

TOWARDS AN ECOLOGY OF SECOND LANGUAGE ACQUISITION: SLA AS A SOCIALIZATION PROCESS

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1. Introduction

In this paper I am going to focus on the relationships between second language acquisition (SLA) and the context in which it takes place. The learning context is receiving more and more attention in recent years and I would like to contribute to this on-going discussion with an empirical study based on a year-long ethnographic observation of a Moroccan child learning Italian as a second language. I am going to show how some features of interlanguage development might be linked to their interactional environment. Lack of space won't allow me to discuss in sufficient depth many of the complexities of this relationship. However, I hope that even a brief sketch will help to clarify some of the directions an 'ecology of second language acquisition' might take.

As a starting point I have taken the research line that goes under the rubric of "language socialization" (Schieffelin & Ochs, 1986a, 1986b). These studies are concerned with the interface between first language acquisition and socialization, the process by which children become competent members of their societies. Quoting Elinor Ochs' (1986, pp. 2-3) words,

language socialization is a concept [meaning] both socialization through language and socialization to use language. ... Language in use is then a major if not the major tool for conveying sociocultural knowledge and a powerful medium of socialization.

The language socialization approach can be characterized as an ethnographic account of the development of communicative competence. It is based on the assumption that learning to speak and to communicate is a process inextricably linked to that by which children gradually learn to participate in culturally specific "forms of life" (Wittgenstein, 1953).

How can the language socialization approach be extended to second language acquisition? Several authors have already discussed the relationships between SLA and the socio-cultural context in which it takes place. However, only very few have produced integrated, detailed, empirical accounts showing systematic relationships between naturalistic (that is, non instructed) SLA and its socio-cultural context (e.g. Cathcart, 1986; Kleifgen, 1989, 1990; Kleifgen & Saville-Troike, 1992; Peirce, 1995; Wong-Fillmore, 1991).

The aim of the present study is not just to document the discourse patterns of a non-native speaking child in a nursery, but also to try to show some relationships

between these discourse patterns and features of interlanguage development. I will examine aspects of the learner's lexical, morphological and syntactic development and show how they might be accounted for by looking at the communicative context in which acquisition took place.

2. The context

The subject of this study is a Moroccan five year old girl; we will call her Fatma¹. When she entered the Italian nursery school her first and only language was Moroccan Arabic. The other 24 children in the nursery were aged from three to six years; they all spoke Italian except one.

Generally, there were only one teacher and one aide with the children. Four mornings a week a second teacher was also present for three hours. She was charged, among other things, with assisting the two Moroccan children who did not speak Italian, but she never carried out systematic teaching activities with them, and most of the time she was also involved with other children. My presence in the nursery was that of a participant observer: although I had no teaching role, I let the children spontaneously interact with me while I was observing. I used a video camera and radio microphones placed in strategic places.

From the point of view of communication, the nursery school can be characterized as an environment where generally several interactions take place at the same time. Teachers and children form and leave conversational groups quite easily, continuously re-directing their attention to different courses of activity. Following Merritt (1982), I will speak of "vectors of activity". As Merritt notes, there is often competition among children to get the teacher's attention; as a consequence, it is quite common for a teacher to be involved on one vector of activity with one or more pupils while at the same time other children may request her attention on quite different matters. Most of the time Fatma had no special right to speak, and if adults or other children were engrossed in some vector of activity, being ratified as a new participant or having them to move to a new vector was no easy matter.

So one of the main problems to be solved in order to be socialized in the nursery is that of participation: a competent member of the nursery's micro-culture is one who can skillfully participate in its complex, multi-party, competitive interactions. We will look at Fatma's interlanguage development as a response to this participation problem. I am not claiming that such a development can be explicated *only* and *fully* by reference to the issue of participation. My claim is that *some* features of Fatma's second language acquisition can be shown to be motivated by the "participation structure" (Phillips, 1982) of her learning environment.

3. First words

Like most other learners (Perdue, 1993; Giacalone Ramat, 1993) Fatma approached her second language by learning formulas and lexical items exclusively. Here is a list of the expressions learned in the first month of school, grouped by function.

