

The Role of Co-verbal Gestures in Second Language Discourse – A Case Study¹

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Introduction

Anyone who has attempted to communicate and convey a message in a language poorly mastered will have felt the need to support the spoken message by using the hands as a communicative strategy. But how exactly does this strategy work? This paper will investigate some of the discourse functions performed by gestures in a native/non-native (N/NN) information exchange in a dialogical perspective. For comparison, a native/native (N/N) exchange has also been performed involving the same individual. Gestures are narrowly defined as movement of hands and arms and the functions investigated will include compensation and regulatory turn-related phenomena.

Theoretical preliminaries

The theoretical framework of this paper relates to various disciplines such as discourse analysis, interactionist theories in second language acquisition (SLA) research and communicative analyses of co-verbal gestures with roots in psychology. Each of these will be briefly presented in this section.

Discourse and dialogue

Discourse has traditionally been defined in terms of monologue. The speaker alone has been considered responsible for the message or meaning transmitted. Communication is seen in terms of the speaker's intention which will be transmitted, perceived and interpreted by the listener. Language is seen as a static code with fixed significations. This has been

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called the transfer or conduit model (e.g. Linell 1991). Dialogue is thus interpreted as monologue changing direction. This view has also been dominant within speech act theory which has mainly been interested in the individual speaker's actions.

An alternative analysis, *dialogism*, emphasises the inherent dialogical character of every communicative context, even monologue, and focusses on the fact that in discourse a) the listener is a potential speaker and vice versa and b) an utterance can only be interpreted in relation to other utterances in the discourse (Linell 1991, Markovà 1990).

A complex and interactive relationship exists between speaker, listener and context and dialogue is said to be *dynamic*. The topic of a discourse and the meaning of key notions are *negotiated collectively*, i.e. the discourse topic develops gradually in interaction and the listener plays an active role in the production. Every utterance, initiative or response, is related both to the *preceding* and the *following* and meaning depends on the *sequential* organisation, i.e. on where in the discourse it occurs. Meaning therefore has what Markovà 1990:13 calls "a temporal fixation" relating it to the immediate context of the discourse. Linell 1990b points out, however, that meaning is not constructed ab novo in every instance, but that it belongs to a cultural capital reinvested by speakers continually. This Janus-like quality of the utterance further means that the distinction between initiative and response is not always clear. Even the first utterance or initiative in a sequence can be seen as a response to a social situation and to silence (cf. IR-analysis in Linell, Gustavsson & Juvonen 1988). Moreover, dialogue can be analysed as *local communicative projects*, where the sequence and co-production of dialogue by the interactants has bilateral consequences and entails assignments of partially different rights and obligations (Linell & Markovà *forthc.*). Furthermore, a dynamic dialogue is a test of mutual understanding. Luckmann 1990 argues that dialogue is characterised by its immediacy, reciprocity, deixis and situationality.

This interactive view of discourse has led to a critique of speech act theory in its traditional form, since it does not see discourse as communicative projects between speaker and listener, but rather in monologistic terms of the speaker's intention and possible interpretations or results on behalf of the listener who is not seen as co-responsible for the production (see Linell & Markovà *forthc.* for a critique).

SLA and interaction

Much of the SLA interest in the role of *input* has shifted its focus from the linguistic properties of the native speaker (NS) output to the structural characteristics of native/non-native (NN) interaction focussing on the speech of both participants (see Ellis 1985, 1992, Larsen-Freeman & Long 1991 for reviews). Traditionally the conversational adjustments of the NS have been labelled according to interactants as 'motherese' or 'caretaker talk', 'foreigner talk' or 'teacher talk' and have been assumed to promote communication as well as learning. These adjustments can consist of repetition, comprehension checks, confirmations checks, expansions etc. (e.g. Long 1983). However, it is now acknowledged that the NNS also adjusts in communication relying on procedural knowledge or particular devices for both learning and using the L2 such as simplifying production strategies or compensatory communication strategies.

