

VERBAL CUES OF ORGANIZATIONAL INFORMATION
IN MESSAGE DECODING

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ABSTRACT

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IN

MESSAGE DECODING

by Mahmud M. El-Okby

This is a study of one of the basic features of language-in-action. It is an attempt to elucidate the notion of organizational information in communication, applied to the message as content-in-form. From the point of view of the decoder, it categorizes such information within a psychological frame of reference. It demonstrates the various types of cues manipulated for the organization of linguistic response in the vocal-auditory inter-personal communication situation, and presents a psycholinguistic analysis of a recorded panel discussion, based on examination of a number of assumptions. In the course of such examination, it presents a synthesis of some of the pertinent findings in interrelated disciplines, all of which are concerned with language-in-communication. It offers suggestions for further research in an area thereby initially explored.

Taking into consideration such factors as the attention value of a message, the similarity of experience supposedly shared by communicator and

receiver, coupled with their more or less equivalent familiarity with the symbolic representation of such experience in language form, the question now arises whether the clarity of received messages and facility of communication may be assisted by investigations into the structure of content. Perhaps a basic principle of communicability in any language is a formative principle having to do with the organization of content units. Consequently, one could assume the operation of verbal cues eliciting a specific type of information.

One could probably talk of the organization value of messages in communication, depending on the way such cues are calculated to operate with the decoder.

1. Contouring and Accentuation cues are presumed to operate at the 'Projection' level of linguistic response.
2. Transition, Combination and Integration cues are supposed to operate at the 'Integration' level.
3. These cues are two main types under each category: syntactic, and contextual.
4. They operate synchronously, and are not mutually exclusive.

The theoretic framework within which analysis and interpretation are conducted is based on:

1. Recommendations of the 1953 Report on Psycholinguistics by the Committee on Linguistics and Psychology of

the Social Science Research Council.

2. Applications of some of the basic concepts of Information Theory.

3. Some of the findings of structural linguistics in the areas of syntactics and supra-segmental phonemics.

4. Some of the assumptions of discourse analysis.

5. Pertinent concepts of the psychology of perception in general, and of the Gestalt psychology of visual perceptual organization in particular.

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By

Mahmud M. El-Okby

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CHAPTER I

This study is an investigation into the structure of message content, from the point of view of a decoder. It is conducted through psycholinguistic analysis of a sample of formal inter-personal communication.

The communication situation, which is only partially represented by recorded speech, is a complex process, with many simultaneous component processes, which affect the behavior of both speakers and listeners engaged in some form of interaction. It is a panel discussion among eminent American creative thinkers, taking place in one auditorium of Miami University, Oxford, Ohio, and attended by several hundred people, who are supposedly interested in creativity in the various art forms. The time is around 7.30 P.M. The topic of the discussion is "Form versus Content in Art." As may be suggested by the title, such a topic sounds debatable. The notion of 'versus' implies presentation of a controversial issue, over which panel and audience are likely to be divided.

It is unquestionable that an analysis aimed at the identification of only 'verbal' cues, manipulated by members of the panel, to serve the specific function of 'organization', would leave out a great many 'non-verbal' cues, exchanged among members of the two interacting sides: the panel on the one hand, and the audience on the other. Such non-verbal cues relate to social-cultural, psychological, and physical factors and conditions, both personal and situational, which affect the communication process in no small measure. However, as far as this investigation is concerned, the focus is on those verbal cues, which help organize content units in the process of perception. It is true that the exchange of messages on the gestural-visual band, for instance, could be utilized in reinforcing those cues delivered on the vocal-auditory, relating to the organization of content. Still, this investigation has to have limits, which encompass relationships between certain linguistic and non-linguistic phenomena.

In linguistics, because the focus of study is on the 'code', rather than on the 'message', it has been possible to maintain a difference between two types of structure - the structure of

content and the structure of expression - and to limit investigations to the latter, leaving the former to semanticists, content-analysts, psycho-linguists, etc. Also, in linguistics, because the structure of expression has to be maintained in its own rights, independently of the structure of content, the levels of structure have to be purely linguistic; in the main, they are divided between phonematization and grammatization. Consequently, the units of analysis are the phoneme, the morpheme, and the 'syntagme'. Territory beyond the sentence is 'out of bounds'.

In the study of verbal communication, however, the focus is on the 'message', whole and entire, as content and as expression. As expression and as content, it is viewed as having structure, which is perceivable and explainable in terms of signals. All we have in the form of verbal items constitute a number of 'cues' manipulated by an encoder for a decoder. Those cues which are selected for observation in this study are segmental and supra-segmental features of language-in-action, suggestive of a specific type of information. They do not tell the decoder, in any direct way, what the message is about; but they tell him what goes with what. They are supposed to help the decoder organize the content units of received

messages at different levels of perceptual organization.

Accordingly, in Verbal Communication, the units of analysis do not have to be phonemes, morphemes, and 'syntagmes'. As far as the decoder is concerned, his cues can be modulations of speech sounds, or they can be speech items, single or combined, as words, phrases, sentences, or utterances, etc. All that matters is the correspondence between the level of perceptual organization and the nature of the given cue. For instance, if at the 'Projection' level, perceptual organization is described as " a summation of points of maximal stimulation, and a suppression of other activity,"¹ then it is reasonable to suppose that the prosodic features of speech - pitch, stress, juncture - may be considered cues providing organizational information needed at this level of structuring. On the other hand, if at the 'Integration' level, perceptual organization is described as an " ordering of semantic units ... concordal agreement and certain other relational phenomena, etc.,"² then it is reasonable to suppose that 'syntactic' items of transition from one

¹

Charles Osgood and T Sebeok, eds., Psycholinguistics (Indiana University Publication, 1954), p. 54.

²

Osgood, op. cit., p. 95.

sentence to another, or that redundant 'contextual' items in combination - may be considered cues of organizational information needed at this level.

Part I of this study is a theoretic framework, which seeks to elucidate the notion of 'organizational information' utilized in message decoding. The major thesis expounded in this part may be summed up as follows:

1. There are verbal cues which help a decoder organize the content of received messages in the course of vocal-auditory interpersonal communication.
2. These cues are supposed to elicit information at two levels of organization of linguistic response, namely those of 'Projection', and 'Integration'.
3. These cues may be subsumed under the corresponding categories of 'Contouring' and 'Accentuation' for projection, and of 'Transition', 'Combination', and 'Integration' for integration.
4. The operation of these cues may be described in terms of the Gestalt principles of visual perceptual organization.

Part II is the actual analysis of recorded materials. It consists in:

1. Devising means of identifying cues of organizational

information.

2. Identifying such cues in the sample under observation.
3. Testing a number of assumptions on the basis of evidence from the corpus material, with the understanding that conclusive evidence should come from future field research in each of the specified areas.

It is necessary to emphasize that this study is of an 'exploratory' nature. It presents a new way of looking at language-in-action. It presents a new orientation: the communication point of view, in which form is combined with content, and structure with function.

CHAPTER II

DEFINITIONS

Verbal. Some students of language refer to the supra-segmental or prosodic features of pitch, stress, pause, and juncture as 'non-verbal'. However, such features are here considered as part and parcel of the segmental units. It would be impossible to consider bundles of distinctive features as human speech components, without the hierarchies of configurational features which give them shape and constitution. Accordingly, the term 'non-verbal' would be used to refer to gestural and other phenomena, that do not fall within the scope of this enquiry. Meanwhile, linguo-perceptual phenomena would be referred to as 'non-linguistic'.

Cues. These are segmental and supra-segmental features of language-in-communication, suggestive of a specific type of information to be dealt with in this study. The word 'similarly' is a cue to some parallel event or situation. It may be viewed as a 'combination' cue, according to the projected theoretic

framework. A succession of the /-4-3/ intonation contour (Pike system) in the course of an utterance signals a 'sustain' in the encoding-decoding process. Such an intonation contour may be considered a combination cue.

One of the established meanings of the term 'cue' in the context of message decoding, is any 'hint', or 'allusion', which may be considered suggestive of certain denotations, connotations, relationships, etc. Another is a 'sign', or 'indicator' of a certain course of action. A third is synonymous with a 'clue', though this meaning is often associated with problem situations.

In any case, the basic feature of a cue is 'indirect' intimation. What is particularly spelled out here is the notion of 'mediation' between stimulus and response; what is 'given' is only a hint that ripples into further hints, which finally trigger the desired response. Should the same word occur twice in a message, it would act as two different cues reinforcing each other in establishing certain relationships at levels of organization.

Organizational Information. "In the case of decoding, we want to know ... what segments contribute to sequential and integrational organization in

language perception."¹

The notion of organizational information maintained in this study is an attempt to extend the concept of 'information' in the direction of its normal usage, which is, of course, different from the particular denotation that it has in Information Theory.

Although 'chance' may be conceived of as a factor of communication as regards the probability of occurrence of coding symbols, there is no intention of investigating the possibility that chance may still control the probability of occurrence of 'concepts' and their arrangements, as words and word combinations. This, however, would not prevent possible extensions of some of the basic concepts of Information Theory, that could be adapted to the wider range of the present investigation.

It is very often observed that in dealing with configurational aspects of perception, the terms 'form' and 'structure' are sometimes used synonymously, and sometimes with some discrimination as to whether the notion of 'constituents' is implied, in which case, 'structure' would be preferable.

The concept of organization is assumed to add a further

¹

Osgood and Sebeok, eds., Psycholinguistics (Indiana University Publication, 1954), p. 71.

distinction based on De Saussure's famous dichotomy² of 'langue' versus 'parole', and on the principle of linguistic duality expounded in particular by Gustav Herdan.³

Speaking of linguistic structure at the 'code' level, one would normally have in mind the two chief categories of 'phonematization' and 'grammatization'. However, speaking of how phonemic and grammatical relationships are utilized in the encoding-decoding processes of individual 'messages', one would think in terms of the organization of linguistic units.

Structure of Content. Similarly, the structure of content is, in fact, an 'organization' of content units at the 'message' level, that one has access to, to be distinguished from the so-called 'semantic structure',⁴ which has to do with a summation of the organizations of content units used by all members of a speech community.

In order to study the organization of content units with reference to the linguistic perception of message decoders, it may be useful to consider in the

2

Ferdinand de Saussure. Course in General Linguistics (New York: Philosophical Library Inc., 1959), p. 13.

3

Gustav Herdan. Language as Choice and Chance (Groningen: Noordhoff N. V., 1956), Part IV.

4

Charles F. Hockett. A Course in Modern Linguistics (New York: Macmillan Co., 1958), p. 142.

first place, the general levels of organization of linguistic responses. Charles Osgood distinguishes⁵ three : a skill level; an integrational level, and a representational level. These happen to correspond⁶ to the three levels of organization of sensory input namely:

1. Projection level: having to do with the "summation of points of maximum stimulation, and suppression of other activity."⁷
2. Integrative Level: having to do with grammatical relationships: "Ordering of semantic units, concrete relational classifications of these, concordal agreement, and certain other relational phenomena,⁸ appear to belong to the 'integrational' level."
3. Representational Level: with which this enquiry is not 'directly' concerned. Information as to what the content of a message is, though related to, is still different from information as to the organization of the elements of such a content.

⁵ Osgood, op. cit., p. 95.

⁶ Ibid. , p. 54.

⁷ Ibid. , p. 54.

⁸ Ibid. , p. 95.

Within this frame of reference, a few categories of organizational information are hypothesized in this study, namely: Contouring, Accentuation (at the projection level); Transition, Combination, and Integration (at the integrative level).

Message. A message is technically defined as that part of the total output of a source unit, which may simultaneously be a part of the total input to a destination unit. It may be the utterance, or sentence, signalled by a terminal juncture, or the 'entry', signalled by a change of speakers.

Decoding. This is the process, whereby auditory patterns of stimulation elicit both structural and representational responses in the receiver, through the activity of the central nervous system.

Psycholinguistic. The distinction often made between 'psycholinguistics' and 'psychology of language' is probably based on whether the researcher is a linguist or a psychologist in the first place, on whether his area of competence is the verbal event or the mental process. In either case, however, the basic concern is the relationship between linguistic and non-linguistic features.

Analysis. The procedure by which certain verbal cues are: 1) identified in the recorded material; 2) empirically tested in their assumed capacity to elicit certain responses; and 3) associated with specific categories of organizational information.

Formal Inter-personal Communication. It is supposed that the exchange of verbal messages in the face-to-face situation of some conference or group discussion may offer more adequate samples for this type of analysis than in other communication situations. The whole point of specifying 'formality' is to avoid analyzing the trite expressions of everyday life chatting, which would normally be responded to at a level of no small automaticity. Though intercepted by the voice of the announcer three times after the introduction, and by that of the moderator at points of transition, the recorded materials from a symposium held at Miami University in March of 1953, still present the formal communication situation in which the speakers address one another, not without reservations of course, due to their consciousness of their face-to-face audience.

Vocal-Auditory Band. Interpersonal communication channels are often treated as consisting of different

bands over which messages move synchronously.

As far as this study is concerned, the gestural-visual band is out of the question, and so are those bands connected with other sense modalities. One is here concerned with the decoding of messages given by word of mouth and received aurally.

CHAPTER III

CUES AND CATEGORIES

A) Projection Level

Contouring. A contour may probably be defined as one or more lines joining points of equal elevation on a surface. An initial step in decoding speech may be very much like 'joining points of equal elevation' on the surface of a continuum. It is the attempt to discover the hierarchical structure of every utterance, as the bundles of distinctive and configurational features are simultaneously unreeled. The aim on the part of the decoder is to distinguish the gross units of which content is made up, or rather, the minimum thematic sequences that make a difference in response. He would want to know, for instance, from the contour cues of the utterance that there is an actor-action relationship, or a modifier-modified relationship; that there is a positioning of opposites, or a drawing together of similarities, no matter what these are in detail, etc.

Psychologically, contouring is the outcome of intensity differences, which actually consists in greater contrast. A triangle of light projected very dimly on a screen is nothing more than a blur of light. But as the intensity of illumination is increased, a contour will emerge. Increased awareness of the divisions of an utterance that constitute belongingness of units to one level of structure or another, is probably based on similar intensity difference.

Assuming that Immediate Constituents are signalled by juncture patterns, among other configurational features, one might expect that the more contrastive and differentiated the junctures become, the more intensity difference is available, and the more sharply defined is the contour.

Identification of Cues.

All the prosodic features of speech are supposed to operate synchronously to give the decoder the contouring cues in question. However, it is here suggested that juncture, in particular, may be singled out as the chief variable affecting the simultaneous occurrence of relationships of grouping and separation involved in contouring. The other supra-segmental phonemic features, namely pitch and stress, will be considered redundant features.

Accentuation. This feature has to do with the degree of articulation or differentiation that the decoder perceives as maintained in connection with certain points of the contour. The placing of accent on any unit of some behavioral pattern is usually associated with the notion of prominence or distinction in comparison with other units of the same pattern.

While contouring is supposed to enable the decoder to 'figure out' the gross form of content, accentuation is assumed to help him distinguish the main features of the outline. Here he seems to observe which units carry more weight than others; which are stressed on account of their presumed significance to the source; which are underscored to create more awareness in the receiver.

Psychologically, accentuation is probably based on all three interrelated notions of 'figure on ground', 'contrast', and 'fixation'. Any stimulus which contrasts strongly with its background will show as a distinct figure on ground; it will be readily and particularly attended to.

Elements that are maximally accentuated in the structure of content are the ones to stand out as more significant than others in the background. They are the ones that call attention to themselves for special recognition.

Identification of Cues.

Again, more than one of the prosodic features may be considered cues to this type of information. While stress, as a chief variable, may be chosen for close examination in this connection, the other features may be considered redundant.

B) Integration Level

Transition. "The relations between transitional sequences in messages and transitional sequencing mechanisms in the communicator is the field of sequential psycholinguistics."¹

Integration is another level of organization of linguistic responses. One of the basic phenomena to be investigated at this level is transition, which is message decoding would normally suggest a progressive motion from one unit of the message to another, or a passage from one stage of its thematic development to the next.

In analyzing the message in terms of the structure of content, transition as a feature of organizational information is not viewed with reference to the 'probability' of occurrence of microlinguistic units, but in terms of the 'possibility' of occurrence of

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Charles Osgood and T. Sebeok, eds., Psycholinguistics (Indiana University Publication, 1954), p. 6.

conceptual frames, as content units. Gustav Herdan's concept of language as choice and chance assumes great significance in this context. One's interest in the organization value of the signal or cue at the point of transition does not centre on how many times a particular linguistic unit will 'probably' occur as a succeeding unit, but rather on the 'possibility' of proceeding thematically from there somewhere.

Information theorists are obviously interested in the former organization value of signals; their approach is statistical. "The statistical procedure usually ignores, however, a matter which is basic to linguistics - the distinguishing of levels of structure."² Therefore, the present investigation is concerned with the latter organization value of signals. The approach is analogical, consisting in the use of substitution frames based on two notions: 1) that of the level of structure; and 2) that of the context of communication. This is very much the same approach of the individual decoder in the communication situation. He cannot proceed from one content unit to the next without cuing: 1) as to the Immediate Constituent level; and 2) as to the thematic environment. If an utterance were

to be broken up into single words, or into sections of equal length, it would lose its sequential value in the process of decoding. One reason is that the levels of syntactic structure would in that case be obliterated and the contour utterly confused. Another is that contextual cues would also be shuffled, throwing away every chance that the decoder might have of guessing what is likely to come next.

Psychologically, transition seems to be accomplished through the simultaneous operation of systematic and non-systematic principles of association. Principles of subordination, coordination, etc. would belong to the former category; while principles of similarity, contiguity, etc. would pertain to the latter. The operation of both level or syntactic cues and contextual cues of transition seems to be explainable in terms of systematic and non-systematic principles of association.

Identification of Cues.

In structural linguistics, it is natural that the transition phenomenon should receive only partial treatment. Only level cues seem to be identifiable.

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According to C.C.Fries, the links between what he calls

³

Charles C. Fries. The Structure English (New York: Harcourt Brace & Co., 1952), p. 241.

a 'situation' sentence and a 'sequence' sentence must be structural units, or rather, grammatical in a strict linguistic sense. Hence, he has to limit his investigation - and understandably so - to the 'so-called' definitive article, the 'so-called' adverbs, and the demonstratives. However, his inclusion of such items as 'else' and 'other' now leaves the way open for the warranted addition of the whole category of contextual cues, within the frame of reference of psycholinguistic analysis. Apart from these two main types of cues, the prosodic features also play an important part in signalling transition from one content unit to the next.

Combination. In the course of progression from one unit of a message content to the next, there occurs an accumulation of parts, an addition of thematic segments that for some reason or other may be viewed as tacking together. This phenomenon is here referred to as combination. Obviously, what is involved in combination of elements is redundancy, or repetition and reiteration. However, it is not just redundancy, but redundancy in transition. While pursuing a point in the course of development, the decoder would encounter certain items being repeated along the line of progression. He might or might not be fully aware of the repetition and reiteration, but the end result for

him is accumulative. Combination enriches context, and this in turn affects prediction of subsequent events. Speaking in terms of Information theory, prediction would then be made on the basis of both 'discrete', and 'cumulative' probabilities, or rather, possibilities in the present context.