- Soliciting attention: *guarda, maestra, bimbi, ecco, io* [look, teacher, children, here it goes], *It*, PROPER NAMES.
- Regulating interactions: *ciao, scusa, grazie, sì, no, aspetta, andiamo, va via, aiuto, piano* [hallo, excuse me, thank you, yes, no, wait, let's go, go away, help, slowly].
- Referring to something: *questo, quello* [this, that].
- Describing/evaluating: *bella, grande, brava, buono, brutto, mio, così, pipì* [nice, big, good (person), good (generic), nasty, mine, like this, wee-wee].
- Miscellaneous: *com chiami?, putтана, uno-due-tre-quattro* [what's your name?, bitch, one-two-three-four].

Perhaps one of the most striking features of this primitive linguistic system is the virtual lack of nouns, with the exception of 'teacher', 'children', 'bitch' and 'wee-wee'. But none of these, bar perhaps 'wee-wee', has the function of denominating anything: 'teacher' and 'children' are used as summons, 'bitch' as an insult. If Fatma wants to refer to something, she does it by means of the deictics 'this' and 'that'.

This absence of nouns is less surprising if we consider Fatma's learning environment. The girl seems in fact to be following an economy principle with extreme coherence. When are nouns really necessary? When we need to refer to some absent entity. As long as referents are in the immediate physical context, a deictic or two will do all the referential work. Then, after achieving reference, you may need means for predicating something. This explains why some descriptors like 'good', 'nasty', 'nice', 'mine' were learned before nouns. You can distinguish a doll from a toy machine by pointing, provided they are in the surroundings, but it is hard to express the difference between meanings such as MINE, GOOD or NICE by non linguistic means.

Things change when you want to tell a story about a doll or a toy machine that are not present: then you need the specific labels. In an environment such as a nursery, however, there aren't many opportunities to indulge in decontextualized talk; first, many children are too young for it; second, teachers, who could stimulate and conduct such interactions, are often very busy in dealing with a number of practical vectors of activity.

So, rather than learning the labels for various objects, Fatma found it more compelling to learn words that allowed her to participate in activities. She could request attention, that is, open new vectors of activity ('teacher', 'look', 'I', 'there it goes'), she could regulate vectors of activity once they were already open ('let's go', 'wait', 'go away', 'excuse me') and she could minimally perform the activity of "referring-and-predicating" (Silverstein, 1976), with words like deictics and a few adjectives.

1 All the participants' names, except mine, are pseudonyms.

2 Morra Pellegrino (1989) notes that at age 2;6 children in nurseries spontaneously introduce conversations on decontextualized topics only 4% of the times; this percentage rises to 17% at age 5, but is still rather low if compared to that of adults.

The selection of these thirty words as an entry to the new language doesn't seem to be random. Furthermore, it would be difficult to imagine an explanation of such a choice making no reference to the communicative features of the social environment in which acquisition took place. This relationship between interlanguage and its context, it should be noted, is not just a trivial matter of "things to be talked about": you learn 'teacher' and 'doll' in a nursery and 'boss' and 'screwdriver' in a factory. Different environments may favour different language functions and, as a consequence, different word classes.

It is interesting to compare Fatma's early lexicon with that of the adult learners studied in the European Science Foundation project. Perdue (1993, p. 11) reports that learners' initial lexicon consisted mostly of nouns, and calls the first stage of naturalistic second language acquisition "*stratification nominale*". One wonders whether this marked difference with Fatma's data depends on the different learning path or on the elicitation technique (consisting, in the ESF project, essentially of film retellings and personal narratives, both requiring decontextualized use of language), or on both. In either case, situational factors are likely to play a crucial role in the explanation of this difference.

4. *Early morphology: affect*

After an initial period of three or four months, in which only lexical items and unanalyzed formulas were used, Fatma began to acquire some grammatical morphemes. Among these, there are certainly masculine and feminine suffixes. Traces of verbal morphology appeared later, after five or six months, and consisted in a limitedly productive use of the perfective marker. Besides these, the only other grammatical morphemes that Fatma began to use productively after a few months are diminutives and superlatives. To my knowledge, such suffixes have not been reported in other basic varieties, so their presence in Fatma's interlanguage deserves attention. I will argue that their early onset is not fortuitous, but can be explained by reference to the particular social context in which the girl's language acquisition took place.

Italian diminutives constitute a clearly identifiable and relatively small set. The most widely used morpheme in this set is the suffix *-in-*, which can be attached to nouns and adjectives. Thus *albero* ('tree') *alberino* ('small tree'), *tenda* ('curtain') *tendina* ('small curtain'), *alto* ('high'), *altino* ('a little high').

