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# New Perspectives for an Integrative Research of Nonverbal Systems[1]

In an attempt to best complement the other contributions in this section, this paper outlines the integrative, interdisciplinary approach to nonverbal communication, both theoretical and methodological, which has been developing in the course of my work in this area. The various aspects presented here are all essential components, often mutually generated and always revealing new perspectives within seemingly unrelated fields. Given the steady growth of nonverbal communication studies as a rich and unique field in itself, the fact that specific systems and situations are being carefully analyzed, but rather independently of other co-occurrent, contextual or conditioning activities, seems to amply justify this approach, which I have always sought since I was first confronted with verbal language as a communicative tool. For I very soon realized that although words and their closest modifying features formed the core of most human communication situations, the total message was actually conveyed through their co-structuration with systems other than verbal. The resulting revision of the very concept of language – differing at any rate among disciplines – revealed such a complex mesh of consciously or unconsciously displayed systems that an orderly, progressive analysis of the communication situation appeared to be mandatory if a systematic, exhaustive and, ultimately, realistic view of it was to be attained.

## 1. THE SEMIOTIC APPROACH TO HUMAN INTERACTION

1.1. The researcher who resorts to a semiotic understanding of human interaction, which invariably involves verbal but above all nonverbal systems, finds that a fragment of an interactive encounter contains such an elaborate exchange of signs that his study can be truly systematic and exhaustive only when going through at least an initial phase of semiotic analysis of signs, as signs are what he is actually dealing with. Since verbal language cannot be studied in isolation, as has been done, the realistic point of departure in nonverbal communication studies is the integration of human signalling systems whereby message-conveying activities are assumed to be co-structured in a number of universal, culture-specific, or individual patterns.

Sensorially and intelligibly perceived in both space and time – and always against a cultural background – the channels seen in Figure 1 develop between two human bodies engaged in interaction, the receiver directly perceiving that activity (e.g. kinesics, visually) or assuming it through a secondary channel (e.g. perspiration, visually).

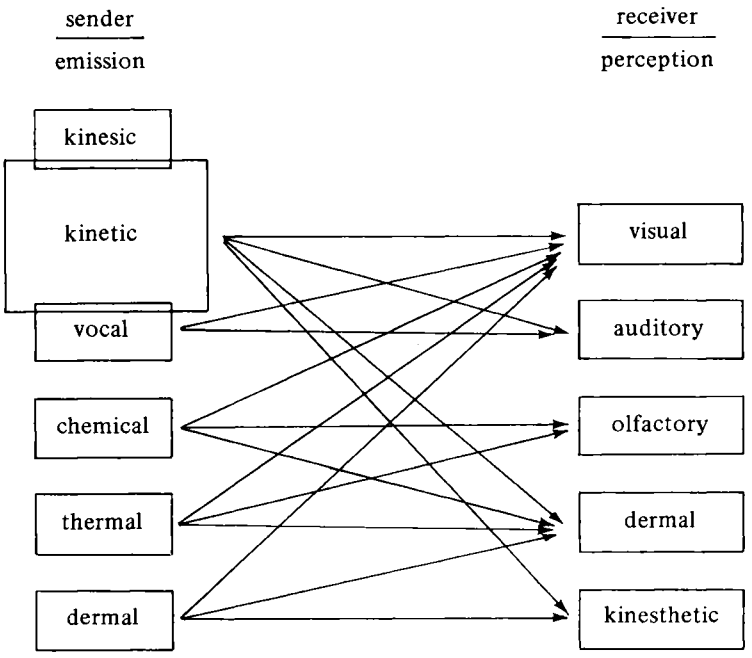


Figure 1.

The *kinetic* activity produces both kinesics (perceived visually, audibly, dermally, and kinesthetically) and sound (language and paralanguage, audibly perceived, but also visually interpreted through lip reading and co-occurring gesturing, though imperfectly); *chemical-glandular* activities are perceived olfactorily (perspiration, tears, natural body odor), visually (perspiration, tears, saliva), dermally (perspiration, tears) and gustatorily (perspiration, tears), all as primary perceiving systems, although odor and taste can be visually assumed as well; *thermal* reactions are sensed dermally (body temperature, perspiration, blushing) and olfactorily (through perspiration), but they can be visually interpreted too (through perspiration, tears, blushing); and *dermal* signs are perceived visually (pigmentation, blushing, scars, blemishes, goose flesh) and kinesthetically (inflammations, warts). They constitute, therefore, 8 ways of consciously or unconsciously emitting signs, which are

consciously or unconsciously perceived by a receiver, eliciting or not eliciting specific behaviors on his or her part. These exchanges result in various somatic *systems*, namely verbal language, paralanguage and kinesics, plus proxemics, and those for which labels have not been established yet, although they even function in equally ritualized patterns, such as: the dermal-visual system (e.g. the elicitation of blushing and the various interactive behaviors attached to it), the thermal-dermal one (e.g. the sexual physical intimacy expressed through signs and signals of dual bodily temperature rises), or the chemical-olfactory one (e.g. the rejected or desired olfactory perception of certain natural [glandular] and artificial [manufactured body-adaptors, like cosmetics] chemical compounds). *Subsystems* are the needed distinction between, for instance, gestures, manners, and postures within kinesics, while *categories* and *subcategories* can identify, in kinesics, free (without contact with oneself or other bodies or objects) and bound (with contact) gestures, manners, and postures; or inarticulated paralinguistic alternants (a subsystem) within the system of paralanguage; and further distinctions, such as self-adaptors (rubbing hands) and alter-adaptors (hugging) in kinesics. Pursuing further this semiotic analysis reveals the different *forms* (e.g. a wink) and *types* (e.g. a slow wink), and even *subtypes*, which a systematic investigation brings forth when studying somatic systems (Poyatos in press).

