## Control of language through correction in speaking\*

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There is some justification for considering behaviour as an individual's attempt to adapt to the requirements of the social environment. If the concept of adaptation is to be meaningful, we must imagine that it implies some kind of 'congruence' between the individual and these requirements. Adaptation is a sort of reconciliation with reality in a state of balance. If this thinking is applied to the community or society as a whole, we can also with some justification use the phrase 'a balanced system'.

Fuglesang 1973

## The approach to communicative interaction

People interact in fairly predictable ways (otherwise, we would not have a sociolinguistics). There is a fair degree of stability in interaction through shared norms. Some interaction even gets codified to the point where any potential instability is severely controlled. Cases are, for example, court proceedings, religious services, and other kinds of ceremonial functions. In these kinds of interactions, people who take part in or observe them have expectations about their form and progress — talk, silence, gesture are all laid down — and these expectations are typically fulfilled.

The ethnographer's framework for the description of speech acts and other aspects of speaking in a speech community provides a starting point and a regulatory basis for descriptions that will go very far towards unifying a body of work on sociolinguistic description. The ethnographer is directed to observe the recurrence of forms and patterns, to note the correlations with social life.

The partners in communication in the community that the ethnographer

records have the desire of achieving the patterns that are recorded by the ethnographer.

The act of speaking necessarily, in, for example, Hymes's model (1974) involves the 16-17 components of the completed speech act. Each of these components represents a choice from the point of view of the speaker. The description of the speech act describes the result of the process and not the process itself. But partners in communication need to find out what norms of implementation the other person has, need to express each his own norms, and between them need to find a way to agree on what norms shall be used for a particular act of speaking. The extent to which a speaker is successful in producing a speech act depends on how far the participants agree it shall be so. This depends on shared norms of speaking and of language. The description of the speech act records the resolution of negotiation of such more or less permanent norms.

Luckily, not much has to be negotiated on most occasions. Behavior and expectation in speech are largely controlled by norms and roles, as well as status. Only in cases of doubt, whether a certain norm applies, or whether a person has a certain role in a speech situation, and in unclarity about status and impact of status in a situation, is negotiation necessary. Generally, partners in communication cooperate in the communicative goal that the received speech act (i.e. the interpretation by the hearer) is identical with the intended speech act (produced by the speaker). This would mean that understanding is achieved, and this is the goal, even in the explication of disagreement. Yet, other outcomes can be a failure to complete the speech act, or can be another speech act from that originally intended. For example, one of the authors recalls sitting drinking with neighbors in a camping area when a passer-by stopped to chat, was uninhibited, then discovered that the fellow swilling brandy was a minister of religion. She was covered in confusion, apologized many times for swearing, and departed trailing shreds of an incomplete act of speaking.

## Conversation: an example of structured interaction

Conversation differs from other types of discourse (such as lectures, written material) in being constructed by the live interaction of two or more speakers. The process is one of weaving together a number of discrete parts, to result in a fabric that is the conversation. The components that are woven will include the usual rules for the production and use of language and will also include the rules for turn-taking. It seems likely that there are, in addition to these, definite, culture-specific rules for the task of weaving, involving types of feed-

back, allowing the negotiation of meaning to be undertaken by more than one speaker.

In other kinds of discourse, the speaker must assume more of this particular burden. In a lecture, the speaker is required to anticipate audience response and potential lack of understanding. This process of anticipation we assume is rule-governed also. In the case of the lecture, as with conversation, there is the constraint of immediacy, which will affect both encoding and decoding capacities. By contrast, in written material, there is no such constraint. The final product can be the outcome of many drafts, it may be edited by others, and it can be read at leisure. (This alone would account for the differences in clause complexity that Syder and Pawley [n.d.] note between written and spoken language.) On the other hand, though, the audience is quite displaced in written material, and the communicative burden is placed entirely on the encoder. Again, there will be rules that cover the need to anticipate audience needs.

We are assuming a set of 'demands' that an audience or hearer lays upon a speaker, and a set of techniques that the speaker uses to accommodate these demands, in conversation in particularly close and direct collaboration with the hearer. The nature of the demand varies, also the strength of the demand (e.g. lower in written material as concerns personal accommodation). The face-to-face conversation maximizes the burden by requiring the speaker to deal with a personal relationship, at the same time as information is conveyed. The assumption of the feedback role by the hearer, leading into a load-sharing mechanism, is a recognition that the burden is high. It leads to the increase in mutual stroking that makes conversation worthwhile. Could it be that the demands of conversation get to be overwhelming when there are too many hearers, i.e. in an audience, and that therefore the lecture mode is an explicit accommodation to information conveying with consequent alleviation of the interpersonal burden, as a substitute for the feedback mechanism that is lost with the distancing of the audience?

The functions of conversation require balancing; the greater the need for explicitness in communication of information, the greater the burden on the speaker, and, at the other end of the scale, the affective dimension of conversation is admirably served by the load-sharing devices.

This perspective provides a reason why, for example, the pupil-teacher relationship is asymmetrical. Teaching obviously places a huge burden on the speaker in terms of accommodating the various levels of incompetence of the learners, plus the information-conveying function. So the equality of the conversationalists is lost.

Discourse thus represents a continuous process of accommodation between speaker and hearer/audience. The relationship between the partners varies very greatly. In written discourse there is great distance, there is less distance in the lecture, and face-to-face conversation brings the question of accommodation into sharp focus.

When a person speaks, he manifests the ability, not merely to generate and produce an utterance that is appropriate to its context, but also necessarily to balance out a great many potentially conflicting demands that are unique to the moment of utterance. There is a need to comprehend what norms apply for the participants and to negotiate a way of speaking (and listening) that avoids or at least reduces the potential conflict (cf. Brown and Levinson's view that speech acts are *threatening*: Goody 1978 and Schmidt's review 1980). In one type of discourse — conversation — the need to find out the other person's rules for appropriate verbal behavior is fundamental to the further development of the conversation.

### The potential overload in communication

Acts of speaking not fully codified represent a progression of uncertainties. The partners have the knowledge that it is possible to reach a stable completion. But how does the speaker make decisions about what options to select? His problem is to construct a profile comprising those choices (in the descriptive model of speaking) over which he may have control. This profile has to serve ends that are socially sanctioned, and it must produce the particular outcome intended by the speaker (or he hopes it will).

The balance among the various components is a matter of the situation in which the act of speaking occurs. That is, while all components are necessarily present, the speaker will assign different values to her choices in different situations and different relative values among the components, i.e. she not only chooses to speak rather than to write, but at certain times it is more important that she should so choose. And in other cases, whom she speaks to is more important than what she says or when she says it, etc. Take the example of the lecturer who 'runs out of time'. He may try to complete his projected lecture by speaking faster, by altering content structure or lexical choice, and so on. So the pressure of time and the need to complete take precedence over esthetic considerations. He could choose to continue as before, to ignore the pressure of time and the necessities of the audience. He could acknowledge time and stop lecturing, preferring the truncation of his lecture to its distortion. These are expressions of differing values. Within the act of speaking, values are held by speakers and these are conveyed to or imposed upon other participants with varying degrees of force.