Italian also has different types of superlatives. Here we will be concerned only with absolute superlatives, formed by the addition of the suffix *-issim-* to an adjective. Thus *buono* ('good'), *buonissimo* ('very good, most good'), *bella* ('nice-f'), *bellissima* ('very nice, most nice').

Fatma noticed these morphemes very early and began to use them spontaneously soon after. After three months of exposure to Italian we find her repeating the word *patatine* ('potatoes-DIM') several times, in a sort of language play that was often her means for catching up on new linguistic forms. Three weeks later Fatma asks a teacher *Dai un bacio* ('give a kiss-DIM') and after two more weeks we hear her complaining *Lo piccolino!* ('I small-DIM'), referring to a small piece of bread that had been given to her.

Up to this point one might still doubt whether Fatma has really acquired the diminutive morpheme or whether she is just repeating unanalyzed expressions: in fact,

there are no neutral forms with which these diminutive ones can alternate. An answer to this question comes from an episode ten days later, when the girl utters *Il panino piccolino* ('the bread-DIM small-DIM'). Before this time, Fatma had already learned the basic form for 'bread', *pane*. Thus her *panino* must be seen as a creative construction, which furthermore shows signs of concord with *piccolino*.

Piccolino, however, did not alternate with its neutral equivalent *piccolo* ('small'). Neither did *pochino* ('little-DIM') with *poco*. Thus for 'little' and 'small' Fatma learned the diminutive form before the neutral one.³

Other creative constructions with diminutive morphemes that appeared some time later are *minestrina* ('soup-DIM') and *malino* ('pig-DIM'): when she uttered them, the girl could already use the neutral forms for 'soup' and 'pig'. Note that Fatma did not simply learn a whole suffix like *-ino*, combining diminutive meaning and masculine gender. She realized that the diminutive suffix proper was *-in-*, to which either masculine or feminine endings could be attached, as evidenced by her alternating *piccolino* ('small-DIM-m') and *piccolina* ('small-DIM-f') for male and female referents respectively, or by her correctly transforming *minestra* in *minestrina*.

Superlatives were used productively very early on, even before diminutives. After only three months at school the girl uttered *Guarda fejl bellissima* ('look [ki] nice-SUP-f') and *Guarda fejl bellissimo guarda* ('look [ki] nice-SUP-m look')⁴. At that time Fatma already employed the basic form *bella* ('nice-f'), so *-issima* was clearly identified and used by the girl as an independent morpheme. A few months later we also find *bellissime* ('nice-SUP-pl-f') and *bellissimi* ('nice-SUP-pl-m'), that is all the possible combinations for gender and number of the suffix *-issim-*. And, at the same time, the superlative suffix is used with the adjective *buono* ('good') in *buonissimo* and *buonissima*, again productively, since the girl alternated superlative and neutral forms of the adjective.

Fatma also combined diminutives and superlatives in the same utterance. She said for example *Patatine fejl bellissime* ('potatoes-DIM [ke] nice-SUP') or *Malino buonissimo* ('pork-DIM good-SUP').

These diminutive and superlative suffixes, to my knowledge, have not been reported in other basic learner varieties of Italian. One of the goals of second language acquisition theory is to explain this kind of individual variation in learning paths and outcomes (Long, 1990). One easy explanation for these data would be in terms of frequency in the input: unlike adult learners, Fatma would have been exposed to some peculiar nursery baby talk in which diminutives and superlatives are widely used. An input analysis, however, shows this not to be the case. The input directed to the girl over

3 Incidentally, this fits nicely with a prototype account of language acquisition such as that recently proposed by Andersen and Shirai (1994): words having an inherent meaning of smallness are first learned in their diminutive form.

4 Fatma overused some particles like [ki], [ke], [di] in the early stages of her interlanguage. Although they are all Italian function words, the girl's use of them was totally idiosyncratic, and I prefer to transcribe them neutrally. An analysis of these particles falls outside the scope of this paper; let me just note that, as John Schumann remarked (personal communication, March 1994), they sound very Italian: by using them, Fatma might have tried to give the impression of being a proficient speaker who can produce small function words, and not just lexical items.

the period of five months in which she began to use diminutives and superlatives contained more unmarked forms than marked ones, as can be seen from Table 1.