1.2. As for the *coding process* whereby the somatic activities thus generated are transmitted as tools of social interaction, one must acknowledge the following factors. (a) That the receiver is usually more conscious of the emitter's nonverbal behaviors than the emitter himself because of their often unconscious nature. (b) The sign-meaning relationship, as signs can be arbitrary, imitative (either iconic, like a threatening gesture, or audibly perceived as echoic, as with onomatopoeias) or intrinsic (an actual movement of aggression); while meaning itself can be shared or only idiosyncratic and understood by the sender, or it can be encoded but never decoded (which suggests cross-cultural studies of verbal and nonverbal signs, the coding process of blind, deaf or traumatized interactants, the different decoding capacity of socio-economically and educationally lower persons, which behaviors are more affected between speaker and listener in emotional states, etc.). (c) That the verbal messages, therefore, are fully decoded in natural conversation only when words are perceived and decoded along with their complementary nonverbal behaviors. (d) The interrelationships of verbal and nonverbal systems, that is: as modifiers of one's own behavior or our co-interactant's, by affecting the meaning of the message (supporting, emphasizing or contradicting it with, for instance, certain paralinguistic features), the form of the message (preserving the meaning, but modifying, for instance, those paralinguistic features), or the type of behavior (e.g. my blushing can elicit either a verbal

or a nonverbal behavior on my part or that of my co-interactant's); or simply as contextual behaviors, affecting perhaps the form of the behavior or the type of behavior, but not the meaning. (e) The basic functions of each activity in relation to each other and to the co-interactants, that is, a self-regulatory one among the behaviors themselves (proxemics affects paralanguage, language affects kinesics, kinesics affects paralanguage, etc.), and an interactional one between the participants (my kinesics affects her kinesics, my proxemics affects his paralanguage, etc.).

## 2. SOMATIC AND EXTRASOMATIC SYSTEMS, CULTURAL ANALYSIS, AND THE SPATIAL AND TEMPORAL STUDY OF NONVERBAL BEHAVIORS

2.1. Since signs are what culture is made up of, a study of the signs exchanged in social interaction must seek their somatic intersystem co-structuration, e. g. proxemic signs (behavior) in a lower-class woman's greetings must be related to language, paralanguage, kinesics, etc. But it must also go beyond the boundaries of somatic activities, if a full understanding of sign constructs is sought, and assume their co-structuration with extrasomatic cultural signs, such as low-class greeting patterns in general, clothing, the specific setting (whether it takes place in the home, the street, etc.), and the contextual situation. Furthermore, what I have always dealt with as *External Somatic Communication* (Poyatos 1980, with a detailed chart) as a basic tool for the study of nonverbal communication, subsuming all the sensible systems outlined above as complementary to verbal language and to each other, must be seen as co-structured with the other sensible, but extrasomatic, systems and with the intelligible ones which, though apprehended also through sensible signs, form the 'thought of' aspects of a culture. This is represented by the chart (see Figure 2) 'Sensible and intelligible systems in a culture'. This chart depicts actually the elements that constitute the area I have been trying to develop lately as 'literary anthropology' (Poyatos 1978), which serves to prove how the study of nonverbal communication is inherent in the study of culture. Culture is formed mostly of systems that, getting farther and farther apart from the human body, that is, from language, paralanguage and kinesics and the other somatic modes of conveying messages, are nonverbal in nature and mutually related, a fact which prompts in turn the investigation of those relationships as a way to probe into the deepest layers of human communication behavior.

As I believe this table to be clear enough to suffice as a descriptive outline, I should perhaps point out some of the system interrelationships indicated by the lines joining the various systems, and differentiate between direct and indirect or complementary relationships. We know that the interrelationships