The distinction between the role of interaction for acquisition and for communication is not always made. The functionalist view that first (L1) as well as second language (L2) develops out of conversation (e.g. Hatch 1978) means that mapping of functions to form in a language is acquired by learning to maintain conversations. SLA studies have found that reliance on situation and context seems to facilitate the communication in N/NN interaction, circumventing morphological deficits etc. The negotiation of meaning might also help overcome the communicative problem caused by a deficient L2 in terms of clarifications, requests for expansions etc. Discourse will moreover provide the learner with linguistic 'scaffolding' such as whole ready-made chunks of linguistic material. This is known as formulaic speech or vertical structures. The learner can take over something from the preceding discourse and use it in his or her own production. In vertical structures, this can go on over several turns, gradually creating the message transmitted and gradually permitting the learner to construct horizontal sequences. Long 1983, in response to Krashen's 1982 hypothesis on the necessity of comprehensible input for acquisition to take place, claims that input is made comprehensible through interaction and that thus, ultimately, interaction favours acquisition. However, the SLA research can hardly be said to have produced conclusive evidence for the role of interaction in acquisition (cf. Ellis 1992).

Gestures – introduction

Nonverbal or kinesic behaviour is a vast field of study and has interested linguists for neurological, developmental, functional as well as semiotic reasons. As a supplementary channel of communication with rules for encoding as well as decoding of functions and/or meanings, it is not only difficult to define (see Backlund 1991, Birdwhistell 1970, Gosling 1981 for attempts), but also to classify (e.g. Hirsch 1983, McNeill 1992). A relatively clear-cut distinction can be made between semantic/semiotic and functional classifications, however.

The classical Ekman & Friesen study (1969) classifies gestures according to *codage*, *usage* and *origin*. On the basis hereof, a detailed taxonomy is established: *emblems*; *illustrators*, which are signs directly tied to speech; gestures displaying *affect*; *regulators*, which carry no message content, but convey information on the speed and structure of the conversation; *adaptors*, which include “grooming movements”. Illustrators are further categorised into groups of more or less iconic coding.

Concentrating on speech-associated gestures, it is convenient to follow Kendon 1986 and distinguish depicting gestures from abstract gestures and *conventionalised* gestures. These latter more or less correspond to an utterance or a speech act (in the traditional sense) on their own, with a well-defined, highly coded meaning. They are called ‘symbolic’ or ‘emblematic’ (Efron 1941/1972), ‘emblems’ (Ekman & Friesen 1969), or ‘autonomous’ (Kendon 1983) gestures. They have been quite extensively studied cross-culturally (e.g. Morris et al. 1979).

More difficult to classify, however, are the *depicting* gestures. The role of iconicity and reference in the coding of content is a matter of some discussion. McNeill & Levy 1982 and McNeill 1992 chose to introduce what they call *metaphorical* gesture for more abstract referents and relations depicting whole-part relationships etc. Another important category of speech related gesture is that of ‘batons’, ‘beats’ (McNeill & Levy 1982, McNeill 1992), ‘accompanying gestures’ (Backlund 1991), ‘non-representational’ (Marcos 1979) which have no propositional content of their own, but rather function as a sort of visual punctuation or rhythmic markers.

Kendon 1986 argues that the distinction between these three categories is not a trichotomy as such, but rather a continuum between holistic, spontaneous gestures, expressing complex ideas and gestures that can replace certain words or combinations, towards the highly lexicalised and conscious end of the continuum of conventionalised gestures. He thus sees gesture as a

lexicalisation process, forming “an integral part of the utterance in complementary relationship to speech” (p. 13). Håkansson 1992 further posits a continuum between verbal language and non-verbal language where emblems are closer to the verbal, ‘informative’ end and illustrators, affective gestures and adaptors fall further to the non-verbal end of the continuum. Authors discussing the semiotic status of gestures as signs argue either that gestures are motivated but conventional or that they are as arbitrary as verbal language. Those claiming that they are motivated (e.g. Calbris 1990, Kendon 1983) stress the inherently iconic origin of gestures, but point out that it is completely arbitrary which part of a sign’s iconic meaning a culture singles out to conventionalise. Hirsch 1983 and Klima & Bellugi 1979, on the other hand, argue that gestures are arbitrary in their origin, but highly conventionalised in the same sense as verbal language whereas McNeill 1992 points out that gestures are only arbitrary inasmuch as they are part of a code, i.e. they are only arbitrary if they are conventional.

Thus far, we have dealt mainly with the relationship between meaning and gesture. However, it has been argued that gesture is more connected to intonation or at least to a phonological level than to other linguistic levels such as grammar or lexicon (e.g. Gosling 1981). Studies have shown that gestures often occur at the most stressed element in an utterance (tone unit, cf. Kendon 1983) and follow the intonation curve closely forming a ‘kinesic curve’ (von Raffler-Engel 1986). Iconic gestures seem to be related to lexical items and to be more distinctive, whereas beats, with their summarising or commenting function, occur at different points in an utterance and tend to be smaller and to be performed with smaller body parts.

