Comprehensible Output: A Lesson From a Child Acquiring a First Language

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Abstract. The present article is intended to examine what a child acquiring a first language did when he encountered a communication block in his interaction with others. More specifically, it examine linguistic output modification attempted by the child when he was not successful in getting his meaning across or in achieving his intended goal. The corpus data, in the form of cards containing naturally occurring utterances together with the context which were collected for one-year, starting at age 1;6 and ended at 2;6, were part of a participant-observation, parental-diary, naturalistic case study into his early language development. In his attempts to overcome a communication block, the child was found to make phonological, lexical, morphological, and syntactical elaboration, thus producing more-comprehensible output. Relevant implications are then forwarded for the teaching of English in Indonesia.

Key words: language acquisition, comprehensible input, negotiation, comprehensible output, linguistic elaboration

The interest in comprehensible output could be traced back to negotiation, which happens to be labeled differently by different authors, such as conversational adjustment and interactional modification (Pica, 1996). Negotiation itself, in relation with second language acquisition, might have originated from Hatch's (1978) then unusual view that the acquisition of communicative ability precedes that of form. In her own words, “One learns how to do conversations, one learns how to interact verbally, and, out of this interaction, syntactic structures are developed.” This view is contrary to the belief that language learners are first to be taught rules, then provided with mechanical drills, and finally with more communicative activities.

This novel idea of Hatch's is commonly combined with Krashen's concept of comprehensible input, and together they make up the basis for what has come to be named 'interactional hypothesis' (Ellis, 1991), which puts forward the following claims:
1. comprehensible input is necessary for L2 acquisition, and
2. interactional modification which takes place during a negotiation helps to make input comprehensible.

Interaction does not always proceed smoothly, especially when NNS interactants are still in developmental stages. There are several ways in which interaction can be modified, for example: correction, topic rerouting, and negotiation (Pica, 1994). In other words, interactional modification is carried out—linguistically or conversationally—in order to improve comprehension and thus facilitate interaction.

As one type of interactional modification, negotiation is accomplished through clarification requests, confirmation checks, comprehension checks, and repetitions. Clarification request occurs when, in an interaction, one interlocutor does not entirely comprehend the meaning and asks for clarification. Confirmation check occurs when the listener believes that he or she has understood the meaning but would like to make sure and comprehension check occurs when the speaker wants to be certain that the listener has understood. For some reason repetition is frequently omitted from discussion about negotiation (Doughty and Pica, 1986).

It has been shown (Pica et al., 1987) that negotiation results in greater modifications and, thus, facilitating better comprehension of L2 input. In addition, negotiation also provides learners with the opportunity to pay attention to the forms of the message. Furthermore, negotiation also serves as a source of positive feedback, i.e., information about the correct L2 forms and features (Pica, 1994). Negotiation likewise provides NNS learners with negative feedback—information that the interlanguage forms used by NNS are not found in the target language system, i.e., that they are incorrect (Oliver, 1995). Thus, along with comprehensible input and access to message form, negotiation also supplies second language
learners with both positive and negative feedback. However, Swain (1985) proposes that comprehensible input is not sufficient for second language learners to acquire the target language since it is often possible for them to understand the meaning of L2 input without fully understanding the morphosyntax of the input. In order that they internalize, i.e., acquire, a new structure, they should have the opportunity to employ it in production. Therefore, comprehensible output is also necessary.

As if in response to this, Pica et al. (1989) carried out a study involving 10 pairs of NS-NNS. The result shows that, when the NS signaled an explicit need for clarification, the NNS tended to modify their output. Thus, it is true that negotiation also provides second language learners with an opportunity to organize their L2 utterances grammatically, or more exactly, provides them with some pressure during interaction to elaborate their interlanguage output and thus make it more comprehensible.

The present paper is set to describe what a child acquiring his first language did when encountering a block in communicating with others. More specifically, it examines what linguistic output modifications were attempted by the child when he was not successful in getting his meaning across or in achieving his intended goal.