The lecturer not only has to make his decisions about whether or how to continue, but he has to make these decisions stick with his audience. He may find that the force of his valuations varies with the nearness of his audience's

lunch hour. His valuations will remain, but the lecture will cease to exist if the audience departs en masse to the cafeteria.

The listeners' valuations, beliefs, and purposes may converge or conflict with those of the speaker. A successful speech act is based on agreement — the normal case — or on *ongoing* negotiation of what values shall prevail.

### Avoiding overload: patterning

The possibility for lessening demand, for avoiding overload, lies in the fact that 'Most behavior is necessarily automatistic' (Thayer 1967: 92).<sup>1</sup>

People don't talk in novel utterances most of the time, they talk in well-worn phrases that are generated as units and which are slotted together in relatively simple syntactic units. At an extreme, the ability to produce new content comes with the collocation of these phrases. (And even the existence of new content is perhaps less common than we [vainly] suspect). Expression is patterned.

There is recent work on speech production that strongly supports this understanding of language patterning. In her dissertation, Brotherton (1976) ventures the suggestion in interpretation of her data that 'in ordinary speech, "creativity" in the syntax of language ... may be an unusual rather than a common event' (1976: 450). Instead of creating, the language user may make use of and ease his task by relying on classes of syntactic schemata, 'which do not require complete construction de novo to accommodate to each new speech intention' (1976: 458).

Craik and Lockhart (1972) and Hayes-Roth (1977) show that *chunking* is a permissible assumption in modeling speech processing. An apparent parallel can be drawn between the result of their psychological experimenting and speculations that language users rely on patterned expressions to a much larger extent than proponents of the unitary nature merely of idioms and greetings, etc. have so far ventured to suggest.

Syder and Pawley (n.d.) have developed the grammatical notion of *lexicalized clause stem* which represents the application in grammatical theory of a thought equivalent to that of the 'chunking' concept. Their approach is novel and stimulating. They claim that native fluency is achieved by the collocation of non-novel, often-used utterances of clause length. In their words, 'these lexicalized clause stems are standard usages in much the same way that single morphemes or words are' (n.d.: 8). Syder and Pawley do by no means reject what must be an absolutely correct assumption, namely, that most lexicalized clause stems are products of regular syntactic processes. But they do claim that like morphemes and idioms 'they are memorized as wholes' (n.d.: 8).

Similarly, Syder and Pawley recognize that it is necessary to distinguish

between spontaneous and novel speech. Some speech will always be novel. But all speech can't be novel. Syder and Pawley's studies are now directed at testing the following specific hypotheses:

- (a) Some clauses generated by the grammar will be found unnatural (non-nativelike, unidiomatic, foreignisms).
- (b) Some clauses will be responded to as familiar expressions for familiar concepts while certain paraphrases of these clauses will not be readily understood by native speakers.
- (c) Some clauses generated by the rules of grammar are stored as wholes in the long-term memory, and are retrieved by an automatic chaining process rather than application of grammatical rule.
- (d) Fluent units containing two or more clauses will be found to contain one or more lexicalized clause stems.
- (e) A mature native speaker knows hundreds of thousands of lexicalized clause stems.
- (f) Discourse containing a high proportion of novel clause stems will be less fluent than discourse containing a low proportion of novel clause stems.
- (g) A grammatical string that deviates only slightly from a lexicalized clause or sentence will be judged more natural than one which although fully grammatical diverges markedly from the lexicalized usage in lexical choice and/or grammatical construction (n.d.: 8-9).

### Avoiding overload: monitoring

The speaker has to have a repertoire of ways of picking up on herself. She has to know she can afford to guess wrong and to repair a 'mistake' — otherwise, it might be politic to say nothing at all. This repertoire of ways will involve a speaker's ability to monitor, evaluate, and correct what she is producing even as the process takes place. She needs a way of checking that she's saying what she intends to say. On top of this, she needs a way to cope with the reaction that she gets from the interlocutor. This reaction, feedback, could refer to production errors that escape her monitor;

nonreceipt of what was said;

incomprehension;

miscomprehension;

disapproval;

and maybe more.

In order to understand and analyze what linguistic means a speaker has available to repair anticipated or actual 'mistakes' in production of speech, we need to assume a model of language processing.

A sound model of speech (language) processing in a speaker will incorporate at least three levels, as Brotherton (1976) points out:

There appear to be at least three processing levels which need to be incorporated in a speaker model: a level of sequential motor execution (articulation); an integration level, one of organization and matching of speech intentions to structural and lexical features; and a cognitive level where ideas and intentions have their genesis and formulation (1976: 458).

But Brotherton's model does not account for feedback and correction in an explicit manner. And it does not account for observable repair behaviors and interventions in others' language expression.

Laver (1973) elaborates an interest in a 'neural function which allows detection and correction'. He says, 'detection is a logical prerequisite to correction, and detection and correction together are taken to be evidence of a monitoring function in the speech producing process' (1973: 134).

In their earlier paper, says Laver, Boomer and Laver<sup>2</sup> reached the conclusion that 'the brain pre-prepares stretches of speech, often of the extent of the tone group, ... before the utterance of the whole stretch begins' (1973: 136).

Limiting length reinforces the opportunity for lexical phrases, and evaluation for appropriateness is precorrection. It is thus implicit in the concept of prepreparation that the prepared stretch of speech is subject to inhibition, short-term storage and scanning.

Further, 'if an error does persist to the utterance stage, then its detection and correction become the business of the monitoring function' (1973: 136).

Laver extends the notion of 'distortion' of communication beyond that of slips to that of semantically inappropriate expression of a speaker's idea. However, Laver does not elaborate what correction rules there might be, although he notes that correction does indeed take place.<sup>3</sup>

## Avoiding overload: correction

Neustupný (1978) claims that a system of correction rules parallels and supplements the system of rules that generate language. In a communicative act, a speaker may judge himself inadequate, or be judged inadequate, because he does not master the behavioral conventions — whether pronunciation, vocabulary, sentence formation, gestures, turn-taking, speaking at all perhaps — and partners in communication possess rules to handle this possibility. This we take to be Neustupný's central point. *Inadequacies*, as Neustupný calls them, are normally located in the speaker and may come about because she

cannot fit the pieces together, lacks mastery in the communicative system, or has not acquired others' varieties or received expressions. He refers to cases in which common norms of communicative behavior are absent, or the partners in communication adhere to different norms and have only some in common; and there are also cases that are situations of deliberate antagonism between partners in communication to which marking of inadequacies and subsequent correction may apply. Individual inability to correct inadequacies may also cause the speaker to seek help from other members of the speech community or intervention by a hearer.