Table 1: Tokens of the words which Fatma most frequently used with diminutive suffixes, both in their basic and in their affect-marked form, as uttered by native speakers and by Fatma herself

	Natives	Fatma
<i>Poc</i> ('little')	4	0
<i>Pochin-</i>	3	9
<i>Piccol.</i> ('small')	7	0
<i>Piccolin-</i>	5	13
<i>Pan-</i> ('bread')	11	10
<i>Panin-</i>	8	5

One can see that native speakers tended to use unmarked forms more often than marked ones; Fatma, however, used the diminutive forms *pochino* and *piccolino* exclusively. Only with 'bread' did she follow the native speakers' trend in using the basic form more often than its diminutive. Fatma's early acquisition of the suffix *-in-* and of the diminutive forms *piccolino* and *pochino* instead of the basic ones *piccolo* and *poco* cannot thus be explained by reference to a simple "distributional bias" (Andersen, 1990) in the input.

One might argue that *-ino* and *-issimo* are perceptually salient morphemes, with a clear form-function mapping and that they are not part of rich and complex paradigms. These might well have been features contributing to Fatma's early acquisition of them, but still there are scores of Italian grammatical morphemes which meet the same requirements that the girl did not learn in the first months. And, further, the question why other learners don't seem to learn these suffixes as early as Fatma is still left unanswered.

An explanation in terms of learning context seems to me the most plausible. In an environment such as the nursery, as we have seen, gaining the status of ratified participant to conversations was no easy matter. Thus one had to learn how to be noticed and how to make one's contribution worthy of attention. Affect-marking suffixes such as diminutives and superlatives served precisely this function. By making her utterances "cute" Fatma had higher chances, despite her very limited linguistic means, of being ratified as a participant in conversations. Why learn the unmarked and relatively "dull" basic form when one could use the affect-marked equivalent with more chances of receiving uptake?

Ochs' (1988) ethnography of Samoan children's language acquisition is relevant in this respect. Samoan has a rich system of devices for marking affect, from personal pronouns to address terms, determiners, intensifiers, interjections. Ochs notes that "there is a strong tendency for affect construction [sic] to be acquired before the corresponding neutral constructions" (p. 186). For Ochs (p. 183),

- (1) Affect once encoded is a powerful means of securing some desirable response from others, constraining what will be said next and what will be done next; and
- (2) Young children understand this cause-effect relationship quite early in rural Western Samoa and use language to this end from the start.

The same might hold for a learner like Fatma, who also struggled to secure some desirable response from others". Her whole interactional style was very rich in expressing affect by means of non-linguistic strategies such as intonation and facial mimicry. Her early acquisition of that part of morphology having to do primarily with affect can thus be seen as part of a more general approach directed at being accepted as a ratified participant to interactions. It is worth recalling that Cathcart (1986), after a careful observation of how children acquire second languages in the kindergarten, concluded that in this particular setting two conversational maxims should be added to those proposed by Grice: "be interesting" and "be persistent". Affect-loaded expressions contribute to making an utterance more interesting, and thus more effective.

We will now look at how the other maxim, "be persistent", plays a role in Fatma's syntactic development.

5. Early syntax: producing sentences for entering conversations

It is a long time since Evelyn Hatch suggested that "one learns how to interact verbally and out of this interaction syntactic structures are developed" (1978, p. 409). In this last section, I will take Hatch's suggestion and analyze how the particular interactional formats found in the nursery school might have played a role in Fatma's syntactic development.

In looking at how learners develop syntax from conversation, Hatch and her associates noted that learners often "incorporate" (Wagner-Gough & Hatch, 1975) parts of previously heard utterances in their productions. Hatch also noted some resemblances between conversations between native and non native speakers and the "vertical constructions" identified by Scollon (1976) in adult-child interactions. Such constructions are jointly produced by a novice and an expert in a cooperative effort.

These interactional formats are typical of dyadic interactions in which the linguistic productions of a novice (first or second language learner) are "scaffolded" (Bruner, 1975) by those of an expert who is completely at the novice's disposal. This active involvement of the native speaker in promoting and ensuring the smoothness of the conversation has frequently been reported in studies on interaction in second language acquisition (e.g. de Heredia & Noyau, 1986; Long, 1981; Poole, 1992).