METHODOLOGY

The present study is actually a spin-off of a participant-observation, parental-diary, naturalistic case study designed to investigate the linguistic forms produced by a male child named Mika who was acquiring an informal code of Bahasa Indonesia as a first language. Mika was the fifth in the family; his brothers are Mogi, aged 2;9 at the start of the observation, Mara, 4;5, Mirza, 8;9, and Mada, 11;5. At the time of data collection, the family was temporarily living in Malang. The data of the study, collected for one-year, starting when the child was 1;6 and ended when 2;6, were naturally occurring utterances together with the context which were mechanically recorded in printed cards. For the present purpose, these printed records were re-examined and reanalyzed.

RESULTS

Mika seemed to have a number of resources to overcome a block that he was faced with in interaction, which might be grouped into three: para-linguistic, discoursal or conversational, and linguistic. The first includes, among others, proximity, gestures, and actions; while the second covers, among others, reroute, topic abandonment, topic compromise, directness level adjustment, and addressee appointment. All these would not be discussed any further here since they are beyond linguistics proper.

The third, linguistic resources, to be discussed subsequently, might be classified along the elaboration type that the child attempted: lexicon, phonology, morphology, and syntax. However, it should be stated that two things will be excluded: (1) from lexical elaboration, particles that he repeatedly used to make his utterances more agreeable to his listeners, such as, ya, ya Bu ya, and ya Pak ya; and (2) from phonological elaboration, voice quality including pitch and loudness, since this is supra-segmental.

Number

Quantification should be weighed very cautiously especially since the original study (Raja, 2003) was basically designed for some other purposes and, moreover, since the child’s utterances in totality could not have possibly been recorded anyway. Nevertheless, there seems to be no other way of economically presenting a general picture. Thus, as many as 113 occurrences of linguistic elaboration were identified from the corpus data which were collected during the one-year observation, which is divided into 4 quarters: Q1 from age 1;6 to 1;9, Q2 from 1;9 to 2;0, Q3 from 2;0 to 2;3, and Q4 from 2;3 to 2;6 (Table 1).

Table 1. Number of Elaboration Occurrences

<table>
<thead>
<tr>
<th>Quarter</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lexical</td>
<td>12</td>
<td>7</td>
<td>14</td>
<td>16</td>
<td>49</td>
</tr>
<tr>
<td>Phonological</td>
<td>9</td>
<td>2</td>
<td>6</td>
<td>14</td>
<td>31</td>
</tr>
<tr>
<td>Morphological</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Syntactical</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>19</td>
<td>29</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>21</td>
<td>10</td>
<td>29</td>
<td>53</td>
<td><strong>113</strong></td>
</tr>
</tbody>
</table>
Table 1 shows that after a drop in Q2, i.e., from 21 to 10, the number of linguistic elaboration rises in Q3 and Q4 with 29 and 53 occurrences, respectively (see also Figure 1). Although it might at first seem strange, this as a matter of fact is in line with Mika’s decrease of productive word acquisition rate in Q2, which has been termed Vocabulary Growth Ease—in Q1 the rate was 5.45, in Q2 1.14, in Q3 1.20, and in Q4 1.24. It has also been speculated (Raja, 2003) that this phenomenon might be linked with other aspects of his linguistic development.

At the same time Mika seemed to be quantitatively stagnant in his active vocabulary acquisition (Vocabulary Growth Ease) at age 1;9... he started to acquire cognitively more complex words, especially prepositions and conjunctions; he started to improve his pronunciation of the words he had so far acquired; the frequency of affix utilization increased sharply; the number of lexical items with idiosyncratic meanings strongly dropped, and he produced more and more multi-word utterances. (Raja, 2003)

Table 1 also reveals that between age 1;6 and 2;6 lexical elaboration is the most frequently used with 49 occurrences, followed by phonological, syntactical, and morphological elaboration with 31, 29, and 4 occurrences, respectively (see Figure 2). This means that in general Mika relied most on lexicon when faced with communication blocks.

