Black (1961), Bowler (1964), Garvin and Ladefoged (1963), Laver (1964, 1967), and Wendahl (1966). A review of the literature, and a discussion of its relevance to non-segmental phonology is to be found in Crystal (1969a).

<sup>10</sup> For phenomena which might be considered as falling in between these alternatives, see the discussion on sociolinguistic variation and paralanguage at the end of this paper.

<sup>11</sup> They further define it as 'all phenomena of speech that are not language', defining language as 'the phonological, morphological, and grammatical subsystems, together with the peripheral semantic and phonetic effects'.



in the loudness or softness that may accompany our speaking'.<sup>12</sup> Halliday, McIntosh, and Stevens (1964:96) seem to *identify* paralanguage with voice quality ('features, such as voice quality and handwriting, which do not carry formal contrasts'). Duncan (1969:118) also includes speech non-fluencies (defined as uncontrolled vocal effects) as paralanguage, and studies paralinguistic behavior in psychotherapy interaction, where the distinction between controlled, normal behavior and its opposite ceases to be relevant for any definition of the term (cf. Rubenstein and Aborn [1960] for an interpretation in terms of language disturbance). However, the theoretical importance of distinguishing between controlled, contrastive communicative behavior and uncontrolled, non-contrastive behavior within a group is so central that there seems nothing to be gained by putting them both under the same label.

5. *Including only non-segmental features, but excluding prosodic phonemes and voice quality.* This is the dominant sense of the term, and the one which will be used in the rest of this paper, unless stated otherwise. In this view, the pitch, stress, and juncture phonemes are considered linguistic; other functions of pitch, loudness, and duration, and any other suprasegmental effects, are considered paralinguistic. Markel (1965) defines paralanguage as the 'non-phonemic' aspects of speech; Duncan, Rosenberg, and Finkelstein (1969) say, for example, 'paralinguistic intensity and pitch would be transcribed when these variables in speech exceed the range of variation necessary for conveying phonemic stress and pitch'; Austin (in press) talks of 'the signal system of the nonarticulated vocal tract'. Ostwald (1964: 17), however, seems to allow intonation into his definition of 'paralinguistic acoustic cues', when he illustrates these by reference to 'variously intoned forms of "oh" and the nuances which support or belie overt meaning of words'. Scholars not working within a framework of prosodic phonemes either tend to call everything non-segmental paralinguistic, or (more often) talk about 'intonation and paralanguage'.<sup>13</sup> The distinction between phonemic and non-phonemic aspects of non-segmental phonology is of crucial importance in assessing paralinguistic studies; consequently it will be discussed further below.

<sup>12</sup> 'Qualities' here is not in Trager's sense, but is more like Abercrombie's (1967:91), as Bronstein and Jacoby's discussion in chapter 2 makes clear. The confusion this particular term can cause can also be seen in, for example, the title of Markel, Meisels and Houck (1964), "Judging personality from voice quality". Here, 'voice quality' is being used in Trager's sense; but the research they refer to in the thirties, at the beginning of their paper, did not use the term in this way, but in the more general sense referred to at the beginning of paragraph 4 above. It would certainly help matters if Trager's voice qualities were always referred to in the plural.

<sup>13</sup> The distinction between intonation and paralanguage is however blurred in Abercrombie (1967:130), where paralinguistic phenomena are defined as 'features of voice dynamics such as continuity [namely, incidence of pauses], variation in loudness, in tempo, and in tessitura' (namely, a range of notes within which the pitch fluctuation of a speaker's voice falls during normal circumstances). Intonation is part of paralanguage for Herriott (1969:14), as are gesture and most other non-segmental features (cf. pp. 46-7, 151).



6. *Including only a sub-set of non-segmental features other than prosodic phenomena and voice quality.* Paralinguistic features here are defined with reference to a description of non-segmental phonology for a particular language to produce a very restricted sense for the term, e.g. Crystal and Quirk (1964) and the work influenced by them. However, a requirement of any theory of paralinguistic phenomena, in whatever sense, is that they be defined with reference to phonetic criteria of a general nature (types of articulatory movement, etc.), and not solely from (in this case) English. The paralinguistic systems of Crystal and Quirk ultimately have to be seen within a more general framework, to allow for cross-cultural comparisons; and it would seem more useful to phrase one's definition of paralanguage in these terms to begin with.<sup>14</sup>