Given only knowledge of the immediately antecedent event at any one of these levels, uncertainty as to the subsequent event is maximal (within limits imposed by the structure of the hierarchy). As we increase our knowledge by taking into account more and more of the sequence of antecedent events, as well as subsequent events in the case of decoding, uncertainty as to the subsequent event decreases. ⁴

Psychologically, this is due, very likely, to stimulus patterning. The stimulus presented in one form after another, thereby accumulating additional information for the decoder, becomes more specific, and hence, more precisely associated with a given response than with other responses. This is what one might call the psychological function accomplished by combination of elements. However, the principles of perceptual organization underlying combination as a structural feature might perhaps be 'similarity', 'contiguity', etc.

Identification of Cues.

Here again, it is necessary to recognize the two chief classes of level, or syntactic cues, and of contextual cues. Prosodic features may be considered redundant.

⁴

Osgood, op. cit., p. 97.

Integration. It is assumed that listening to a verbal communication involves an attempt on the part of the decoder to accomodate, as far as possible, the presented structure of relationships into the total framework of his previous experiences. Hence, the notion of integration as a feature of organization. The encoder usually provides certain cues to facilitate this operation. Such verbal units have the value of incorporating new relationships into a generally acceptable frame of reference, namely the logical, through 'substitution', 'modification', and 'amplification'.

What is involved in integration seems to be the outcome of all the foregoing operations; not that these operations follow a consecutive linear order, of course, but that they all contribute to this phenomenon simultaneously. When contour and accent are discriminated, when the elements of content are noted in succession, as well as in combination, the integration of newly established relationships into a framework already in existence becomes possible.

Psychologically, integration is accountable in terms of the principle of fusion or summation in perceptual organization. Hence, the pertinence of the notion of 'consistency' in particular with regard to comprehension. "Whether the comprehended thought becomes our own, whether we retain it, and whether we can

use it, does not depend on comprehension as such.

The process of 'fitting in' only defines more closely
⁵
 the meaning."

Identification of Cues.

Cues to this type of organizational information happen to be identified by the structural linguist in terms of 'function words', which would qualify as level cues, according to the present classification. These are the signals that help the decoder establish the communicated structural relationships utilized for reasoning.

Within the presented framework of studying the message as content-in-form, it would be necessary to recognize the other major class of contextual cues, which consist of 'content words'.

CHAPTER I

ANALYSIS

Within the theoretic framework sketched in Part I of this study, the corpus material in Appendix I will be analyzed with the aim of identifying those cues which are assumed to elicit the interrelated categories of organizational information previously discussed.

The proposed analysis is psycholinguistic; it has to do with the relationship between linguistic and non-linguistic phenomena. Under 'Contouring', it deals with the relationships between juncture and intonation, as two of the prosodic features of speech, and the 'gross structure' of content in the process of decoding. Under 'Accentuation', it is concerned with the relationships between stress and juncture phenomena, and the 'prominence' or maximal stimulation of specific content units in the same process. Analysis in terms of these two categories is hypothetically representative of the 'Projection', or skill level of organization of linguistic response.

At the 'Integration' level, hypothetically

represented by the three operations of 'Transition', 'Combination', and 'Integration', analysis of speech is also assumed to treat relationships between linguistic and non-linguistic features. Transition is synonymous with 'progression' from one content unit or group of units to another in the process of perception; combination is assumed to consist in the 'clustering' of such units; and integration has to do with their 'cohesion' against a background of experience possessed by the decoder.

Under all three categories of perceptual organization, identifiable verbal cues are partly 'grammatical' and partly 'lexical' items; partly 'syntactic', and partly 'contextual'.

This analysis is 'auditory', as distinguished from 'instrumental' analysis in structural linguistics. It is realized that in order to describe linguistic features significant to communication, such features must first be 'discovered' by deliberate auditory analysis. However, for confirmation of the sheer physical characteristics of speech in field experiments, observations made by the analyst would have to be supplemented by instrumental measurements.

The analyst, who is a decoder of the messages he listens to, could not possibly qualify as a casual listener under the same conditions of the

particular communication situation. While losing all the nonverbal cues previously alluded to, he has the advantage over the casual listener in other respects. For instance, in the process of perception, a decoder would normally utilize in particular a two-dimensional view of things: one prospective and the other retrospective. The analyst has a better chance of utilizing perception both ways; prior training and availability of 'play-back' would naturally act favorably for him.

However, the aim of this analysis is exploration; otherwise, it could not have been planned to cover so much territory. It is supposed to demonstrate: 1) what cues to look for in field research dealing with the organization of message content in the process of decoding; 2) at what levels of linguistic response they are supposed to operate; 3) how to identify them in a corpus material; and 4) how to go about testing a few assumptions empirically, in a more or less tentative way. While the reproducibility of cue identification is maintained, and the quantitative side of measurement initially demonstrated, the given interpretations would need further checks from future research.

The data under observation consists in excerpts from a symposium on a 'supposedly'

controversial issue: Form versus Content in Art. The various contributions, referred to as 'entries', which are made by members of the panel in discussing this issue, are given serial numbers in the order of their occurrence. And because the brief statements made by both the moderator and the announcer provide links in between the exchanged messages, the contributions of these two individuals are also included in the general count of entries to facilitate reference.

At the projection level of organization of linguistic response, hypothetically represented by 'contouring' and 'accentuation', any utterance composed of a group of words may be analysed, however brief such an utterance may be. While data for such analysis could be chosen from any part of the corpus material, it will be convenient at this level to treat only the shorter entries. At the integration level of organization, however, discourse units must be long enough to permit observation of such phenomena as 'transition', 'combination', and 'integration'. The longer entries will therefore provide data for analysis in terms of these categories.

The procedure of analysis is two-fold: general and specific. The general procedure consists of three steps:

1. Transcription of recorded material, special attention being given to terminal junctures, as well as to pauses of hesitation and all instances of hemming and hawing.
2. Selection of entries to be charted in terms of the prosodic features of pitch, stress and juncture.
3. Tabulation of content units for the rest of the entries to help identify contextual cues.

Dean John Winburne's method of content analysis is considered very helpful in this respect.

The specific procedure of analysis starts when the data have been reduced to these charts and tables. It is the more 'presentable', or rather, more condensed form of the data now on display for the reader of this study. This procedure is suited to the requirements of testing specific assumptions. It also consists of three steps:

1. Formation of assumptions under each category, suggested by the charted data. Generally, Assumption I would be about the assumed capacity of a particular type of cues to elicit a certain feature of organizational information. Assumption II would be concerned directly or indirectly with the 'predictability' of occurrence for each of the specified types of cues, through preliminary investigation of some correlation

between one feature that is supposedly known to the decoder with another that is pending occurrence, or else, through an investigation of the operation of some fundamental principle like the binary principle, on which a decoder might consciously or unconsciously base his predictions.

Assumption III would be concerned with one of the main characteristics of interpersonal communication among a group, such as feed-back effects and mutual interaction.

Should certain terms occur in any of the assumptions, which need clarification of the intended meaning, such clarification is done, as a rule, in the course of interpretation. (step 3)

2. Identification of Cues. One or two entries are usually chosen for observation. If the specified cues are prosodic features of speech, the patterns of these features are charted consistently according to one system, such as the Pike system of phonemic notation. All intonation contours are charted in terms of such a notation, and so is the case with the patterns of tentative and terminal junctures. Adherence to one particular system is only meant to permit collation for purposes of comparison or contrast. Any other well known system, such as the Trager and Smith, could have been used for the same purpose.

On the other hand, if the specified cues are 'syntactic', a consistent classification of such cues is maintained all the way through, accompanied by a brief note on the basis of such classification in terms of the communicative function served by these cues. As for the identification of 'contextual' cues, this is done, as a rule, along the lines drawn by Dean John Winburne's research in content analysis. His major and minor 'senseemes' are basic notions on which the present investigator has built tables of major and minor content units, as well as tables of differentiated cue clusters.

3. Interpretation. In a process of differential analysis, mere identification and reproducibility are all the evidence needed to support a given description. In other words, verification is inherent in a demonstrable contrast; in a comparison of points of similarity or difference. However, because interpretation under circumstances dictated by the nature of this research would still have the limitations previously alluded to in this chapter, the presented verification of assumptions may be considered tentative. More exhaustive treatment under conditions permissive of more experimental rigor would still be needed.

CHAPTER II

CONTOURING CUES

The notion of contouring may be summed up in a few words to bear in mind in the course of analysis. It is a presumed tendency on the part of a decoder to respond to certain verbal cues, which signal two main structural features of simultaneous occurrence: grouping and separation of items. Whenever grouping of elements occurs, separation of these from other elements will concurrently take place.

Verbal cues, which are supposed to signal the two structural relationships in question, may be more than the ones selected here for observation. Only two of the prosodic features of speech will be considered in this analysis, namely, juncture and intonation. It is assumed that juncture in particular is probably the chief variable affecting word grouping and segmentation, as far as field properties are concerned. Although intonation is recognized as a factor of perceptual organisation at this level, it is assumed to operate in other capacities connected with communication of feelings and attitudes.

With a view to the purpose of this analysis, it may be helpful to distinguish between two types of juncture. a) Tentative juncture / may be operationally defined as a pause of combined phonological-and-structural significance, occurring in the course of an utterance. It signals a 'sustain' in the encoding-decoding process. Therefore, it can occur at the end of a 'sentence', if such an end is not relatively 'conclusive'. It is often accompanied by a -4-3 or a -2-3 intonation contour, according to the Pike system of phonemic notation. b) Terminal juncture # is a pause invariably occurring at the end of an utterance, the given signal being, relatively 'conclusive'. As far as the present corpus material is concerned, this pause is more often than otherwise accompanied by the -2-4 intonation contour.

1. Assumption I

Junctures and intonation contours are supposed to operate 'jointly' as cues for the 'simultaneous' separation and grouping of items, as represented by the words of an utterance.

2. Identification of Cues

(Entry 10., Ciardi)

But can you go on to the human question /
-2-3

until you know what stone will do /
-4-3

and what reinforced concrete will do /
-4-3

and what steel will do /
-4-3

and what glass will do /
-4-3

and what plastic facings will do #
-2-4

Uh until your knowledge of these materials is such /
-2-3

that you..you can put them in second place #
-2-4

(Entry 13., Ciardi)

I'd like to ask William Butler Yeats that question /
uh and his answer is /

o body swayed to music o bright'ning glance /
how shall I tell the dancer from the dance #
-2-4

You can't separate these th.. these two things /
There is no dancer/

unless.. the..the dance is nowhere until someone dances
it #
-2-4

And he's not a dancer until he's dancing #
-2-4

3. Interpretation

Entry 10 is divided into two sections by means of the terminal juncture after 'will do'. This juncture may be viewed as performing two organisational functions simultaneously. While it separates the preceding frame from the one following it, it actually groups or unifies all the preceding segments, marked off by tentative

pauses. A possible interpretation of this phenomenon may be given in terms of the Gestalt principles of proximity and similarity, on the one hand, and of contrast on the other. In position, 'what stone will do', 'what reinforced concrete will do', etc. are contiguous segments, marked off as 'segments' by means of contiguous pauses. And in duration, these consecutive pauses, or tentative junctures are very much similar. However, they become the more similar, when the terminal juncture after 'will do' occurs, presenting a significant contrast in the form of a markedly dissimilar pause. In the particular utterance being examined, other aspects of similarity may be noted; for instance, the intervals between tentative junctures are almost equal in length, varying between 5 and 6 words each. Also the segments between tentative junctures are almost identical in structure. Although these aspects may be viewed as contributing to contouring relationships of grouping and separation, yet they do not pertain to juncture cues as such.

A look at the juncture pattern for Entry 10 may help clarify this and further illustrations.

A	1	2	3	4	5	B	1	C
#	9ws/	6ws/	6ws/	5ws/	5ws/	6ws#	9ws/	9ws#

It is suggested that the occurrence of B, while separating the A-B frame from the forthcoming B-C frame, actually

gives more unity and cohesion to the segments A-B1, 2, 3, etc. By the same token, when C occurs, it would potentially set the B-C frame apart, while furthering the unity, not only of B-C1 and B-C2, but also that of the whole B-C frame with the A-B frame. Similarity of duration between B and C as terminal junctures, coupled with their relative proximity could be some of the underlying factors.

A		1	2		3		B		1	2		C
#		9ws/	5ws/		8ws/		9ws#		8ws/	4ws/		10ws#
											#	D
												8ws#

The above terminal juncture pattern of Entry 13 would probably give a better idea of the possible effect on contouring of the distance between these junctures. Judging by the same criterion of contiguity, it would appear that B-C and C-D have a strong tendency to unite. Regardless of the content of these segments, the sheer structural phenomenon is borne out by experiments with metronome beats distributed over longer and shorter distances.

It may be noted in addition that, in terms of progression, the distance between terminal junctures tends to get shorter, as the speaker moves on to conclude his point. It is not clear as yet, if this is more or less generally the case, or if it is

characteristic of the style of individual speakers in argument. In any event, the observation is true of both patterns here.

With regard to the operation of tentative junctures in their assumed capacity to signal both separation and grouping relationships, one would probably find an exact replica of what happens in the case of terminal junctures, only on a smaller scale. The same principle of contrast may account for the separation of frames or segments between points of tentative juncture, while the same notions of contiguity and similarity may explain word grouping within these segments. For example, in the A-B frame of Entry 13, the components of the A-B1 segment, already sharing a rough similarity of spacing, together with proximity in sequence, would, upon the occurrence of juncture 1, become the more similar and the more contiguous, while getting separated from the forthcoming components of segment A-B2.

Considering intonation in the presumed scheme of joint operation with juncture, the general current of speech is supposed to flow at pitch level 3, according to the Pike system of notation. From there, glides take place, up to levels 2 and 1, and down to level 4. Presumably, any departure from level 3, whether up or down, is in a sense, a signal of separation, unless a glide back ensues. Similarly, any return or glide back

to level 3 from up or down is, in a sense, a signal of grouping or unification. Meanwhile, recurrence of the same contour is in itself a signal of grouping from similarity.

The data being examined shows three types of intonation contours: /-2-3, -4-3, and -2-4./ The /-2-3/ and /-4-3/ contours glide both ways up and down, but they do return to level 3. As such, they seem to indicate temporary separation from the main current, followed by a junction. These are the contours observed to accompany the tentative junctures.

On the other hand, the /-2-4/ contour observed to accompany terminal junctures in both entries, seems to represent departure down to level 4, with no 'apparent' return to level 3, or rather, a stronger type of separation. But as the stream of speech flows on, the decoder is made aware that such a separation is only momentary, though for a comparatively longer duration than in the case of the other two contours.

To sum up, as far as evidence goes, the foregoing descriptive account of the synchronous operation of junctures and intonation contours in their assumed capacity for contouring could be suggestive of empirical ways whereby the assumption may be verified in field research and utilized in application.

The second assumption to be examined in this chapter has to do with the predictability of junctures, as verbal cues of organizational information. It is considered worthwhile to find out how far a decoder's expectations of the occurrence of junctures may be 'foreseen'.

If the Gestalt principles of perceptual organization may be accepted as adequate 'grammatical' descriptions of how juncture-and-intonation cues help arouse in a decoder the response of lumping and dividing speech items upon their reception, these psychological principles alone are not enough to explain the contouring phenomenon in language perception.

The question now arises, whether the occurrence of juncture, or rather, its presumed operation in the encoding-decoding process is grammatical also in the purely linguistic sense, that may be discussed in terms of subject-predicate relationships, modifier-modified relationships, etc. It is reasonable to suppose that the relationships aroused by the verbal cues in question are grammatical, both in the broad configurational sense, encompassing such notions as similarity, contiguity, contrast, etc., and in the strict sense of linguistic structure, based on the notion of immediate constituents. The presented examination of assumptions I and II deals with juncture cues in this double frame of reference respectively.

1. Assumption II

In order for junctures to operate as organizational cues of contouring, they must fall at syntactic points of structure.

2. Identification of Cues: Juncture and Corresponding IC Pn

(Entry 1., Announcer)

Early in the discussion / L1

John Ciardi had made the statement / L2

that a rhythm is a way of knowing something #

Asked to elaborate on what he meant / L1

Mr. Ciardi said / L2

Example:

	(L2)		L1		L2
Asked to elaborate/	/	on what he meant/	/	Mr. Ciardi said/	/...
L2		L2		L2	L2
			L1	L1	

(Entry 19., Neutra)

Well technology /L4

?
to-day which envelopes us / L3

?
in such a terrible fashion / L1

has produced / L3 unbearable situations / L4

biologically unbearable situations in our community /L2

in our cities #

We have been so in love / L2

and the technicians / L5

and the technologists / L4

and also the architects with materials / L1
 that it was overlooked that man the consumer / L3
 is the greatest subject #
 To understand his responses and reactions I say / L1
 is the thing #

(Entry 29., Ciardi)

And..and..it's..it's..it's an experience #
 It says / L1
 in making this / L2
 I live / L3
 better / L4
 more richly / L4
 more truly / L4
 than I do / L5
 by not making this #
 Whether it means anything or not / L1
 I'm more alive in the process #
 As Robert Frost said / L2
 a while back / L1
 a poem / L2
 is a momentary stay / L3
 against confusion #
 You can't get clarified to stay so #
 Uh you musn't think that #
 You have to do it all over again #

But for a minute / Ll
 the poem clarifies a thing #
 It uh it's an experience of life / Ll
 caught #
 I think that is the subject of all art #

3. Interpretation

In order to find out how far the given junctures tally with syntactic points of structure, the corresponding IC pattern is sketched in every case, as shown by the example in Entry 1.

TABLE

Corresponding IC Patterns

Entry	Patterns
1	# 1-2 # # 1-2 #
19	# 4-3-1-3-4-2 # # 2-5-4-1-3 # # 1 #
29	# 1-2-3-4-4-4-5 # # 1 # # 2-1-2-3 # # 1 # # 1 #

The patterns for Entries 1.and 29.share one characteristic, which Entry 19 does not have.

It is the regularity of the hierarchical structure of constituents. The levels would normally take a regular ascending order (# 1-2-3-, etc. #), a regular descending order (# 3-2-1 #), or both.

It would appear that the obvious irregularity of patterns in Entry 19 may give a more or less accurate picture of a jerky way of speaking, where pauses are made at various levels of the syntactic structure, irrespective of the regularity of gradation. So, although junctures may fall at syntactic points of structure, yet, when the hierarchy of levels gets shuffled, as it does in Entry 19, the decoder is furnished with such combinations as 'well technology', 'to-day which envelops us', 'architects with materials', etc.

In the light of such evidence, it would seem reasonable to modify the original assumption through the additional specification of the feature of regularity pertaining to the hierarchical order of linguistic structure. Without this particular characteristic, Juncture could not possibly perform its function, as a cue of organisational information. It could sometimes introduce into the communication situation more entropy than the ordinary hesitation pause; for such entropy would be associated with the ambiguity of 'queer' combinations.

One other possible modification of the assumption may have to do with the range of levels at which a speaker would normally be able to manipulate juncture cues with a minimum of entropy for the decoder in oral interpersonal communication. It would appear that manipulation of such cues above the third level of structure would require adequate support from emphatic stress and pitch variations, or else run the risk of breaking up the unity and continuity of the structure of content in the decoding process. Entry 29 gives an excellent example of a successful manipulation of juncture cues at the 4th and 5th levels in the pattern # 1-2-3-4-4-4-5 # .

Above all, however, the notion of a common context to be shared by both encoder and decoder would assume importance here. The occurrence of juncture would be predictable, if it fulfilled the two conditions of the regularity of order, and the range of operation. However, it would be more predictable, if these two individuals shared approximately the same degree of assimilation of the language structure.

