

ATTENDING TO FORM AND CONTENT IN THE INPUT

An Experiment in Consciousness

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This study explores the question of whether or not learners can consciously attend to both form and meaning when processing input. An experimental procedure is presented in which three levels of learners in four groups were asked to process information under four different conditions: attention to meaning alone; simultaneous attention to meaning and an important lexical item; simultaneous attention to meaning and a grammatical functor; and simultaneous attention to meaning and a verb form. Results suggest that learners, in particular early stage learners, have great difficulty in attending to both form and content. These results raise important questions for current discussions of the role of consciousness in input processing.

Without a doubt, the role of input in second language acquisition (SLA) has gained increased attention over the years (Gass & Madden, 1985), yet the answer to a fundamental question remains elusive: How do learners get intake from input? It is generally acknowledged that not all of input is available for language processing, that much of input is “noise.” Intake is thus defined as a subset of the input that the learner actually perceives and processes.¹

Of increasing interest in SLA is whether or not learners must consciously attend to features in communicatively oriented input in order to process them and incorporate

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them into their developing linguistic systems. Krashen has long maintained that acquisition is a subconscious process, that a learner goes for meaning first and acquisition follows as a byproduct of processing language for meaning (Krashen, 1982, 1985). Others, however, put the learner in a more “active” role, by taking the position that formal features of language must be consciously registered by the learner for successful language acquisition to occur. Swain (1985), for example, suggested that “[negotiation] paves the way for future exchanges where, because the message is understood, the learner is free to pay attention to form” (p. 248). It would seem that Swain is arguing for an important role for conscious attention to form in the input, but suggests that this attention is constrained by how well and how easily learners are able to attend to the input for meaning.

A much stronger and more detailed position can be found in Schmidt (1988). Schmidt reviewed the literature on consciousness in cognitive psychology. Separating out the issue of consciousness into six sub-issues, Schmidt concentrated on the issues of subliminal, implicit, and incidental learning (p. 17). His rather exhaustive review of the literature led him to conclude that:

nothing in target language input becomes intake for language learning other than what learners *consciously notice*, that there is no such thing as learning a second language subliminally. Incidental learning—learning without consciously trying to learn—is certainly possible when task demands focus attention on relevant features of the input. . . . Incidental learning in another sense, picking up target language forms from input when they do not carry information crucial to the task, appears unlikely for adults. (p. 61; emphasis added)

Using his own diary study as evidence (data collected while Schmidt was learning Portuguese in an SL setting in Brazil), Schmidt argued for a central role for conscious processing of grammatical forms in the input. Put succinctly, second languages are acquired by conscious attention to form in the input; languages are not acquired in a completely subconscious manner.

What is critical to keep in mind is that the issue of attention to form in the input is only an issue when the input is communicative in nature, i.e., it carries information to which the learner is supposed to attend. This is the kind of input that is typically found in non-classroom settings and in certain kinds of classroom methodologies, e.g., the Natural Approach. While humans may indeed direct conscious attention to form in and of itself, the question is not whether they can do this; the question is *whether or not they can do this while they process input for meaning*. Thus, positing a role for conscious attention to form during input processing raises a critical question in SLA theory; namely, if learners are consciously processing incoming language data for meaning, can they simultaneously process that data consciously for linguistic form? In VanPatten (1985), I suggested that this was probably not the case. Given the limited capacity for processing involved in conscious attention, and that conscious processing during learning in general is serial and effortful in nature, it is doubtful that learners in the early and intermediate stages of acquisition pay much conscious attention to form in the input. I suggested then that the simultaneous processing of meaning and form (i.e., form that is not related to utterance meaning; for example, features of concordance) can only occur if comprehension as a skill is automatized,

thus releasing attention for a focus on form. However, features of the language that carry significant information (e.g., lexical items, certain kinds of verb morphology) can be consciously processed by learners at all levels.