Schegloff and others have convincingly shown how repair 'has structure', and it is vitally important not to equate this structure with 'chunks' of language expression (with any particular lexical items, intonations, or syntactic constructions). While chunks do be(come) specialized by normative expectation in a given network of interlocutors, even to signify particular kinds of interference with others' language expression, the central thought here is a dynamic, processual one. Interlocutors create new (language) reality when they successfully violate (linguistic) expectations by self and others, and there is call for repair by neither self nor other; and self may venture to recreate his successful violation perhaps with praise from others, rather than repair, either, in the simplest case, by continued problem-free interaction or, in the most rewarding of cases, by stroking from others.<sup>4</sup>

For children, growth of age is also growth of experience into a social system which has provided adults with the ability conventionally to support the child in this development. Other children possess rudimentary conventional repair systems only — albeit acquiring them also — and as children interact, new worlds are made, within the constraints of biological species endowment and its derived individual capacity.<sup>5</sup> Norms and devices to control deviation from norms are simultaneously acquired; and this process continues throughout adult life.

Jefferson (1974) shows how the deliberate use of an 'error correction rule' can be most effective in discourse; to say it, yet not say it.

[PTC Materials: I: 49]

Bassett: 'En I didn't read that [description of violation the officer wrote on the ticket]. When thuh ku- of ficer came up I s -'
Judge: 'Red traffic signal approximately thirty

feet east of the crosswalk, when signal changed tuh red.'

While an occurrence like '... thuh ku- officer ...' may not be subject to official complaint, it appears that the judge is making his unhappiness with it manifest in an alternative way; i.e. by interrupting the defendant mid-word in her correction (1974: 193).

The error-correction format that the speaker (Bassett) used here was to interrupt the word cop, to correct it with a glottal catch and then to immediately utter the correct word officer.

In another paper, Jefferson (1972) describes a different error correction format, namely

- (1) a recognizable complete utterance
- (2) followed by a repeat of it by Alter with question intonation, possibly recycled (with progressive focus on the 'product-item', the item at fault and)
- (3) resolution into a correctly issued utterance by the first speaker.

This format, although Alter repeats and places into focus (2) something previously said (1), still offers to Ego the opportunity for correction (3).

An example is:

... When the ten-count is completed, It, keeping his eyes shut, attempts to locate and tag one of the Not-Its by a 'sounding' technique: It yells *Marco*! and the Not-Its are obliged to respond *Polo*! When one of the Not-Its is tagged he becomes It, and the cycle is repeated. The report picks up at a point where Steven has been tagged and thereby becomes It:

As he begins to count to ten, Susan and Nancy move to about halfway across the pool.

STEVEN: One, two, three, ((pause)) four, five, six, ((pause)) eleven, eight,

nine, ten.

SUSAN: 'Eleven?' -eight, nine, ten?

STEVEN: Eleven, eight, nine, ten.

NANCY: 'Eleven?'

STEVEN: Seven, eight, nine, ten.

SUSAN: That's better.

Whereupon the game resumes (1972: 295).

The central paper in the extant ethnomethodological literature about repair and correction in speaking is Schegloff et al. (1977). It develops a detailed set of terms to describe repair in conversation and how repair unfolds in the conversation of exchange between self and other. A central point in their paper is that Alter withholds his turn in making conversation so that self is allowed to initiate repair. Should Alter not permit self the repair of utterances, then he runs the risk of destroying the cooperative effort of making conversation. At the very least, Alter risks sowing the seeds of interpersonal trouble beyond the trouble which has already occurred within the conversation. By initiating repair, Alter runs the risk of disrupting his relationship to self because he would be seen to comment on self's willingness or ability to cooperate in

conversation. This device which commits self to correct his own utterances is very efficient in conversation.

The authors say,

Therein lies another basis for the empirical paucity of other-corrections: those who could do them do a sequentially appropriate next turn instead. Therein, as well, lies the basis for the modulation — in particular, the 'uncertainty marking' — of other-correction: if it were confidently held, it ought not to be done; only if unsurely held ought it to displace the sequentially implicated next turn. Therein, finally, is a basis for much of the other-correction which does occur being treated by its recipient on its occurrence, as involving more than correction, i.e. disagreement (1977: 380).

Unequal social relationships may override the considerations of moderation in interfering with Ego's speaking, so as to render initiation of repair by Alter less uncertain in its effect on the relationship between the interlocutors:

The exception is most apparent in the domain of the adult-child interaction, in particular parent-child interaction; but it may well be more generally relevant to the not-yet-competent in some domain without respect to age. There, other-correction seems to be not as infrequent, and appears to be one vehicle for socialization. If that is so, then it appears that the other-correction is not so much an alternative to self-correction in conversation in general, but rather a device for dealing with those who are still learning or being taught to operate with a system which requires, for its routine operation, that they be adequate self-monitors and self-correctors as a condition of competence. It is, in that sense, only a transitional usage, whose supersession by self-correction is continuously awaited (1977: 381).

Verbal responses from Alter are probably always highly constrained as to topic and are subject to delay in issue. In basically equal and amicable dyads, Alter will ask for clarification of content or for mechanical reruns. This changes for people in asymmetrical dyads and in sanctioned, educational situations. It is essential to distinguish clearly between repair requests necessary for understanding, which are justified in all conversation, since this is cooperative with respect to the goal of communication, and correction requests simply for the sake of correctness itself. The last are not concerned with reaching understanding in the situation at hand, but rather mean ( — if done with favorable intentions) that the hearer is concerned about the speaker's speaking ability generally and thus with preventing potential misunderstanding in other situations, or he is concerned about keeping 'his language' or 'our language' in good order within the speech community. The last kind of corrections presupposes a kind of 'teacher-learner' relationship. This can make such correc-

tions embarrassing in case such a relationship does not pertain and is not wished to be held by the corrected person.

Also, Alter can use correction of another speaker with destructive intent.

Trouble can most likely appear anywhere in language interaction, by 'level' of 'linguistic analysis' or in 'performance'. And repair can most likely utilize any variables in order to achieve 'progressive development toward possible completion' (Schegloff 1979: 281).

And there is every reason to believe that 'successful repair is, for the most part, built to "blend back" into untroubled talk' (Schegloff 1979: 277).

This frees us from seeing repair necessarily as any particular expression in language. We are therefore free to suggest that a conventionally well-formulated question (such as 'What did you say?') may negotiate trouble.<sup>6</sup>

We have discussed at length how trouble is found in the speech situation in self getting across her purport<sup>7</sup> in the interplay between communicants. Other trouble arises in the imposition of adherence to overt norms, such as style rules, term standards, etc.

Yet other trouble arises as a result of exercise of language power. At one extreme is the imposition of 'a whole language' on people. At another extreme is the no-less-effective imposition of the need to speak with 'a perfect accent'.