It has been demonstrated through the foregoing examination of Assumption II how encoders differ in their manipulation of juncture cues, and how the decoding process is affected by such a difference with respect to the organisation of items at the projection level.

Assuming that the difference touches the encoder in terms of manipulation, and the decoder in terms of prediction and subsequent operation, it would be understandable to think of contouring as 'given' and of contouring as 'expected', not as a presentation of the same or similar patterns of organization in every instance, but of characteristically different patterns at times. In short, the notion of 'relativity' seems impelling in this connection. There is reason to believe that while the grammatical base for juncture is an actuality with language users, differences will keep occurring between source and receiver, depending on the factors already noted and discussed.

If an encoder chose to place his junctures at points a, b, and d, while the decoder expected them at points b, e, and f, there would be difference between 'given' and 'expected'. To the extent that difference existed, the organization of content units at this level with the help of such cues would be affected.

1. Assumption III

The organization value of juncture cues depends on the amount of agreement between contouring as 'given' and contouring as 'expected'.

2. Identification of Cues

Coupled Juncture and IC patterns
for both 'given' and 'expected'.

(Entry 3., Announcer)

Given

Conflict with John Ciardi's point of view / L1
 was provided by Millard Sheets #
 Responding to the question / L2
 Is the big idea / L3
 more important than concern with the actual material
 medium of the painter / L1
 Mr. Sheets said /L2

Expected

Conflict with John Ciardi's point of view / L1
 was provided by Millard Sheets #
 Responding to the question / L2
 Is the big idea / L3
 more important / L4
 than concern with the actual material medium of the p./ L1
 Mr. Sheets said / L2

(Entry 21., Announcer)

Given

A question which seemed for a moment to go unanswered/ L1
 provided one of the best expressions / L2
 of the view point of Millard Sheets #
 The panel was asked what they meant by the word art / L1
 and whether they are not in fact talking about several
 different things / L2
 when they used the word art #

Expected

A question / L2

which seemed for a moment to go unanswered / L1

provided one of the best expressions / L2

of the view point of Millard Sheets #

The panel was asked what they meant by the word art / L1

and whether they were not in fact talking about several
different things / L2

when they used the word art #

(Entry 11., Neutra)

Given

Most assuredly I have to know first the human beings / L2

Before I know / L4

what a... cold wet stone will do/L5

do to my.. skin where I have through which I have
heat losses #

The biological side of it / L3

and the empathic side of it / L2

understanding human beings / L3

and systematically understanding them / L4

as well as empathically understanding them / L1

is the premise #

to know / L1

what to do about stone steel and any other thing #

I have to understand physiological optics before I know
how to use glass or mirrors and so forth #

Expected

Most assuredly / L1

I have to know first the human beings / L2

before I know what a cold wet stone will do to my skin/L3

where I have (through which I have) heat losses #

The biological side of it / L3

and the empathic side of it / L2

understanding human beings and systematically understanding

them as well as empathically understanding them / L1

is the premise / L2

to know what to do about stone steel and any other thing #

I have to understand physiological optics before I

before I know how to use glass or mirrors and so forth #

3. Interpretation

The following table shows the result of a congruency test in which given and expected patterns are compared. In either case, every juncture point is tagged by the IC levels at which it occurs.

TABLE
Congruency Test

Entry	Given Pattern	Expected Pattern
3	# 1 #	# 1 #
	# 2-3-1-2 #	# 2-3-4-1-2 #

TABLE
Congruency Test

Entry	Given Pattern	Expected Pattern
21	# 1-2 #	# 2-1-2 #
	# 1-2 #	# 1-2 #
11	# 2-4-5 #	# 1-2-3 #
	# 3-2-3-4-1 #	# 3-2-1-2 #
	# 1 #	_____
	_____	# 1 #

The comparison between given and expected patterns shows 1 discrepancy for Entry 3, 1 for Entry 21, and 7 for Entry 11. In terms of a simple numerical calculation, it is easy to see that for the decoder (here the present investigator), the organization value of juncture cues employed in both Entries 3 and 21 must be higher than that of cues in Entry 11. Especially as the total number of words for the entries in question is approximately the same on either side of the comparison, it would be tempting to compute a ratio of organization value for employed cues, and the results would look more or less satisfactory.

However, it is not so much the number of discrepancies between given and expected patterns that really counts, as it is the type of such discrepancies. In the foregoing interpretation of observations connected with assumption II, it has been pointed out that variability with regard to the operation of these verbal cues may be viewed in terms of: a) the regularity of transition from level to level, b) the range of juncture location between the two poles of Immediate and Ultimate constituents, and c) the degree of assimilation of a language structure for both encoder and decoder.

Accordingly, the one discrepancy noted in Entry 3 would not affect contouring in any drastic way, especially as both given and expected patterns are, otherwise, identical. The decoder would be more satisfied, if one more juncture point were added at level 4; in other words, if the range were a little wider to suit an utterance carrying so much content weight. Almost the same thing may be said with regard to the one point of disagreement in Entry 81. The added juncture, however, is not out of the range already covered; it is of the nature of adding one more stroke to a finished contour.

In contrast with these points of disagreement are the ones noted in comparing 'given' and 'expected' for Entry 11. These are, for the most part, connected with the observed irregularity of transition from

level to level. Also there is a lack of balance in contour delineation caused by a lop-sided distribution of junctures, as may be exemplified by the utterance starting, 'The biological side of it,' etc. By the time level 1 is reached, three more words are given, followed by a semi-terminal juncture, which seems to create uncertainty that could have been avoided.

In brief, the evaluation of juncture cues in terms of the proposed comparison between given and expected patterns would seem plausible. However, in a field study situation, the quantitative side of it would have to be developed in the light of specific types of discrepancies.

CHAPTER III

ACCENTUATION CUES

While contouring is described as a perceptual operation connected with the establishment among content units, as represented by 'words', of relationships having to do with the simultaneous occurrence of grouping and separation, accentuation may be operationally defined as a presumed tendency on the part of a decoder to respond to certain verbal cues, which signal two other structural features of simultaneous occurrence, namely, projection and suppression of items. It would be impossible to think of the relative prominence of certain items in a speech continuum, without the concurrent levelling of other items in the vicinity. There could be no projection without suppression.

It is assumed that word stress, as distinguished from syllable stress or accent, is a basic verbal cue to this particular operation. Other prosodic features, such as intonation and juncture, do get into the picture. However, the present analysis is concerned only with word stress, as a chief variable affecting the prominence and suppression of items, and with juncture as a concomitant variable. For the purpose of this auditory

analysis, word stress stands for two main types:

a) normal _____, which is the more common types of 'sentence' stress, and b) emphatic or peak stress *, which is the strongest type that may be distinguished among all the rest.

1. Assumption I

Stress and juncture operate 'jointly' as cues for the simultaneous projection and suppression of items, as represented by the words of an utterance.

2. Identification of Cues

(Entry 16., Ciardi)

Really all you're asking is that /
 uh when you say you want a poet to have ideas /
 or an architect to have ideas /
 or an artist to have ideas /
all* you're really asking is that he be a human being*
 uh and I don't think that's too much to grant* the
 the artist #
 uh I don't care who* he is /
 the chances are he's a human being* #
 If he's a small* human being /
 he'll say small things about being human /
 he will have small experiences in his art #
 If he's a larger* human being /
 he will have larger ones /
 but the only* way he can* have an experience in his
art form is technical* #

But oh you see that's that's the dirty word #
 One thinks immediately /
empty correctness #
 Uh that's the .. not it at all #
 It's the way of going #
 The language must be spoken #

TABLE I.

Accentuated Units

Stress only	Stress and Juncture	
asking	Really	ideas
poet		ideas
architect		ideas
artist		human being
asking	all	artist
too	I	is
grnat	I	human being
who		human
chances		are
small		technical
small		dirty word
small		immediately
larger		empty correctness
larger		all
only		going
can		spoken
		language

TABLE 2
Content Units

Major		Minor	
poet			
architect	ideas	human being	asking
artist	ideas	human being	say
he	ideas	human being	asking
artist	things	being human	_____
he	experiences	human being	think
he	ones	_____	thinks
_____	experiences	you	_____
technical		you	small
dirty word		I	small
empty correctness ?		I	small
way of going		you	larger
language - spoken		one	larger
<hr/>			
art			
art form			

3. Interpretation

All stressed units are supposed to have one thing in common, though, of course, in varying degrees. They all represent variations in intensity, compared

with other units in the vicinity. Whether pre-junctural, post-junctural, or medial, these stressed units represent points of prominence, against a more or less levelled background. Without these points, the whole configuration of content units would be vague, and sometimes ambiguous. In the utterance, "all you're really asking is that he be a human being," the stressed units are respectively, a function word and two content units, one minor and one major. The major unit, receiving the emphatic stress, happens to be a key unit, upon which the whole argument is based. It is the only unit repeated four times without change or modification. The minor unit, within the larger context of the whole symposium, is not actually minor. There is a conflict between members of the panel, as may be seen in the form of asking and answering. As for the function word given prominence in this utterance, it is the most significant in the whole frame. The speaker makes use of it to give point to his argument.

In order for a decoder to give due attention to such words, it is necessary that they should be distinguished in a fashion, from the other words in the background. In terms of the Gestalt principle of figure-on-ground, when part a of a pattern is presented with more intensity than parts b, c, and d, part a will be perceived as a figure. It is not difficult to find out empirically that stressed units in a speech continuum are the

only units to be distinguished against a background of noise that could drown almost everything else.

When stressed units happen to be pre- or post-junctural, their prominence from increased intensity, would, through the additional effect of gradually arrested movement, or of gradually started or resumed movement, be given a more clear-cut form against the 'levelled' background. This appears to be very much the case with words like 'ideas', 'human being', 'technical', 'all', etc. The stress responded to under the circumstances is characterized by a more extended rendition of the syllable carrying it. This would probably increase the attention value of such a one, particularly if in terms of intensity, the stress happens to be of the peak type, with respect to the entire utterance. An example of this is: "Uh I don't care who^{*} he is / the chances are he's a human being^{*}#".

So much for the configurational aspect of the joint operation of stress and juncture, as may be viewed from an examination of this portion of data. Quantitatively, stressed units are 37 in all: 17 of these are pre-junctural; 4 are post-junctural; and 16 are of medial occurrence in their respective utterances.

It is quite obvious that a substantial number of stressed words occur medially, irrespective of juncture points. Naturally, the aim of the original assumption is not

to prove or disprove the joint occurrence of stress and juncture as such, but rather to find out how far the enquiry could be pursued on the basis of such a count in terms of major and minor content units. Stress and intonation could also be profitably investigated in terms of a joint partnership along these lines.

Judging by evidence from the analysis of Entry 16, the assumption being examined here could be tentatively qualified in the light of findings from Tables 1, and 2. The table of accentuated units shows which of these are differentiated by stress, in the main; 'only' is not literally meant. It also shows which of these are additionally differentiated by juncture. The table of content units is prepared with a view to discovering which of the total number of 37 units belong to the major category, and which belong to the minor one. Comparing the information provided by these two tables, one finds that out of 19 units differentiated by means of both stress and juncture cues, 15 may be identified as major content units. Therefore, it is probable that one way of qualifying the original assumption is to say that "stress and juncture operate jointly, when they are applied to words of major content items." This is very much open to question, however; further investigation is needed.

1. Assumption II

Content units differentiated through the combined operation of stress and juncture appear to be generally more 'significant' than those projected by stress in a medial position.

2. Identification of Cues

(Entry 15., Stevenson)

I think that Mr. Ciardi has the..the right point
of view #

I can't conceive of the kind of music that would
interest anyone /
without absolute control of materials first #

(Entry 18., Ciardi)

But I'm saying what's wrong with having a technical
passion #

What's wrong with loving your medium #

What's wrong with believing that the only way you
can get expressed what you are /
is through your medium #

TABLE 1

Accentuated Units

<u>Stress</u>		<u>Stress and Juncture</u>
Ciardi		view
right		anyone
conceive	absolute	first

TABLE 1Accentuated Units

Stress	Stress and Juncture
loving	technical-passion
expressed	medium
	are
	medium

TABLE 2Content Units

Major		Minor
point of view	I	think
conceive	anyone	
materials first	Giardi	
technical	passion	saying
medium	loving	
medium	_____	
getting expressed	I	
_____	you	
wrong	you	
wrong		
wrong		

3. Interpretation

The notion of 'significance' seems to suggest at least two main issues in this context:

- a) whether such units are significantly 'located' in the utterance; whether by virtue of their positions, they are likely to call the decoder's attention more strongly;
- b) whether such units belong to a major content category.

These two issues are touched upon briefly in this study.

A third issue, which needs a much more thorough investigation in field research, has to do with the possible correlation between these two features of significance in the study of individual style.

With regard to the attention value of units located in the pre-junctural position, the table of accentuated units seems to indicate that in 2 cases out of 7, these units seem to receive the highest stress. Therefore, if they do call attention more than stressed units in the medial position, then intensity alone as a field property would not explain the phenomenon. It is probable that the change of movement at points of juncture, coupled with the accompanying variations of pitch level, might account in part for the assumed significance of this location. According to the Gestalt principle of common movement, units may be viewed in separation, if they move toward or away from each other. The notion of separation is involved in the

operation of both juncture and intonation as concomitant variables.

In the case of stressed units before terminal junctures, it is true that the anticipated drop to level 4 - with words like 'view' and 'medium', would cause a stress to gather additional intensity. Meanwhile, it is quite probable that the down-glide, signalling a separation from pitch level 3, followed by a temporary arrest of movement, should contribute to the attention value of these units.

The question of whether the significance of such units has to do with their belongingness to major content categories may be tentatively answered from Table 2. There is some indication that the assumption is well worth investigation.

The element of choice may have been gleaned through the initial quantitative enquiry into how much of the total of major content units receives accentuation or differentiation, from more than one set of cues. The implication of this enquiry is that the distinction between major and minor content units, supposedly operating with both encoder and decoder, seems to underscore the notion of relativity. While single or double coding is relative to the encoder's awareness of such a distinction, the amount of attention given by the decoder is also relative, partly to his

awareness of such a distinction, and partly to his awareness of such cues, as physical phenomena, to say nothing of motivational factors. The picture is even much more complex; what is relevant to this investigation however, is the notion of 'selection' for the decoder. Accordingly, it would be meaningful to consider two sides of a comparison between what is 'given' in terms of accentuated units, and what is 'expected', and to find out what the relationship between these two could mean with respect to this feature of organization.

What is 'given' is available for empirical checks. What is 'expected', however, may be difficult to determine with unquestionable precision. The nearest approximation would probably^{be} for individuals to study a particular message, silently, outside the communication situation, with the purpose of locating the central content units, or those that they consider to be essential for understanding the message in question. It is assumed that such units would be the expected loci of accentuation.

Accordingly, the expected pattern would vary from one individual to another. This variability is the feature that could be utilized in determining the organization value of these cues (stress cues) at this level of language perception.

1. Assumption III

The organisational value of 'normal' and 'emphatic' types of stress depends on the amount of agreement between accentuation as 'given' and accentuation as 'expected'.

2. Identification of Cues

(Entry 9., Neutra)

The (material) was put(ahead)of everything else #
 And it is my (considered opinion) /
 and so I can (easily) say and beyond (suspicion) /
 that I haven't used new (materials) in a (daring)
way /

I would say that all these (material) (considerations)
 are (very) much in (second) place in my mind #
 I (do) think that the (best) (material) the architect
 ever gets under his (hands) /
 are the (human beings) /
 who are his (clients) #
 And oh to understand (human beings) /
 to be (fascinated) by understanding their (responsiveness)
 their (responses) their(reactions) /
 is the (great) (art) of structuring an(environment)
 and arranging (stimuli) for them #

Given stress: _____

Expected stress: ()

(Entry 12., Houghton)

It would (appear) /
 (off hand) /
 that this (panel) is moving in that (age-old) discussion
 of (form) versus (content) /
 over on to the side of (form) #
 And uh let's not worry about whether we're saying
 (anything) at (all) #
 The (important) thing is the (word) the (rhythm) the
 (shape) the (line) #
 Uh and I would like to come (back) to the support of
 (Sheets)' point which was that /
 (form) and (rhythm) and (shape) and (line) in (themselves)
 are (not) enough #
 And that (somehow) /
 there must be the (balance) of this (form) and (shape)
 and (rhythm) and (line) /
addressed to (something) that relates to (human beings) #

3. Interpretation

While accentuation as 'given' is denoted by the underlined stressed words, accentuation as 'expected' is provided through identification of the words supposed to carry special weight in terms of content, which would entitle them to a characteristic prominence among other words in each utterance. These supposedly prominent words are denoted by means of brackets,

Congruency Test: For each of the two entries, a comparison is made between given and expected patterns, and the organization value of stress cues is computed as follows: N is the total number of points or differentiated units, both given and expected. Congrs. is the number of points in agreement between the two patterns. Organization value is presumed to be a fraction of $\text{Congrs.} / N$.

The result shows a ratio of 23/39 for Entry 9., as against 27/36 for Entry 12. How significant such a result may be is hard to tell now. However, this line of enquiry appears to be promising.

CHAPTER IV

TRANSITION CUES

Analysis at the 'projection' level of message decoding has been conducted in terms of the two presumed operations of 'contouring' and 'accentuation'. At this level, the organization of message content with the help of the prosodic features of speech is viewed as a gross structuring of units in the aggregate. The only relationships under investigation have been those of grouping versus separation, and projection versus suppression.

At the 'integration' level of message decoding, however, organization of content is viewed in terms of its more diverse relationships, which may be subsumed under three main categories: transition, combination, and integration. Naturally, the overlapping of such relationships, both among themselves and with other relationships at the 'representational' level, would be inevitable. But it would thereby suggest the essential unity of the process of language perception. There could be no transition without combination of items, and there could be no integration without consistency among the various combinations in view of the constant need to substitute, modify, and amplify content units.

While integration has to do with the aspect of 'cohesion' among content units, transition is concerned with that of 'progression'. There is a presumed tendency on the part of a decoder to view events in a sequence, as proceeding from one point to another. Such a tendency would probably underlie the questions: "Where do we go from here? What next?" etc. The concept of motion is basic to transition.

Verbal cues supposed to elicit this category of organizational information, though numerous, cannot be heterogeneous. The operation of these cues represents one form of speech dynamics, one form of human behavior, which would naturally be expected to have some basic pattern. Consequently, it is considered pertinent in the present investigation to attempt discovery of such a pattern.

Linguistic research, having been so far confined to utterance or sentence limits, and guarded against the study of content, could not possibly give a more or less complete picture of an organizational feature like transition, which operates in a wider frame of reference. However, because form and content are inseparable, linguistic research must have given at least one side of the picture, namely the syntactic.

Still, the notion of syntax within utterance or sentence limits is incomplete. In the present enquiry, it is extended to cover relationships between utterances and treated within a communication frame of reference.

If the linguistic unit performing the function of transition from one sentence or utterance to the next happens to be a 'content' unit, and not a 'function' word, it is considered logical, from a communication point of view, to treat such a unit as a function unit, and accept it as a syntactic cue. There is no sense in studying syntax in terms of individual utterances. And if people can proceed from one utterance or sentence to the next, using units of speech other than the so-called 'function' words, these units, no doubt, fulfil a syntactic function. Any hesitation in accepting this premise would mean denial of the way language operates in communication.