However, through examination by quarters, a different picture emerges: throughout the four quarters, he was relying more and more on syntax. Indeed, in Q4 the number of recorded syntactical modifications exceeds that of lexical elaboration (see Figure 3). This might mean that as children grow more mature linguistically, they might employ more and more syntactical resources that they have acquired to overcome communication blocks. In other words, as children grow older, they seem to find syntax more effective than lexicon, as judged by the number of occurrences, to deal with the communication barriers they are faced with, which in themselves might become cognitively more and more complex.

In addition, Table 1 indicates that in Quarters 1, 2, and 3, Mika did not employ morphological elaboration, and in Q4 there are recorded 4 occurrences of this type of elaboration. This might be due to his then undeveloped morphological system. Anyway, this is also observed among L2 learners by Pica (1994) who admits that negotiation seems to work most readily on lexical items and syntactic structures while negotiation over morphology is rare. For example, negotiation over tense markings does not result even in tasks in which learners are supposed to tell stories or explain procedures.

Another thing emerging from the table is that although phonological elaboration was utilized with increasing frequency in Q2, Q3, and Q4, neither its number nor its increase acceleration exceeds that of syntactical elaboration. This, again, might support the previous postulation that children might show an increasing preference for syntactical over the other linguistic resources when attacking communication obstacles especially as they grow more mature.

What has been presented and discussed in this section is the quantitative analysis of the linguistic modifications attempted by the subject when he encountered communication block in verbal exchanges. As has been said previously, such quantification should be considered critically since the original study (Raja, 2003) was basically a qualitative investiga-
tion designed for some other purposes. In sections that follow, qualitative description of each of the linguistic elaboration types—lexical, phonological, morphological, and syntactical—will be presented.

Lexical Elaboration

It has been claimed previously that lexical elaboration, with 49 recorded occurrences, might be the linguistic resource most frequently used by Mika during the whole one-year observation (Table 1). The following extracts are meant to show how Mika attempted lexical modification when he was not successful in getting his meaning across. (In extracts, taken directly from the classified cards, K stands for Mika, G Mogi, R Mara, Z Mirza, D Mada, T Tini, a domestic, M Mother, and F Father.)

Extract 1 Lexical Elaboration
K had been eating tempe. Finished, he approached T.
K: Agi. (lagi)
T: Apa?
K: Mpe. Mpe.
I: Tempe!
K: Mpe

Extract 2 Lexical Elaboration
Z had taken a shower and got dressed. He was going out with M. Z got out of the bedroom, and K watched him. K approached him.
K: A, ikuk. Aa, ikuk. (ikut)
Z: ... (no response)
Z didn’t heed him. He went outside, and closed the door behind him, leaving K inside. M had already been waiting outside. K then approached F, who was at his desk.
K: Bapak, ikuk. Pak, ikuk. (pulling at F’s shirt)
F: ... (no response, busy typing)
K: Bapak, a i (mutar sekali)
F: ... (no response, typing)
K walked to the window, looked outside, to Z and M.
F: Kenapa? Kenapa Ibu nyu?
F got up, lifted K up, and carried him outside.

Extract 3 Lexical Elaboration
G had just put his glass of sugared tea in the fridge. Now he was lying on the rug beside M. K had been playing outside, and now he got in, approached and looked up at M.
K: Ana Nggi, Bu? (mana Aa Mogi)
M: Aa Mogi? Tuh!
K: Ana iyup? (mana sirup)
M: Iyup? Teh! Teh siapa? Teh Aa Mogi?
K: He’eh.
M: Nggak tauk. Tadi dikemanain sama Aa Mogi. (turning to look at the TV set)
K looked at M for a second, and then sat beside G.