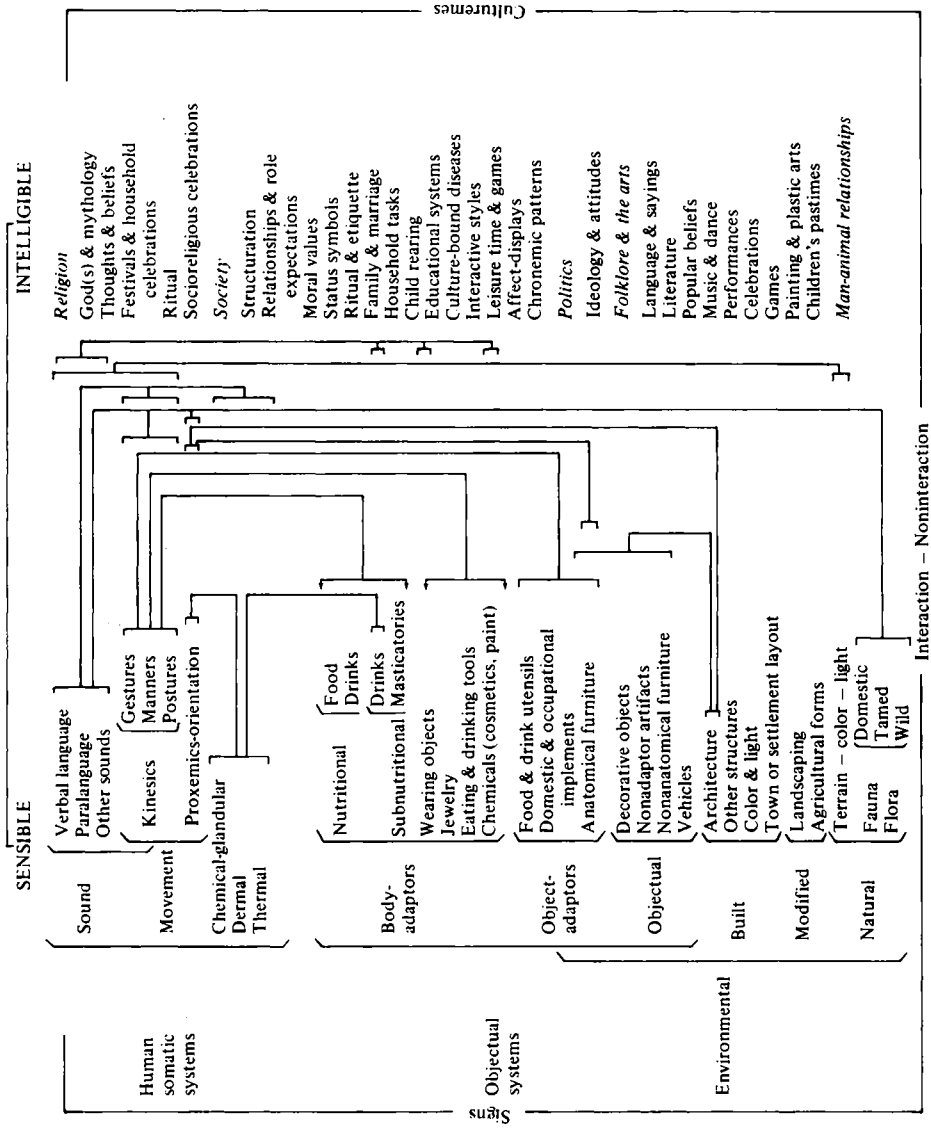


Figure 2. *Sensible and intelligible systems in a culture*

between intimate proxemic behavior and the resulting intimate verbal, paralinguistic and kinesic attitudes are direct ones, but, beyond that, proxemic behavior can be conditioned by furniture arrangement, in turn depending upon architectural spaces. Therefore, through proxemic behavior, we find a morphological and functional relationship between any of the components of the Basic Triple Structure (language-paralanguage-kinesics) and architecture, or between them and furniture. These are obvious relationships among sensible systems, but prayer, for instance, is also related to paralanguage, which is in turn related to proxemics, which is related to architectural spaces, for which reason the intimate experience of communicating with God is directly related to, thus not totally detached from, interior spaces, as it can be to light, sounds, silence, and the general environmental elements. A third example may further prove the need for nonverbal communication researchers to seek the co-structuration of all cultural systems. Clothes have always conditioned kinesic behavior, mainly manners and postures, in both men and women, while furniture has also conditioned postural habits; therefore we clearly see a rather direct association between furniture and dress style. Furthermore, both dress and furniture – witness an ordinary man-woman encounter across a small table in a bar or restaurant – may condition intimate language and paralanguage; cosmetics (olfactorily perceived as a chemical system) may determine language, paralanguage, and kinesics, while being related also to proxemics in that type of situation; in addition, all three systems plus proxemic, dermal (like blushing) and thermal (rise in body temperature) signs are conditioned by alcohol consumption, in turn partly influenced in this context by the intimacy elicited by low lighting perhaps, which is a conditioning factor for paralinguistics (e.g. low pitch, breathy voice), kinesics (e.g. contact of hands and faces) and proxemics (intimate distance) behaviors.

One could keep enumerating the relationships of sensible systems in a particular situation, and then we would have to carry it further, as these very relationships would reveal their own associations with certain intelligible systems as well, such as role expectations, moral values, leisure behavior, etc., thus disclosing certain patterns peculiar to a particular culture, along with some universal ones. In the end we would have established an intricate mesh of sensible and intelligible system interrelationships which would afford an exhaustive microanalysis of human behavior in interaction.

2.2. As a perfectly workable complement to the semiotic approach suggested earlier, and according to the definition of the cultural unit I have called *cultureme* (Poyatos 1976a) – any portion of cultural activity sensorially or intelligibly perceived which can be divided up into smaller similar units or amalgamated into larger ones – the systematic and progressive

analysis of culturemes turns out to be a sensible method for studying communication systems, as it prevents us from overlooking the various levels between the broader aspects of a cultural system and its most minute features. If we set out to observe, for instance, the kinesic behaviors typical of a western culture we would first distinguish four basic frames of reference: urban-rural and interior-exterior (open places versus enclosed ones), and then the different settings (the home, the church, the restaurant, etc.), at which point sensible and intelligible systems, as well as geographical and socio-economic subcultures, become discernible. From there on the kinesicist can deal with culturemes derived from the previous ones, e. g. kinesics at the table in the home, kinesic turn-markers in middle-class interaction, upper-class eye contact behavior, and so on; and by regrouping, for instance, table manners across a whole culture, we can build up a separate cultureme. In addition, the relationships among different systems, say between kinesic and proxemic behaviors in a low-class situation of bereavement, can now be analyzed in detail with a solid background in the kinesics of the culture.