1. Assumption I

Transition in message decoding is effected partly through the operation of 'syntactic' cues, and partly through that of 'contextual' cues.

2. Identification of Cues

(Entry 4., Sheets)

TABLE 1

Syntactic Cues

Reference Cues	Shift Cues
Putting it another way	And I think
But by the same token	It seems to me
But	I believe

TABLE 1
Syntactic Cues

Reference Cues	Shift Cues
	I think
	I believe
	I don't think
	I think
	And I think

TABLE 2
Contextual Cues

Differentiated Cue Clusters	
<u>greatest art</u>	<u>have advanced</u>
great arts	aesthetic understanding
great ideas	organisation
great art	painting... a complete unit
ideas	accords of color
human values	handling space
great ideas	texture values
ideas	technical building
	progress

TABLE 2
Contextual Cues

Differentiated Cue Clusters

quantities

easier to produce

experimental age

new vocabulary

new power

empty art

ideas will come back

insight

power

force

ideas

(Entry 6., Fadiman)

TABLE 1
Syntactic Cues

Reference Cues

Shift Cues

(Entry 6., Fadiman)

TABLE 1Syntactic Cues

Reference Cues	Shift Cues
That	And
The	Now
They	You
That	What...?
But	You
Most of 'them'	And
They	Now
They	Now
But	Really
The first	And of course
But	Suppose
The first	Here
The second	Here
The	Now
The	And
The	Is...?
The	

...

...

...

TABLE 2
Contextual Cues

<u>Differentiated Cue Clusters</u>	
<u>ideas</u>	<u>'words'</u>
ideas	poet's ideas
summed up	prose writer's ideas
list 'them'	in the words themselves
ideas	ideas of Shakespeare
ideas	notions about the world
ideas	notions
ideas	as he expresses them
ideas	
<u>'of' young novelists</u>	
of very bad .. novelists	
ideas	
ideas	
<u>rhythms</u>	
<u>Two dates</u>	
one date	another date
Eighty seven years ago	four score and seven years ago
same date	
the first	the second
<u>no rhythm</u>	<u>rhythm</u>
	rhythm

TABLE 2
Contextual Cues

Differentiated Cue Clusters	
	rhythm
	that
first <u>statement</u>	second statement
	<u>fact</u> same
	statement different
	statement four score etc.
	beginning of great <u>idea</u>
	idea
<u>idea less operative</u>	idea operative
eighty seven years ago	

3. Interpretation

Transition seems to be a product of linkage at points of terminal juncture and 'elsewhere'. The former type of linkage, which is the more obvious, is furnished by means of syntactic cues. These cues seem to fall into two major divisions: one of them 'refers' back to something of previous occurrence in speech; the other 'shifts' on to what is forthcoming. Of course both types suggest the onward motion, and both provide the connection between what has gone and what

is coming; but this distinction appears to be pertinent especially in a comparison between one style of speech and another. It may also be correlated with particular types of context in speech. This is a point that may be picked up for future research.

While Table 1 for Entry 4 shows 3 reference cues as against 8 shift cues, Table 1 for Entry 6 shows 17 as against 16. Also, the 3 cues from Entry 4 belong to one variety: they introduce amplifications either through similarity or through contrast. "We've advanced ... in raising the level of understanding

'Putting it another way', the organisation of a painting etc." Also, "I think we've made a tremendous progress 'By the same token', I don't think that the things we are producing ... will ever hold their place etc."

Again, "I think that the experimental age ... will contribute tremendously to the younger painters

'But' it's a pretty empty art ... etc."

As for the shift cues in the same Entry, they also belong to one variety without a single exception. That particular variety introduces a 'personal opinion', or a 'personal conviction'. Eight such cues say: 'I think', 'I believe'.

On the other hand, Table 1 for Entry 6 shows other varieties of both reference and shift cues. One class of reference cues is for 'definitives' like 'the', 'the first'; another for 'demonstratives' like 'that', etc.; another for 'pronouns'; and another for 'contrastive reference', like 'but'.

Shift cues for the same Entry consist of these groups of items: emphatic items like 'really', 'and of course'; intermission items like 'now', 'here'; items inviting audience participation or involvement, like 'you', 'suppose', 'what...?' etc. Finally, the word 'and' is of particular interest. While it operates here as a 'shift' cue, it is observed to act elsewhere as a 'combination' cue, serving the function of addition or annexation. However, this double frame of operation is understandable in terms of the inevitable overlapping of organisational phenomena already discussed. The only solution for the practical purpose of analysis would be to make this arbitrary decision: if 'and' is located at the head of a sequence sentence, i.e., following a terminal juncture (actual or potential), it is automatically considered a 'shift' cue; if it is located anywhere else, it is considered a 'combination' cue.

In introducing syntactic cues, reference has been made to those speech items which provide linkage at points of terminal juncture, as distinguished from those that establish linkage elsewhere. The latter are given the name of 'contextual' cues.

Context is supposed to be structured in the course of speech through a process of 'differentiation' and constant 'reference'. While differentiation reveals the speaker's awareness of the sides of an issue, constant

reference indicates his progression. How far he proceeds, or how fast - these are questions pertaining to the degree of transition. The important point to note here is that progression is achieved through a form of redundancy, once the 'primary' cues are given, and the differentiation established.

Table 2 for Entry 4 shows the differentiation established horizontally by means of two columns; meanwhile, transition is represented vertically down the columns through the occurrence of redundant cues which get attached to the corresponding 'primary' cue (here underlined), as the speaker goes on.

In a comparative frame of reference, Sheets speaks of:

1) the greatest art of past epochs; 2) the fact that painters 'have advanced'; 3) that advancement is recorded in terms of 'quantities'; 4) that this art is 'empty' art; and 5) that painters need more 'insight'.

Each of these items is considered a primary cue, which is continually reinforced by redundant cues of reference to itself. A speaker could handle two or more primary cues at a time, and have them simultaneously reinforced. That is how he is enabled to proceed with his argument.

It may be observed that while some of these reinforcement cues are so close to the corresponding primary cue as to be identical repetitions, others are only slightly related. This is understandable in terms of the

concurrent development of the content units initially introduced by the primary cues. Transition from one point of the structure of content to the next is naturally accompanied by some development or amplification of the primary cue, by which the particular point has been previously ushered in.

Table 2 for Entry 6 shows the same principles in operation: differentiation horizontally, and transition accompanied by amplification vertically. The obvious difference between the charted sequence here and in Table 2 for Entry 4 is an indication of two styles of treatment. Sheets differentiates between classical and modern art in terms of two primary cues, and moves on from past to present, where he remains to the end of the entry. That is why most of his content units cluster in the second column. Fadiman, on the other hand, holds the two sides of the comparison all the way through. He introduces his two primary cues of 'ideas' versus 'words' almost simultaneously, and keeps piling up reinforcements on both sides till he moves up to the climax with the amplification: 'young novelists', 'full of ideas', etc. Then he makes a big shift to the question of rhythm; but there, again, he maintains the same balance of cues with 'one date' here, and 'another date' there; with one having 'rhythm' and the other 'no rhythm'.

This is one way of exploring a pattern for transition cues. While syntactic cues may be considered explicitly relational, and explicitly transitional, contextual cues are implicitly so. They further progression through the referred to clustering phenomenon, which is explainable in Gestalt terminology. In a sense, every reinforcement cue must be 'similar' to the primary cue to which it belongs. And the more 'contiguous' it is to the primary cue, or to the preceding reinforcement cue, the more operative it is likely to be in achieving unity with the rest of the cluster.

Curiously enough, although syntactic cues are the more obvious, they seem to be the less operative as tools of transition. A simple test would be to remove them completely from the message under study, and observe the results. Progression could be effected through the operation of contextual cues alone. But this is not the way people speak; people use, and will go on using 'reference' cues and 'shift' cues, and any serious displacement of these could affect comprehension of their messages. Experiments along these lines might be both interesting and profitable.

1. Assumption II

The pattern of transition cues, as manipulated by individual communications, seems to show two interlocking frames: a macro-structure and a micro-structure.

2. Identification of Cues

(Entry 2., Ciardi)

TABLE 1
Syntactic Cues

<u>Reference Cues</u>	<u>Shift Cues</u>
It	A while back
He	Then
It	Now
That	How...?
Something	And
That	You
It	You
It	You
Whether	What
It	There
One of the	There
It	In
It	In
That	May...?
It	What...?

TABLE 1
Syntactic Cues

Reference Cues	Shift Cues
That	What...?
It	Because
	And

TABLE 2
Contextual Cues

Differentiated Cue Clusters		
<u>R. Frost</u> .. <u>put it</u>	<u>rhythm</u>	
said	way of knowing	
said	something... wave length	
said	something... way it goes	
had to say	something... primitive	
	rhythm (English Language)	
<u>know</u> .. <u>have missed</u>	way of going	
know	have missed	meter of the race
know	aiming at	iambic
know	have missed	other languages, other ways
know	have hit	kind of beat

TABLE 2
Contextual Cues

Differentiated Cue Clusters		
know	have missed	rhythmic (sequences)
know		visual
know		series of lines
know		in time
know		series of sounds
know		
know		(structure) in rhythm
		structure
		way of forming
		bringing to shape
		basic to form
		rhythm (way of knowing)
		way of knowing .. ourselves
		<u>human behavior .. poem</u>
		doing .. writes.. poem
		doing .. receives poem
		<u>poem never idea ..</u>
		<u>always .. experience</u>
		what idea feels like

TABLE 2
Contextual Cues

<u>Differentiated Cue Clusters</u>	
live in it	
experience	
experience	
	(pace)
	rate
	(rhythm) ..unfolding
	rhythm
	wave length
	(way .. testing)
	way one knows

TABLE 3
Macro-Structure

<u>Transition Frames</u>
1. I was interviewing Robert Frost ...
2. He put it ...
3. He said ...
4. Then he said ...
5. What he had to say next ...

TABLE 3
Macro-Structure

Transition Frames

- 6. That's your way of knowing it.
 - 7. One of the questions I'd like to raise ...
 - 8. But I want to say very emphatically ...
-

3. Interpretation

The distinction already made between syntactic and contextual cues serving the function of transition, coupled with the tentative discovery that such a function appears to be largely fulfilled through the operation of the latter type of cues - have suggested further investigation into what basically affects a decoder's comprehension of the sequence of events.

If contextual cues appear to be so operative in revealing sequential progression, where in particular do they exercise maximum power?

One's immediate impression is that probably the notion of a 'macro-structure' might offer a solution. If the big land-marks are visible, if the various turns and points of junction are held in view, it is very likely that one should find one's way about, without hitting blind alleys.

The problem would then be how to identify those big land-marks which make up the macro-structure.

One way would be to chart all differentiated cue clusters, and to mark primary cues, as is shown in Table 2. Presumably when all primary cues are identified, there will be nothing else to look for. These will be the constituents of the macro-structure, without which the decoder would be at a loss, regarding the sequence of events. If for any reason, he were to become momentarily inattentive and miss these particular cues, the chances are that he would lose points of significance in terms of sequence. This is not to say, however, that all primary cues are of equal significance. According to Table 2, rhythmic 'pace' is reinforced only once, but to 'know' whether one has hit or missed something, through one's awareness of rhythmic sequences, gets the heaviest cluster of 11 reinforcement cues. Should the decoder miss as many as 8 or even 9 of these, he would be able to follow the presented sequence nonetheless. But if he were to miss the name of Robert Frost or subsequent reference to his name, he would not only miss the sequence of presentation at this point, but also the whole idea of source credibility attached to the better known American poet.

Another way of identifying constituents of the transition macro-structure may be to obtain communal

judgement on the matter from various decoders, and study the results. Table 3 shows the investigator's own impression of the minimum number of transition frames, without which the decoder could miss the sequence at one point or another. Frames 1-5 are essential for identifying the source of quoted information. Frame 6 signals a start for Ciardi's own personal reactions to achieve independence of what Robert Frost said or thought. Frame 7 signals a shift to the next major point, namely what sort of human behavior a poem is. Frame 8 signals his conclusion that a poem is never about an idea, but always about the experience of an idea.

Tables 2 and 3 would make it possible to compare the resultant macro-structures identified in these two different ways: the quantitative and the impressionistic.

Table 2

R. Frost .. put it
know .. have missed

rhythm
human behavior .. poem?
idea .. experience

Table 3

1. A while back I was ...
2. He put it ...
3. He said ...
4. Then he said ...
5. What he had to say next ..
6. That's your way of knowing..
7. One of the questions ...
8. But I want to say ...

The fact that in either case the decoder is the analyst would certainly be expected to affect the results. However, the assumption regarding the correspondence between constituents of the macrostructure and major content units seems to be justified. According to Table 2, primary cues are no other than the major content units of the Entry. Therefore, it would be safer to employ the quantitative method of identifying the macro-structure, as represented by Table 2.

As for the micro-structure, which has no separate existence per se, probably two things may be said about it in brief. First, it would naturally be expected to merge into the macro-structure at every point, both syntactically and contextually. Second, the distinction between 'macro' and 'micro' is relative. In Gestalt terminology, one thinks of the interdependence of action of the 'parts' within the 'whole'. Therefore, it is possible to think of the interlocking frames as a number of interjacent circles, ranging from the smallest to the largest. This would probably explain the position of the cues put between brackets in Table 2, as distinguished from the underlined cues on the one hand, and from any of the reinforcement cues on the other hand.

Finally, concerning the effect on comprehension of the presence or absence of a macro-structure, it

may be tested through total or partial removal of its constituents, followed by comparison of results for various decoders. The underlying assumption is that predictability of forthcoming items in a particular order is calculated in terms of macro-structure units. For instance, when Ciardi starts by quoting Robert Frost, the chances are that when he moves on to discuss rhythm, the motion is more or less expected; and when his discussion is concluded by the statement 'It's a way of knowing something,' the conclusion is more or less foreseen, because it is made precisely in terms of the initial remark quoted from Robert Frost. In other words, once the decoder is let in on the gradual unfolding of the 'big frame', his expectations of items in the 'follow-through' would be more or less accurate.

1. Assumption III

In interpersonal communication of the group situation, the total frame of transition is revealed through an exchange of cues, occurring with the change of speakers in succession.

2. Identification of Cues

TABLE 1(A)
Syntactic Cues

Panel	Entry	Reference Cues	Shift Cues
Announcer	1		
Ciardi	2		A while back
Announcer	3		
Sheets	4	They	
Adams	5		
Fadiman	6		I just want
Adams	8		
Neutra	9		Well
Adams	14		
Stevenson	15		I think
Adams	17		
Ciardi	18	But	
Announcer	21		
Sheets	22		I think
Adams	26		
Ciardi	27		I think
Announcer	32		
Ciardi	33	No	

TABLE 1(B)
Syntactic Cues

Panel	Entry	Reference Cues	Shift Cues
Fadiman	6		
Ciardi	7	That	
Neutra	9		
Ciardi	10		May...?
Ciardi	10		
Neutra	11		Most assuredly
Neutra	11		
Houghton	12		It would appear
Houghton	12		
Ciardi	13		I'd like ...
Stevenson	15		
Ciardi	16		Really
Ciardi	18		
Neutra	19		Well
Neutra	19		
Ciardi	20		Absolutely
Sheets	22		
Ciardi	23	But that	
Ciardi	23		
Sheets	24	That	

TABLE 1(B)
Syntactic Cues

Panel	Entry	Reference Cues	Shift Cues
Sheets	24		
Ciardi	25		I mean
Ciardi	27		
Sheets	28	That	
Sheets	28		
Ciardi	29	It	
Ciardi	29		
Sheets	30		I think
Sheets	30		
Ciardi	31		I think

TABLE 2
Contextual Cues

Entry	Differentiated Cues
1	Ciardi rhythm way of knowing something
2	Robert Frost
2	rhythm way of knowing something

TABLE 2
Contextual Cues

Entry	Differentiated Cues	
3.	conflict with Ciardi	
	Millard Sheets	
	big idea	material medium
4	both important	
4	ideas will come back into art	
5 (Adams)		
6		anecdote
6		idea operative
		what.. meant, John
7		part of it
7	human feeling	technical passion
8 (Adams)		
9	material of architect	
9	once eternal issues	
10		question
10		materials second place?
11	human beings first	fault of P. Avenue renewal
11		fault of P. Avenue renewal
12		panel moving
		side of form
12	content	along with form

TABLE 2
Contextual Cues

Entry	Differentiated Cues
13	question .. W. B. Yeats
13 dancer	dance
14 (Adams)	
15	Ciardi right
15	materials first
16 have ideas	
being human	
16	language spoken
17 (Adams) lightning bugs have passion	
18	technical passion
	wrong?
18	getting expressed
	through medium
19 technology envelops us	
19 understand human	
the thing	
20	saying same thing
20	human within form
21	question
	art?
	several different things
	M. Sheets

TABLE 2
Contextual Cues

Entry	Differentiated Cues
22	question pertinent
22	poetry and music two different arts problem
23	nonsense
24	bad
25	mean remark
25	parable?
26 (Adams)	
27	may have something to say
27	It says: I make this
28	idea!
29	experience
29	subject of all art
30	great idea!
31	greater experience
32	write a poem convey idea?
33	not an idea an experience
33	ideas .. textbooks

3. Interpretation

While Assumption I treats transition cues in terms of categories, Assumptions II and III consider the frames within which they operate. Speaking of a 'macro-structure' with reference to Entries, or individual units of discourse, would naturally suggest an examination of the 'total frame' of transition in a group communication situation.

To a certain extent, the total frame of transition for the recorded excerpts which constitute the corpus material of this study, is in a way 'meddled with' by virtue of the nature of 'editing', even if it consisted of nothing more than putting excerpts together, providing the most essential links in between. In other words, the 'presented' sequence is slightly different from the 'actual' sequence here and there. However, the fact remains that it 'is' a sequence calculated to give the transition cues necessary for one's perception of the total frame. Such a frame is therefore examined with this understanding of the circumstances attending its projection.

A general look at the transition cues occurring with the change of speakers shows the two major types of syntactic cues previously identified and discussed in the presented examination of Assumption I.

What is interesting to note, however, is the almost systematic occurrence of only shift cues, when the turn is between Adams, the moderator, and any of the speakers (Table 1A), and of both reference and shift cues, when the turn is between members of the panel engaged in the conduct of the discussion (Table 1B). The obvious reason is that Adams says nothing beyond "Mr. So-and-so wants to speak," thereby breaking the 'referential' sequence, and making it necessary for the next speaker to start with a shift cue.

On one single occasion, however, he takes part in the discussion (Entry 17): "I think it can be rather arbitrary. As Mr. Neutra pointed out, even lightning bugs have passion," upon which Ciardi retorts: "But I'm saying what's wrong with having a technical passion?" It is only here that the turn from moderator to 'speaker' produces a reference cue of transition.

With the announcer, however, the case is bound to be different. He is not an actual participant in the communication, but he is, in a sense, superimposed. Because he can control his own entrances and exists, these could not be looked upon as affecting subsequent cues. The opposite would rather be true. He is the one to take the cue from the speaker he introduces; he is not a 'cue giver' but

a 'cue taker'. This being the case, he sounds twice like 'Adams' (Entries 1 and 21), and twice like a participant (Entries 3 and 32).

Table 3 shows the contextual cues occurring in the first and last sentence of every Entry. It may be observed how these always bear some reference to the main content units treated throughout the discussion. While the first sentence is supposed to pick up these significant cues from the foregoing speaker, the last may be expected to hand these down to the following speaker, as modified, amplified, or perhaps substituted for by other cues.