Gestures and interaction

In communication or in discourse all the aforementioned functions can be said to work to index the discourse. Gestures can be *regulatory*, not only in the sense that they might help facilitate understanding, memorisation, etc. (see Feyereisen & de Lannoy 1985 for an extensive review of studies), but in the sense that they regulate the interaction between participants and maintain and control the flow of speech. Exactly how this is done is little known, however. Gosling 1981 argues for discourse functions such as turn-claiming or in-turn feedback requests being performed by kinesic behaviour. He stresses the fact that this behaviour is co-produced by interactants. In an early study Duncan 1972 found that gestures can

function to mark turn-yielding in a conversation, i.e. a speaker will signal kinetically when he is giving up the floor, generally by ceasing to gesticulate. By continuing gestures, a speaker will accomplish suppression of any turn-claim by the listener. Nonverbal listener behaviour such as back-channelling has been found to consist largely of head-nods (often called regulators) which either co-occur with the verbal listener response or precedes the end of the speaker's turn (de Gaulmyn 1987, Rosenfeld & Hancks 1980). Speech hesitation has also been found to relate to gesture. Ragsdale & Silva 1982 argues that vocal hesitation such as repetition, stutter, omission etc. are closely linked to body movement. Interestingly, gestures occurred not after but just before or simultaneously with the non-fluency. Butterworth & Hadar 1989 suggest that gestures that occur when a speaker is searching for a word are likely to be iconic. They assume that the meaning element has been found whereas the phonological form is not retrieved. Gesture thus serves as *compensation*. Gesture during discontinued speech may thus signal both search for word and that the turn is not being yielded.

Gesture and SLA

A full communicative code thus includes both verbal and nonverbal signals. Kellerman 1992, studying the relevance of kinesic behaviour to listening comprehension in L2 learning, argues that the additional channel of nonverbal communication facilitates because of the redundancy it creates, the reduction of ambiguity. She suggests that it might help in retention of learned material since more memory channels are involved, motoric as well as linguistic.

However, for gestures to facilitate in SLA, they have to be understood. This need not necessarily be the case for learners of a L2, if it is assumed that gestures are arbitrary but conventional and culture specific. They will only facilitate understanding and communication if they are correctly interpreted and the learner is familiar with the sociocultural implications of the gestures. Mohan & Helmer 1988 point out that the traditional view of nonverbal behaviour is inadequate for SLA. A 'social semiotic view', emphasising that nonverbal behaviour is as much part of the socialisation process as linguistic behaviour, better accounts for SLA problems. L1 and L2 preschoolers were tested, and it was found that even the L1 group only understood about half of the gestures used. The result was even poorer for the L2 group. Age and cultural familiarity correlated significantly with the

results obtained. However, it might be argued that this experiment did not really test the understanding of gesture since gestures were decontextualised and did not occur in interaction. Furthermore, the gestures were generally of an emblematic nature even if not wholly lexicalised and therefore culture-specific.

Turning to the encoding of gestures, Marcos 1979, investigating schizophrenics, found a higher rate of non-representational gestures, i.e. non-iconic in the broad sense, in the L2 of a group of speakers than in the L1. He explains this in terms of production processing and argues that because the encoding task is more demanding in the L2, the cognitive capacities only allow smaller units to be processed resulting in more gestures. This of course implies that you share McNeill's view (1985) that gesture and language share a computational stage and that gestures naturally accompany articulate speech. However, Marcos 1979:942 also admits the possibility of a "motor overflow [...] as an effort on the part of the subject to reach and establish contact in a poorly commanded language". In other words, gestures have a compensatory function in L2 interaction and serve as a *communicative performance strategy* (cf. Ellis 1985 for review). The SLA research often mentions gesture only in this context without investigating it further. However, contrary to expectations, Valokorpi 1981, studying Finns speaking English as L2 with a NS of English, found that the NNSs did not display increased kinesic behaviour when performing in their L2 but maintained their individual nonverbal behaviour across the languages (cf. "idiokinolect" in von Raffler-Engel 1986:131). This seems to contradict the Marcos study. Valokorpi assumes that this is because kinetic behaviour in an L2 has to be taught and learned, something which is not recognised in much foreign language teaching² (for attempts, see e.g. Calbris & Montredon 1986).