2.3. Both the semiotic and the cultureme approaches, or their combination, are in great need in all disciplines dealing with human behavior of *diachronic* and *synchronic* investigations. Nonverbal communication studies in particular have much to gain from a realistic view of the origin, development, propagation, co-structuration, and possibly disappearance of many interactive and noninteractive behaviors, as their coding in the daily social exchanges depends on the receiver's and/or the emitter's spatial (geographical) and temporal (historical) circumstances. Some behaviors have endured the passing of centuries, though modified by changes in the built environment, in moral values or social relationships, while others are being generated by the advancing sophistication of social life, and still others have disappeared from our repertoires, such as the many kinesic acts conditioned by clothes and furniture. Even a written word that evoked a specific concept two centuries ago, or a paralinguistic construct recorded now on film, may be differently understood by emitter and receiver as time goes by, even perhaps under identical circumstances.

2.4. I should point out that what I mentioned earlier as 'literary anthropology', whose subject is depicted in Figure 2, not only would bridge the existing gap between the study of literature and the other sciences dealing with human behavior, but constitutes, mainly in its narrative form, the richest source for the study of somatic and extrasomatic systems. For the kinetic cultural repertoires revealed or depicted by painting and sculpture, for instance, and even film, lack the author's description of their co-occurrent verbal, paralinguistic and, in general, contextual elements, such as dress and

furniture, as well as the emotional factors involved (e.g. situations of happiness or bereavement, proxemic attitudes, interactive patterns). Narrative literature, from the early epic poems to contemporary novels, 'speaks about', and not just describes, many of the behaviors we want to investigate in nonverbal communication studies.

## 3. THE 'BASIC TRIPLE STRUCTURE' AS THE UNIQUE FOUNDATION OF HUMAN COMMUNICATION STUDIES

3.1. The investigation of human interactive systems in the progressive, virtually exhaustive, way afforded by the semiotic-cultural approach soon proves beyond doubt that language just cannot be studied in isolation any more, since words, whether arbitrary (house) or echoic (swish), lack the capacity for carrying the whole weight of a conversation because they always co-occur with at least paralinguistic and, if visually perceived, kinesic constructs. This unquestionable yet neglected principle made what I have been calling the Basic Triple Structure of human communication the main foundation of any study of interaction, as the unique anthroposemiotic and anthropomorphic complex which shows the analysis of any one system by itself as totally shortsighted. This can be demonstrated by the following:

(a) An exploratory *semantic progression* in which, vertically, one writes an unpunctuated sentence to which one adds on successive lines the appropriate punctuation (already suggesting paralanguage), the various paralinguistic categories, kinesic behavior, and any other systems worth recording, while horizontally we can itemize the pertinent factors from the Total Conditioning Background (outlined in Section 6); but above all, a *triple transcription* which shows the co-structuration of the three basic systems by annotating in a musical-score fashion: phonemic transcription, the four paralinguistic categories, the orthographic transcript, and a three-level kinetic notation (head and face, arms and hands, and trunk and legs), plus a description of the proxemic attitudes, the setting, and any other contextual elements.

(b) A logically derived and more correct view of the dichotomy *segmental* (i.e., words, paralinguistic alternants, silences, kinesic constructs, and still positions) *versus nonsegmental* (i.e. intonational features, paralinguistic primary qualities, qualifiers and differentiators, and parakinesic qualities).

(c) A needed revision of the very concept of language through a very appropriate application of Hockett's design-feature scheme to paralanguage and kinesics besides language, modifying three of his features: the vocal-auditory channel is identified as kinetically based; 'imitative' is added to arbitrariness and conventionality, since we produce echoic sounds and iconic

gestures; and 'semanticity' is applied to the Basic Triple Structure; and adding seven more: inheritance, shared idiosyncratic nature, interactionality, graphic representability, verbalization *versus* nonverbalization of thoughts, co-structuration with preceding or succeeding silence and stillness, and intraspecific encoding and decoding and interspecific decoding.

3.2. The three perspectives just mentioned prove the *lexicality* of the three co-systems, language-paralanguage-kinesics, and their possible mutual substitution within a preserved syntactical order even in a single sentence, since both paralanguage (a click, a moaning sound of anticipated pleasure) and kinesics (a gesture of dismissal, a pronominal pointer) can function as grammatically as words. In turn, the *kinetic base* of verbal language, paralanguage, and kinesics suggests a protolinguistic double structure (vocal/narial phonetic movements plus external kinesics) from the early stages of anatomical and cognitive development, although kinesics could have lost status as the vocal-tract repertoire increased. The Basic Triple Structure also suggests *a common historical and adaptive development* and cognitive sophistication affecting language, paralanguage and kinesics, that is, from rougher, broader forms to more subtle ones in each system.

In addition, the obvious co-structuration of the three systems prompts the revision of two traditional concepts. One is *fluency*, which must be understood as both verbal and nonverbal and as a developmental characteristic from childhood, two obvious facts that need no elaboration at this point. Furthermore, one must seek two types of fluencies associated with personal interaction. (a) The *cultural fluency* that ought to be sought during the acculturation process inherent in an observational study in a culture other than one's own; which includes many 'fluencies', as a culture is made up of the many communicative systems already discussed, and which cannot be replaced by the sort of linguistic (actually verbal) fluency with which many believe to be prepared to communicate properly, without even seeking paralinguistic and kinesic fluency. (b) *Interactional fluency*, not only from our own point of view but according to the socioeducational status of our co-interactants (perhaps lower, but certainly possessing its own norms and, for instance, its own etiquette patterns and ritualized forms, of which we must be aware), and as regards the perceptual capabilities of impaired persons (which systems they do or do not perceive), so that we, as their co-interactants, may duly compensate for their deficiencies.