As previously mentioned, the effect of editing on the total frame of transition should be noted. In other words, whenever transition occurs between the announcer and any member of the panel, it should be remembered that this transition is not 'actual', but calculated to resemble actuality. These shifts, though valuable in these terms, should still be identified as premeditated and superimposed. Therefore, they may be studied separately as is indicated by Entry numbers. Therewith, it is suggested that the moderator's brief statements with which he ushers in one speaker after another should also be noted separately. In a sense, these statements are also premeditated. In spite of his presence with the group, he is not really involved

in the communication situation, especially as he puts in very little or nothing in the way of participation. His sole contribution is to turn in speakers. This being the case, the name Adams is just mentioned in Table 2, with nothing to follow. But when he does contribute something, it is treated as with the other members of the panel.

The assumption that the first and last sentences uttered by panel speakers as they follow one another would normally contain 'pickup' signals of reference to significant content items of previous occurrence - seems to be justified in quite a number of cases. The closest fit to this pattern of operation is probably demonstrated in shifts between the announcer and the next panel speaker. In the shift between Entries 1 and 2, the pickup items are 'rhythm' and 'way of knowing something'; they are the very words with which Ciardi closes Entry 2. In the shift between Entries 21 and 22, again, the pickup items are identical. It is on these two occasions that the announcer cannot be mistaken for a panel speaker, or an actual participant. The fit in transition is too close to be true.

In the 3-4 and 32-33 shifts, however, transition is more or less like that between the actual participants in the discussion. The pickup

signals are there, but they are not exact replicas. They are in a way similar to those in the 6-7 shift; they sound more incidental. In fact, it is this incidental quality that may be considered characteristic of all other shifts between panel speakers. There are always pickup signals, which vary from the most to the least incidental, from the most to the least casual. If the speaker chose to start with some anecdote, or to introduce his point at some length, it might appear for a moment that he had failed to pick up his cue from his forerunner. And yet such a cue would sooner or later come up. Again, should a speaker be interrupted before he was able to formulate his conclusions, the pickup signals for his follower might be anywhere, not necessarily in the final utterance. In other words, the first and last sentences do not always contain the pickup items. Though syntactically, both reference and shift cues among speakers seem to have a more or less fixed location, yet contextually, the so-called pickup signals could occur anywhere. And it is through the operation of these two major types of cues that the total frame of transition may be envisaged.

CHAPTER V

COMBINATION CUES

Combination, as a category of organizational information, is here located between transition and integration for the simple reason that it is basic to both. It is not a 'different' category; it is 'the' category to account for communication in symbols. It is the principle of redundancy in action. With a separate chapter devoted to its treatment individually, it may appear as a separate entity. This is far from being the case with any of the categories postulated in this study. It is only for the sake of analysis that combination, like transition, is considered temporarily 'in its own rights'.

Combination of items, as may be seen from the examination of assumptions in the preceding chapter, is fundamental to the identification of cues serving the function of transition. The whole phenomenon of cue clustering shown to account for progression is explainable in terms of combination. Therefore, with respect to the decoder, whose task is basically the identification of cues, it is reasonable to suppose

his having a tendency to add or accumulate items repeated identically, analogously, or by association.

It is assumed that combination cues fall into the same two classes of 'syntactic' and 'contextual'. Syntactic cues of combination, in the sense of 'annexation', are limited to the words 'and', 'or', and their equivalents, such as 'in addition', 'furthermore', etc.; apart from these, a host of composite syntactic cues may be used for combination, when selected for 'reiteration' in close proximity. In other words, when units like 'and', or 'or' are used to combine content elements like a , b , c , etc., the combination is something like a plus b plus c. The Gestalt depends more on contiguity than on similarity. But when function units like 'that is', 'not until', etc. are reiterated in succession, and in close proximity, they produce combinations which are like aa , bb , etc. The Gestalt depends on both similarity and contiguity. This is considered the basis for distinguishing between 'annexation' and 'reiteration' cues on the broad syntactic side. They are not two kinds; but they produce two varieties of combination. It appears that any syntactic cue, including 'and', and 'or' can operate as a reiteration cue for combination, once it is selected for reiteration in close proximity.

Contextually, combination cues are the same two classes of 'primary' and 'reinforcement' cues. Differentiation being established, the decoder would expect the same recurrence of items, noted before, producing combinations which have either 'identical', or 'analogous' constituents. Both of the Gestalt principles of similarity and contiguity seem to be in operation here.

1. Assumption I

Combination of items in message decoding at the integration level is produced partly through 'annexation' and partly through 'redundancy'.

2. Identification of Cues

(Entry 7., Ciardi)

TABLE 1

Syntactic Cues

<u>Annexation Cues</u>	<u>Reiteration Cues</u>
basic (and) true	<u>That</u> is
husband (or) citizen	This is
about notation (or) etc.	It is
	That means
beautiful <u>and</u> intense	That means
beautiful and intense	<u>Till</u> the passion
beautiful and intense	Until the passion

TABLE 2
Contextual Cues

Differentiated Cue Clusters		
<u>human feelings</u>	it	
beauty	notion	
good husband	it	
good citizen	<u>anything technical</u>	
humanity	art form	
<u>souls</u> .. beautiful	technically concerned	
intense	notation	
beautiful souls	way hands behave	
intense souls	business playing piano	
delivering <u>sermons</u>	technical art	
beautiful sermons	arts technical	
intense sermons		
	<u>poems</u>	
	poetry	
	passion	technical
kisses	both	blubber
human feeling		technical passion
	one	

(Entry 9., Neutra)

TABLE 1Syntactic Cues

<u>Annexation Cues</u>	<u>Reiteration Cues</u>
complex (and) shifting	<u>we</u> have
thirty (or) forty years	we have
to the Philistines (and)	what have you
structuring (and) arranging	
<u>and</u>	
and	
whether .. or	
or	
or	
or	
or	
and	
<u>and</u>	
and	

TABLE 2
Contextual Cues

<u>Differentiated Cue Clusters</u>	
<u>material of the architect</u>	
complex	
shifting	
<u>best material</u>	<u>new materials</u>
human beings	stainless steel
clients	plastics
human beings	reinforced concrete
responsiveness	(old stuff)
responses	new materials
reactions	material considerations
them	
eyes	
ears	
auditive reception	
thermal reception	
inner ear sense of position	
sense of acceleration	
human beings	

3. Interpretation

When Ciardi employs such combinations as 'basic and true', 'husband or citizen', 'about notation or about the way the hands behave ...' the function units 'and' and 'or' are supposed to do the business of combination in an explicit way. These units, by themselves, seem to signal combination, positively or negatively. And when some correlation is established in terms of content value between 'basic' and 'true', or between 'husband' and 'citizen', etc., as would normally be expected, combination may be considered to be implicitly signalled in addition. And should the whole frame 'basic and true' be reiterated in some analogous form, combination would get still further implicit reinforcement. Whenever this is the case with annexation cues, they are placed in a medial position between the two columns of Table 1.

The frame 'beautiful and intense' is both annexational and reiterative; its constituents are both explicitly and implicitly combined. In fact, they are more implicitly than explicitly combined. Consequently, in a cluster count, they would go with reiteration cues.

In order to show how many primary cues are responded to, whether these are syntactic or contextual, underlinings are used to indicate these cues. Whatever is listed under them is supposed to belong to them.

Table 1 for Entry 7 shows 3 clusters of reiteration cues, as against 3 individual annexation cues. While the former are supposed to combine 10 items, the latter combine 6 ; that is, if one were to equalize items assingle in every case. Actually, if the sentence starting: 'That is ... ' contained two or more content units, to be combined with some two or more constituents of its parallel 'That is', then the net result would be a combination of 'two', not of 'four', or more. This is done for the sake of equalization. Table 1 for Entry 9 shows 4 clusters of reiteration cues combining 13 constituents, as against 4 individual annexation cues combining 8 constituents. Therefore, as far as evidence goes, it appears that reiteration overweighs annexation, as far as syntactic signals are concerned.

Contextually, however, the picture of combined items is entirely redundant. At this point, it should be re-stated that redundancy must be conceived of as a form of repetition, sometimes identical, and 'more often' analogous, or purely associative. It must be broadly maintained, in order to account for the progression and development of items in a message organization. As previously mentioned, combination is not performed for its own sake.

A comparison between cue clusters in Table 2 for Entry 7

and those in the corresponding Table for Entry 9 shows different forms of redundancy utilized for combination. Probably the most striking difference lies in greater variety among cluster constituents in Entry 7. The grouping of such items as 'beauty', 'good husband', 'good citizen', and 'humanity' under the primary cue 'human feeling' (Table 7) is certainly different from attaching 'responsiveness', 'responses', and 'reactions' to 'human beings' (Table 9); or from attaching 'stainless steel', 'plastics', etc. to 'new materials' (Table 9). While the former type of clustering is accomplished through subtle, ingenious repetitions, the latter is done through blank, unqualified, or slightly qualified repetitions.

However, in either case of contextual cue clustering, the form of combination is redundant, and the underlying principles of perceptual organization are similarity in various degrees, and contiguity. As far as syntactic combination cues are concerned, it has been demonstrated how these tend to be more reiterative than annexational. The results seem to argue strongly for redundancy in the sense defined by the described operation.

1. Assumption II

The principle of linguistic duality seems to underlie the operation of combination cues.

2. Identification of Cues

(Entry 12., Houghton)

TABLE 1

Syntactic Cues

<u>Annexation Cues</u>	<u>Reiteration Cues</u>
that form, etc.	<u>that</u>
(and) that somehow ..	that
<u>and</u>	
and	
and	
<u>and</u>	
and	
and	

TABLE 2

Contextual Cues

<u>Differentiated Cue Clusters</u>	
<u>content</u>	<u>form</u>

TABLE 2
Contextual Cues

<u>Differentiated Cue Clusters</u>	
<u>Content</u>	<u>form</u>
saying anything	form
something related	word
to human beings	rhythm
what use	shape
a point	line
something to say	
end	<u>Mr. Sheet's point</u>
end	balance
something close	form
to his heart	rhythm
	shape
	line
	form
	shape
	rhythm
	line
	formalism
	formal materials
	words for sake of words
	material means to end
	content along with form

(Entry 22., Sheets)

TABLE 1Syntactic Cues

<u>Annexation Cues</u>	<u>Reiteration Cues</u>
idea (or) content	<u>It</u> isn't literature
rhythm (and) all ...	It is music
to go over ..(and) defend	It is a special ...
speaks (and) writes	
	<u>You're</u> not dealing
	You're dealing
	<u>It's</u> important
	It's terribly ...
	It's not the ...
	It isn't just ...
	<u>that</u> never say ...
	that doesn't say ...
	that is written ...

TABLE 2
Contextual Cues

Differentiated Cue Clusters	
<u>different kinds of art</u>	
<u>music</u>	<u>literature</u>
music	ideas clearly
it	uniquely stated
special area	not mere rhythm
of human feeling	not just rhythm
tone	
rhythm	<u>ideas</u>
music	context
music	basic ideas
	concepts
<u>no idea</u>	feelings
no content	beliefs
doesn't say anything	
	<u>lecturer</u>
<u>work of art</u>	speaks and writes beautifully
form	fascinating hear him speak
manner	doesn't say anything
form	never say anything
<u>two different arts</u>	
problem	

3. Interpretation

The notion of 'linguistic duality' has been borne out by linguistic research at various levels, but within the narrow framework of 'phonematization' versus 'grammatization'. However, from the point of view of communication, one cannot conceive of a linguistic principle as separate in operation from the whole conceptual framework of human experience, as may be represented by message content.

The presented procedure of identifying combination cues in the structure of content would not be possible if the basic scheme of language operation was not so amenable to analysis in terms of a system of duality which encompasses both the structure of content, and the structure of expression.

Fundamentally, it is possible to think of combination cues as 'syntactic' and 'contextual'. Syntactic cues are those grammatical units that may be identified as 'joiners' of content units. Table 1 for Entries 12 and 22 comprise a number of such connecting units. Contextual cues are those content units, which carry the sum and substance of the message. Whatever may have been left out of Table 2 for these two Entries belongs to the category of minor content units: those that are subsidiary ramifications, which receive no further development

in the course of the message. Should one be interested in giving a detailed picture of content units, such minor elements would certainly make their appearance in the table.

It is then possible to think of syntactic cues serving the function of combination as 'annexational' and 'reiterative'. This does not mean that the two classes are mutually exclusive, but that they produce two different types of combination. All the annexation cues in Table 1 for Entry 12 are simultaneously reiterative cues, with only one single exception. On the other hand, none of the annexation cues in Table 1 for Entry 22 is selected for reiteration. This seems to be a matter of individual style.

Meanwhile, contextual cues, serving the same function of coalescence may be divided into: 'identically redundant', and 'analogously redundant'. While there are various forms of analogous repetition, none of them can be confused with identical forms. It has been stated earlier how both classes of redundant units are essential for communication. However, so long as the aim is to achieve progression with the concurrent development of content units, there would normally be more items of the analogously redundant type than of the identically redundant. Under 'content' in Table 2 for Entry 12, there is not a single item identically

repeated. Under 'form', there is one in this particular cluster.

Considering each cue cluster individually, the internal structure has two components: a 'primary' cue, followed by 'reinforcement' cues. Sometimes, the primary cue does not appear to be central in the cluster following it. How far organisational primacy would coincide with conceptual centrality appears to be relative to the point of view of the beholder: the encoder on one side, and the decoder on the other. For example, considering the cluster under 'music' in Table 2 for Entry 22, should the item 'special area of human feeling' occur first, it would be arbitrarily called a 'primary' cue for this particular cluster, according to the presented scheme of analysis. And should a decoder think it proper to call 'music' still the primary cue, the difference between the 'given' order and the 'expected' order would not really matter in this connection, as long as there 'is' a primary cue with other reiterative cues in the vicinity.

This is one interpretation of the principle of 'linguistic duality', viewed as underlying one aspect of perceptual organization in message decoding, namely combination.

1. Assumption III

In interpersonal communication of the group situation, a speaker's reaction to opposition in argument seems to be reflected in increased density of combination cues.

2. Identification of Cues

Entries: 13, 16, 18, and 20., Ciardi

TABLE 1Syntactic Cues

Entry	Annexation Cues	Reiteration Cues
13	None	<u>until</u> someone ... until he ...
16		post <u>or</u> an architect or an artist <u>If</u> he's a small ... If he's a larger ... <u>That's</u> the dirty word. That's not it ... It's the way
18	None	<u>What's</u> wrong with ... What's wrong with ... What's wrong with ...
20	None	<u>If</u> you're going ... If you violate ... If you violate ...

TABLE 1
Syntactic Cues

Entry	Annexation Cues	Reiteration Cues
20		<u>No one</u> objects ... No one objects ...

TABLE 2
Contextual Cues

Entry 13., Ciardi Differentiated Cue Clusters		
W. B. Yeats		
<u>question</u>		
answer		
<u>body</u>		<u>music</u>
dancer		dance
dancer		dance
someone		it
dancer		dancing
Entry 16., Ciardi		
<u>ideas</u>	<u>human being</u>	<u>poet</u>

TABLE 2
Contextual Cues

Entry 16., Ciardi		Differentiated Cue Clusters
ideas	human being	poet
ideas	human being	architect
ideas	human being	artist
things	being human	artist
ones	human being	he
		he
		he
		he
		he
		<u>experiences</u>
		experience
		art
		art form
		<u>technical</u>
		dirty word
		empty correctness?
		<u>way of going</u>
		language spoken

TABLE 2
Contextual Cues

<u>Entry 18., Ciardi</u>		<u>Differentiated Cue Clusters</u>
<u>passion</u>	<u>wrong</u>	<u>technical</u>
loving	wrong	medium
getting expressed	wrong	medium
<u>Entry 20., Ciardi</u>		
	<u>same thing</u>	
	at it differently	
<u>music</u>		<u>poem</u>
structures		not something said
premises		something happening
technical premises		happens
<u>pianist</u>		<u>poet</u>
what fingers doing		way thing flows
what fingers doing		form
		empty technically?
		<u>human</u>
		good
		human

TABLE 3
Comparative Distribution

Entry	Total Words	Total Cues	Density per cluster	Density per cue
<u>10</u>	<u>76</u>	<u>10</u>	<u>3</u>	<u>3*</u>
13	60	12	3	4
<u>7</u>	<u>207</u>	<u>25</u>	<u>6</u>	<u>4*</u>
16	146	28	6	4 $\frac{1}{2}$ *
18	35	9	3	3
20	174	20	6	3 $\frac{1}{2}$ *

NOTE: The underlined figures for Entries 10 and 7 stand for available samples of 'normal' distribution, as far as Ciardi is concerned. These are calculated to permit a comparison within understandable limits.

3. Interpretation

In debating this controversial issue, Ciardi appears to be the predominant figure, fighting for form and technical passion. As long as his opposition can be kept under control, he is naturally relaxed: he speaks at some length, interjects incidental remarks, and proceeds at a moderate pace. On two occasions, however, he seems to be gradually shaken by his opposition: once, following Houghton's (Entry 12) and once, following Sheets's (Entry 22). On the latter occasion, he retorts violently with the phrase: "That's nonsense, Mr. Sheets," and says little under the circumstances, that could be studied in terms of the effect of opposition on his manipulation of combination cues.

Houghton's opposition being milder, Ciardi goes on at a faster tempo, apparently saying more in less words. This is the general impression a decoder would probably get, as he listens to Entries 13, 16, 18, and 20.