The present study

This is a small-scale descriptive attempt at investigating possible communicative functions of co-verbal or speech-associated gestures in a N/NN dyad with focus on the L2 production. For the purposes of this paper only one N/NN dyad has been studied in depth. A working hypothesis of this paper will be that inadequate L2 favours gesture as a communicative

²In SLA research a distinction is generally made between *second language acquisition*, meaning language learning taking place in the country where the language is really spoken and *foreign language acquisition*, referring to traditional language teaching in the native country of the learner.

strategy in order to compensate, create redundancy and reduce ambiguity but also and ultimately to help engage the NS in the dialogue in order to achieve the necessary cooperation in production.

The following assumptions are investigated:

- (1) there will be a larger amount of gestures and more gestures with a dialogical function, i.e. gestures contributing to the negotiation of meaning, giving meaning a temporal fixation in the immediate context of the discourse.
- (2) some compensatory gestures will occur in discontinued speech. They are further assumed to be essentially iconic, related to lexical items and larger gestures.
- (3) other gestures in N/NN dyads are regulatory, controlling flow of speech and participants' contributions such as turn phenomena.

Experimental design: Subjects, stimuli etc.

The study bears on interaction involving one NS of Swedish (A) engaged in a) a conversation in Swedish with another NS of Swedish (N/N) and in b) a conversation in French with a NS of French (N/NN).

A is male and in his twenties. He has studied French for three years in secondary school and regularly spends some time in France with family, i.e. in an essentially Swedish-speaking environment. The Swedish interlocutor, B, is also male and of about the same age and status. The NS of French, C, is a female teacher of French as a foreign language in Sweden and speaks fluent Swedish although A was not made aware of this at the time of the conversation. All participants were right-handed.

The set-up was experimental. In both conversations, A was shown a cartoon and then asked to retell it to the interlocutor who had instructions to ask for as many clarifications or further explanations as needed to understand the storyline. At the end of the session, B and C, respectively, were shown the cartoon. The conversations were video-recorded. The set-up permitted a direct comparison between A's communicative behaviour in L1 and L2 with particular focus on the nonverbal behaviour. The stimulus was a short, simple cartoon so as not to tax memory too much and avoid any technical vocabulary in the L2. The task does not really promote conversation as such or any expressive, social emotive aspect of interaction. It rather illustrates a referential dialogue based on a narrative and is meant to generate a number of referential gestures. The communicative genre can be seen as a co-operative information exchange in which one interlocutor is

mainly responsible for filling the information gap. The N/NN session lasted 9 minutes and the N/N just 4 minutes.

Coding procedure

For the purposes of this paper a narrow *definition* of gesture has been used viz. any movement of the hand(s) and/or arm(s) associated to speech. 'Adaptors' (Ekman & Friesen 1969) or movements of grooming, scratching, touching of the nose etc. are excluded. Head movements, gaze, positional changes etc. have not been considered although their potential importance is recognised.

Classification: a division of *iconic* gesture (I), *metaphorical* gesture (M) and *beats* (B) has been adopted following McNeill & Levy 1982 with the addition of a *deictic-anaphoric* category (DA). Iconic gestures are those depicting the referent in a straightforward way like when the index meets the thumb to illustrate 'ring' or 'round'. Metaphorical gestures depict "the vehicle of [the] metaphor" (McNeill & Levy 1982:289) or more abstract entities. An example might be the gesture for 'or' where two hands are held up like cups on a scale and then moved up and down as if weighing one argument against another. Deictic-anaphoric gestures are movements placing a referent in time or space without depicting them, mostly a simple pointing to a specific place when naming a referent, 'the man', and then pointing to the same place when referring to the referent with a pronoun, 'he'. These categories will be referred to as essentially referential. Beats, finally, are small, simple movements with essentially rhythmic functions. In the present classification, beats have been distinguished from DAs largely on the basis of presence or absence of direction (for extensive description of classification, including 'beat filter', see McNeill 1992).

Coding: In the transcriptions the categories have been marked I, M, DA and B directly under the word(s) where they occur (see Appendix). As far as possible, the nucleus of the gesture (cf. Kendon 1983 for description of gesture phrases) has been placed under the phonological element at which it occurs. In a closer transcription, details as to the gestural features have been noted, e.g. hand configuration, direction etc. Two observers have coded the data and only those gestures which were identically coded have been counted. Gestures are divided by moments of rest by the hands, i.e. movement-rest-movement counts as two gestures irrespective of whether the verbal dialogue contribution is interrupted or not. A movement which continues over turns is counted as one.