In an environment such as an Italian nursery, where in most situations the adult "expert" is one and the child novices twenty-five, such conversations are not very likely to occur. Even from a cursory look at the transcripts one gets the impression that a great deal of the burden of initiating and maintaining conversations was on the children. Such conversations were very far from the "ideal" dyadic model found in caregiver-child interactions or in native-non native interviews. A more accurate estimate of how much Fatma initiated and how much she was responsive to others' initiations showed that her initiating moves were three time more numerous than her responses (Table 2).

Table 2. Number of turns produced by Fatma during six meals, divided into turns solicited by others (response to opportunity) and turns she produced on her own initiative⁵

Total	Own initiative	Response to opportunity
270	207 (77%)	63 (23%)

Entering or opening a vector of activity was a problem, and Fatma had to find solutions given her limited linguistic means. To describe such solutions, I will adopt Wong-Fillmore's (1976) phrase "sentence producing tactics". As Wong-Fillmore notes, one advantage of this notion is that it does not make any definite assumption on early learners' having something like categorical 'rules' in their interlanguage: the way they produce utterances may depend on a mixture of rules, formulas, more or less fixed patterns and simple juxtaposition of words. The term "tactic" has the further advantage of evidencing the practical, action-oriented nature of language in a context like the school or the nursery. For Fatma utterances were, before anything else, actions, moves, solutions to her problem of becoming a participant. With her sentences she did indeed express feelings, told stories, requested goods and services, but she also - and firstly - had to be ratified as a speaker. Lack of space will prevent me from giving a fuller analysis of Fatma's early syntax. I will only focus my attention on a few "sentence producing tactics" that were very common and that, as I will argue, can be seen as responsive to certain features of the communicative environment.

Fatma began many of her utterances with a 'machine-gunning'⁶ of repeated words, as in the following example⁶.

5 The six meals on which the count is based were the two first, last and middle ones of the study. A 'turn' was operationally defined as a stretch of speech bounded by silence (> 2.0 sec.) or by another speaker's turn. As will be clear below, 'utterance' is a notion not easily operationalizable in Fatma's case. The terms "own initiative" and "response to opportunity" are taken from Damhuis (1993). It is striking to note how these findings in an Italian nursery conform to Damhuis' in Dutch 'infant classes'. Damhuis did not report on lunches but her figures of 87% and 12% for own initiative and response to opportunity, respectively, in a "children group", and of 66% and 33% in a "small group with teacher" fit nicely with mine, that fall exactly in between, since at such time there were moments in which children were left alone and moments in which the teacher was present and contributed to the conversation. This coincidence is very important in that it demonstrates that studies of the learning environment *can* be generalizable and need not necessarily be only "ideographic".

6 Transcription conventions are those used in conversation analysis (Sacks, Schegloff & Jefferson 1974; Atkinson & Heritage 1984). The transcription is orthographic, detailing only the most evident deviations from standard Italian pronunciation. Intonations are marked by 'hhh': Fatma's turns are indicated by F and her words are boldfaced.

Example 1 (3;5 months)

[Teacher I2 is clearing up the table near Fatma]

F-I2: domani domani domani. (1.0) Domani, e- [kel] io .hhh e io la casa la casa .hhh fo- forscetta la casa io .hhh [k]io forscetta, .hh la casa così e- la casa .hhh la casa io forscetta quella casa: (waving fork in the air) (0.4) Io. [Kel] la casa io hhm io io così forscetta ahm ahm ahm ((fork next to mouth, mimicking eating)). Mangiare qui la casa io mangiare qui.

Tomorrow tomorrow tomorrow. (1.0) Tomorrow, and- [kel] I .hhh and I the home the home .hhh fo- fork the home I .hhh [k] I fork, .hh the home like this and- the home .hhh the home I fork that home. (0.4) I. [Kel] the home I hhm I I like this fork ahm ahm ahm. Eat here the home I eat here.

Fatma begins with a triplet of quickly repeated words ('tomorrow, tomorrow, tomorrow'). They are not just a time-framing expression, but also a summons, after which the short pause should provide for the summonee's (teacher I2) answer (Schegloff, 1972). This however doesn't come - showing how difficult it was to be ratified by an adult. Fatma goes ahead anyway, by providing more framing expressions: 'I' and 'home'. No one helps her in the struggle to convey such a complex proposition about something absent, and she goes on adding the little she knows, 'like this', 'eat' and 'here', plus some vocal/gestural mimicry for the act of eating (*ahm ahm ahm*). The global intended meaning is not very clear, although it must have to do with eating at home with a fork. We can see here how Fatma had to build vertical constructions by herself, by the gradual juxtaposition of small units.