Norms of use are founded on expectations that users form. Obviously, interaction proceeds mainly in worn grooves and these generate reasonable expectations. Societal norms are norms of use, and these intermesh and inform each other. And each society has norms that have taken off and lead lives of their own. They are built up into social institutions.<sup>8</sup>

# Correction and marginal language, pidgins, lingue franche

We come now to consider situations in which the application of patterning, monitoring, and correction are very salient, situations in which the speaker is obliged to apply strategies of correction and of making up rules of generation as she proceeds.

At one extreme is what happens when there are no shared norms or only minimally shared norms for constructing successful discourse. Marginal varieties of language use, 'foreigner talk', and pidgins emerge in such situations.

In the ethnomethodological network of workers, Jordan and Fuller (1975) narrate experiences from living in another-language-speaking village in Mexico where Spanish was the recognized *lingua franca*. They raise two issues: how to include a new participant in ongoing conversation, when the shared language (*lingua franca*) is not in use prior to attempt at entry; and how to continue talk in the LF when one of the participants appears not to understand.

Most of their examples are very complex, and involve code-switching, laughter, and explicit comment on ongoing talk.

These devices are illustrated in the following example:

B(1p. 1a-230) [Maya talk] J,M:

The contractions are pretty slow. Not slow but short. g:

J:7 Not slow but short.

(laugh) n,g: J: (laughs)

(laughing) Bueno. g:

J: (laughing) Bueno, debo de aprender . . .

apender hablar: g:

J: debo de aprender que has dicho por no se que dice.

This example suggests that one way of being included in a conversation that is being conducted in an unintelligible language is for self to interrupt with an utterance in another language that is not shared by all. The content of the interruption presumably does not matter. But self must be prepared to 'dissipate' the effect of such an interruption by, for instance, laughter and then to offer a common language to continue talking together. In this instance the unintelligible language is Maya, the language of interruption is English (neither shared by all), and the lingua franca is Spanish.

Their examples (e.g. one on page 15) illustrate how the interruption can be made also in the common language (Spanish). In one example, the interruption is dissipated by laughter but also by a 'metacomment' that the others are speaking in an unintelligible language: '¿Es Maya, uh?' [You're speaking Maya, aren't you?]. That the metacomment neutralizes interruption is proved by its most interesting use to produce the opposite effect:

An interesting obverse to 'You are speaking Maya, aren't you?' is 'We are speaking Maya.' It happened to us more than once that when listening to, for us, incomprehensible Maya talk, one of the speakers would turn to us and say 'Nosotros hablamos Maya,' whereupon he would resume doing just that. We see this as preventing non-inclusion trouble from coming up.

Making a metacomment, mimicking a preceding utterance, even asking a question about preceding content, are all equivalent devices in that they copy previous talk, after which a resolution follows. If inclusion of a new speaker has been accepted, this is signaled by an utterance in a common language with appropriate content, picking up on the thread of discourse. We can only assume that otherwise discourse continues in the original language.

<sup>&</sup>lt;sup>7</sup> Recall that J is a Maya speaker who knows no English at all (1975: 14).

Jordan and Fuller also consider the problem of continuing talk in the *lingua* franca when all speakers are not equally proficient in that language. In particular, they deal with failures of comprehension.

One of their examples is:

In the transcript below the trouble-flag ¿despierta? has been taken as a request for a repeat (despierta) by J and, at the same time, as a request for translation (That's awake) by n.

### J (IIp, 2a-428)

J: Que tal cuando despierta, está en su lado.

(pause) ¿Entendistes?

G: ¿Despierta?

J: Despierta?

N: That's awake. That's awake.

J: Está en su lado.

G: Aah. Si. ¿Niña, eh?

J: Hah (1975: 20).

J's question whether G understands illustrates what we think is very common in using lingue franche, namely flagging of uncertainty by the speaker whether he has been understood. Whatever the meaning of G's question-repeat, and a selection of a particular word, J took it as a request for a repeat, probably thus initiating a correction routine in Spanish to overcome incomprehension. N intervenes in English, a language he shares with G, but not with J. Given the repetition of despierta before the English intervention, thus focusing on that part of the original utterance, it is reasonable, we think, to attribute to J the assumption that whatever incomprehension there was has now been overcome. This J tests by repeating what followed the product-item in the original utterance. G in turn confirms understanding and makes doubly sure that he is right by asking a content question. J confirms, and we assume that the discourse can now continue.

In the cases immediately above, a *lingua franca* was available. But people want to talk to each other also when they do not have any particular language in common. Bickerton (1977) says:

As regards the early stages of pidgin development, our researches in Hawaii have provided independent support for Silverstein's (1972) position that there is no such thing as 'competence in a pidgin,' but that speakers, working from the grammar of their own native languages, add extension rules which generate superficially similar surface structures . . .

In this early-pidgin, macaronic stage, one could argue that nothing is grammatical but that anything is acceptable, provided that it works communicatively. Nothing can be grammatical because there is, as yet, no grammar distinct from the quite different grammars of the contributing languages. That speakers may permute those grammars as well as the different lexicons is shown by the example above, and it is not easy to see what constraints, if any, would govern that process (1977: 29).

We assume that whatever these constraints are reflect processes of emergent patterning (says one of Bickerton's speakers, 'If I am to talk to somebody else, I have to talk their way' [1977: 29]), accommodation (says Bickerton himself: ... 'in Hawaii, nobody laughs at anything anyone says, no matter how outlandish ...' [1977: 30]) and at least the most basic correction strategy (says Bickerton's speaker: '... in order to make a sentence for them to understand you' [1977: 29]). Correction of, violation of, and/or conflict between norms are largely absent in emergent pidgin use; but interactants nevertheless apply strategies to build not only understanding at that moment but also understanding for future encounters, which necessarily firms up language patterning and builds up expectations for correction to apply with sharper definition.

## Correction and migrants' language

The demands faced by an immigrant speaker differ in part from those encountered by the speaker using a pidgin or a *lingua franca*. The immigrant interacts in situations where a host community's norms of expression and language use apply, but they are not his own norms.

When among themselves, migrants may use their own native language; and it may be regarded as appropriate to do so. But what is important then may not be to 'speak correctly' but to express solidarity with one's own group. The adopted society's language normally has strong support in treatment systems, e.g. compulsory school education in and about that language. Furthermore, migrants may work hard to further develop their skill at using the adopted society's language.

Discourse in the host variety may be corrected by others if the social relationship permits: the one author's wife who is American does, immigrant parents do to their children. Such correction may draw on very limited information about what is correct, because the migrant-corrector has limited access to evaluative norms. Therefore, migrant transition to full proficiency in the host society's variety may be slowed down; or generational differences

in language use can become quite sharp if children go to schools that successfully correct norm conflicts and norm gaps.

Neustupný says (1978: 247),

As far as acts containing violations of communicative rules are concerned, the inconvenience resulting from such cases will again be judged differentially in different societies. It seems to me that some societies allow for more variation in this respect than others. In any case, empirical studies of this problem will be needed.