7. *Functional definitions.* Paralanguage does not seem to have ever been defined purely in functional terms, but there is usually a functional component in the definitions which are given. This normally amounts to no more than saying that these features are non-linguistic or extra-linguistic (cf. Abercrombie's definition (1968:55) as 'non-linguistic elements in conversation', or Cammack and Van Buren's (1967:7) as 'all phenomena of speech [that] are not language') — approaches which would be vacuous without any explicit definition of language. More specifically and positively, paralinguistic effects are said to be either expressive of emotions or personality (which is the standard account), or a means of identification of social groups (e.g. Lerman and Damsté 1969) or language varieties (e.g. Weeks 1970). Lotz's useful article on the structure of speech (1963) uses the term 'paraphonetic' (p. 23) to refer to a channel of speech which gives information about 'emotion, attitude, etc.', though it is not entirely clear to what extent there is an identity with another of his categories mentioned in the same paper, the 'pragmatic' features of speech. Reference to a language independent theory of emotion, personality, or social groups is usually absent, however, and the useful work in this area is limited to experimental analyses of a fairly restricted order (see below). Suggestions as to paralanguage having any kind of structural or denotative function are on the whole absent — though if paralinguistic effects can enter into the expone- nence of certain types of intonation contrast (as stated in Charleston 1960: chap. 1 and Crystal 1969:137), then a potential structural function must be recognized.

<sup>14</sup> Also under section 6 one might list the research into pausal phenomena, which has increased in quantity over the past ten years, and which is regularly considered to be paralinguistic. A critical account of this work is given in Crystal (1969a: 169-70) and Duncan (1969), and a general review of the research at University College London under Goldman-Eisler may be found in her 1968 book. Other recent papers are the following: Barik (1968), Bernstein (1962), Black, et al. (1966), Blankenship and Kay (1964), Boomer (1963, 1965), Boomer and Dittman (1962, 1964), Dittman and Llewellyn (1967, 1968), Cook (1969), Goldman-Eisler (1961a-e, 1967, 1968), Grišina (1969), Henderson, Goldman-Eisler and Skarbek (1965a and b, 1966), Lay and Burron (1968), Levin and Silverman (1965), Levin, Silverman and Ford (1967), Livant (1963), Martin (1967, 1970), Martin and Strange (1968a and b), Matarazzo, et al. (1968), Penge (1970), Simkins (1963), Suci (1967), Tannenbaum, Williams and Hillier (1965), and Tannenbaum, Williams and Wood (1967).



The existence of this degree of terminological disunity among scholars, and the absence of any generally recognized set of criteria for paralinguistic analysis, thus means that the most useful research is that which either explicitly relates its hypotheses to a specific model of paralinguistic behavior (such as Trager's), or which concentrates on obtaining experimental evidence for some quite specific hypothesis, the terms of which are given a clear but ad hoc definition. The work of Duncan (1965, 1969) and others in psychotherapy interaction and related matters provides an illustration of this, as his investigations take well-recognized paralinguistic effects and examine their function in relation to clearly defined, specific social tasks. Duncan and Rosenthal (1968) provide evidence to suggest that the way in which an experimenter reads his instructions to subjects can be a determinant of their responses to an experimental procedure; and a subsequent and more rigorous experiment shows the relevance of paralanguage to the concept of experimenter bias more clearly (Duncan, Rosenberg, and Finkelstein 1969). Duncan, Rice, and Butler (1968) show that certain paralinguistic criteria are able to differentiate therapist behavior in peak and poor interaction hours. In a different, but comparably specific connection, Davy and Quirk (1969) show that paralinguistic behavior is of relevance in assessing informants' judgments about the acceptability or otherwise of syntactic structure. Experimental work on the whole is lacking, however, and few of the projects which are currently examining aspects of paralinguistic behavior on a larger scale, as part of a broader communicational framework, have as yet reported anything other than their first speculations: cf. Blasdel and Aram (1969) in relation to first language learning; Austin (in press), who relates his study to animal communication and other non-verbal activities; Lomax and others (1968), in relation to the cross-cultural study of song and dance style (cantometrics, choreometrics); the Tracor project (Pendergraft and Ziehe 1967) on developing a programming system for semiotics; and Ostwald (1963) in connection with psychotherapy interaction.

There is a marked lack of descriptive studies. English tends to be the language of illustration still, with very often the same examples cited over and over again. Novelty is provided by Austin's contribution (1965, in press), by Vanderslice and Pierson (1967) on Hawaiian English (their term 'prosodic' subsumes some of what other scholars would call paralinguistic), by Lawrence (1967) on some aspects of Texan English, by Crystal and Davy (1969), who make frequent reference to paralinguistic effect in their study of occupational and other varieties of English, by Pellowe (1970) on Tyneside English, and by the work into English varieties by Osmers (1967), Davy (1968), Benyon (1969), and Kempson (1969). There is little on other languages, either explicitly or implicitly, under the heading of paralanguage, apart from Cammack and Van Buren's illuminating cross-cultural study of aspects of English and Japanese (1967), and Black, et al. (1966). Lawendowski (1970), using a Pittenger and Smith (1957) framework, makes some reference to Polish; and Fónagy and Magdics (1963) refer to Hungarian. Crystal (1971) has surveyed



the sociolinguistic literature from this point of view, and suggests that paralinguistic effect is of primary importance in the identification of several social categories (specifically age, sex, status, occupation, and speech function). He also points out that relatively little attention has been paid to this in the descriptive linguistic or anthropological literature. There are, fortunately, a few exceptions to this statement.