Fatma repeated the first words of her utterance not only when she tried to open a completely new vector of activity, but also when she joined others in an already open conversation. The following example is quite typical in this regard.

Example 2 (6;0 months)

[Teacher I1, Gabriele Pallotri (GP) and Franco (FR) are talking about Franco's new house]

I1-FR: non mi hai neanche raccontato com'è la tua casa nuova. Gliel'hai detto a Gabriele che da venerdì abiti qua?

FR-GP: abito già nella casa nuova. Abbiamo già- abbiamo già rotto, abbiamo già rotto l'armadio perché ().

I1: rotto [l'armadio]!
F: [casa .hh casa .hh casa mia .hhh mia pochino, .hh pochino io sono io sono .hh Strasburgo.
I1: Strasburgo, in via Strasburgo. Sì.

I-FR: you haven't even told me what your new house looks like. Have you told Gabriele that you have been living here since Friday?

FR-GP: I already live in the new house. We've already- we've already broken, we've already broken the wardrobe because ().

I1: broken [the wardrobe?]

F: [home .hh home .hh my home .hhb my little-DIM, .hh little-DIM I am I am .hh Strasbourg. ((Fatma lives on Strasbourg street))

I1: Strasbourg, in Strasbourg street. Yes.

Fatma repeats three times the word 'home' that she has "appropriated" (Pallotti, 1994, 1995) from previous discourse. This strategy was very common: when she wanted to join others in an already open conversation, three times out of four she did it by repeating at least one previously uttered word (Pallotti, 1994, 1995). After this entry point, the girl adds 'little-DIM', 'I am' and finally concludes on 'Strasbourg'. What has 'little-DIM' got to do with this utterance? Its referential meaning is hard to tell. From an interactional point of view, however, one might speculate that its function is to introduce an affect-loaded expression, which at the same time helps the girl hold the floor before producing the final relevant comment. The same sentence producing tactic of the previous example might be at work here: Fatma keeps repeating the items that she gradually adds to her vertical construction, since she has no guarantee that her interlocutor will assist her in completing the utterance.⁷

One final example comes from the end of the study period. Here too Fatma is trying to be ratified as participant in an already open conversation.

Example 3 (8.0 months)

[Gabriele Pallotti (GP) is telling Mario (MR) that he and his mother met in front of the Coop supermarket; Siri (SR) joins their conversation]

MR: dove era?

GP: era davanti al Coop che aveva le borse della spesa,

SR: aveva detto, [(0.5) ah come stai? ()]

GP: [alla Coop, era stata.

MR-GP: ()]

GP-MR:hm?

F-GP: e io sono e io sono [ki] vado, .hh [ki] vado alla Coop da sola.

7 One may notice that Franco, the native speaker boy, builds his utterance in a way similar to Fatma's, by repeating and gradually adding new information. My point here is not that Fatma constructed her utterances in an unique way conditioned by the fact that she was not a native speaker; I just want to show what she, as a non native speaker, could do and actually did when she wanted to communicate with her very limited linguistic means. Furthermore, Franco's using strategies similar to Fatma's might be taken as evidence that the interactional formats of the nursery school conditioned both native and non-native speakers.

MR: where was she?

GP: she was in front of the Coop, with her shopping bags.

SR: she had said, [(0.5) ah, how are you? ()]

GP: [to the Coop, she had been.

MR-GP: ()]

GP-MR: hm?

F-GP: and I am and I am [kei] go, .hh [kei] go to the Coop alone.