In addition to the complexities of learning to operate within the norms of the host society, the immigrant may be required either to maintain or to renegotiate the norms of his native language. In the case where the native language is primarily a marker of solidarity with the immigrant group, the native language has been severely restricted in range of communicative situations to which it can be applied and speakers have lost contact with the treatment systems that help support the language in the old country. What remains is individual corrective resources.

But the language situation is not always like this. Different immigrant groups place different value on maintaining their varieties — Hebrew and Arabic, for migrant believers, are God's languages and must therefore be maintained literally, in religious function. Or the Jewish holocaust places an infinite value on maintaining Yiddish.

The problem of the immigrant's learning to function in a new society and with an unfamiliar language is addressed by John Gumperz and Celia Roberts's recipe (n.d.: 3) for developing awareness skills for interethnic communication. They say,

The basic principles of the method were that individuals cannot be taught to communicate effectively across cultures. It is something that they must *learn* to do for themselves. There is no single method which people can acquire and no set of rules which they can simply put into practice. The reason for this is that the conventions of language use operate within such a great range of situations and have to take account of so many variables. There is no neat equation between a type of interaction and the conventions which an individual might use. Every piece of good communication depends upon the response and feedback which participants elicit from each other in the course of the conversation itself and so every speaker has to develop his own strategies for interpreting and responding appropriately.

To this may be added the need for strategies for mutual, agreeable correction. In the absence of a specific 'international' set of correction rules, speakers need to discover, or be taught, how to employ their natural capacity

for correction fruitfully. Communication will be much more successful if people learn about correction behavior in such a general way that they can apply it in a wide variety of situations.

Gumperz and Roberts list speaking, perception, acceptance, and repair as steps toward better communication. This parallels very closely the formulation of the processes involved in a model of correction: initiation of speaking, evaluation, inadequacy marking, and correction. The model of correction, however, indicates that strategies for the retrieval of communication in situations of breakdown or potential breakdown are not all that the immigrant speaker requires. Substantive, generative communication behavior has corrective resources built into it. The acquisition of this kind of capability comes as people gain experience in cross-cultural, interethnic behavior and itself reduces the risk of breakdown and the consequent need for overt correction. Such rules need to be identified and made available to speakers embarking on this kind of communication.

An example of highly successful teaching of cross-cultural communication strategies — itself an instance of correction behavior — is found in another paper by Gumperz (1977). He exposed speakers to taped sequences of different people communicating the same meaning and encouraged discussion of different reactions to what was the same utterance. Of the case cited, that of cafeteria workers asking customers if they wanted gravy, Gumperz says (1977: 208-209),

It seemed that the Indian workers had long sensed that they had been misunderstood but, having no way of talking about this in objective terms, they had felt they were being discriminated against. We had not taught the cafeteria workers to speak appropriate English; rather, by discussing the results of our analysis in mixed sessions and focussing on context-bound interpretative preferences rather than on attitudes and stereotypes, we had suggested a strategy for self-diagnosis of communication difficulties.

The key here was to teach 'correction strategies' rather than particular generative communicative or generative corrective behavior; 'In short, they regained confidence in their own innate ability to learn.'

Immigrants' language problems are the problems of groups and of whole societies as well as of individuals. Neustupný (1975: 7) derives a host of questions from his correction model to inform policy toward immigrant groups in Australia:

Which migrant communication rules are marked as inadequate by native speakers of English? Which Australian English rules are marked as inadequate by the individual migrant groups? Which correction rules operate for migrant English? Which inadequacies exist in communication by migrants in their own languages, and which correction mechanisms apply in this sphere, etc.?

Current attention to minority ethnicities', guest-workers', and migrants' language in the United States, Germany, Sweden, the United Kingdom, Australia, and many other countries is now principally directed toward 'whole' languages but may well be followed soon by attention to issues in these languages. Then how does one evaluate the English, German, Swedish, varieties of these groups? With what consequences? How does one evaluate German varieties in Australia? Indeed, the question has already been raised as to how one evaluates Canadian French. For example, in Scandinavia, the Sami community faces issues of coordination and overall development of Sami speaking, first to reach agreement concerning 'standardization' for educational purposes (a direct result of the ethnic-rights movement), but simultaneously covering cultivation of the dialects. An interesting reversal is that of 'immigrant languages'. For example, there are attempts at evaluating and legitimizing non-native English varieties not only for domestic use (Filipino English in the Philippines, etc.) but also for international communicative situations, i.e. attempts to reach agreement on tolerance and to institute overt corrective systems.

Within speech networks involving immigrant speakers, then, the needs for correction are quite diverse and may at times become critical for continued interaction between the migrant and the host society. There will be cases where the migrant is forced to rely on his individual corrective abilities. The relationship with the host society involves the immigrant in learning new ways of speaking and in coming to understand the associated correction system, even while being denied access to overt correction of expressive difficulties under the protocols of that corrective system. It is only in socially sanctioned situations such as the classroom that overt correction is permissible. And there, the student is normally left to infer for himself the nature of this system solely on the evidence of its application. The work by Gumperz and Roberts in giving immigrant speakers access to the host society's correction system represents a significant advance.

The host society itself has problems of formulating policy toward immigrant languages, of providing a suitable system of education that will give the immigrant a desired degree of access to the host society. The solutions to such problems form a part of the correction system of the host society. This correction involves choice of language, the relative valuation of language varieties, and the planning of national language resources.

## Language teaching as a system of correction

Speaker monitors her own production to ensure that she is living up to her own 'internal standards' and that she is complying with what she understands to be the requirements of the situation, including especially the bundle of rules and norms represented by Alter.

If we suppose that a speaker's self-evaluation is unproblematical — she knows who she is and how she's supposed to talk and what she wants to say — then her self-monitoring will be concerned with the mechanical burden of production, of generating stuff in conformity with these interior rules and norms.

Alter presents a bigger problem to speaker, variable according to how much is known of Alter, familiarity with the situation, etc. However, in dyadic interaction, Alter provides feedback so that although the speaker may start out guessing, she is able to test her guessing against Alter's responses and to make adjustments as required (if she is able to).

Alter has (at least) two ways of providing feedback — he can indicate that the utterance is inadequate or he can indicate that there is an inadequacy in the speaker('s rules, norms, capacity). This latter is negatively sanctioned except in specific domains or for specific role relationships — e.g. teaching in its various manifestations. Outside these domains, the use of overt correction is risky — it can be negotiated by ritual phrases, apologies, circumlocutions, but the danger of breaking up the interchange, the ongoing relationship, is severe (cf. Schegloff et al. 1977, above).

One of the consequences of this danger is that the indication of inadequacy in the utterance is also risky and may be misinterpreted. Hence Schegloff et al.'s finding that speaker is given a chance to undertake repair in the utterance, in what they call the transition space. Alter, typically unwilling to cross the boundary between feedback and overt correction, typically restricts correction or requests for correction to content clarification—to which he is 'legitimately' entitled by the need for conversation to continue.