An important publication is the collection of papers edited by Gumperz and Hymes (1964), and, within this, Hymes's emphasis on the need to develop an 'ethnography of speaking', in which he refers to the need for semiotic and related studies. Many of the contributors to this volume underline his point. Albert, for example (1964), refers to the training in tone of voice and its modulation, *inter alia*, for men in Burundi, and shows its relevance to age, sex, kinship, and other relationships, referring to certain highly conventionalized speech patterns such as those used in visiting formulae, petitioning situations, rules of precedence, and respect patterns. Distinctions are made, many of them paralinguistic, according to the social role of those present, the degree of formality (especially relating to whether the situation is public or private), and the objectives of the speech situation. The term 'paralanguage' is not however used. John Boman Adams mentions the importance of stereotyped pitch patterns and tones of voice in order to establish status between participants in one dialect of Egyptian (1957:226):

the villager is ordinarily conditioned to give and receive communications whose content is so stereotyped that he pays little attention to it other than to note that it conforms to the norms of traditional utterance and that the speaker is socially acceptable . . . These statuses are often established in the exchange of stereotyped expressions of esteem and concern that are obligatory whenever two or more persons meet. Since the same expressions are always uttered, interpretations of 'friendliness' or 'enmity' depend upon meanings conveyed by subtle qualities of tone, pitch, and melody. These qualities, in their different modes, are interpretable to one who is acquainted with their culturally defined meanings.

In Cayuvava, a language of Bolivia, there is a set of nasal phonemes, but nasalization also occurs with 'honorific' stylistic function (cf. Key 1967:19): an individual of lower social or economic status addresses one of higher rank with a prominence of nasalization for all vowels of the utterance; and similarly with a woman being polite to her husband, or a man asking a favor. According to Ferguson (in Sebeok, Hayes, and Bateson 1964:274), velarization in Arabic indicates, amongst other things, masculinity, whereas avoidance of velarization indicates the opposite. Effeminacy in English seems to be partly a segmental, partly a paralinguistic matter (cf. Crystal 1971:189, Lerman and Damsté 1969). According to Garbell (1965), many female speakers over 70 of Urmi, a dialect spoken by Jews in N. Persian Azerbaijan, replace practically all 'plain' words by 'flat' words, i.e. words consisting of 'flat' phones, which in Garbell's metalanguage means such features as the strong velarization of all oral consonants, the articulation of all labials with marked lip

protrusion and rounding, and pharyngealization. Kelkar (1964), under the heading of 'paraphonology', refers to the extended pitch and loudness characteristics, and the relatively slow and regular speed of baby-talk, in Marathi, and mentions certain general vocal effects, such as pouting and palatalization (cf. also Ferguson 1964). In connection with distinguishing genres of speaking ('speech functions'), Jacobs (1956:127) emphasises the relevance of 'stylized devices such as connectives, pauses, and vocal mannerisms'; and paralinguistic effects are indeed quite often referred to in this area. For example, Devereux (1949:269) refers to the staccato, rapid manner of delivery of a traditional, memorized text in Mohave, which the speakers find very difficult to slow down (sometimes impossible, when the utterance is in front of other people from the same tribe). Samarin (1968) refers in passing to paralanguage in Gbeya insults. Paralinguistic variations in modes of recitation (e.g. of prayers, formulae) are referred to by Fischer (1966:180-1), Conwell and Juilland (1963:20), West (1962:90), and Crystal (1971:195). Fuller discussion of conversational genres referring to paralinguistic effects is found in Conklin (1959) and Migliazza and Grimes (1961). Conklin studies ways of modifying normal speech-patterns for purposes of entertainment or concealment (most frequently as part of voice disguise in customary courting behavior) in Hanunóo. Migliazza and Grimes differentiate between 'one-sided' and 'balanced' types of conversation in Shiriana (1961:36-7). They illustrate the former by reference to 'myths' and 'narratives', and their distinction is worth quoting because of its detail:

Phonologically a myth is characterized by an initial period in which only *lento* pause groups occur, a body in which combinations of *lento* and *andante* pause groups occur, many of which contain ideophonic feet,<sup>15</sup> and a termination in which one or two *lento* pause groups occur, with extra length on the vowel of the final stressed syllable in the contour and at times a voiced breath intake after the end of the final pause group . . . four pitch levels [adequate for normal speech] do not handle the pitch patterns, which range over a wide area and move largely in long glissandos.