Extract 1 shows how Mika asked Tini to give him some more tempe by uttering agi meaning lagi. When she signaled that she did not catch what he wanted, Mika elaborated his output by producing mpe. Extract 2 illustrates how he tried to get his father’s attention by using ikuk. When this failed, he produced a i, meaning tah i, meaning mutar sekali. When this also failed, he used ibu, and this somehow worked. In Extract 3, his question mana Nggi confused his mother since his brother Mogi was there close to him. Then, he modified his output by producing iyup for sirup, the expression he used at that time for any drinking stuff other than plain water, and thus making his mother understand what he had intended to say. It is obvious that the sentence he had had in mind is Mana teh Aa Mogi. All the three extracts are meant to show how Mika, when encountering a communication barrier, elaborated his linguistic output by means of lexical modification, and thus enabling his interlocutors to comprehend his intentions.

Phonological Elaboration

As many as 31 instances of phonological elaboration could be identified in the corpus data (Table 1), in which Mika employed phonology in modifying his linguistic output in his attempt to remove a communication block that he was encountering. That way, he produced output more likely to be comprehended by his interlocutors.

Extract 4 Phonological Elaboration
K, D, M, and F were sitting on the rug in front of the TV set. K now was
moving on all four, and made as if he was trying to follow something such as an ant. F watched this, and looked to M.
F : Nyari apa sih Bapak ini, Bu?
K : Mbiyi... ✓†+e †e (he did not look up)
M : Apa?
K : Biyi... bibi... ✓†+e †e (looked to M)
D : Apa? Apa?
K : Bibiyy... bibiyy... ✓†+e †e (continued crawling)
D, M, and F gave up. In the end, K got up, and walked towards M.

Extract 5 Phonological Elaboration
F was sitting in the front room. K approached him, and tried to climb up the chair from the side. F just watched. K managed to lift his body over the chair arm, and sat on F’s lap.
K : Itsa... itsa... ✓†e †e
F : A lja nggak ada. (F thought he meant Aa Mirza, who was outside playing)
K : Isha... isha... ✓†+9r w (bisa) (with higher pitch and a clearer ✓†e, dragged and prolonged)
F : Oh, bisa ya?
K : Isha... isha...

Extract 6 Phonological Elaboration
K had been pushing his plastic chair here and there in the living room. Now, he came towards M, who was sitting on the rug eating some noodle. F was sitting nearby.
K : Aku atang. Aku atang. (aku datang)
M : ... (no response)
K : Aku atang. Aku atang, Bu! (coming closer to M)
M : Ya.
K : Dadah. Dadah! (touching his hand to his lips)
M : Dadah.
Now he stopped in front of M, and made as if giving something to her.
M : ... (no response, just staring at K)
K : Ni, Bu! Ni, Bu! Ibush. Ibush. ✓†e 9r
M made as if she took the ‘thing’ from K’s extended hand.
M : Ibus? Ibus apa?
K : ... (no response, pushing his chair-cart again, away from M)
Now he came towards M again, stopped, and extended his hand to her.

In Extract 4, Mika at first produced mbiyi ✓†e †e; when his mother signaled incomprehension, he made a modification by uttering biyi ✓†e † †e; when his eldest brother indicated that he still could not grasp his meaning, he furthered his phonological modification by producing bibiyyi ✓††+e †e. Unfortunately, all these elaboration efforts on his part turned useless: his interlocutors did not grasp what he meant. In Extract 5, when he produced itsa ✓†e †e for bisa, he was misunderstood as intending to say Aa lja. Thus, he modified his output by uttering isha ✓†+9r w, and in this way he managed to make his interlocutor understand what he had meant to say. Similarly, in Extract 6, he repeatedly produced ibush ✓†e 9r, and his mother repeatedly asked him what he meant by that. Then, he modified his output by uttering mibus ✓†e †e. Although his mother still did not get it, his father happened to understand what he intended to say. In a word, as demonstrated by the three extracts, when faced with a communication block, Mika was capable of exerting and probably stretching his phonological resources to meet the demands of his interlocutors, thus providing phonologically more-comprehensible output.

Morphological Elaboration
In the first three quarters, there was recorded no occurrence of morphological elaboration, and in the last quarter only 4 occurrences were identified (Table 1). As has been mentioned previously, among L2 learners morphological modifications are also rarely witnessed (Pica, 1994). The following extracts illustrate how Mika employed his morphological resources in order to overcome an obstacle in getting his meaning across.