Table 1. Gestures in a N/N (A+B) and a N/NN (A+C) dyad. A, B, C = interactants. Sw=Swedish; Fr=French. I=iconic; M=metaphorical; B=beats; DA=deictic-anaphoric.

	Pause					Speech					Total
	I	M	B	DA	Total	I	M	B	DA	Total	
A Fr	9	4	-	-	13	18	8	7	11	44	57
A Sw	1	-	-	-	1	5	3	6	5	19	20
B Sw	-	-	-	-	-	-	2	2	5	9	9
C Fr	-	3	-	-	3	3	2	10	4	19	22
Total	10	7	-	-	17	26	15	25	25	91	108

Results

Quantification: It is recognised that a quantification of this sort of data might be precarious given the problems involved such as varying length of the recordings, varying amount of speech produced etc. However, some simple but illustrative facts might come out of a tentative quantification. For an initial quantification of the data, see Table 1. The immediate observation to be done is that A does most of the gesticulation, dominating each dyad respectively: N/N: 69% of gestures; N/NN: 72% of gestures. Furthermore, he gesticulates more in the N/NN dyad. On 100 words A produces over 25 gestures in the N/NN dyad, but only 11 in the N/N one. Furthermore, 84% of the total amount of gesture takes place during speech. Of those gestures performed during pause, 82 % were performed by A.

Referential gestures (I, M and DA) constitute 77% of the total amount of gesture. Furthermore, 74% of A's total gestures occur in his L2 production and only 26% in his L1 communication.

An informal count shows that Is favour nouns, verbs and adjectives in that order. Another striking fact is that beats and deictic-anaphoric gestures only ever occur during speech. More particularly, 40% of all DAs fall on pronouns with verbs, nouns and adjectives as the next largest groups. Ms often occur in pauses. As pointed out by Per Linell, the speech-pause distinction might be better accounted for by looking at turns. Bs and DAs are turn-internal whereas Is in particular occur at the end of a turn.

Discussion

First of all, caveats are in order. The analysis is based on restricted, experimental data of a case study. Although the task set was meant to delimit as much bias due to individual variation as possible, it might be

argued that the sex and slight age difference between interactants in the N/NN dyad affects the communication. However, it is probable that the most influential variables in that context are the language and task involved rather than personal qualities in the interactants.

The aforementioned figures indicate a few important facts. First, the task did in fact generate a large number of referential gestures and especially so in the interlocutor responsible for bringing the story/conversation forward and filling the information gap. This responsibility seems heavier in a situation of language deficit (cf. Marcos 1979). There are more gestures in the N/NN dyad which is in opposition to Valokorpi's findings. The augmentation of amount of gesture can be assumed to follow from the need of the NNS to elicit help and assure the co-development of meaning and topic.

Secondly, speech favours gesture or, more precisely, a communicative responsibility for conveying a message favours gesture. Listeners produce less gesture and mainly during vocal feedback or when they have claimed their turn and become speakers themselves.

Gesture and discourse function

An obvious problem in analysing gestures is their multifunctionality (cf. Cosnier 1987) which is ultimately what promotes understanding. The richness of meaning and function is their strength. It would seem that referential gestures play a more important interactional role than beats. Gestures serve as part of the communicative strategy even in N/N dialogue and their discourse functions are largely the same. However, they will have to perform much more work in a N/NN dyad.

Beats

Beats are tightly connected to rhythmic-prosodic features of the production and seem to have a more regulatory function, controlling the flow of speech. Their importance for understanding must not be underestimated. Functioning as punctuation, they serve to disambiguate the discourse by visualising intonational information such as emphasis etc. Interestingly, we find that beats indicate 'foreigner talk' at a given point in the N/NN dyad:

- (1) 2C: tout le monde le salue lui
 B B B B

Although beats can be assumed to be a language- and culture specific part of French, in this case, they break up the natural rhythm of French,

apologising for his French. Before saying anything, he starts to move his fingers in front of his mouth as if to wave something away. A DA then follows as he points to himself when the utterance begins, followed by another wave in front of the mouth, as if to remove the words just said:

- (4) 3A: [] je m'excuse pour mon français mais (laughter)
 M DA M

The interactant, C, takes up his gesture of waving in her nonverbal response to the excuse. Her response wave obviously means: 'Never mind, it does not matter'. Both interactants thus wave away something undesired; A his poor French and C his excuse. The mirroring of gesture is a case of interactional adjustment.