As an example of 'balanced conversation', the authors cite the BARGAINING DIALOGUE, which is 'delivered at night by a trading partner from one village to his partner from another in the presence of all hosts and members of a trading party, in which each partner's speech has the general characteristics of a monologue, except that the intonation is replaced by a chant form' (p. 38). They also mention the relevance of crescendo, decrescendo, and laryngealization for the definition of certain speech styles.

It should be emphasized that most fieldworkers, even in linguistics, do not make a systematic survey of paralinguistic effect a routine part of their investigations. People still seem unaware of the KIND of phenomenon which they are liable to come

<sup>15</sup> An ideophonic foot is a highly conventionalized effect, referring to a rhythm unit 'accompanied either by an anomalous pitch pattern . . . or by a voice quality that stands out in contrast with that of the rest of the utterance (usually laryngealized or breathy in relation to the overall voice quality)' (p. 35). 'Lento' and 'andante' are differentiated partly in terms of speed, and partly in terms of the number of contours involved.



into contact with in this area of communicative activity, how they should describe what they hear, or how they should integrate this with other aspects of any linguistic description they may be making. On the whole, the above references are exceptional, and few of them actually use the term 'paralanguage'. Moreover, they are not readily comparable, as, in the absence of any generally-used theory, there is no guarantee that different scholars are using such terms as 'tone of voice' in the same way (it is often obvious that they are not<sup>16</sup>); there have been few attempts to transcribe utterances in order to indicate the frequency of occurrence and distribution of specific effects; and there have been certain methodological weaknesses (e.g. a failure to distinguish clearly between voice quality and linguistic effect — a point I shall discuss further below — or to provide information about sampling of data or selection of informants). The sporadic, impressionistic nature of many of the above accounts is to be regretted, but the state of affairs is probably unavoidable at the present time, in view of the amorphous theoretical situation which characterizes fundamental research. There is after all little point in accumulating quantities of comparative detail which cannot, in the absence of an explicit theoretical framework, be compared.

Within paralinguistics, under the heading of the linguistic communication of emotion, there has been a considerable amount of discussion and experimentation, but once again, in the absence of consistent theoretical distinctions between such terms as 'controlled' and 'uncontrolled' (behavior), 'emotion' and 'personality', 'trait' and 'stereotype', it is often difficult to compare the results of different groups. General reviews of this area are to be found in: Charleston (1960), Starkweather (1961), Dittman and Wynne (1961), Soskin and Kauffman (1961), Sychra (1962), Fónagy and Magdics (1963), Knapp (1963, especially Mahl's contribution), Davitz (1964), and Shapiro (1968). Kramer (1963) is a widely read overview of work on 'nonverbal' properties of speech on the one hand, and personality and emotion characteristics on the other. Crystal (1969a:62-77) provides another critique on similar lines. On the whole, experimental work has been geared towards determining the extent to which vocal effects are indices of different physical or personality traits or types as viewed 'from the outside', by obtaining reactions of sets of judges to stimuli. The work of Markel and others is of particular importance here. Papers by Markel, Meisels, and Houck (1964) and others have shown very clearly that specific impressions of a speaker's physical characteristics and demeanor are determined by qualities of voice (in Trager's [1958] sense). Markel, Eisler, and Reese (1967) have indicated that regional dialect features in voice quality are significant in judging personality; and in a more comprehensive approach, Markel (1969a) finds further evidence to suggest that a formal profile of voice qualities is an index of personality types. The link between emotional and personality states is suggested in Costanzo, Markel, and Costanzo (1969), where voice quality pro-

<sup>16</sup> Few people would make a systematic distinction between 'tone', 'pitch', and 'melody', as in the quotation from Adams above, for example.

files are viewed as representing modes of interpersonal orientation, which they interpret as constituting a bridge between personality dispositions and emotional states. Recent additions to the literature reviewed by Kramer are Ptacek and Sander (1966) on age recognition from the voice; Schwartz and Rine (1968, but cf. Schwartz 1968 also) on sex recognition from aspects of whispered speech; and Lay and Burron (1968) on hesitancy evaluation. Beier (1969) and others are working on the evaluation of cues (one class of which are paralinguistic in character) in judging emotional meaning, and showing that there is consistency in rating. Markel (1965) provides clear evidence of the reliability of rating some types of paralinguistic features.