The other concept which needs to be revised is that of *redundancy*, since the various behaviors involved in communication can be either truly redundant or complementary (supporting, emphasizing, or contradicting) to each other, and because even while being redundant they may produce a personal or cultural style. On the other hand, we must differentiate between primary

communicative systems (not necessarily verbal language) and secondary systems within a general hierarchization of behaviors in each particular situation, subject to the intensity of each behavior in comparison with the others and to its location in the behavioral stream.

## 4. PARALANGUAGE AND KINESICS: SOUND AND MOVEMENT VS. SILENCE AND STILLNESS

4.1. Besides integrating *paralanguage* into the Basic Triple Structure within different disciplines, I have attempted – inspired by, but drastically enlarging upon, some pioneering papers – to provide an exhaustive categorization of features from morphological, functional, and representational points of view (Poyatos 1976b, 1979).

(a) *Primary qualities*, fundamental constituents of human speech, which basically differentiate one person from the others (timbre, resonance, volume, tempo, pitch register, pitch interval, pitch range, syllabic duration, intonation range, and rhythm), conditioned by four main factors: biological, that is, purely somatic (such as sex and age, determining timbre); physiological, thus variable, whether due to temporary malfunctions or to traumatized states (nasal resonance due to catarrh, improper timing in diphasias); cultural (the higher volume of Latins and Arabs); and social, such as status (the slow tempo of superiority), occupation (the orality of a preacher), or certain functions (baby talk, story telling).

(b) *Qualifiers*, which can also appear as permanent characteristics, that is, primary qualities (respiratory, glottis, laryngeal, velar, pharyngeal, articulatory, labial, and maxillary controls, and articulatory tension), each one ideally analyzed in terms of: anatomical and physiological configuration, auditory effect (e.g. nasal twang), voice type it produces (creaky, breathy), co-occurrent verbal and nonverbal behaviors (pursed lips + lowered brows + irritated 'Oh, let me alone!'), phonological use (Bushman clicks), paralinguistic use (turn-claiming apicoalveolar click when the listener wishes to speak), abnormal occurrences (hoarse voice of trachyphonia), and notation for phonetic purposes and because the core of the message may sometimes be carried by a qualifier.

(c) *Differentiators*, which characterize physiological and psychological states and appear closely co-structured with kinesic behavior (laughing, crying, coughing, degrees of loud voice and whisper, sneezing, belching, yawning, hiccoughing, and snorting), while they modify words; laughter, for instance, requires more in-depth studies in terms of: biological foundation; influence of the psychological configuration on its frequency of occur-

rence; duration, acoustic characteristics, and eliciting factors, as well as temporary emotional states and their relation to cultural norms about them; pathological varieties; social implications of laughter display with respect to the same or different states and their contextual situation; the hidden or explicit etiquette norms about it; the phonetic variants of laughter according to the socioeducational and cultural characteristics of the person; its simultaneous or alternating co-structuration with verbal language and with kinesics (as in smiling) and the basic cross-cultural differences; its co-structuration with proxemics as well as with chemical (e.g. tears) and dermal (e.g. blushing) systems; and the study of definitory references and descriptions of laughter in the narrative literature of the various cultures.

(d) *Alternants* (Poyatos 1975a), independent segmental constructs that prove the weakness of the term 'paralinguistic', as they function in each language, that is, in each culture as lexically as dictionary items in social interaction, therefore deserving a much higher status in linguistics (impressionistically describable as clicks, sighs, throat clearings, pharyngeal or narial ingressions and egressions, hissing sounds with different articulations and functions, moaning sounds, closed- or open-lip sounds, meaningful silences, etc.), and much research, considering: their important roles in the mechanism of interaction; that they form, more than words, the greater part of the communicative repertoire each culture utilizes for the interaction of humans with domestic animals; that their articulatory peculiarities should be given serious thought in glottogenetic studies and with respect to the phylogeny of the Basic Triple Structure; and that we need to largely increase the present limited repertoire of phonetic symbols, labels (i.e. verbs and nouns, just as we have *to hiss* and *a hiss*) and written forms (as we have for a few, like *H'm*, *Psst*, *Er*, etc.).

4.2. One of the many research perspectives opened up by nonverbal communication studies concerns the various aspects and problems of *punctuation* in writing (Poyatos 1981), again of an interdisciplinary nature, since it falls under: semiotics because of the forms contained in and symbolized by punctuation; anthropology because it deals with the development of writing, man's greatest communicative achievement; and linguistics and phonetics because of the interrelationships among verbal language, semantics, grammar, and punctuation. But, above all, it is nonverbal communication that people have historically striven to represent, therefore acknowledging its use as an essential part of the human message-conveying activities of speech and movement. Although punctuation reveals a conscious effort to symbolize speech for the better evocation of its semantic variations and the avoidance of too conspicuous ambiguities, it simultaneously, and quite unwittingly too, evokes and marks the co-occurrent body movements and still positions that are an

integral part of the kinetic-acoustic continuum of human and animal communication. In sum, punctuation attempts to convey as closely as possible the structural-semantic forms of the Basic Triple Structure, language-paralanguage-kinesics, and a nonverbal approach can do much to improve the present system, which is historically so limited.