Deictic-anaphoric gestures place lexical items in space and time, fixing them for future reference and are context-creating and context-dependending (Cairns 1991, Linell 1990a, Lyons 1975). They are truly temporal fixations of perspective in Markovà's sense. Initially deictic, serving as placeholders (cf. Fillmore's "locating expression", 1982), they become anaphoric whenever they point back to an item already fixed. DAs help form a spatial immediate context shared by both interactants in the *gestural space*. Each interactant has his/her own space with the self as centre or origo which is at the same time a mirror image of the others. A, who is right-handed, places most of his minor gestures in the left half of his gesture space which is also the direction of his interlocutor. Larger gestures like I and M are often more centred. DAs function dialogically in that interactants adopt the DAs of the other. When C on a metalinguistic level tries to disambiguate A's rather confusing use of the pronoun *il* in French (which, of course, is homophonous to the plural pronoun *ils*), she in fact points in the same direction as A when he placed the main character of the story, i.e. to her right.

- (5) 24C: ah c'est ça je n'ai pas compris quand vous avez dit il je ne
 DA
 24 savais pas s'il s'agissait des personnes rencontrés ou s'il s'agissait
 B B DA
 24 de []

Both DAs in the above example point to the same point in C's gesture space, i.e. to the mirror point of A's gesture space. Furthermore, DAs very obviously serve regulatorily to give the turn to the other, pointing to the interactant:

- (6) 26C: Est-ce que vous connaissez ce mot?
 DA

Summing up then, gesture in N/NN communication is not just a "motor overflow" but performs some important discourse functions: compensatory functions as requests for help, in this case mainly lexical, and negotiation procedures, clarification or illustration; regulatory functions like turn-keeping and turnyielding functions. They follow N/NN patterns established in earlier SLA research. Moreover, gestures are sometimes taken over by the interlocutor and imported into the following utterance just as words sometimes are. Thus, a context is progressively constructed out of the concepts introduced in the prior discourse (*cotext*) and of shared knowledge of the world which helps interpret the gestures. Understanding is clearly not just passive receiving but active participation (cf. Linell 1991). Ultimately, it seems that L2 gestures might be dialogical in the sense that they help engage the NS in the interaction. It is probably more difficult to ignore a visual request for help than a mere hesitation in the verbal production which can be filled, especially since the gesture marks turn-keeping.

Listener role and gesture

The listener behaviour, the *backchannel* feedback, evokes much less gesture (cf. McNeill 1992, Rosenfeld & Hancks 1980). Head nods are the most common nonverbal backchannel signs but initiation or termination of hand gesture can also be found. In this data, back-channelling consists of verbal turns and head-nods. Both beats and DAs are important to the 'listeners' in this information exchange, probably serving to disambiguate as well as structuring A's production which might seem slightly incoherent. In the N/NN dyad C performs the majority of the beats. In the N/N dyad, however, A outperforms B. The N/NN communication requires more interactive, largely supportive, work from the NS which accounts for the fact that C as a listener in N/NN produces not only more speech but more gestures of all kinds than B in N/N, once the narrative is completed and proper negotiation of meaning can take place (25 vocal contributions/22 gestures versus 8 v.c./9 gestures). This is of course interrelated to the fact that the N/NN session lasts a little longer due to communicative problems and that the NS needs more clarifications. Individual, ethnocultural factors also play a role but a N/N dyad with French NSs would have to establish to what extent this is the case. More importantly, though, it shows that A succeeds in involving the NS of French more in the communication than he needs to do with the NS of Swedish.

Concluding remarks

On the basis of an information exchange task given to a set of N/NSs and N/NNs, the results presented in this paper suggest that gestures and especially referential gestures are more numerous in N/NN communication than in N/N dyads as a result of communicative strategies on the part of the NNS. Gesture performs conversational work in compensating for language deficit through illustration or marking of requests for help, disambiguating pronominal and/or nominal expressions, and regulatory work as in controlling turnkeeping. This gives them a dialogical function. By forming a tangible immediate context they facilitate comprehension as well as co-production of the message which can be negotiated. Gestures are taken over by interlocutors, especially deictic-anaphoric gestures, showing that a common, shared gestural space is established helping dialogue to continue. These functions are valid in N/N dyads as well, but more frequent and more obvious in a N/NN dyad where more active interaction is required of the NS.