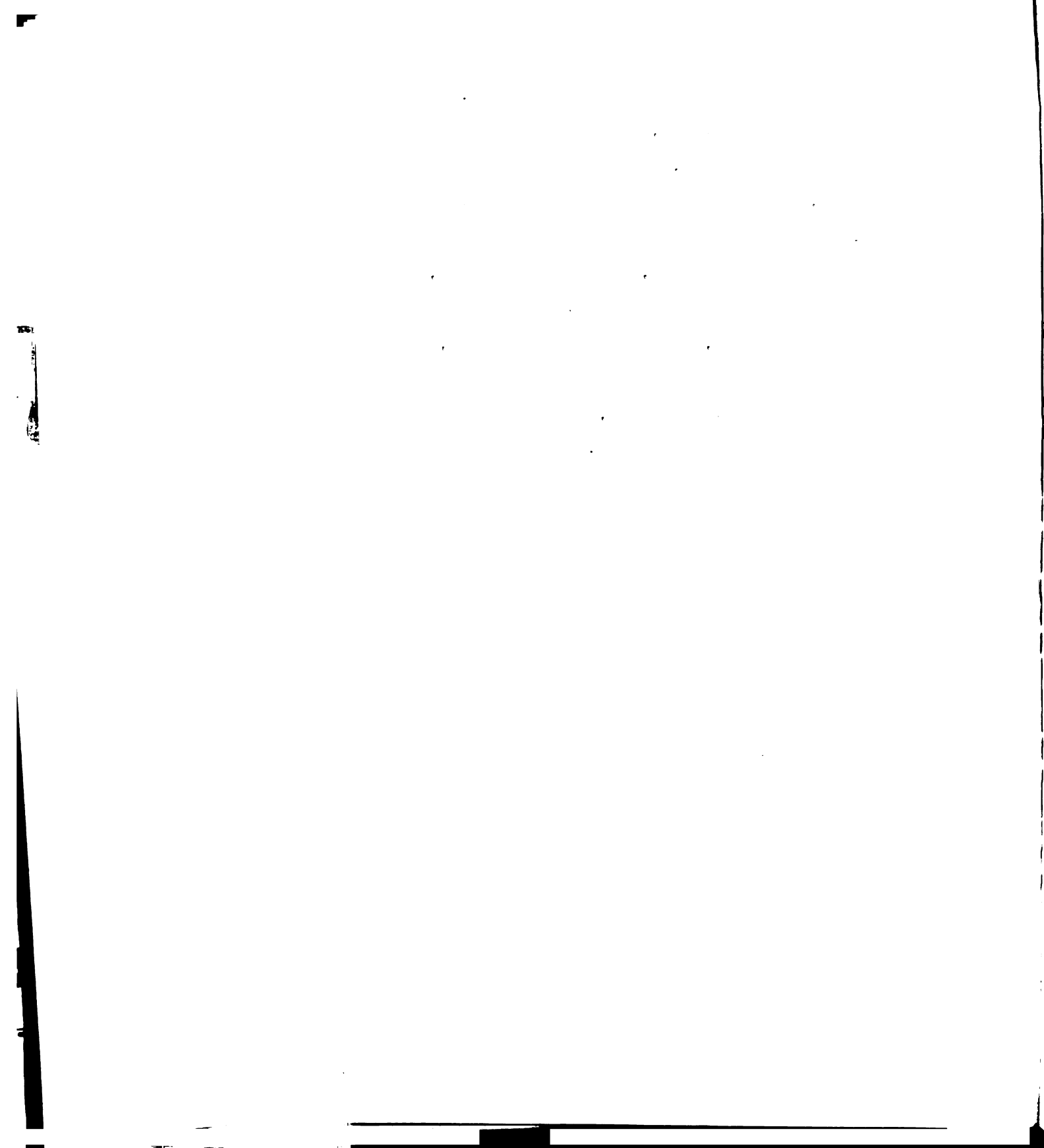
Table 1 shows no annexation cues in 4 Entries. All syntactic cues are reiterative: 2 clusters for Entry 13; 2 for 16; 1 for 18; and 2 for 20. This distribution of syntactic cues seems to be more or less normal, as far as Ciardi is concerned. See Entry 7, for example.

As for contextual cues, the general picture shows density with brevity. Entry 13 shows 3 clusters, with a total of 12 units. Apart from the grammatical structure in which these content units are set, practically nothing is said, which is not redundant in a measure. The density ratio seems to rise even higher in Entry 16, as may be seen in Table 3 of Comparative Distribution. What is noticeable in addition is that the speaker seems to sacrifice motion and variety for the sake of greater emphasis: his reinforcement cues are, generally speaking, more or less identical repetitions of his primary cues: the only variation for 'human being' is 'being human'; 'experience' has no reiterative form but 'experience'; 'technical' is made synonymous with some 'dirty word', for lack of a more suitable term, to maintain the diversity to which he is accustomed.

Entry 18 is probably the most representative of increased density of combination cues coupled with brevity. It is not only that the three main content units are trebly reiterated, but the whole syntactic frame of the question is constantly repeated. Nothing else is said beyond this. Entry 20 shows a return back to normal, according to Table 3. Comparing Entry 20 with Entry 16, one observes how the total number of words rises, while density per cue falls. On the other hand, the samples of 'normal' distribution

shown as underlined in Table 3 demonstrate, in a very 'tentative' fashion, how, under the effect of opposition in argument, density per cue rises in Entries 13 and 16, while the number of words falls. In other words, the speaker seems to reinforce his primary cues more than he usually does, and simultaneously, to reduce the total number of words.

In any case, with a sample like this, it is difficult to tell accurately how 'significant' such differences may be. Above all, what we have here is the reaction of one individual. Whether this is generally the case with others is open to research.

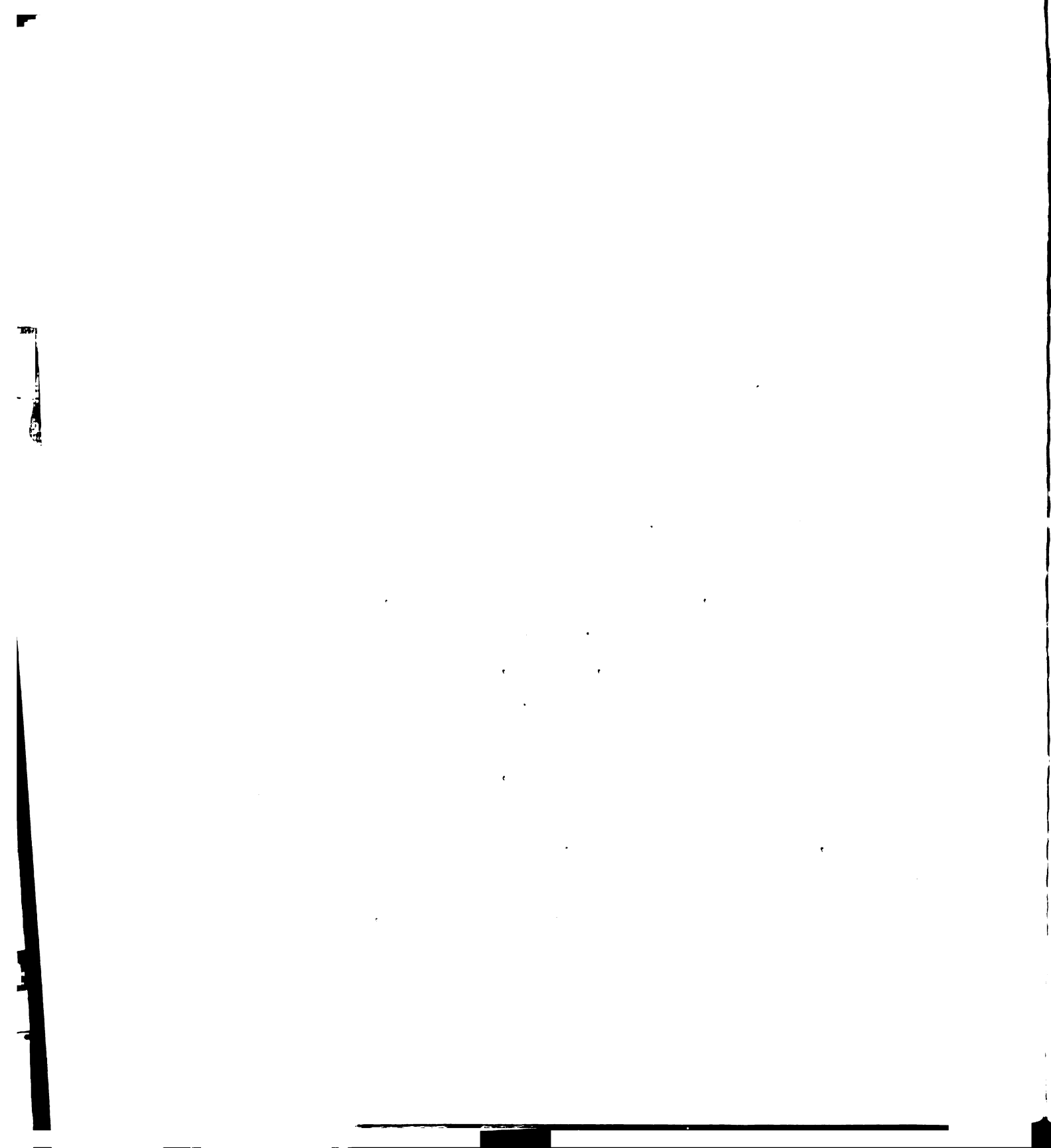


CHAPTER VI

INTEGRATION CUES

Combination of the elements of a message content has been introduced as basic to transition on the one hand, and to integration on the other. It has also been stated that while transition is synonymous with progression from one end of a message to the other, integration is presumed to mean cohesion among parts. The assumptions to be examined in this chapter have to do partly with what cohesion of parts is, and partly with what it does, as far as the decoder is concerned. Preliminary to the analytic process at this stage, however, one question should be raised and taken account of. In an investigation into what constitutes organizational information in linguistic communication, are we interested in the 'logic' of such communication? And if so, what is our standpoint, as far as the 'quality' of reasoning is concerned?

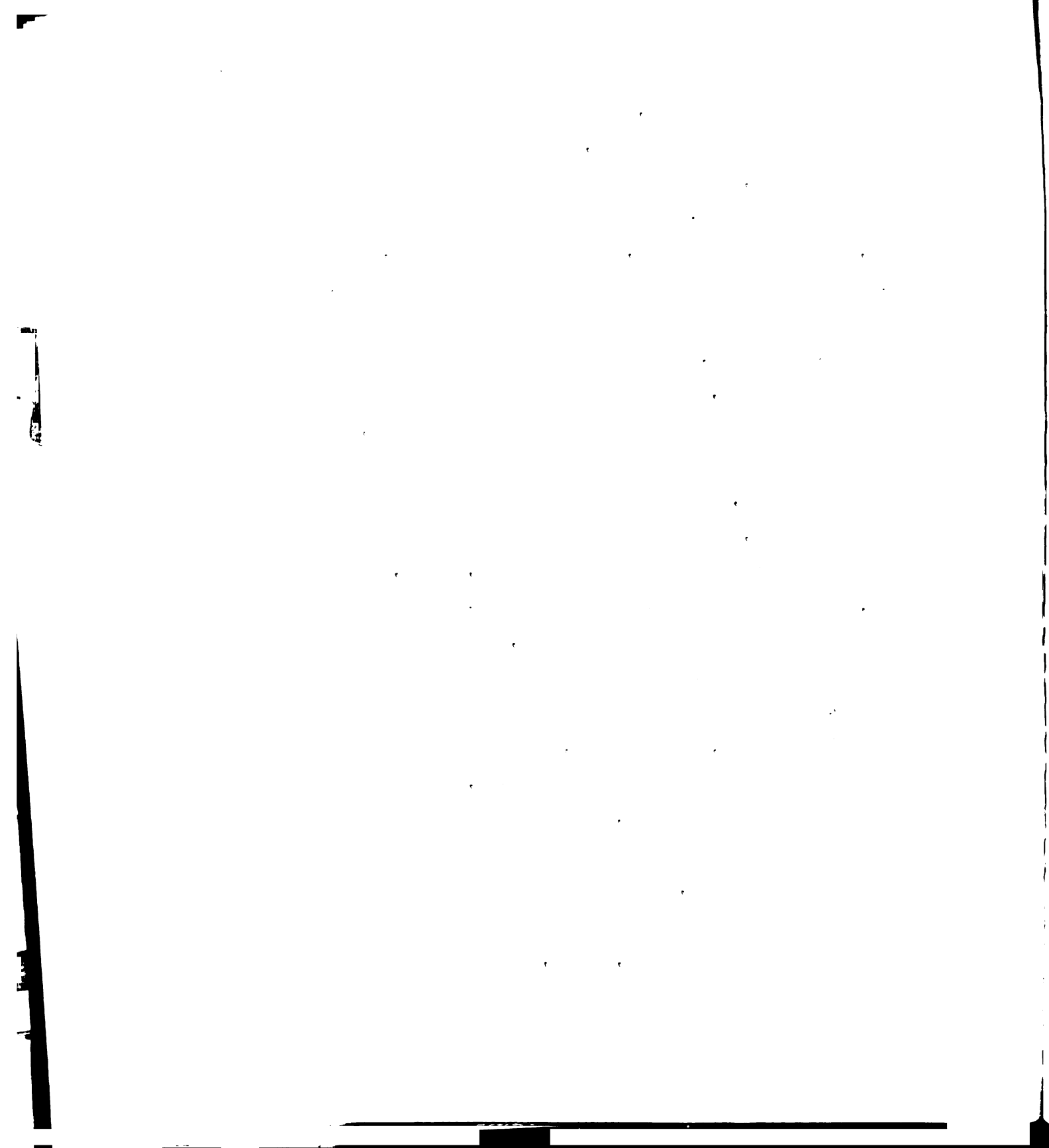
In answer to the first part of the question, one would say that this investigation is concerned at this point with the linguistic features of



organization for reasoning, not with the reasoning process as such. In other words, when people reason with one another, they are supposed to use certain linguistic techniques. They might 'substitute' some items, 'modify' other items, 'amplify' other items, etc. These are the organizational linguistic techniques, which are here postulated as basic to any form of reasoning. Naturally, we are interested neither in the 'mode' of reasoning, nor in the 'quality' of reasoning. These are questions of more interest to the logician, and they are naturally outside the scope of this study.

Therefore, whether the communicator is reasoning or rationalizing, all we propose to do is to notewhatsome type of organizational cues he manipulates, where, how often, and with what effect on the decoder. Our aim is to discover a basic pattern, which would be expected to recur with other speakers of the same language. When it is stated or implied that 'substitution' cues, for instance, help a decoder to accommodate a suggested relationship better, and therefore perceive it better, it should be understood that one is not concerned at all with whether such a decoder is convinced, whether he will accept or reject the presented relationship.

Integration cues are, again, either syntactic or contextual. Syntactic cues are those grammatical



units viewed as providing links for speech segments, which 'substitute' content units, 'modify', or 'amplify' them.

Contextual cues are, according to the basic scheme of combination, either 'primary' or 'reinforcement' cues. The same principle of redundancy adduced to account for combination is again utilized to achieve the integration or cohesion of parts, often referred to as the 'development' of content units. Naturally, contextual cues would fit into the same functional framework of syntactic cues, which holds 'substitution', 'modification', and 'amplification'.

1. Assumption I

Integration of content units is accomplished 'jointly' by syntactic and contextual cues.

2. Identification of Cues

(Entry 27, Ciardi)

TABLE 1

Syntactic Cues

<u>Substitution</u>	<u>Modification</u>	<u>Amplification</u>
of (what) goes	(when) spring	parable: (There)
discovered (that)	(while) he was sw..	juggling: (He)
this is (what)	(while) he was cl..	specialists: (One)

TABLE 1
Syntactic Cues

Substitution	Modification	Amplification
It is (that) anything.. idea (that)		Desecration: (This) moral: (I)

TABLE 2
Contextual Cues

Differentiated Cue Clusters	
<u>short story</u>	
	parable of artistic process
	juggler
	<u>juggling</u>
	juggler
<u>monastery</u>	<u>sweeping</u>
island of peace	sweeping
monastery	
dedicated to praise	juggled
	sessions of juggling
	cleaning
	juggler

TABLE 2
Contextual Cues

Differentiated Cue Clusters	
<u>monks</u>	juggling
specialists	sweat
wrote hymns	
raised flowers	<u>Virgin</u> come down
illuminated manuscripts	wipe sweat
did decorations	
	<u>moral</u>
<u>Desecration</u>	real one
What Luce says	gist
Desecration	anything intensely done
	anything positively done
	any good shape
	praise
	statement
	experience
	prayer
<u>Sheets says</u>	<u>I say</u>
poetry about ideas	experience of ideas
	one idea
	praise

(Entry 29., Ciardi)

TABLE 1Syntactic Cues

Substitution	Modification	Amplification
think (that) is..	(whether .. or)	Experience: (It)
		(more .. than)
		(as) R. Frost

TABLE 2Contextual Cues

Differentiated Cue Clusters	
(idea)	<u>Experience</u>
	live better
	more richly
	more alive in process
Robert Frost	
	<u>poem</u>
	<u>momentary stay</u> <u>against confusion</u>
	not stay so (clarified)
	for a minute clarifies thing
	experience caught
	of all art

3. Interpretation

One's view is here limited to inter-sentential syntactic cues signalling the three structural features specified as basic to the process of integration among decoded content units. In Table 1 of Entry 27, some units are listed as 'substitution' cues. What is meant in the first case, for instance, is that when the listener hears Ciardi say: "I want to make it into a parable of..", he expects the occurrence of 'something', an object or action, which could be 'artistic thinking', 'creative thinking', 'the artistic process', or anything suitable in this context. However, as soon as the decoder receives the cue: 'what', his expectations switch over to an expanded statement of what was of probable occurrence, and so he gets: " .. what goes on in the artistic process." This expansion of a content unit pending expression is introduced by means of such cues as 'what', 'that', etc. And this expansion is presumably calculated to give better accommodation to integration between the idea of the parable and that of the artistic process, by way of introduction. This is not to say that other factors may not be recognized as affecting a speaker's choice of the expanded frame rather than the short frame. And this is not to say that the expanded frame always provides a better contribution to integration, but

that it offers another alternative to a decoder who might need it in order to perceive the presented relationships better. It is very likely, however, that in oral interpersonal communication, a decoder would be happier with the expanded form, which is actually more redundant than the short form. In any case, this point would need further confirmation from field research.

Moving on to the second column of Table 1, one observes another set of cues used to signal another type of expanded frames, referred to as 'modification' frames. The chief difference between these and substitution frames is a difference of function. Modification frames are supposed to delimit actions already expressed or pending expression. In the case of "When spring came around, he found himself recovered," the whole frame, 'when spring came around' may be looked upon as 'delimiting' the forthcoming action of the juggler 'finding himself recovered'. In this case, modification is 'prospectively' applied to action 'pending expression'. On the other hand, "They were just about to run in and throw him out, when they saw the Virgin, etc.," is an illustration of how an expanded frame is signalled to modify 'retrospectively' some action already expressed.

The third column comprises a composite number of cues, which signal the structural relationship given the name of 'amplification' in the sense of illustration or supplementation of something of prior occurrence. In Entry 25, Ciardi requests three more minutes to give a 'parable', and his request is granted with the words: "Speak, master." Thereupon, he starts: "... There's a lovely short story of Anatole France's, etc. etc. " The cue shown between brackets in this column is supposed to signal an amplification of the unit 'parable'. Similarly, 'he' is related to 'juggling', 'one' to 'specialists', 'this' to 'Desecration', and 'I' to 'moral'. To say that 'there', 'he', 'one', 'this', and 'I', etc. are 'amplification' cues is not to contradict or denounce one's calling them previously by the name of 'transition' cues. They are both transition and amplification cues; they fulfil complementary functions in one and the same process of language perception. It is only that one is here interested in some exploration of the different functions fulfilled by these and other units of speech.

Along these lines, one may read the results shown in Table 1 of Entry 29. "That is the subject of all arts," is a substitution frame. "Whether it means anything or not, " is a modification frame, prospectively acting upon 'Ciardi being alive in the process'.

As for the list of amplification cues, it is sufficiently varied in scope, although it comprises only three units. The notion of 'experience' in this context happens to be one of those delicate concepts, that can hardly be communicated even to artists, without misapprehension. It therefore needs amplification in various ways. One way, according to Ciardi, is to denote what it means in the broadest possible terms: "It says, etc. ," goes the first cue. Meanwhile, a comparison is needed to demonstrate the advantage of living through an experience: " better, more richly than I do etc.," goes the second cue. That does not seem enough to convince, not only a panel of fellow artists and creative thinkers, but also a large audience of mixed thoughts and mixed feelings. So, out goes the name of Robert Frost again: "As Robert Frost said a while back, etc." The cue "as", followed by the particular name of Robert Frost, is calculated to usher in amplifying information characterized by source credibility. As a matter of fact, one could list more cues under this category than just three: in a sense, development of content items consists in amplification all the way through. However, the most conspicuous cues that could be listed systematically here may be arbitrarily determined as units introducing: 1) comparisons implicitly or explicitly expressed; and 2) appositional statements.