4.3. As for *kinesics*, the other inherent part of the triple structure, perceived either visually (a beckoning gesture), audiovisually (finger snapping), audiovisually-tactually (a slap on someone's back), visually-tactually (a hug), or just tactually and auditorily (in the dark or as perceived by the blind), appears in three different but complementary ways in human interaction: *independently*, as in a single OK gesture or a facial expression of distress, or in interaction limited by distance, interfering noise or imposed silence; *simultaneously* with the linguistic-paralinguistic co-structures; and *as a syntactical replacement* for verbal language in parts of the same sentence (which again suggests the perceptual limitations of the blind and, consequently, the different types of interactive fluency required, as discussed above).

Apart from Birdwhistell's work, which has helped many, if controversially, the interdisciplinary integrative approach to communication I always sought prompted me to explore other areas still badly in need of kinesic research (Poyatos 1977a), which I will merely mention here.

(a) The *phylogenetic development* and the origin of human 'communication', and not just of 'language', since a cognitive kinesic lexicon must have evolved along with onomatopoeic sounds and other paralinguistic forms, consisting mainly of gestures; the repertoire of manners gradually growing to accommodate new relationships of authority-subordination, love-hatred, etc., and the handling of man-made objects; while postures were conditioned by anatomy, terrain, nutritional habits, and probably by a growing social life requiring an increasing number of situational body positions.

(b) The *ontogenetic maturational curve* of gestures, manners, and postures within the Basic Triple Structure, as the child gradually develops the three systems to a not always clearly mature adult repertoire.

(c) The *cultural historical development*, not only through the evolution of the dwellings, of furniture, utensils, clothes, etc. (which also betrays the progress of social and intellectual life), but across the various socioeconomic and educational levels; from an interactional point of view, the triple repertoire of the rural class, for instance, is more limited than that of the higher-up people in vocabulary, in the more subtle types of laughter, of narial aggressions or closed-lip nasal sounds, and in gestures, manners, and postures.

(d) The *intercultural borrowings*, not only in verbal language, but in kinesics, particularly gestures, as well as certain paralinguistic expressions.

(e) The elaboration of *kinesic atlases*, which would often have to record not only isolated kinesic features but linguistic-kinesic, or paralinguistic-kinesic, or linguistic-paralinguistic-kinesic constructs that occur always like that, and which would also have to show the geographic distribution of basic gestures, manners, and postures as well as some of the functional categories mentioned below; and, among still other research areas generated by kinesics.

(f) The elaboration of *kinesic inventories*, whether cultural or subcultural, in a systematic way that must take into account (Poyatos 1975b): the sources, the interactive or noninteractive types of live first-hand observation, the illustration of the inventory (sketches, still photographs, film), and the presentation of the material (classification, distribution, labelling, and description), avoiding the more common deficiencies and pitfalls one can observe in some existing inventories (e.g. ambiguity of usage, incomplete kinemorphemic or kinesyntactic constructs) and seeking the cultural and situational context, the frequency of occurrence, and the co-structuration with language and other nonverbal systems.

Basic to kinesic studies is a clear *morphological classification* of kinesic behaviors which allows for a systematic and exhaustive treatment in whatever discipline. The chart in Figure 3 should provide a clear statement of the categories involved. Beyond the indispensable differentiation of gestures, manners, and postures because of their specific morphological, cultural, and interactive characteristics and the distinct research topics they suggest (e.g. emblematic gestures across society or cross-culturally, manners in greetings and leave-takings, posture and manners in backward cultures, kinesic display of happiness and grief), a second distinction must be made between *free* and *bound* movements and positions, the latter when holding oneself or in contact with others (so important across cultures) or objects. A further distinction of behaviors according to established categories and interactive or noninteractive situations allows for a critical investigation, acknowledging the perceptual modes of hindered and impaired interactants as well as indirect perception of movement and sound through sound and movement respectively.

As for the *functional classification* of kinesic activities, the categories we can distinguish for any interactive or cultural study are valid also for paralanguage (the first four for verbal language as well): conversational, ritualistic, occupational, task-performing (mostly with object-adaptors in noninteractive situations, or alter-adaptors, i.e. in contact with someone else), and somatic and random acts, aimed at relieving physiological needs, or with no particular goals or reference to others.