Situations where individuals attempt to conform to norms that are not natively theirs have a number of remedies built into them. One remedy available to the speaker in such a situation concerns the possibility of alignment to norms by preliminary guesses. Speaker here uses the possibility of self-correction as a resource. Another remedy has to do with the etiquette of interaction. Alter does not have carte blanche to correct speaker under any circumstances. Some limited corrections may be carried out during normal discourse, but otherwise corrections are quite severely restricted to sanctioned contexts. Some sanctioned contexts were mentioned above with respect to the correction of migrants' language problems, but the most common sanctioned situation occurs in language teaching. Yet another remedy lies in the codifica-

tion of interaction, e.g. by petrification of a pidgin, or self-limiting 'foreigner talk'.

The task of language teaching, then, ideally involves making available to the learner a generative expressive system, a repertoire of situations in which it may be employed, and a knowledge of the correction mechanisms available in the language, in the interactive process, and in which socially appropriate situations. Such knowledge is not yet readily available to language learners.

The beginner-learner obviously does not know the foreign language she is about to study (sic!); she has to find at least a speaker who does (who can be a teacher), approach him for communication, revealing, excusing, or at least cushioning the fact that her purpose is acquisition rather than 'purposeful', natural communication. And the role of the teacher is more significant in language learning than in other fields of knowledge acquisition.

In the process of language learning there is a psycholinguistic factor little examined from the point of view we are going to mention. It is the teacher himself, viewed as a communication element, who is liable to cause modifications in messages. It would be wrong to leave aside the fact that in the foreign language learning situation the process of communication is not — in contrast with instruction meant to impart any other habits — a mere supplement to or a way of carrying into effect the teaching method; on the contrary, it is the very essence of the activity which forms the object of learning. The first partner in the communication achieved through the agency of the respective foreign language is the teacher: he is the first emitter, whose messages the pupil decodes, and also the first receiver. He is not only a mediator between the language and the person who learns it, but also a model-emitter, and a receiver who does not accept wrong messages, who helps, by his behavior, in producing self-correction, etc. (Slama-Cazacu 1973: 294).

Neustupný says about foreign language acquisition,

Language pedagogues or so-called applied linguists normally tell us what learners should do. However, little information has been available on what people actually do when they teach or learn languages. The description of these rules of language acquisition as a type of correction rules is the primary prerequisite for an improvement in our language teaching and learning strategies (1978: 33).

In 'contemporary' foreign-language teaching the following is normally provided for the learner, says Neustupný (personal communication: letter of 27 July 1979):

a. opportunities for unconscious self-correction: through nondirected correction situations, such as natural conversation with target language speakers, television viewing, reading, etc.;

b. opportunities for conscious self-correction: through instructions on how to use nondirected situations for self-direction (self-instruction), e.g. to consciously reflect on segments of conversation by an interlocutor, to make use of TV commercials for acquiring utterances, etc.;

c. conscious correction by others: situations directed by interlocutors, etc. Implied in this is the use of correction directed to repair of the lack of expression; and correction of inadequacies in actually produced utterances, again with reference to the generative system of the language being taught. It seems to be clear that we are now addressing two separate systems of correction, at different levels. One system of correction refers to the activities of the language teacher, whether it be a professional in the field, a native speaker coopted for the purpose under a variety of pretexts, or even the speaker himself. This system of correction consists of a set of behavioral rules — ways of acting — together with a set of generative language rules which may or may not be related to the set of corrective possibilities inherent in the language system. The latter corrective possibilities inherent in the language system form the second corrective system.

One way of judging the effectiveness of the former system, let's call it the acquisition system, would be to see how well it produces individuals able to use to the fullest extent the possibilities of a language including its associated corrective possibilities.

Váradi's paper (1973) charges that error analysis and related studies have been far too concerned with overt rather than covert errors. He says that a language learner may find himself unable by any means available to him at some early stage of his learning a language to formulate his intended meaning:

... in which case it is claimed here that he often adjusts his meaning so as to bring it within the sphere of his encoding capabilities. This adjustment of meaning usually involves sacrifice of part of the intended meaning, loss of precision, or it may lead to a complete shift of the intending need (1973: 6).

Thus, what the language learner does is reduce his original meaning when facing constraints on his generative capabilities. It is also possible that the learner will shift or replace the intended meaning, 'substituting new subject matter'; this Váradi calls replacement:

In an actual communication situation this phenomenon can probably be dismissed as of marginal importance. Yet it has been found to have disturbing relevance for the classroom situation where learners are often called upon to produce 'nice English sentences' as ends in themselves regardless of what they might really mean to say (1973: 7).

The effort to speak, the effort to employ generative rules, can very much be felt even by native speakers who haven't for some time used their own languages. The outcome of speaking may well be natively acceptable but only after a considerable precorrection effort (Neustupný 1978: 249).

Palmberg (1978) classifies 'strategies' that a language learner can be seen to employ to avoid norm gaps or norm conflict. Palmberg bases his classification on the assumption that the learner recognizes that there is a correct expression which she does not master, but nevertheless has a need or seeks to express precisely this meaning in a second language that is being learned. Strategies refer to ways to achieve communication regardless (cf. also other papers that deal with learner avoidance strategies or paraphrasing in a teaching situation, e.g. Magnan 1979; Ervin 1979).

A logical extension of preparing a student for not knowing how to communicate in another speech community becomes apparent in Bailey (1978). He says, 'Since all speakers make "errors" ... one goal of foreign-language teaching should be learning to make one's "errors" the native way rather than in a "foreign" manner!' (1978: 232).

As the discussion proceeds, however, what Bailey means is that foreign learners should have at their command the widest variety of formal/informal, etc., linguistic expressions. He means 'error' not in the sense of error to be corrected, but in the sense of vernacular expression, nonstandard expression:

Lectal differences in English (and doubtless other languages) are not so much differences in pronunciation as differences in which pronunciations are tolerated in which styles! What is 'correct' in one style is not in another! (1978: 237).

One must teach to feel about variation in a language the way native speakers feel about it. One could have taken Bailey's statement in another sense, namely, given that one does indeed commit mistakes in generating utterances, one should learn to correct these mistakes in the native-speaker way, according to native-speaker rules of correction. These native-speaker rules of correction may well display, as do the generative rules, differences as to which correction rules are tolerated in which styles. What is a 'correct' way of correcting in one style may not be a 'correct' way of correcting in another.

A detour into *native*-language teaching may be appropriate or illuminating at this point. Native-language teaching is a kind of treatment system which socializes young people into their 'place in society' so that communicative behavior is congruent with social role, i.e. so that norm gaps are closed (for the lucky ones) and so that their speaking is fluent. The unlucky ones no doubt learn to expect norm conflict after leaving school, or to assume a humbler place in society than that to which they might occasionally wish to

aspire, thus minimizing such conflict (cf. Teleman 1979). Language treatment (public correction systems) closes norm gaps, passes judgement in norm conflicts, and provides continuing language-education services that help individual speakers avoid avoidable malfunction. The individual speaker supports language treatment by demanding public judgement (cf. Skyum-Nielsen n.d.) on appropriateness of expressions and criticism of efficiency or esthetic quality of texts, and by referring himself to manuals and grammars and dictionaries to close norm gaps. After ten or twelve years in school, the students who don't 'make it' will be very well aware that there can be a vast distance between 'being taught' and the acquisition of usable knowledge.