With respect to contextual cues, there is practically nothing to add to what has already been demonstrated in the previous chapter about differentiated cue clusters: how they are supposed to accumulate, and how they operate with the decoder in terms of primary and reinforcement frames. What is closely related to integration, however, is the scheme of their operation in terms of the three structural features of 'substitution', 'modification', and 'amplification'.

A look at the contents of Table 2 for Entry 27 will show how the total structure of differentiated cue clusters can be accommodated within the three-dimensional frame of reference. 'Juggling', 'sweeping', and 'the artistic process' seem to be handled as inter-changeable substitutes: and so are the 'monks', 'Luce', and probably 'Millard Sheets'. The 'moral' modifies everything said: anything 'intensely well done', anything 'positively well done', etc. is, according to Ciardi, synonymous with the artistic experience. The whole parable as has been previously alluded to, is an amplification of the notion of the artistic process. Similarly, Table 2 of Entry 29 shows substitution in the inter-changeable character of a poem as 'a momentary stay against confusion', and as 'an experience of life caught'. It shows modification through specifying the ephemeral nature

of organization in the artistic experience. And it shows amplification in terms of Robert Frost's contribution to John Ciardi's initial statement about the notion of experience.

Finally, the essential unity of both syntactic and contextual cues seems to be reflected in their fitness into the same scheme of integration, which in Gestalt terminology is based on principles of consistency and symmetry in the main. Through substitution, modification, and amplification of content units, the decoder is supposedly enabled to perceive better consistency or more symmetry among parts of the presented content.

1. Assumption II

The scheme of integration cues seems to reveal a binary principle in action.

2. Identification of Cues

(Entry 33., Ciardi)

TABLE 1Syntactic Cues

Substitution	Modification	Amplification
(What) I am con..	(When) you put	Idea in action:
(What) interests	behaves (when)	(In) philosophy
-----		Creative thinking:
.. is (what) portion/	around(which)	(He) said
tell me (how)	irrationalities(that)	Basic things:
tell you (how)	things (that)	(You) can't get ..
in (what) it means	experiences (that)	-----
in (what) it does		Profound obscurit.
the fact (that)		(As)
told us (what)		

TABLE 2Contextual Cues

Differentiated Cue Clusters	
<u>Idea</u>	<u>Experience</u>
ideas	experience
ideas into monographs	ideas into human being
	portion of a life
	enactment of idea

TABLE 2
Contextual Cues

Differentiated Cue Clusters	
	experience
	idea in action
	<u>in philosophy</u>
idea	pragmatic consequences
concept	how human being behaves
thing in the abstract	accepts idea .. motivation
	way of measuring ideas
idea	<u>experience</u>
	what idea means to human b.
	what it does inside him
<u>Mr. Neutra</u>	
'pure idea'	<u>whole bush of dendrites</u>
lost 18th cent. cause	idea with all glands on
	with all fears on
	with all anxieties on
	with all joys ready
	with all irrationalities
	basic irrationalities
	emotions

1

TABLE 2
Contextual Cues

Differentiated Cue Clusters	
<u>problem solving</u>	<u>creative thinking</u>
rational	
Dean of engineering	
five steps	
limit problem	
qualitative analysis	
quantitative mathematics	
check quant. mathematics	
mechanical implementation/	creative thinking
chess playing	<u>basic things of life</u>
problem solving	get married
problems to solve	get married
defining 'girls'	beget child
qualitative analysis	die decently
quantitative mathematics	cardinal points of life
	hinge points
	important points
	irrationalities
text-book ideas	profound obscurities
	<u>B</u> marvellous obscurities
	experiences .. stir us
	resonance .. vibration

1

3. Interpretation

To repeat an earlier statement, the pattern postulated for the main linguistic features of organization utilized for the integration of content units is presumed to underlie any reasoning process. It is neither the reasoning process as it 'should be', nor even as it 'is'. Whether we reason or rationalize, whether we follow an inductive or a deductive procedure, or both, the underlying structural features of linguistic expression are presumably these two in the main: 'substitution', and 'modification'. A content unit or a combination of content units is either 'replaced', or 'changed' in the course of reasoning. It may be wholly or partially replaced; and in the process of change, it may be qualified, tempered, delimited, or else, expanded, broadened, developed, etc. This dual scheme of integration cues does not contradict the tripartite scheme being so far expounded; it only presents a possible reduction in binary terms.

As a matter of fact, the operation of the binary principle seems to be so pervasive as almost to dictate a scheme of dualities all the way through. In the first place, Table 1 for Entry 33 presents one of two categories of integration cues, namely the syntactic. A look at column 1 will show two varieties

of substitution cues: one occupying an initial position in the sentence; the other occupying a terminal position. It would be interesting to investigate the relative significance of these two positions from the point of view of the decoder.

Moving on to column 2, one observes two varieties of modification cues: those in the upper part modify both prospectively and retrospectively, according to their position in the sentence. This has already been discussed in the previous examination of Assumption I. Those in the lower part of the column must always follow whatever they modify. They never precede it.

As it now stands, column 3 comprises two types of amplification cues: one is distinctively analogical and extensional; it often suggests a comparison implicitly or explicitly. This type is here represented by the unit 'as'. It is as distinctively analogical and extensional as 'and' is distinctively 'combinational', and as 'then' is distinctively 'transitional'. The other type is a composite group of shift cues employed to introduce the amplifying combination of items.

However, when column 3 is mashed into column 2, the result will be a compound of two chief elements: one characterized by introducing further development and extension (now amplification); and the other

comprising different features of change (now modification).

On the other hand, Table 2, which stands for the other chief category of integration cues, namely the contextual, shows, in turn, a dual distribution of these cues, as represented by the two columns of differentiated cue clusters: one for the notion of 'idea', and the other for the notion of 'experience'. It may be argued that the observable duality of distribution may very probably reflect the two-sided issue under discussion: 'form' versus 'content', and that the juxta-position of 'idea' versus 'experience' is probably foreshadowed by the two sides of the topic. It is also possible that this basic duality is a characteristic of Ciardi's personal style. All this may be true to a certain extent. Observation, however, seems to support the assumption that 'duality' is inherent in the very process of differentiation, without which there could be no distribution of cues, no communication. A content analysis of any of the Entries treated in this study would invariably reveal the binary structure of content in every case. In Entry 4, for instance, the major content units cluster around 1) the great art of the past; and 2) the empty art of the present. Entry 9 centres on two points: 1) technical concern with raw materials;

and 2) technical concern with human response.

Within this dual frame, the same features of substitution and modification are observable about contextual cues in Table 2 for Entry 33. In a sense, all clusters under 'experience' are offered as substitutes for those under 'idea'. The 'whole bush of dendrites' would replace the 'pure idea'; 'creative thinking' would replace 'problem solving', etc. Meanwhile, the notion of 'pragmatic consequences' in philosophy is adduced to amplify the 'idea in action'. The notion of the 'basic irrationalities' is modified by the very mention of the item 'emotion', and by the thought of 'dying decently', etc. There is ample evidence here of the operation of the binary principle.

1. Assumption III

In interpersonal communication over a controversial issue, the total structure of content consists in a 'systematic' integration of 'salient' contextual cues, manipulated on both sides of the controversy.

2. Identification of cues

TABLE 2A
Contextual Cues

Contention	Reaction
Entry 2., Ciardi	Entry 6., Fadiman
<u>rhythm</u>	<u>Lincoln's four score and ..</u>
way of knowing	idea operative
basic to form	
<u>poem</u>	<u>Ideas of Shakespeare</u>
not about idea	as he expresses them
about experience	cannot list them
<hr/>	
<u>Feature of Integration:</u>	Amplification
<u>Exchanged Remarks:</u>	
Fadiman: Is that all what you meant, John?	
Ciardi: That's very much a part of it.	
<hr/>	
Entry 9., Neutra	Entry 10., Ciardi
<u>best materials</u>	<u>human question</u>
human beings	second
Entry 18. Ciardi	Entry 19., Neutra
<u>technical passion</u>	<u>technology envelops us</u>
loving medium	man, greatest subject

TABLE 2A
Contextual Cues

Contention	Reaction
Entry 18., Ciardi	Entry 19., Neutra
<u>Feature of Integration:</u>	Modification
<u>Exchanged Remarks:</u>	
Neutra: To understand his responses and reactions, I say, is the thing.	
Ciardi: Absolutely. We're saying the same thing but coming at it differently, etc.	
Entry 13., Ciardi	Entry 15., Stevenson
<u>human question</u>	<u>Mr. Ciardi right</u>
second	materials first
<u>Feature of Integration:</u>	Substitution for similar
<u>Reference:</u>	Agreement acknowledged

TABLE 2B
Contextual Cues

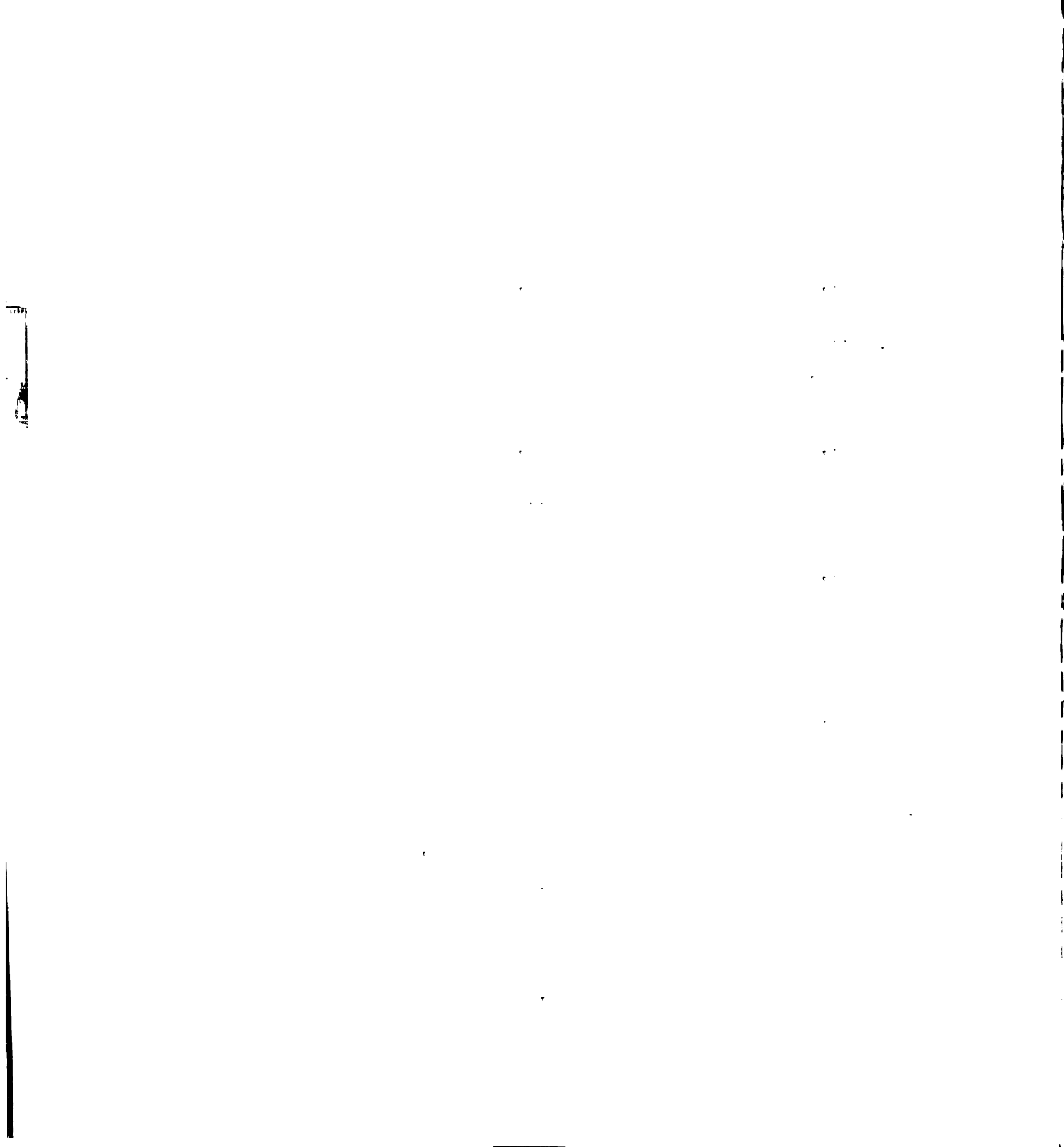
Contention	Reaction
Entry 4., Sheets	Entry 12., Houghton
<u>both terribly important</u>	<u>balance of</u>
form ideas	form
fair equality	rhythm
	shape
	line
	addressed to .. human b..
	<u>Lincoln's four score ..</u>
	utilized to make a point
<u>Feature of Integration:</u>	Amplification
<u>Reference:</u>	
Houghton : I would like to come back to the support of	
Mr. Sheet's point which was etc.	
Entry 22., Sheets	Entry 23., Ciardi
<u>four score .. out of context</u>	<u>nonsense</u>
<u>two different arts</u>	
problem	
<u>Feature of Integration:</u>	Substitution for different
	expected
<u>Reference:</u>	Disagreement declared

TABLE 2B
Contextual Cues

Contention	Reaction
Entry 27., Ciardi	Entry 28., Sheets
<u>poetry .. experience</u>	
one idea .. praise	<u>an idea</u>
Entry 29., Ciardi	Entry 30., Sheets
<u>an experience</u>	<u>praise .. great idea</u>
Entry 31., Ciardi	
<u>greater experience</u>	
<u>Feature of Integration:</u>	Substitution for different
<u>Reference:</u>	Disagreement declared

3. Interpretation

In a communication situation like this, where members of the panel form two sides, the total integration of contributions from both sides would presumably be a product of the operation of cues signalling approval on the one hand, and disapproval



on the other. In terms of the basic three-dimensional scheme postulated for integration cues, signals of agreement between two or more members of the panel would be associated with a 'substitution' of something similar or with 'amplification'.

On the other hand, signals of strong disagreement would be associated with a 'substitution' of something completely different, or with mere rejection followed by a pause of suspense. Half-way between are signals of mild disagreement, which suggest some form of 'modification'.

All three types of signals have naturally been transmitted, received, and reacted to by every member of the panel. Table 2A for one side of the controversy, and Table 2B for the other side give a briefing of the exchanged cues at points of contact. The question of the saliency of these cues is determined partly by their recurrence, as previously shown in Tables of differentiated clusters, and partly by their appearance as the points 'at issue'.

As for the sequence followed in these two tables, it does not show the actual order of presentation, but the order found to reveal the systematic nature of the process of agreement and disagreement, as corresponding to the postulated pattern of integration cues.

THE CREATIVE ARTIST

(Excerpts from a Symposium held at Miami University, Oxford, Ohio)

March 23, 1959

Panel

J. Ciardi, poet and poetry editor of the Saturday Review
C. Fadiman, author, lecturer and critic
N. Houghton, managing director of the Phoenix Theater, New York
R. Neutra, Los Angeles architect
M. Sheets, artist designer and director of L. A. Art Institute
H. Stevenson, composer musician, chairman of the Composition
Dept., University of Southern California.
Phil Adams, director of the Cincinnati Art Museum

Evening Session

FORM VERSUS CONTENT IN ART

Announcer 1.

Early in the discussions John Ciardi had made the statement that a rhythm is a way of knowing something. Asked to elaborate on what he meant Mr. Ciardi said

Ciardi 2.

A while back I was interviewing Robert Frost uh in Florida and he put it uh as well as I uh I've ever heard it said. Uh it's something that's been buzzing around the edge of my my head for a long time and he he helped locate it. He said when you start a poem you don't know where it's going. It's on its way uh and you don't know where it's coming out but you do know when you've missed it. Uh then he said now there's a question. How do you know when you've missed what you didn't know you were aiming at. Uh and he doesn't know. You do know. You do know when you've missed it. You know you hope you know when you've hit it but you can be positive you know when you've missed it. Uh the uh what he what he had to say next on it was that the rhythm is in it. That's that's your way of knowing it. Something about the wave length of the way it goes. There's something as primitive as the beat of Mother Goose. That's that's the rhythm of the English language. It's the meter of the race. Uh there's there's a kind of way of going. In English it's basically iambic. In other languages it uh it goes other ways. It's a kind of beat. Rhythmic sequences. Whether they're uh uh visual as in a series of lines or in time as in a series of sounds all structure's involved in rhythm. Structure is your way of forming a poem it's your way of forming anything. Bringing it to shape. May I have to insist that a rhythm is a way of knowing something. That it's very basic to form.

It's a way of knowing something about ourselves# One of the questions I'd like to raise is what sort of human behavior is a poem# what is a human being doing when he writes a poem# What is a human being doing when he receives a poem# Because I'd I don't know how the others would feel about this but I want to say very emphatically a poem is never about an idea# It's always and only about the experience of an idea# And that's a very different thing# It's what what an idea feels like when you live in it# That is it is an experience and it has to come to you at a pace# Experience has to happen at a certain rate# And the rhythm of the unfolding as well as the rhythm and the wave length of the language are the basic ways uh poetry has of testing the validity of the esthetic experience# It's the way one knows#

Announcer 3.

Conflict with John Ciardi's point of view was provided by Millard Sheets# Responding to the question is the big idea more important than concern with the actual material medium of the painter Mr Sheets said .

Sheets 4.

They're both terribly important# And I think the greatest art uh a s I look back upon the great arts of many epochs contains both of these qualities in fair equality# It seems to me that ... if we do look our own age comparatively we must recognize that ... we've advanced ... I I believe very honestly tremendously in the last 20 ... 25 years in America and throughout the world in raising the level of esthetic understanding and feeling about painting# Putting it another way the organization of a painting as a complete unit ... the accords of color the new concepts of handling space within space texture values and all the things that are part of the the technical building of of a of a painting ... I think we've made a tremendous progress over the perfectly banal cheap kind of literal painting that that degenerated in the late 19th and early 20th century where where realism was an end in itself# But by the same token I don't think that the things that we are producing to day in these large .. quantities which are so much easier to produce than dealing with great ideas will ever hold their place in terms of of comparison with great art of of many epochs of the past# I believe that ideas and deep human values are permanent# I don't think that the twentieth century has ruled those out for a moment# I think that the experimental age that we've gone through will contribute tremendously to the younger painters coming on in the next few generations who will inherit with one stride new vocabulary new power# But it's a pretty empty art if you compare it to great ideas# And I think that the ideas will come back into art if we as a society have the f the insight and the power and the force to develop these ideas#

Adams 5.

Mr. Fadiman wants to speak of that too Mr. Sheets
May he#

Fadiman 6.