Biophysicopsychological – Cultural – Socioeconomic conditioning background

| | | INTERACTIVE | | | NONINTERACTIVE |
|---|---|---|---|---|---|
| | | FULL | REDUCED: Audible (unseen) | REDUCED: Visual (unheard) | |
| GESTURES | Free | Head, hair<br>Face: eyes, eye-contact, brows, nares, mouth, lips, tongue, verbal & paralinguistic movements<br>Shoulders, arms<br>Hands, fingers<br>Trunk, legs, feet | Verbal & paralinguistic production movements<br><br>Assumption of others by association with verbal & paralinguistic signs | Head, hair<br>Face: eyes, eye-contact, brows, nares, mouth, lips, tongue, verbal & paralinguistic movements<br>Shoulders, arms<br>Hands, fingers<br>Trunk, legs, feet<br><br>Assumption of sound through vision | Random acts<br>Imagined (monologic) interaction<br>Mental activities |
| | Bound | Self-adaptors: hand(s)-to-body<br>Object-adaptors: gesturing with cultural or pancultural conversational props (pipes, cigarettes, glasses, canes, sticks, tools, hats, gloves, pencils, eating & drinking tools) | Self-adaptors: finger-snapping, clapping & slapping gestures<br>Object-adaptors: hitting cultural or pancultural conversational props against self, objects, or ground | Self-adaptors: hand(s)-to-body<br>Object-adaptors: gesturing with cultural or pancultural conversational props<br><br>Assumption of sound through visual signs | Random acts<br>Imagined (monologic) interaction<br>Mental activities |
| MANNERS | Free | Affect-displays: face, arms, etc.<br>Greetings & goodbyes<br>Eating & drinking (chewing, swallowing), masticatories<br>Gait, dancing, acrobatics, sports<br>Physiological: sneezing, belching, stretching, spitting<br>Posture-forming manners | Eating & drinking (chewing, swallowing)<br>Physiological: sneezing, belching, spitting, coughing, throat-clearing | Affect-displays<br>Greetings & goodbyes<br>Eating, drinking, masticatories<br>Gait, dancing, acrobatics, sports<br>Physiological, posture-forming<br><br>Assumption of sound through visual signs | Affect-displays: unconscious, imagined (monologic) interaction<br>Eating, drinking, masticatories<br>Gait, solo dancing<br>Physiological<br>Posture-forming |

Parakinesic qualities: Intensity – Range – Velocity

Constructuration with: Verbal language-Paralanguage (& silence)-Kinesics (& stillness) Proxemics, Chemical, Dermal, Thermal systems, Chronemics

Figure 3. *Morphological classification of anthropokinesics*

Biophysicopsychological – Cultural – Socioeconomic conditioning background

| | | INTERACTIVE | | | NONINTERACTIVE |
|---|---|---|---|---|---|
| | | FULL | Audible (unseen) | REDUCED Visual (unheard) | |
| MANNERS | Bound | Self-adaptors: affect-displays, applauding, grooming, preening, scratching, picking, rubbing, clasping, slapping, hitting<br>Body-adaptors: clothes, jewelry, food, drink, eating & drinking tools, pipes, glasses, hats<br>Object-adaptors: tools, furniture<br>Alter-adaptors: affect-displays, sexual behaviors, aggression, protection | Self-adaptors: applauding, slapping<br>Body-adaptors: jewelry, eating & drinking tools<br>Object-adaptors: tools, knocking against objects, contact with furniture<br>Alter-adaptors: kissing, clapping, handshakes, patting, aggression | Affect-displays<br>Greetings & goodbyes<br>Eating & drinking, masticatories<br>Gait, dancing, acrobatics, sports<br>Physiological, posture-forming<br>Assumption of sound through visual signs | Self-adaptors: mental activities<br>Body-adaptors<br>Object-adaptors<br>Alter-adaptors: imagined interaction |
| POSTURES | Free | Ground-based: standing, squatting, sitting, kneeling<br>Air-based: jumping, acrobatics, sports<br>Water-based: swimming | Assumption of some through associated sounds as secondary sign systems | Self-adaptors<br>Body-adaptors<br>Object-adaptors<br>Alter-adaptors<br>Assumption of sound through visual signs | Ground-based<br>Air-based<br>Water-based |
| | Bound | Self-adaptors: clasping, crossed arms & legs<br>Object-adaptors: with furniture, objects, built or modified environment, implements, vehicles<br>Alter-adaptors: affect-displays, sexual behaviors, aggression | Assumption of some through associated sounds as secondary sign systems | Self-adaptors<br>Body-adaptors<br>Object-adaptors<br>Alter-adaptors<br>Assumption of sound through visual signs | Self-adaptors: random, mental activities<br>Body-adaptors<br>Object-adaptors<br>Alter-adaptors: imagined interaction |

Parakinesic qualities: Intensity – Range – Velocity

Constructuration with: Verbal language-Paralanguage (& silence)-Kinesics (& stillness) Proxemics, Chemical, Dermal, Thermal systems, Chronemics

Figure 3. (*continued*).

4.4. Lately I have been elaborating on *silence* and *stillness* (Poyatos in press) in human interaction, never sufficiently recognized in communication studies as the segmental (from the point of view of linguistics) nonactivities opposed but complementary to sound and movement within the Basic Triple Structure, that is, in communication, and as systems in their own right. For, if sound and movement are the basis of our communication, silence and stillness are also part of it. Structurally, noncommunicative silences and still positions occur only between and after speaker-listener encounters, otherwise breaks are always linguistic, paralinguistic, or kinesic true pauses within or between speaker and listener 'turns', because when one of the activities is interrupted the other two, or at least one, will fill that gap (hence the important semantic and structural interrelationships within the triple structure). From a semiotic-communicative point of view, silence and stillness in social interaction act as *signs proper*, not necessarily as substitutes for verbal or nonverbal expressions, as *zero signs* which signify by the very absence of sound or movement (e.g. the witting silence with which we avoid saying something) and, what needs perhaps the most research, as *carriers* of the activity just heard or seen, as they re-echo it, thus enlarging it and making it more conspicuous (e.g. silence immediately after shouted words, stillness following a tragic gesture).