Extract 7 Morphological Elaboration
R was lying on the rug in the living room, almost falling asleep.
F : Mara mau bobo?
R : Iya.
F : Makanya. Kalo siang sore itu, disuruh bobo, ya bobo. Jangan ikutin Aa ija...
R : ... (no response)
K : Ika iyang. Ika iyang, Pak. Ika iyang. (Mika siang)
F : Siang? (turning to K)
K : Ika iyang bobonya.
F : Ya, Mika tadi siang bobo.

Extract 8  Morphological Elaboration
K was lying down on the rug in the living room, and M was sitting nearby.
K looked up at M.
K : Kewoking, Bu! (kerokin)
M : Kerokin ya?
M then stood up, and tried to find the old coin.

Extract 9  Morphological Elaboration
K and M were on the rug in the living room, and F was nearby.
K : Mpeng, Bu.
M : Dimana mpengnya?
M looked here and there.
K : Ambing, Bu. Ambing. (ambil)
K : Ambing. Ambing. *s+e t+e *s+w (ambilin)
M : Mika aja.
K : Ibu aja ambing. Ibu aja.
M : ... (no response)
K : Tuh. Ampere. (sampe)
M : ... (no response)
K : Ka nggak campe. Tuh. Nggak campe. (Mika nggak sampe)
M : Ibu juga nggak sampe.
In the end, K got up, walked towards F, and picked his mpeng himself.

Extract 7 shows how Mika volunteered to participate in an exchange between his father and an elder brother. However, his contribution was not fully understood by his father, who therefore expressed his incomprehension. Realizing this, Mika elaborated his linguistic output by incorpo-

rating a bound morpheme {-nya}, thus producing *ika iyang bobonya*, which was finally understood by his father. Similarly, Extract 8 displays how, after a fruitless attempt to make his mother do something for him, Mika modified his output by incorporating the affix {-in}, thus producing *kewoking*, by means of which he somehow managed to achieve his communicative goal.

By the same token, Extract 9 shows how the child modified his *ambing* by attaching the affix {-in}, thus producing a more elaborated output *ambing *s+e 1+e *s+w*, which unfortunately was equally ineffectual. Extract 9 is taken from a card which is actually a treasure: the card records how Mika employed the four types of linguistic elaboration in a single communicative event: lexical, phonological, morphological, and syntactical. Another thing worth pointing out is that this event, which was remarkably conducive to output modification, seems to result from a mother’s teaching her child self-sufficiency, instead of teaching him the language. Back to our main discussion, all the previous three extracts are intended to show how Mika morphologically modified his utterances in his attempt to overcome a communicative block, and thus providing more-comprehensible output.

Syntactical Elaboration

During the one-year observation, Mika was recorded to employ syntactical elaboration in Q2, Q3, and Q4, with increasing number of occurrences (Table 1). The following extracts are meant to display how he syntactically modified his output when encountering a communication block.

Extract 10  Syntactical Elaboration
K and M were lying on the rug in the living room. K’s doll rabbit was near M.
K : Inci. Inci, Bu. (kelinci)
M lifted it up and placed it next to K. She made it sit beside K’s pillow.
K sat up.
K : Inci bobo.
M : Oh!
M then made the rabbit lie down, its head on K's pillow.


Extract 11 Syntactical Elaboration
M got out of the bathroom, K walked towards her.
K: Ibu. Andi. (mandi)
M: Udah tadi. (walking towards the bedroom)
K: Ika andi, Bu! (Mika mandi) (following M)

Extract 12 Syntactical Elaboration
F was sitting at his desk. K was in the bedroom. From where he sat, F could see into the room through the window glass. He saw K climb up the clothes cabinet, on which M usually keep her purse.

F: Mika. Turun.
K got down, walked outside, and approached F.
K: Ika meng. Ika meng. (Mika permen)
F: Apa?
K: Ika u/i meng. Ika u/i meng. (Mika mau beli permen)
F: Mika mau beli permen?
K: Iya.