I just want to add a little anecdote which may be familiar to all of you involving the great French uh painter Derain and the great French poet Mallarme# Derain was a very intelligent man who was a friend of Mallarme who once said to him Mallarme he said I cannot understand why I ... I cannot write poetry as you do# I have such remarkable ideas# And Mallarme said that's your trouble poetry is made with words# not ideas# Now ... that may seem paradoxical# You might say this is art for art's sake# Not at all# The poet's ideas and the prose-writer's ideas are in the words themselves# They are not something which can be summed up# What are the ideas of Shakespeare# No one knows# No one knows# You cannot list them# And if your English professor here tells you to list Shakespeare's ideas you must see that he is fired# Now that doesn't mean Shakespeare has no ideas# Not at all# Not at all# But his notions about the world and you may call them ideas if you will those notions are only perfect and clear when they are expressed precisely as he expresses them and in no other way# Now a great many ... I I in the course of my job as an editor I used to meet a great many young novelists# Most of them very bad young novelists but they had a lot of ideas# They're full of ideas# Really they had many more ideas than Dickens ever had in all of his life I assure you# But the ideas were not of the sort that could be married to this particular medium narrative prose# The first question asked of Mr. Ciardi was in connection with what he meant by his statement about rhythms# And of course he said he couldn't ... answer you exactly and he's quite right# But I think we can make it a little clearer this way# We can say ... suppose I gave you two dates# Here's one date# Eighty seven years ago# Here's another date# Four score and seven years ago# Now both the same date aren't they# The first date has no rhythm# The second date has rhythm# Mr. Ciardi could tell you just what rhythm that is and why it is that Lincoln chose to say that rather than eighty seven # Now the second statement is a different statement than the first statement# Curiously enough# The fact is the same# The statement is different# The statement four score and seven years ago is the beginning of a great idea and you know what the idea was You've read the Gettysburg Address# And we remember that idea is operative # The idea would be less operative if Lincoln had said eighty seven years ago# Does that make ... Is that all what you meant John#

Ciardi 7

That's very much a part of it# This this is such a basic and true notion and yet it's one the audience resists so uch# As soon as I've had this experience uh uh ever since I began with the Saturday Review if you try to say anything technical about the art form that means you have no human feelings# Uh that that means you hate beauty uh and you're not really a very good husband or citizen# It's it's it's as if a musician destroyed his humanity by being technically concerned about ... notation or about the way the hands behave in the business in the business of uh playing the piano# People think consistently that so long as their souls are beautiful and intense they're poets# Now I think there are many beautiful and intense souls delivering sermons for example delivering perhaps beautiful and intense sermons# But they're not poems# Poetry is a technical art# All arts are technical# And until the passion is technical it doesn't go# I made an aphorism for that once# Till passion is technical kisses are blubber# Uh the that's that's you've you've got to be both the human feeling and the technical passion have to be one#

Adams 8.

Mr. Neutra would like to speak to that too#

Neutra 9

Well uh perhaps the material of the architect is a little bit more complex and shifting than the material of the poet and that's why I would uh I could make a much clearer statement about it from my point of view# About 30 or 35 or 40 years ago modern architecture started to be explained to the Philistines and to all the good people who didn't know why we need a new architecture# You know uh we have all these new materials we have the stainless steel and the plastics and the reinforced concrete what have you and we can't go on with this old stuff# The material was put ahead of everything else and it is my .. considered opinion and so I can easily say and beyond suspicion that I haven't used new materials in a daring way# I would say that all these material considerations are very much in second place in my in my mind# I do think that the best material the architect ever gets under his hands are the human beings who are his clients# And uh to understand human beings to be fascinated by understanding their responsiveness their responses their reactions is the great art of structuring an environment and arranging stimuli for them# Whether it's for their eyes or for their ears or for their auditive reception or for their thermal reception or for their inner ear sense of position or acceleration and so forth# He has to understand human beings and this is his material# I suppose that every issue of the trade magazines bring new materials and new engineering and new installations and they are always played up as the decisive factor in architecture# But once upon a time architecture was concerned with eternal issues#

Ciardi /10.

May I May I ask one question of that Mr Neutra#
 Uh I'm interested in your emphasis but can you can you go
 on to the human question until you know what stone will do
 and what reinforced concrete will do and what steel will
 do and what glass will do and what plastic facings will do#
 Uh until until your knowledge of these materials is such
 that you you can put them in second place#

Neutra //.

Most assuredly I have to know first the human beings
 before I know what a cold wet stone will do to my skin where
 I have heat losses# The biological side of it and the
 empathic side of it understanding human beings and systematically
 understanding them is the premise to know what to do about
 stainless steel and any other thing# I have to understand
 physiological optics before I can know how to use glass
 mirrors and so forth# I don't start with mirrors and glass#
 And this is the great fault of Park Avenue re uh renewal#

Houghton /12.

It would appear off hand that this panel is moving
 in that age old discussion of form versus content over on to
 the side of form# And uh let's not worry about whether we're
 saying anything at all# Uh the important thing is the word
 the rhythm the shape the line uh and I would like to come
 back to the support of Mr. Sheets' point which was that
 form and rhythm and shape and line in themselves are not
 enough and that somehow there must be the balance of this
 form and shape and rhythm and line addressed to something
 that relates to human beings# I don't think anybody would
 really dispute me but the uh may be they would this panel
 I think would# But we have heard so much emphasis on the
 formalism on the formal materials as opposed to what use these
 were to be put to that I would like to to try to put my
 weight back on the side of of suggesting that certainly
 four score and seven years ago is better than eighty seven
 years ago and one does understand the meaning of the
 difference but Lincoln was utilizing the phrase in order
 to make a point and he had something to say# And he wasn't
 just playing with words for the sake of the words in
 themselves# They were the material which was a means to an
 end and the end was something that he had very much close
 to his heart to say to other people and the content is
 important along with the form in which it's said#

Ciardi /13.

I'd like to ask William Butler Yeats that question
 uh and his answer is O body swayed to music o bright'ning
 glance how shall I tell the dancer from the dance# You can't
 separate these things these two things# There's no dancer
 unless .. the the dance is nowhere until someone dances it
 and he's not a dancer until he's dancing#

Adams 14.

I'd like to ask a musician who practices the most purely artificial and abstract of all art forms# Mr. Steven how do you speak to this point#

Stevenson 15.

I think that Mr. Ciardi has the the right point of view# I can't conceive of the kind of music that would interest anyone without absolute control of materials first#

Ciardi 16.

Really what you're asking is that when you say you want a poet to have ideas or an architect to have ideas or an artist to have ideas all you're really asking is that he be a human being# Uh and I don't think that's too much to to grant the the artist# Uh I don't care who he is the chances are he's a human being# If he's a small human being he'll say small things about being human# He will have small experiences in his art# If he's a larger human being he will have larger ones but the only way he can have an experience in his art form is technical# But uh you see that's that's the dirty word# One thinks immediately empty correctness# Uh that's the not it at all# Its the way of going# The language must be spoken#

Adams 17.

I think it can be rather arbitrary# As Mr. Neutra pointed out even lightning bugs have passions#

Ciardi 18.

But I'm saying what's wrong with having a technical passion# What's wrong with loving your medium# What's wrong with believing that the only way you can get expressed what you are is through your medium#

Neutra 19.

Well technology today which envelops us in such a terrible fashion has produced unbearable situations biologically unbearable situations in our community in our cities# We have been so in love and the technicians and the technologists and also the architects with materials that it was overlooked that man the consumer is the greatest subject# To understand his responses and reactions I say is the thing#

Ciardi 20.

Absolutely# We're saying the same thing but coming at it differently uh may be across the hedge of of uh our different art forms we see this differently# But a poem is not something said# It's something happening# And how does it happen unless one engages it in the terms of what it's already started# Uh if you're going to write music you have to you have to watch your uh structures# If you violate your premises you're going to be in trouble# If you violate your technical premises you're going to be in trouble# No one objects to a pianist being worried about what his fingers are doing# Uh he couldn't be a good human pianist without worrying about what his fingers are doing# Uh no one objects to this in a dancer# Uh yet if a poet says that he is in love with the way one thing flows into another in his poem he's supposed to be empty technically# This is the only way he can be human within his form#

Announcer 21.

A question which seemed for a moment to go unanswered provided one of the best expressions of the view point of Millard Sheets# The panel was asked what they meant by the word art and whether they were not in fact talking about several different things when they used the word art#

Sheets 22.

I think this this question is one of the most pertinent questions that has been asked# In other words we are talking about several different kinds of art# What's true in music it doesn't have to represent an idea or a content# It isn't literature it's music# It's a special area of human feeling that best expresses itself through tone rhythm and all the other definitions that you might give for music# But in the word in in the art of literature you have another problem# You're not dealing with mere rhythm alone you're dealing with ideas# The four score and seven years ago is out of context# It's important# It's terribly important the definition that uh the comparison you've given Mr. Fadiman# But it's not the basic reason that we respect that particular address# It isn't just the rhythm# There are some basic ideas concepts feelings beliefs that were very clearly uniquely stated# Now I feel that the the problem that we are talking about here is is one that we can be we can leave everyone confused about by merely stressing the importance because we are nearly always as artists as critics on the defensive about what constitutes an organic work of art# The form the manner in which it's done# And therefore we are a little prone to go over on that side continuously and defend the importance of the form# But I went to a lecture one time which someone summed up like this# He speaks and writes beautifully# Of course he doesn't say anything but it's just fascinating to hear him speak# I don't think we have time in a world like this to listen to things that are just spoken well that never say anything# I would love to hear music that doesn't say anything that is written

beautifully# But they are talking about two different arts and I think we've got to face the fact that this is our problem#

Ciardi 23.

But that's that's nonsense Mr. Sheets# I mean that's the kind of thing one says#

Sheets 24.

That's bad#

Ciardi 25.

I mean this remark that you quote is a piece of nonsense# May I take about three minutes to give a a parable# I uh ... I

Adams 26.

Speak master#

Ciardi 27.

Uh I think it may have something to say# Uh there's a lovely short story of Anatole France's and I want to make it into a parable of what goes on in the artistic process# You recall the juggler of Notre Dame uh went through France for a long time and made himself a good living by juggling# He would get to a county fair and spread a rug on the ground and get down on his back and toss balls up in the air and juggle them with his hands and his feet and his nose and all went well and he made a good living out of it# Then some years later one winter ill and broke and homeless he found himself wandering down a back road of France and he came to a monastery# The brothers took him into the monastery and they kept him through the winter and tended him# When spring came around he found himself recovered# He was well# But he decided he didn't want to leave this monastery# He was going to stay there he had found a little island of peace# But he also discovered that this monastery was dedicated to the praise of the Virgin and he liked that# But all of the monks were specialists of some sort# One wrote hymns in praise of the Virgin and one raised flowers for her altar and another illuminated manuscripts and another did decorations of a sort and only the juggler had nothing to give her# So he took to sweeping out the chapel# But one day while he was sweeping out he was taken by an urge to do something real for the Virgin and he took out his mat and juggled for her# There There There after he uh he began to sneak in little sessions of juggling before the statue while he was cleaning out the chapel# And one day one of the monks looked in and saw this happening and called all the others and said Desecration of the temple# This is what the what Luce says about the novel every once in a while the desecration of the temple# And the monks looked in through the window and sure enough there was the juggler juggling in front of the statue# They were just about to run in and throw him out when they saw the Virgin come down from

the pedestal and wipe the sweat from the juggler's brow#
 And I uh I'll leave you to pick out the moral# I th I think
 it's a real one but I think the gist of it is that anything
 intensely well done any anything positively done any good
 shape is a praise is a statement is an experience#
 It's a prayer# I don't know how much more meaning there is
 than that# Mr. Sheets says poetry is about ideas# I have to
 go back to my original phrasing# It's not about ideas#
 It's about the experience of ideas and basically the one idea
 that a poem has to give is praise# It says I make this#

Sheets 28.

That's an idea#

Ciardi 29.

And and it's it's it's an experience# It says
 in making this I live better more richly more truly than I do
 by not making this# Whether it means anything or not I'm
 more alive in the process# As Robert Frost said a while
 back a poem is a momentary stay against confusion# You can't
 get clarified to stay so# Uh you musn't think that# You have
 to do it all over again# But for a minute the poem clarifies
 a thing# It uh it's an experience of life caught# I think
 that is the subject of all art#

Sheets 30.

I think praise is a great idea#

Ciardi 31.

I think it's a greater experience#

Announcer 32.

John Ciardi was asked if he was not when he writes
 a poem in fact trying to convey an idea#

Ciardi 33.

Uh no it is not an idea I want to convey to the
 reader# Let him find his own ideas# I'm trying to give him
 an experience# Uh yea ideas exist# I leave those to academicians
 to put into monographs# What I'm conveying what interests me
 is when you put this idea into a human being what portion of
 a life follows in the enactment of this idea# That's an
 experience# It's the idea in action# Uh if you wa in philosophy
 they speak of pragmatic consequences# Sometimes it's hard to
 evaluate an idea a concept# The o The only real measure turns
 out to be .. all right I don't know how to define this thing
 in the abstract# But tell me how a human being behaves when he
 accepts this idea as a motivation and then I'll tell you
 how I feel about it# That's a way of measuring ideas you see#
 But it's the experience # All all I'm interested in for any
 idea is what it means to a human being what it does inside
 him# Uh Mr. Neutra was speaking earlier of the fact that
 there's no such thing as pure idea# That was a lost 18th
 century cause# You've got this whole bush of dendrites around

your glands on with all your fears on with all your anxieties
 on with all your joys steady with all your irrationalities#
 And I refuse to be rational about this process# It's not a
 matter of problem solving# Uh it's it's a matter of those
 basic irrationalities we call the emotions and that do the
 most important things of our lives# Uh I found myself on a
 panel with the dean of engineering# And this panel was called
 a panel on creative writing# On creative thinking# And he
 told us what creative thinking was# He said it consists of
 five steps you define the limits of your problem uh you
 perform a qualitative analysis you then perform the
 quantitative mathematics check the quantitative mathematics
 and find the mechanical implementation of your solution#
 And that's not creative thinking that's chess playing#
 That's problem solving# I have a great deal of respect for it
 we all have problems to solve# But I defy you to do any of
 the basic things of a life in these terms# You can't get
 married this way by defining the girl and performing
 qualitative analysis and quantitative mathematics#
 You can't get married you can't beget a child you can't
 die decently this way# And all the cardinal points of our
 life all the hinge points all all the things that make our
 lives important to us are irrationalities# They're they're
 they're full of very profound obscurities as the Bible is
 full of ringing marvellous obscurities because they involve
 these experiences that stir us# Resonance is the word here#
 There's a vibration# That is nothing to do with textbook
 ideas as stated#

APPENDIX II

This study has as many implications as can be applied to message decoding in any form of inter-personal communication. When research of this type is further developed, the time may come when speaking 'and' listening can be taught by notation. Playing it by ear will, of course, remain the privilege of those who either lack training, or do not think it necessary to have such training. The rest will have access to information of increasing precision about how messages need to be encoded on the basis of how they are decoded.

One of the implications of this study is that clarity of message content may be provided for in terms of cues, associated with specific features of perceptual organization. The value of manipulating these cues in such a way as to achieve a well organized content has always been hazily perceived. Because the concept of organization itself has been vague, what constitutes a cue to such information could not have a clearly defined function. As a matter of fact, the very notion of 'cuing' in this context may have been just initiated in this study.

One would normally hear about 'well chosen words', and 'well constructed sentences', or about discourse characterized by 'unity', 'brevity', 'variety', etc., without ever getting to the roots of revealing a basic pattern of organization encompassing all these items.

The problem of how to improve speech or writing has been more often than otherwise attacked from the point of view of 'vocabulary' or of 'grammar' in the narrow sense of 'linguistic' grammar, which whether 'prescriptive' or 'descriptive', must be recognized as a body of summary statements about a 'code'. What should receive more emphasis is the grammar of 'messages', as content-in-form, 'intra' as well as 'inter-sentential'; and the psycholinguistic perceptual 'grammar', introduced in this study as cues and categories of organizational information. The first two chapters on contouring and accentuation cues emphasize the importance of the prosodic features of speech, as consisting in their capacity to outline and demarcate the structure of content units in a more or less general way. This is not to say that representational mediation would cease to operate, but that it would operate in unison with the referred to organizational cues.

At the integration level, this is borne out by the possible division of cues (in the next three chapters on transition, combination, and integration) into 'syntactic' and 'contextual'. Syntactic cues are immediate constituent, or level, cues. They are both structural and 'semantic', i.e., representational. Contextual cues are both semantic and 'structural'. The cue clustering phenomenon operates on the same principle of complementary distribution observed about allophones as related to phonemes.

In brief, according to the orientation and main thesis of this study, it is recommended that the listener's or reader's expectations be given priority of consideration in any attempt to tackle problems of inadequate verbal communication; that organization of content in a broad sense, based on psychological principles, be the focus of investigation.

In inter-personal communication, the value of fluency and speed is very often exaggerated. If we mean to 'communicate', it does not always pay to be ready with 'words'. The chief characteristic of fluency is 'profusion', which is in many cases lacking in organizational cues. Particularly in a critical age like ours, speakers, salesmen, all public relations people, including teachers, might do well to contribute to research in this connection.

Probably the most distinctive feature of personal style in speech or writing is organization. So far, almost nothing has been done, that the author is aware of, in terms of investigating the relative potency of oral cues relating to organization.

More experimental work along these lines would give a tremendous push to the study of individual style. The focus would then shift to oral communication, which in itself is a big gain, especially if the aim of study is to improve the ability to predict in the face-to-face situation. In oral inter-personal communication, more cues are available than in written communication. Particularly those cues that tell more about the individual are usually the ones we miss in analyzing written messages. For instance, speaking only of the organizational aspect, when we analyze oral communication, we have a chance to study pause and hesitation phenomena, which are almost completely obliterated in the written form. We can project accentuated items of content with great precision. We can probably detect signs of certainty or uncertainty, applicable to the communicator, his audience, or his topic, from a study of the feature of 'redundancy', which in this investigation, is given very broad implications.

The situation affecting the decoder's ability to predict forthcoming events in a message may be described as entropic in so far as it presents uncertainty to him. Such a situation is supposed to lose as much of entropy as it gains in redundancy. Research dealing with transitional and other integrational phenomena would provide ample chance of seeing these concepts in application. One may choose to consider the effect of pause and hesitation on the decoder, as he tries to put the pieces of the puzzle together. Pauses of particularly longer duration, which fall between syntactic juncture points, and thus seem to interrupt the continuous flow of speech, are assumed to correlate with the rise of entropy on the part of the decoder. They operate as 'noise'. While the normal juncture pauses are an aid to the decoder in a process of structuring relationships, hesitation pauses are a hindrance. It is suggested that hesitation pauses be experimented on in field study situations, with the aim of determining their effect on organization.

Finally, this study has various implications for research in language learning. With the focus gathering on the 'message', as content-in-form, both 'vocabulary' and 'grammar' will be viewed in truer perspective. Research could demonstrate to teachers



and learners how 'words' stand for content units, sometimes as separate, and sometimes as combined items. It could demonstrate how the code-structure students are taught at school is actually embedded in a psycholinguistic structure, based on principles of similarity, contiguity, contrast, etc.

It could demonstrate how the organization of content units is inseparable from the so-called 'word order', and how sentence order is as important as 'word order'. Meanwhile, focus on the 'message' as content-in-form would rid language learning of the artificialities of code analyses. Learners would naturally be interested more in a study of how 'individual messages' are 'communicated' than in summary descriptions of how 'language' operates in general terms.

And, as far as speech training is concerned, research could show that more is involved in improving articulation, for instance, than a mere sharpening of blurred edges across word boundaries, to facilitate auditive reception, namely the provision of organization cues. Also, teachers telling their students to introduce more 'pitch variation', would come to realize that this is desirable, not only for the sake of change, not only to avoid monotony with a resultant drop in attentive reception, but particularly to provide the decoder with more



organizational cues.

In brief, the more research gets communication-oriented, the more it is directed to the investigation of relationships between linguistic and non-linguistic phenomena, the more meaning language would have for both speaker and listener. After all, when we speak or listen, we communicate with somebody somewhere.

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