4.5. It is unquestionable then that the disassociation between traditional linguistics and the nonverbal systems, as still maintained by many, is totally unrealistic, and that the interrelationships of both, too complex to discuss here, are quite obvious in interaction. But one must also integrate in the study of nonverbal systems the two basic dimensions of any human activity, time and space, as proxemic and chronemic behaviors. *Chronemics*, as analogous to proxemics, is the research area I have suggested (Poyatos in press, 1976b, and earlier) as dealing with our conceptualization, structuration and handling of time as a biopsychological and cultural element that lends specific characteristics to social relationships and to a culture in general, including the many events within the communication situation and the duration of the various activities involved.

## 5. INTERACTION AND THE STUDY OF THE MECHANISM OF CONVERSATION

5.1. As the integrative and interdisciplinary approach to nonverbal communication builds up, what can be thought of as the 'anatomy of conversation' soon becomes one of the researcher's main interests. The researcher may want to analyze a *brief encounter*, actually a short, generally dyadic encounter, as when ordering food, purchasing a ticket, or asking for directions, which contains a series of patterned verbal and nonverbal behaviors subject to

different cultural, individual, and situational variables; or a truly *topical conversation*, that is, the average living-room or business encounter centering around at least one topic which is developed at some length.

Although most of us deal with *natural conversation*, the spontaneous communicative exchange of verbal and nonverbal signs between at least two human beings, certain fields, such as drama and film-making, rely entirely on what should be studied as *contrived conversation*, best exemplified by the theatrical performance. In a performance of any kind verbal and nonverbal activities are not always properly co-structured and, at their worst, we speak of lack of naturalness: intonation patterns do not always correspond to the memorized verbal constructs as they would in a natural situation, paralinguistic features such as rhythm, glottalic control, specific types of laughter, etc. do not seem to agree with the type being portrayed, the situational context and the cultural setting.

On the other hand, we cannot think of natural conversation as only *full unhindered interaction*, that is, under normal circumstances among fully equipped participants, for there is also a *reduced interaction* which is badly in need of research in different disciplines, since we are all exposed to it. Reduced interaction results from: (a) a linguistic-cultural barrier, when other vocal or nonvocal behaviors are often stepped up with relative success; (b) blindness, which blocks off kinesics, except audible and contactual (alter-adaptors) movements; (c) a sound-carrying opaque obstacle, which renders interactants blind for communication purposes; (d) deafness, which blocks off language and paralanguage; (e) a soundproof transparent obstacle, which makes interactants deaf in that situation; (f) excessive distance, which has the same effect and compels interactants to use their kinesic repertoires only (but, curiously enough, often muttering verbal language as they gesture); and (g) a telephonic conversation, in itself a technologically-imposed 'invisible dyad' in which we still emphasize, support, or contradict our verbal and paralinguistic signals with our kinesic behavior.

5.2. Acknowledging the preponderance of the Basic Triple Structure in conversation, the observational analysis of interactants both in real life and in filmed situations prompted me to elaborate a scheme based on Starkey Duncan's *turn* analysis, but further classifying the activities that take place in the course of a conversation (Poyatos 1975c, 1976b).

(a) *Turn rules and counterrules*: turn claiming, yielding, and taking, or turn suppressing (by the speaker or by any of the auditors toward the claiming listener), and turn holding (by the speaker).

(b) *Simultaneous behaviors*: simultaneous turns (culturally, situationally, and individually conditioned), conclusions (silence follows), turn claimings, and yieldings.

(c) *Receiver's within-turn behaviors*: feedback, request for clarification, request for higher volume, verbatim repetition of the speaker's last statement, re-statement (of the speaker's preceding thought), simultaneous conclusion, and prompting signals (by any listener toward the speaker, with different purposes).

(d) *Sender's within-turn behaviors*: counterfeedback (to the receiver's feedback, as used by comedians), turn opening (after the previous speaker's yielding), turn preclosing, turn closing, and claim suppressing.

(e) *Interactive pauses*: due to: failed turn claiming or turn taking (by all), turn opening (before speaking), turn ending (before turn closing), hesitation, and feedback or counterfeedback-seeking pause.

## 6. THE 'TOTAL CONDITIONING BACKGROUND' OF HUMAN COMMUNICATION

What appears just indicated in Figures 2 and 3 as 'conditioning background' is an indispensable frame of reference against which one must view any of the systems or single activities mentioned in this paper at one point or another in nonverbal communication research. The conditioning factors are always among: biophysicopsychological (biological configuration, sex, age, physiological state, medical state, nutritional habits, psychological configuration, emotional states); environmental (natural, built or modified, socioeconomic, and objectual environments); degree of sharing (performer/public figure-spectator borrowing, couple, nuclear/extended family, social/occupational group, geographical/subcultural variety); cultural patterns (religious and moral values, relationships and role expectations, etiquette norms, esthetic values); and according to the type of culture (primitive, advanced), socio-educational types (superrefined, average educated, average middle-income employee, low-income worker, pseudoeducated, rustic/illiterate).

## NOTE

1. Given the nature of this report-like treatment of the development and principal aspects of a personal research, I am citing references from my own work only. A proper reference list would have included, among others: M. Argyle, R. Birdwhistell, D. Crystal, S. Duncan, I. Eibl-Eibesfeldt, D. Efron, P. Ekman, P. Lieberman, M. Key, E. Hall, G. Hewes, A. Kendon, J. Laver, K. Pike, A. Scheflen, T. Sebeok, G. Trager.