Effects which would be classified as paralinguistic have rarely been referred to in studies of first language acquisition, which is hardly surprising, in view of the methodological difficulties of obtaining information in this area. The role of intonation in language acquisition has been discussed, however (see Crystal, 1969b, for a review of this topic), and in view of the integral relationship postulated between intonational and paralinguistic effects for the child, it is likely that the discussion will be broadened to take account of the latter. Crystal in fact argues that paralinguistic effects are among the first language-specific features discriminated and produced by the child (cf. also Weir 1966 and other references there, where it seems that other vocal effects as well as intonation were involved). Current research into cross-cultural comparison of children's vocalizations during the first year, to determine the point and nature of language-specific divergence, is being carried on by Crystal and others. Blasdell and Aram (1969) are investigating the kinesic, phonetic, and prosodic systems of the first language learner, though they are working with older children (15-30 months). Another survey into the development of language out of infant vocalizations is being carried on by Fargo (1967) and others. Discrimination of parameters of relevance for the identification of paralinguistic effects is studied (but only for children with reduced phonemic systems) by Bergendal and Söderpalm Talo (1969). Carlson and Anisfeld (1969) note various paralinguistic effects in their two-year-old subject. Brooks, Brandt, and Wiener (1969) study the responses of children from middle and low socioeconomic groups to verbal reinforcers communicated with and without tonal inflection (but some paralinguistic effects enter into the stimuli). Levin and Silverman (1965), and Levin, Silverman, and Ford (1967) have studied the varying incidence of hesitations in children's speech, relating it to such tasks as explanation and description. A detailed review of the literature is to be found in Crystal (1969c). It is clear from this that many research groups are investigating language acquisition situations where paralinguistic effects are relevant, but are not controlling for them or paying them sufficient attention.

A major departure from the American approaches to paralinguistic study (cf. the second trend cited on p. 265 above) came in the work of various British scholars in the early sixties, and provides the main source of theoretical comment on many of



the questions raised at the beginning of this paper. A comprehensive bibliographical picture may thus be helpful. Crystal (1963) is an attempt to introduce paralinguistic studies to an audience which on the whole (apart from Abercrombie and Catford) had ignored it. Various criticisms were made and expanded in Crystal and Quirk (1964), which is largely concerned with the formulation of analytic principles, the definition of phonetic parameters for the description of paralinguistic features, and the development of a fresh notation for them. Crystal (1969a) is an attempt to develop an analysis of intonation for English within the framework of a more general theory of non-segmental phonology. This book incorporates discussion of the linguistic status of paralanguage (originally to be found in Crystal 1966), and various experimental work (see Quirk and Crystal 1966, and Crystal's paper to the Xth International Congress of Linguists, 1967). Further illustration of the approach is to be found in Crystal and Davy (1969), where different varieties of English are analyzed in these terms, and a number of these researched at University College London (Osmers 1967, Davy 1968, Benyon 1969, Kempson 1969, Penge 1969). The approach is also being used in the Tyneside Dialect Survey at the University of Newcastle-upon-Tyne (see Pellowe 1970). There is a brief rejoinder to Crystal's original article in Trager (1964), and further comments on the points of difference are to be found in Rensky (1966) and André (1965, 1966). Further replies to the main criticisms which have been made of Trager's approach are so far lacking, but are expected.

The central question, which should have been raised years ago, and which has still no final answer, concerns the linguistic status of the vocal effects being labelled 'paralinguistic'. Trager's position is well-known, and is quite explicit, so I will not present it in detail here. As Trager says (1964: 23), 'the very essence of the analysis of paralanguage is in the recognition that paralanguage is NOT a part of language, and that therefore the statements about it are NOT linguistic statements'. This position follows naturally from the assumptions Trager holds: that linguistics proper concerns the analysis of phonological and morphological systems only (microlinguistics), pitch, stress, and juncture phonemes being recognized as part of this description (Trager 1949, Trager and Smith 1951). The arguments against this position hinge on the question of criteria: on what grounds is the distinction between emic and non-emic phonological features based, and why should the 'proper' subject-matter of linguistics be restricted to the former? These arguments are general ones, based on considerations of the nature of language as a whole. They assert that the microlinguistic view of language proper is an arbitrary preconception restricting one's view of other phenomena, which forces an analyst to make a binary 'yes/no' decision as to the status of certain features, where perhaps there is none, or where the analysis is of a 'more/less' kind. This point has been made in various places. Bazell (1954: 133) asked why phonemes should be the only criteria of relevance for intonation analysis, and his arguments apply a fortiori to paralanguage. Haas too (1957: 159) criticized the 'segmental principle' as being a major prejudice