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Appendix A

Transcript A/C. Tape 0-101; video 0-129

= means continuation of either utterance or gesture

[] means pause (not measured)

- 1A: il ch ah (laughter) il il le salue salue dans les rues et <not disting.>
 DA I I
- 2C: tout le monde le salue lui
 B B B B

- 3A: oui [] je m'excuse pour mon français mais (laughter)
M DA
- 3C: M
- 4A: eh il raconte eh rencontre plusieurs gens
DA DA
- 4C: personnes
- 4A: =
4 =tout il il dit toute les mêmes choses et [] bof [] et []
I B M personnes et []
- 4 =il pense que c'est c'est c'est un [] eh c'est le façon de dire eh
M M
- 4 =bonjour et en - et ensuite eh ou en[-]fin il arrive dans son hôtel et il
DA I
- 4 =voit [] lé eh lé patron de l'hôtel [] qui est [] enragé et
I DA I I
- 5C: en colère?
- 6A: oui en colère oui parce que parce qu' il est en train de eh [] ah []
I I I I
- 6 =qu'est-ce que c'est ?
6 =eh de mettre un eh
I=
- 7C: une affiche?
7A: eh
=I=
- 8C: une pancarte?
- 9A: ah non eh
=I= =I
- 10C: une photo?
- 11A: un photo ou
I= M
- 12C: une peinture?
11A: =I
- 13A: une peinture
I
- 14C: un tableau?
- 15A: avec une cadre
I
- 16C: un tableau.
- 17A: un tableau oui [] et il a [] (laughter) []
I I
- 18C: des outils des instruments?
- 19A: ah oui oui il il y a il a un marteau
I I I
- 19C: oui
- 19A: =et il a fait (whistle) comme ça
I I
- 20C: un clou et il s'est donné un coup de marteau sur le pouce
- 20A: il a ah oui
I
- 21 et il et lui il dit le même chose que tous les autres
B B B B B B
- 22C: (laughter) et il découvre ainsi qu'il a dit quelque chose qui n'est pas
22 =convenable pour
M
- 23A: ah non c'est c'est c'est tous les autres qui eh lui a dit []
M DA DA= =DA
- 23C: qui a
- 24C: ah c'est ça je n'ai pas compris quand vous avez dit il je ne savais
DA

- 24 =pas s'il s'agissait des personnes rencontrées ou s'il s'agissait de []
B B DA
- 24A: ah oui
- 24C: =de l'homme qui est le personnage principal.
- 24A: mm
- 25 non les les autres [] a eh dit ce mot.
DA M
- 26C: ehm [] est-ce que je suis censée deviner ce mot? Est-ce que vous
DA
- 26 =connaissez ce mot?
- 27A: non [] parce que c'est écrit dans une [] eh
I I
- 28C: une bulle vide?
- 29A: eh non c'est pas une bulle vide c'est c'est un eh [] oh []
M I M
- 29 =c'est comme l'arabe mais c'est pas l'arabe c'est quelque chose []
DA I I M
- 29C: aha c'est
- 30 =c'est illisible
- 31A: oui
- 31C: c'est un symbole ou on sait pas ce que c'est
- 32A: mm
- 33C: ehm mais le message qu'est-ce que c'est?
M
- 34A: ah le message [] c'est un blague eh (whistle) [] je pense qué [] oh il y
34 =a pas un grand chose comme message
- 35C: c'est comique mais je suis sûre qu'il y a un message
B
- 35A: mm
- 36C: quand on va dans un pays étranger on reçoit des signaux
I I
- 36A: mm ah oui
- 36 =oui oui
- 37C: on peut [] on peut se méprendre
M M
- 37A: mm mm
- 37C: =on peut se tromper sur les signaux qu'on reçoit mais est-ce que lui
DA
- 37 =il a dit les choses aux autres personnes?
B
- 38A: non [] il a rien dit
- 39C: il a seulement reçu des gestes et les mots?
I
- 40A: les mots
M
- (laughter)
- 41A: mais c'est bien difficile pour lui parce que tous les gens ils eh [] il
DA I
- 41 =fait un sourire quand quand il dit ce eh ce mot
M M
- 42C: oui