#### Summary and conclusion

For some time now, language planners have viewed language as a community resource, and they have considered it as one of a set of interrelated social factors affecting the development of a community or nation. In addition to the economic and political concomitants of language planning, planners have also dealt with the interface between language and society. They have seen that particular communities possess systems for treating language problems, whether fully codified, rigorous organizational systems or the less rigorous systems of individual speakers. Neustupný has used the term language correction to refer to all kinds of treatment of language, whether by language planners, institutions, or indivuduals. Speakers have available to them a range of language resources directed to the anticipation of communicative trouble, to the detection and circumvention of such trouble as it occurs, and to the repair of trouble that has occurred. This capability of speakers is the one meaning of language correction that we have explored in this paper.

The remaining resources available to the speaker lie within his generative expression system. At more than one point within this system, structures appear to be patterned, thus reducing the labor of sentence formulation.

We are aided in communicating by the relatively rigid protocols of language norms that shield the speaker and allow him the opportunity to use his correction resources. These protocols allow for shared responsibility for speaking. We perceive that some situations are more dangerous or 'threatening' (using Brown and Levinson's word) than others for speakers, and that in such situations, the danger is alleviated by relatively more rigorous codification of the expression and even of the whole structure of the interaction.

Our proposition, then, is that correction, conceived of in the broadest sense, is built into the core of language and is integral to the structure of all communicative acts. Speakers' resources include the ability to make use of such inbuilt correction devices; a correction system that permits them to repair utterances; and variable access to a more rigorous societal system of correction in the form of language treatment and language planning.

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#### **Notes**

- \* Initial discussions of the materials reviewed here were carried out in a Colloquium on Correction held at the Culture Learning Institute, East-West Center during the period February to May 1980. We are especially grateful to Dr. Renate Bartsch, University of Amsterdam and Dr. Albert Robillard, University of Hawaii for their detailed comments on a draft. We are still thinking about the consequences of some of these.
- 1. Thayer (1967: 92) continues:

The 'rules' for our inputting and processing are our programs for doing so, and most of these function (necessarily) out(side) of conscious control. Verbal behavior is not less automatistic than other behavior, although the mentalistic-symbolic aura with which we have endowed it sometimes misleads us into assuming a special conscious control of verbal behavior. We characteristically interpret our sensory data of another's speech as we are uniquely and automatically programmed to do so. And we formulate our own verbal outputs according to both long-term and temporary programs for doing so — and most of this behavior is simply self-regulatory and nonconscious.

- Prepreparation was first suggested by Lashley (in 1951); he pointed out that the
  logical corollary is that the brain usually inhibits the stretch under preparation from
  being uttered until preparation is complete, thus initiating a process the output of
  which might well be the lexical phrase mentioned above.
- 3. Laver's observations concerning 'awareness' are most interesting (1973: 141):
  - ... I should say that of course attention is not the same as awareness. It is often the case that a speaker makes a slip and corrects it, without either the speaker or the listener being aware that a slip has occurred. The conscious perception of speech in some sense regularizes and idealizes the actual data of speech (Boomer and Laver 1968). Conscious awareness is thus not a necessary part of the monitoring process.

Not only is there no need for awareness to accompany correction, but when there is conscious perception of speech, editing causes us to retain a less-than-perfect representation of what actually took place. There is an idealization of the data into a more regular image and most likely in accord with the perceiver's more or less articulated analytical model of language.

- 4. Bartsch (personal communication) points out that one would want to know what it is that prevents repair behavior from being activated. One could distinguish between different cases, she proposes:
  - 1. There is violation, but nevertheless the utterance was understandable, because not too many information-carrying features were distorted. Here, in case of 'mild' violation, norm tolerance could count against invoking repair.

- The hearer has given up on the speaker because his whole talk is unintelligible to him. The violation is so grave and manifold that repair is impossible because the hearer does not know where to begin and what the speaker might have intended to say.
  - 3. The hearer is not in the position to correct the speaker.
- 4. The language does not provide (conventional) means for expressing a certain state of affairs, an attitude, or a feeling. Here, the speaker has to get his message across with not-quite-suitable means, and he tries to do this by introducing new uses of existing conventional means, which means deviating from the conventions. Only this is the 'creative' use of language, which does not call for repair, because here deviation is functional to the goal of expression. Here, lower norms (special conventions for the use of some of the linguistic means) may be violated in favor of the higher norm of trying to provide an expression adequate to the intention such that the hearer can interpret this expression, though not purely in the way of the conventional linguistic rules, but with taking into account strategies of functional and interpretable deviations from these.
- Fragments of mechanisms for playing together to establish conversation are convincingly shown to be relevant to socialization, thus to becoming an adult 'normal' speaker, in Cherry (1979).

Data from interaction of language-learning children with adult models demonstrate how (1979: 274):

Questions such as 'Huh?' 'What?' 'Wha' dija say?' 'It's what?' indicate that the conversation has broken down, since one of the speakers does not understand what the other has said. Once the speaker becomes aware of the misunderstanding, that speaker may attempt to repair it. The use of the request for clarification sequence can thus have the effect of clarifying what was misunderstood so that the speakers can resume their conversation. The request for clarification accomplishes two functions in adult-child conversation in addition to the general function of allowing misunderstanding in the conversation to be resolved. The child is made aware of the success or failure of his/her communicative performance, and the sequence also encourages the child to participate appropriately in conversation. For example, the adult's acknowledgement of a child's answer may serve as a reinforcement for the child's answering in this communicative situation. In addition, different types of requests for clarification encourage different types of responses.

An example is (1979: 275)

Example 1: (Child is pointing to a toy)

Child: Goes inside?
Adult: Hmm?

Child: Goes inside?

Adult: Yeah, it goes inside.

Incidentally, Cherry puts forward an interesting developmental hypothesis based on progressive differentiation and specialization of such corrective interactions (1979: 283):

It is expected that adults use repetition requests with children in the early stages of language development. In contrast, it is expected that adults will use predominantly confirmation requests with children at the higher levels of language development. Children at different levels of development have varying success at providing appropriate responses, or answers, to adults' requests for clarification. All children should be able to answer repetition questions since children imitate their own utterances at a very early age (Keenan, 1974).

Iwamura (1980) elaborates in considerable detail on interaction of children – among themselves – who are learning language and how they use 'correction activities' (1980: 77):

A child receives 'positive data' from the speech to which he is exposed in normal interchange (although his perception of such data may be different at different stages of his development), and 'negative data' when he is corrected, laughed at or misunderstood (McCawley, 1976). Correction activities provided Suzy and Nani with a means of giving each other metalinguistic feedback in the form of negative data whenever one child found fault with the other's speech and positive data whenever a 'correct' form was agreed upon.