in linguistics. (Cf. also Halliday 1961:252, 275, Crystal and Quirk 1964:36, Crystal 1969a: 186, Bolinger 1949 [and later discussion by him of 'gradience'], and Sebeok 1962:437-9 for a discussion of discreteness and gradience in relation to expressive language.) Stankiewicz also raised the question, at the Indiana Conference (Sebeok, Hayes, and Bateson 1964:266-7), but his point received no answer: 'It seems futile to approach language as a monolith and to exclude from it those phenomena which are not cut to the same pattern . . . The linguistic status of certain features which signal emotion cannot easily be decided, since they do not lend themselves to the kind of systematization that linguists are used to, nor are they easily correlated with other linguistic elements.'<sup>17</sup> He suggests there may be a 'fuzzy periphery' to language, which scholars are now describing more consistently and in 'somewhat different terms from the cognitive or discrete elements of language'; but he leaves as open questions 'the systematicity of the expressive devices and their relationship to the cognitive elements of the code' and the 'grading' of expressive components, as opposed to the 'discreteness' of phonemes and morphemes (p. 267). Crystal (1969a:190) also argues that there is no reason for judging non-segmental phonological effect by phonemic/morphemic criteria. 'The valuable discreteness of phonemic and morphemic definition, with their amenability to clear-cut substitutability tests of an either/or character, usually free from overlap, does not exclude the fact that there are parts of language which are not amenable to such treatment, but are more accurately and realistically covered by setting up scales of contrastivity, which are of a "more/less" character . . . There seems to be no real reason why these [i.e. prosodic and paralinguistic] features should be excluded from the field of linguistics proper, and why they should not be taken as wholly intralinguistic items, but of a different kind from phonemic and morphemic units, as these are normally understood.'

The assumption underlying this argument is that any vocal effect which can be shown to have a systematic, shared, contrastive communicational function is by definition part of the over-all soundsystem of a language, and thus linguistic. In an experimental situation, if the substitution of one vocal effect for another in an utterance would lead judges to consistently rate the two utterances thus produced as 'different' in meaning — and moreover different in the same respect — then these effects are linguistically contrastive. (For reliability in rating paralinguistic features, see Markel 1965.) This procedure is of course essentially the same as that used in traditional segmental phonology. But to restrict its application to segmental units only, or to a sub-set of the suprasegmental ones, is circular, in that any such restric-

<sup>17</sup> Cf. Newman (1946:172), whose 'expressive prosody . . . is not necessarily capable of the same type of systematisation as that which is applicable to usual kinds of morphemes'. Much of the trouble, it has been suggested (e.g. by Kramer 1963, Crystal 1967, 1969a), is due to the uncritical and unsystematic use of vague descriptive labels (e.g. 'harsh', 'precise') in attempting to define the meaning of paralinguistic effects; it is not the effects themselves which are unsystematic and ambiguous, but rather the labels used to refer to them. For an analysis using a large number of such labels, see Voiers (1964).



tion presupposes the very distinction between linguistic and non-linguistic units which it was the purpose of the substitution test to establish. The procedure has to be applied to ALL vocal effects in the first instance, without introducing naive assumptions taken from early theories of meaning (e.g. suggesting that there is a non-arbitrary distinction between 'intellectual' and 'emotional' information in communication). One then finds that there is certainly systematicity and discreteness in the paralinguistic area, though this is not as marked as in the case of intonation. It is therefore difficult to see what grounds there are for classifying some features of non-segmental phonology as phonemic (or linguistic), and some as non-phonemic (or extra-linguistic).<sup>18</sup> To avoid the arbitrariness implicit in this approach, then, it is suggested that a more appropriate model of the non-segmental sound system is to introduce the concept of a SCALE of linguisticness, ranging from 'most' to 'least' linguistic. At the 'most linguistic' polarity would be classified those features of utterance most readily describable in terms of closed systems of contrasts, which have a relatively clear phonetic definition, which display evidence of a hierarchical structure, and which are relatively easily integrated with other aspects of linguistic structure (particularly syntax), e.g. tone-unit boundaries, nuclear tone type and placement, and other 'prosodic' features (in the sense of Crystal 1969a). At the other, 'least linguistic' end would be placed those features of utterance which seem to have little potential for entering into systemic relationships, which are relatively indiscrete, and which have a relatively isolated function and little integrability with other aspects of language structure, e.g. breathy vocal effects in English — effects which are often confused with voice quality characteristics on first hearing. Vocal effects lacking any semantic force would then be considered non-linguistic, and would thus fall under the heading of either voice quality or physiological reflexes (such as coughing). It is, then, largely a terminological matter as to how parts of this scale are labelled: for a mixture of acoustic, linguistic, and historical reasons, it is usual to separate off the effects based on pitch, loudness, and duration, referring to these as prosodic features; but it is doubtful whether it is worth placing any great theoretical weight on such divisions.<sup>19</sup>

<sup>18</sup> In addition to the arguments claiming considerable identity between suprasegmental phonemes and paralinguistic effects in general, one should also remember the arguments against extending the concept of the phoneme to *any* non-segmental effects — which so far remain unanswered, though Bolinger's early strictures date back to 1949. The reasoning underlying these arguments is essentially the following: that if one examines the physical, structural, and semantic characteristics of vowel and consonant (i.e. segmental) phonemes, on the one hand, and such features as intonation (or, for that matter, paralinguistic) on the other, one finds so little in common that to use phonemic terminology to describe the latter is to considerably distort their linguistic identity. For further details, see Bolinger (1949, 1951) and Crystal (1969a : 196ff.).