In Extract 10, Mika produced inci and bobo as separate utterances in two successive moves. When this failed to bring about the intended result, he syntactically elaborated his previous utterances by combining the two into a single propositional two-word utterance: inci bobo, and thus he managed to make his mother understand what he wanted. In Extract 11, he syntactically elaborated his previous single-word utterance andi, by producing a propositional two-word utterance ika andi, apparently with the hope that his mother would accede to his request.

Similarly, in Extract 12, he first produced ika meng, a child-language construction he used very much in the early stage of his syntactical development. When his father indicated his incomprehension, Mika modified his output, thus producing v+t+e> u'/e/ and v+t+e> u'/e/ (Mika mau beli permen), utterances with a more complex syntactical structure which somehow were understood better by his interlocutor. In short, the three extracts are intended to illustrate how, when faced with a communication problem, Mika employed his syntactical resources in elaborating his output, making it more comprehensible.

CLOSING
The present simple article has shown how Mika, a male child acquiring an informal code of Bahasa Indonesia as a first language observed from age 1;6 to 2;6, when faced with an obstacle in verbal interaction, modified his utterances lexically, phonologically, morphologically, as well as syntactically, and thus providing more-comprehensible output to his interlocutors.

In addition, as he grew linguistically more mature, he seemed to have a tendency to rely more and more on syntactical resources in overcoming communication blocks. However, this inference should be viewed very cautiously particularly since it is based on quantitative examination over data originally collected for a different set of purposes.

Assuming that the interaction between a child acquiring a first language and the people close to him is fundamentally identical to that between a second language learner and a more proficient speaker (for example, between NNS and NS), it might be asserted that the present article lends support to the hypothesis suggested by Pica et. al. (1989) that negotiation in verbal interaction provides second language learners with an opportunity to organize their L2 utterances lexicogrammatically, i.e., provides them with some drive during interaction to lexically, phonologically, morphologically, and syntactically elaborate their interlanguage output and thus make it more comprehensible.

IMPLICATION
Probably, it might be useful to be advised that modifying output in verbal interaction to make it more comprehensible to interlocutors might of course be just one path in acquiring a language, some others being self-talk and imitation, perhaps. Still, if we English teachers are sufficiently convinced that comprehensible output is valuable and workable to be incorporated into our teaching practice, then we have to design our lessons so as to provide our learners with ample opportunities to be actively involved in verbal exchanges in the target language.
Although research on comprehensible output, the same as the one reported in the present paper, is mostly based on oral interaction, it might not be too erroneous to apply this concept to written exchanges. Thus, we can translate the idea of comprehensible output into our lessons by providing our learners with generous opportunities to actively participate in verbal exchanges, be they oral or written.

One thing that has come up earlier is that a modification-rich communicative event, such as the one depicted in Extract 9, seems to result not from an adult's teaching language to a child but from other things non-linguistic, such as, instilling self-sufficiency in the child, as is the case of Extract 9. In other words, the focus of the verbal interaction is the message not the language, meaning not form.

Thus, it might be emphasized that the oral and written verbal exchanges that we provide our students with should be meaning-focused, instead of form-focused. Needless to say that in promoting lessons pregnant with verbal exchanges conducive to comprehensible output production, we have to rely less on teacher-student and more on student-student interaction activities, such as activities in groups and pairs.

SUGGESTION

What has not been achieved in the present article is a thorough demonstration that linguistic elaboration to produce more-comprehensible output signifies, or at least leads to, the acquisition of the mechanisms used to modify the output. In other words, linguistic modification might be a random hit-or-miss attempt or, worse still, the linguistic mechanisms employed to make output more comprehensible might turn out to be those already acquired. Therefore, it is necessary to carry out a longitudinal investigation specifically designed to shed some light into this matter in the context of both second/foreign and first language acquisition.

REFERENCES


* An earlier version of this paper has been presented at the 51st International TEFLIN Conference, Bandung, 21-23 October 2003.