6. There is every reason to expect language behavior to answer to normative expectations, in regard both to the potentially repairable and to its repair. Such a view of language leads us, with Schegloff (1979: 282), to question the validity of current understandings of 'a language' or 'language':

The notion 'a language' seems to be the product of an assumption about some common, stable, underlying properties of an immense range of human behavior — from talking to the family, to reciting Shakespeare to cadging alms to writing memoranda to lecturing, etc. — each of which is embedded in its own combination of organizational structures, constraints, and resources. Much attention has been devoted to these supposedly common features; relatively little to their respective environments of use, which differentiate them. Accordingly, a serious weighing of the commonalities against the differentiae has yet to take place. In any environment of so-called 'language use', there is a locally organized world in which it is embedded. Some of these are 'speech exchange systems';<sup>27</sup> some do not involve talking. Until the characteristics of these locally organized settings are investigated and explicated in appropriate detail, the extraction of 'language' from them is a procedure with unknown properties and consequences.

At the least, we need to ask how repair shares in the contextualization of genres that together make 'a language'.

- A paper by Shimanoff and Brunak (1977) summarizes ethnomethodological research and thought on repair.
- 8. On the one hand, this serves as convenient fiction to hide the possibility of reality's refusing to be constructed: institutions are reality in captivity. On the other, there would not be any social reality without institutions; since the very institutions make possible that which constitutes social reality for a community. Institutions should as much as possible for the common good be not obligatory but optional and thus opportunities for people rather than obligations. We owe this reminder of the worthiness of institutions to Dr. Bartsch.

#### References

- Bailey, C.-J. N. (1978). Native accent and learning English as a foreign language. İRAL 16(3), 229-240.
- Bickerton, D. (1977). Some problems of acceptability and grammaticality in pidgins and creoles. In *Acceptability in Language*, S. Greenbaum (ed.), 27-37. The Hague: Mouton.
- Brotherton, P. L. (1976). Aspects of the relationship between speech production hesitation, behaviour, and social class. Unpublished Ph.D. thesis, Department of Psychology, University of Melbourne.
- Cherry, L. J. (1979). The role of adults' requests for clarification in the language development of children. In *Advances in Discourse Processes*, volume 2: *New Directions in Discourse Processing*, R. O. Freedle (ed.), 273-286. Norwood, N.J.: Ablex.
- Craik, F. I. M. and Lockhart, R. S. (1972). Levels of processing: a framework for memory research. *Journal of Verbal Learning and Verbal Behavior* 11(6), 671-684.
- Ervin, G. L. (1979). Communication strategies employed by American students of Russian. *Modern Language Journal* 63(7), 329-334.
- Fuglesang, Andreas (1973). Applied Communication in Developing Countries: Ideas and Observations. Uppsala: Dag Hammarskjöld Foundation.
- Goody, Esther N. (ed.) (1978). Questions and Politeness: Strategies in Social Interaction. Cambridge Papers in Social Anthropology 8. Cambridge: Cambridge University Press.
- Gumperz, J. J. (1977). Socio-cultural knowledge in conversational inference. In Georgetown University Round Table on Languages and Linguistics, M. Saville-Troike, (ed.), 191-211. Washington, D.C.: Georgetown University Press.
- and Roberts, C. (n.d.). Developing awareness skills for inter-ethnic communication.
   Mimeographed report (limited circulation) from National Centre for Industrial Language Training, Southall, Middlesex, England.
- Hayes-Roth, B. (1977). Evolution of cognitive structures and processes. *Psychological Review* 84(3), 260-278.
- Hymes, Dell (1974). Foundations in Sociolinguistics. An Ethnographic Approach. Philadelphia: University of Pennsylvania Press.
- Iwamura, S. Grohs (1980). The Verbal Games of Pre-school Children. London: Croom Helm.
- Jefferson, G. (1972). Side sequences. In Studies in Social Interaction, D. N. Sudnow (ed.), 294-328. New York: Free Press.
- (1974). Error correction as an interactional resource. Language in Society 2, 181-199.
- Jordan, B. and Fuller, N. (1975). On the non-fatal nature of trouble: sense making and trouble-managing in *lingua franca* talk. In *Semiotica* 13(1), 11-31.
- Lashley, K. S. (1951). Serial order in behavior. In Cerebral Mechanisms in Behavior, L. A. Jeffress (ed.). New York: Wiley.
- Laver, J. D. M. (1973). The detection and correction of slips of the tongue. In Speech Errors as Linguistic Evidence, V. A. Fromkin (ed.), 132-143. The Hague and Paris: Mouton.
- Magnan, S. S. (1979). Reduction and error correction for communicative language use: the focus approach. *Modern Language Journal* 63(7), 342-349.
- Neustupný, J. V. (1975). Language planning for migrant languages in Australia: a theoretical framework. Paper presented at the conference Migrants, Migration, and National Population Enquiry, Monash University, October 24-25.

- (1978). Outline of a theory of language problems. In Post-structural Approaches to Language, by J. V. Neustupný, 243-257. Tokyo: University of Tokyo Press.
- Palmberg, R. (1978). Strategies of second-language communication. *CIEFL Bulletin* 14(2), 1-8.
- Schegloff, E. A. (1979). The relevance of repair to syntax-for-conversation. In *Discourse and Syntax, Syntax and Semantics*, volume 12, T. Givon, (ed.) 261-286. New York: Academic Press.
- , Jefferson, G. and Sacks, H. (1977). The preference for self-correction in the organization of repair in conversation. *Language* 53(2), 361-382.
- Schmidt, Richard W. (1980). Review of Goody (ed.) 1978. RELC Journal 11(2), 100-114.
- Shimanoff, S. B. and Brunak, J. C. (1977). Repairs in planned and unplanned discourse. In *Discourse Across Time and Space*, E. O. Keenan and T. L. Bennett (ed.), 123–167. Southern California Occasional Papers in Linguistics 5. University of Southern California, Los Angeles.
- Skyum-Nielsen, P. (n.d.). Sproglig Normgivning. Unpublished dissertation.
- Slama-Cazacu, T. (1973). Introduction to Psycholinguistics. The Hague: Mouton.
- Syder, F. H. and Pawley, A. (n.d.). Handout for talk: implications for linguistics of the hypothesis of lexicalized clause stems. Mimeographed.
- Teleman, Ulf (1979). Språkrätt. Om skolans språknormer och samhällets. Lund: Liber-Läromedel.
- Thayer, L. (1967). Communication and organization theory. In Human Communication Theory: Original Essays, F. E. X. Dance (ed). New York: Holt, Rinehart and Winston.
- Váradi, T. (1973). Strategies of target language learner communication: message-adjustment. Paper presented at the Sixth Conference of the Romanian-English Linguistics Project, Timisoara, May 28-29.