<sup>19</sup> For these reasons, I doubt whether analyses of paralinguistic behavior in terms of a given pitch-phoneme framework can be valid (cf. Duncan 1969 : 134 and Duncan, Rice, and Butler 1968 : 569, who make reference to their location in phonemic clauses). In view of the arbitrariness of the distinction between suprasegmental phonemes and paralinguistic, it is not really surprising that paralinguistic should be 'closely coordinated' with intonation (cf. Duncan, Rosenberg, and Finkelstein 1969).

In a sense, the value of the above approach is not in the alternative analysis of paralinguage presented, as this might be totally misconceived, but rather in the attention it focusses on the need for analytic criteria to be made explicit. Far too much time has been spent on transcriptional matters and discovery procedures. Duncan (1969:119), for example, which is largely concerned with procedural matters, distinguishes three phases in research into non-verbal behavior: the development of a notation, the analysis of structures between the transcribed behaviors, and the relationships between these and external variables. But the notational contribution of linguistics to paralinguistic study is very much a superficial one, and it should not be stressed at the expense of matters of analysis (a situation curiously reminiscent of the emphases in early discussions of phonemics in the thirties). It is clear from the critical discussion in Crystal (1969a:75-7, 87-8) and elsewhere that there are a number of theoretical and methodological issues relevant to paralinguistic analysis which have hardly begun to be studied. Of particular importance is the need to develop a more sophisticated phonetic framework for the description of paralinguistic effects, in order to provide a more objective set of correlates for the notional categories of description that are regularly used. Lieberman and Michaels (1962) is one attempt to do this using acoustic criteria. Catford (1964) is another, using articulatory criteria: his study of phonation types is a preliminary survey of basic laryngeal activities in speech in terms of stricture-type and location, vocal-fold length, thickness and tension, upper larynx constriction, and vertical displacement of the larynx. It will also be important to correlate the phonetic 'basis' of paralinguistic effects with that of vowel and consonant phonemes. 'Secondary articulations' such as velarization, palatalization, and labialization are regularly cited in both phonemic and paralinguistic studies, but there does not seem to be any generally recognized means of integrating this information, and there is a basic lack of knowledge about the 'facts'. For example, does a language which uses velarization as a normal phonemic distinctive feature also allow paralinguistic velarization? To what extent are paralinguistic effects reactions against regular phonemic tendencies in a language (cf. Stankiewicz's remarks [1964:246] about the aversion of speakers of languages neighboring on Russian to the Russian feature of palatalization when it was introduced into speech, and similar examples)? Further empirical studies are clearly necessary, as the amount of data on which generalizations about paralinguage are based is extremely small (as mentioned above, largely restricted to English, and moreover to fairly abnormal varieties of English, such as psychotherapy interaction).<sup>20</sup>

Similarly, there is a need for a more broadly based view of the functional role of paralinguage and how it relates to non-linguistic effects. Functional definitions purely in terms of 'emotional' or 'affective' information are inadequate, as they do

<sup>20</sup> Blasdel (personal communication, 1969) is conducting a series of pilot studies on the acoustic characteristics of paralinguage in spontaneous conversation.