Two children, Siri and Mario, are talking with me about going to the Coop supermarket. Fatma recognizes the key-word, 'Coop', and produces her contribution about it. This time, however, she doesn't begin by repeating 'Coop', but rather with a couple of 'and I am'. What is the function of 'I am' in Fatma's interlanguage? Certainly not only, and not even primarily, that of a copulative or locative construction. Actually, before learning *io sono*, 'I am', Fatma widely used *sono io*, 'it's me'. After some months, *io sono* retained some of this presentative/attention getting function. Fatma used it as a way of making clear that *she* was the topic, that the listener's attention should be focused on her. In this last example, in fact, she begins her utterance, with an 'I am' which appears incongruous given the overall meaning of the sentence. 'I am' might have had a locative meaning in the previous example ('I am Strasbourg' = 'I live in Strasbourg'), but here it cannot, as it is immediately followed by 'I go'. Thus Fatma's initial 'and I am and I am' might better be seen as an attention getting device and, as the 'little-DIM' examined before, as a way of winning and holding the floor until the 'real' sentence is produced.

To summarize the main features of these utterances, one might say that they are all characterized by an initial attempt at being accepted as a communicative partner. This initial move may also serve as a way of powerfully introducing the topic or the spatio-temporal frame. After this entrance in the vector of activity, Fatma must construct her utterance. She knows that she can hardly "count on her friends for help" (one of Wong-Fillmore's (1976) "cognitive strategies"): a short, incomplete, unclear utterance will most likely be followed by indifference, rather than by a cooperative effort of negotiation of meaning. Collaborative vertical constructions are the exception, not the rule, in the nursery school. So she has to build a vertical construction by herself, adding bit by bit the new pieces that eventually make up a complex proposition. And all this without giving the impression that she has finished, otherwise she might lose her right to speak. Her strategy in this regard does not consist in using sound stretches at the end of words, or simply a non terminating intonation, as adult second language learners do in interviews with collaborative researchers, but rather 'machine gunning' words until she is able to add a new piece. Such words don't necessarily need to be relevant to the overall meaning of the sentence, as 'little-DIM' and 'I am' are not in examples 2 and 3: they might rather be seen as "islands of reliability" (Dechert, 1983), formulaic chunks whose function is that of holding the floor while new elements of the self-made vertical construction are being processed. These bursts of words are interrupted only by loud in-breaths, which may also be taken as indices of Fatma's effort and involvement in the conversation. The last words of the utterance come out with relief: a very falling intonation, a sound stretch and or a volume increase, and often a postural redeployment, signal that the girl's contribution is to be taken as ended.

Now, these are all sentence producing tactics that are functional to a particular communicative environment. I am not claiming that all aspects of Fatma's early syntax can be explained by reference to these tactics. There are certainly other principles at work, both cognitive (e.g. processing constraints) and broadly discursive (e.g. topic prominence in certain text positions). However, the whole way Fatma put words together in the utterances we have examined is in some sense unique, and cannot be fully accounted for without taking the interactional context into consideration. If we want to maintain that syntax grows out of conversation, then an analysis of the conversational formats most commonly found in the environments where learning takes place is crucial.

6. Conclusions

In this paper I have shown how some aspects of interlanguage development can be linked to features of the learning environment. Fatma's approach to the lexicon, morphology and syntax was not random. Nor would I say that it was determined exclusively by internal, psychological factors. That approach developed in a particular environment, and one should investigate what role the environment played in it. In other words, as the title of this article suggests, we should strive to envision an ecology of SLA. As Selinker recently put it, "one cannot account for IL competence or 'knowledge' without accounting for the processing of how one gets there. That is, it is clear to me, and I hope it is clear here, that context is inherently central in forming IL competence" (1996, p. 108-9). I am aware that there are difficulties in the approach I am advocating. One of the most evident is the difficulty of collecting data on adult learners in their everyday interactional contexts⁸. But, given the importance of an understanding of the context of naturalistic second language acquisition, it is worth the effort to find ways in which it could be investigated for adult as well as for child learners.

I hope to have shown that the relationships between the learning process and its environment can be much more complex than a simple correlation between absolute input quantity - or relative frequency of some features - and speed of acquisition. The learning environment, and this is especially true for spontaneous SLA, is not just a mass of sound waves, or linguistic expressions, but an organized social structure. We should strive to find systematic links between this structure and the learner's approach to the new language. In naturalistic SLA, acquiring the language is parallel to interacting with its speakers, that is, with being socialized into the new culture. How much one likes and pursues these interactions and this socialization can vary considerably, but it is undeniable that the second language emerges *from, in and for* interaction and socialization.

8 The ESF project is one of the few which included some 'naturalistic' data, such as conversations among learners and native speakers who were not part of the research team. These data, however, were still semi-artificial, and provided only indirect, inferential data on the actual learning contexts.

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