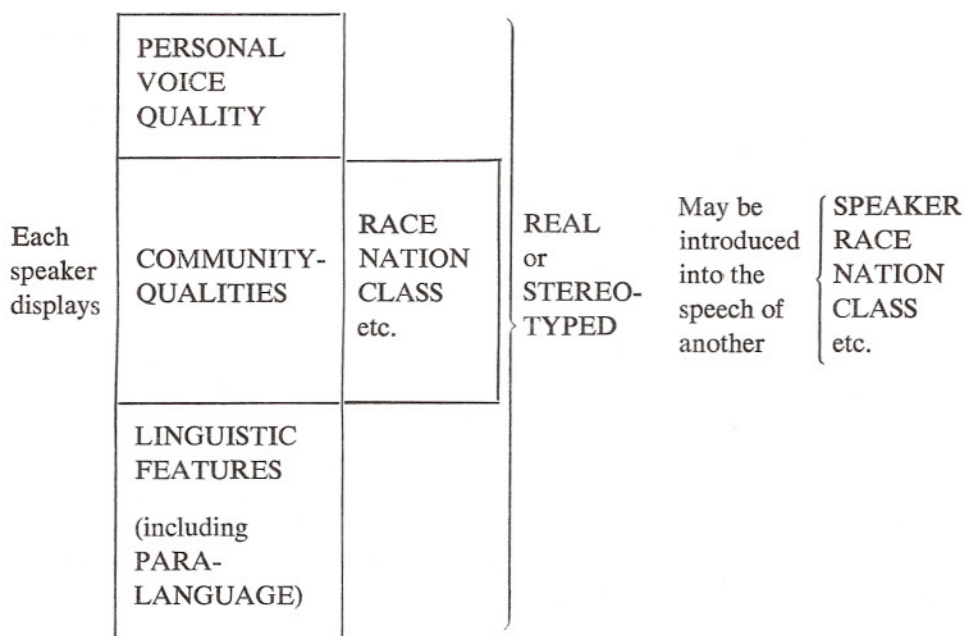
not recognize the possibility of a structural role for these phenomena,<sup>21</sup> and a social function for paralinguage is only occasionally (and vaguely) referred to (cf. Crystal 1969b). In the latter case, the most important task is to ensure that the levels of abstraction in any social model are clearly defined and related to the linguistic variables. The situation is far more complex than appears at first sight. A person, while speaking, apart from his permanently present self-identifying vocal characteristic (his VOICE QUALITY), simultaneously produces vocal effects which identify him as a member of a number of specific communities (e.g. belonging to a particular race, or nation, or class, or occupational group). Different sets of effects identify different communities, and each set may be said to form (in the absence of a better term) a COMMUNITY-QUALITY (e.g. British, upper-class, preacher, actor).<sup>22</sup> (The correlation between the various social abstractions and their corresponding linguistic ones, e.g. whether 'language' or 'dialect' best correlates with the concept of 'nation', need not concern us here.) The first point which has to be made is that the effects constituting a community-quality are not semantically contrastive within that community — for example, a working-class Yorkshire Englishman does not notice that any features of his voice are (a) English, (b) Yorkshire, or (c) working-class, as long as he is talking within his own community, i.e. to other working-class Yorkshire English people. The situation is complicated, however, by the fact that any of the community-qualities can be seen 'from outside', and some or all of the vocal effects from it used by speakers from outside the community in their speech, e.g. in telling a joke. All community-qualities may be affected in this way; and even an individual voice quality may be given an institutionalized role (e.g. 'he's talking like a Churchill'), though this is less common. Moreover, a community may respond collectively to another community, as in the case of people's reactions to the community-qualities of racial minority groups, or in the examples given by Stankiewicz (cf. above). A second complication is introduced by the fact that most people, not being phoneticians, get their facts wrong when they are attempting to imitate another community or individual, and instead of (or as well as) introducing vocal effects which are indeed there, produce imagined features ('stereotypes'). Often, in fact, the stereotyped features have more of an evocative effect than the real features (cf. 'You hardly sound like an American at all', and the like). Lastly, there is also the point that, while speaking, a person is using his language system with its normal range of contrasts, and this includes paralinguage. But each community may have its own paralinguistic features (analogous to regional dialect features in segmental phonology, syntax, etc.), and distinctions therefore have to be made between those paralinguistic features which belong to the language as a whole ('common-core'

<sup>21</sup> It is normal to talk of a grammatical function for intonation, but paralinguistic effects can expound intonational categories (e.g. whisper [cf. Trim 1967] or creaky voice), and this has to be allowed for.

<sup>22</sup> There is unfortunately no generally-agreed term for 'voice-quality of a community', hence the above coinage. Honikman's 'articulatory settings' (1964) might do, but the phenomena being discussed above should not be viewed as having a solely articulatory definition.

features, used by all speakers, whatever their class, occupation, etc.), and those features which identify specific sociolinguistic categories within the language.

We can summarise the set of socio-paralinguistic possibilities in the following way:



It is unlikely that the above outline covers the whole range of sociolinguistic variables involved, but at least the factors mentioned have to be distinguished and assessed. I am not of course suggesting that these factors are all thoroughly understood. It is by no means clear, for example, whether the contrastive use of community-qualities by another community is legitimately or usefully classifiable as paralinguistic, or whether it ought to be called something else. And in the absence of both data and a consistent theoretical approach on the part of either linguists or sociolinguists,<sup>23</sup> the questions can hardly be resolved at the present time. It is to be hoped, however, that the recognition of these irritating complications in paralinguistic study will act as a stimulus, and not as a deterrent, to subsequent fundamental research.

<sup>23</sup> Some discussion of these matters is to be found in Hammarström (1963, and in subsequent writings, including his 1967 paper to the Xth International Congress of Linguists): he distinguishes between 'idioprosodemes' (features of particular speakers), 'socioprosodemes' (features of particular groups within a society), and 'diaprosodemes' (features of groups of speakers from a particular geographical area). See also Webster and Kramer (1968), Christ (1964), and Cohen and Starkweather (1961).



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