Aside from theoretical and research issues, the role of conscious awareness and focus during input processing is also an issue for pedagogical reasons. If learners must consciously attend to linguistic features in the input, then it does not take much logic for one to conclude that instruction might *direct* learners to consciously attend to specific linguistic features in the input. This has recently been suggested by Terrell (1988). In discussing the role of grammar in the Natural Approach, he has suggested that learners might benefit from having their attention directed at linguistic features while listening to teacher talk. Thus, an instructor might say, "In my speech I am going to be using a lot of past tense forms. Pay attention to how these forms sound as I use them." Clearly, research on consciousness in input processing will eventually lead us to whether or not focusing learners' attention is beneficial.

However, as reported in Schmidt (1988), the literature on the role of consciousness in learning provides for some problematic issues regarding research design and interpretation. The specific problem that arises is one of separating process from product; how does one determine whether the outcome (e.g., a rule, a form) was processed consciously or subconsciously during the learning phase? In one set of experimentations, Reber (1976) reported that subjects, after having been exposed to strings of letters generated by an artificial grammar, were able to make more accurate grammaticality judgments of novel strings when compared to learners who were told to search for rules as they were exposed to the strings. He concluded that his experimental subjects implicitly acquired the grammar of the strings through simple structured exposure, i.e., that the rules (product) were internalized subconsciously (process). Dulany, Carlson, and Dewey (1984) replicated Reber's design but also asked subjects to articulate the grammaticality and ungrammaticality of the strings by marking them with a pencil. Dulany et al. concluded that since subjects were able to mark the strings and give rationales for their markings (a conscious task), they must have gotten the rules consciously. However, Reber, Allen, and Regan (1985) argued against Dulany et al., claiming that the task of requiring a subject to articulate a rule or pinpoint what is right or wrong about a string is equivalent to having the subject rationalize what is from the outset an intuitive and therefore implicit judgment. In other words, forcing a conscious verbalization does not necessarily mean that learning was conscious.

In order to circumvent the problem of whether or not process can be deduced from product, the issue of consciousness in SL input processing can be tackled indirectly with a task involving simultaneous processing of input. First, it should be clear that in order to comprehend input, learners must attend to meaning, to the informational content. If learners do not attend to meaning, then comprehension does not happen. Second, attention to informational content is conscious; if our goal is to get information from the input, then we direct conscious attention and effort to getting that informational content. Given that conscious processing is serial and effortful during learning, if subjects under experimental conditions are asked to attend to form while also processing the input for meaning, then a negative effect

should appear in the comprehension process, i.e., the attention to the informational content. If this can be shown, then it can be argued that learners cannot simultaneously attend to form and content, or at least that they have difficulty in doing so. If this is the case, then we have evidence that learners should not be able to acquire certain kinds of linguistic features from the input in a conscious fashion if the purpose of processing the input is to gather information.

This article will report a study designed to test these claims. The study asked learners to perform various tasks while listening to a passage for meaning. Three hypotheses guided the study:

1. If learners have difficulty in directing attention toward both content and form, then a task involving conscious attention to non-communicative grammatico-morphological forms in the input will negatively affect comprehension of content.
2. If these same learners are (basically) going for meaning first, a task involving conscious attention to important lexical items will not affect comprehension of content.
3. More advanced learners will not exhibit the same patterns of performance on the tasks as the early stage learners, i.e., more advanced learners should be more able to direct attention to form since they are better equipped to attend to content.

SUBJECTS

A total of 202 students of Spanish at the university level served as subjects in this study. Three levels of classes were chosen for use in this study: Level I = first semester; Level II = fourth semester; Level III = third-year conversation. Rather than volunteers, entire classes were used for testing to ensure a more random sampling of typical college-level language students and to avoid the problems inherent in "self-selection."² No subject reported hearing impairments nor any other auditory problems that might interfere with the nature of the tasks. Of the entire population, only three subjects reported that a language other than English was used at home with their parents, but since these three also claimed English as their dominant language, they were not excluded from the study.

METHOD AND PROCEDURE

Each class listened to two passages that had been pilot tested in the spring of 1987 (see VanPatten, 1987). While the subjects were not told so, the first passage served merely as a warm-up, while the second passage was used as the source of data.³ This second passage was a 3-minute segment on inflation in Latin America which was recorded by a near-native speaker⁴ of Spanish, and the tape was played to each class on a Magnavox stereo cassette recorder. It should be noted that the speaker did not speak at a normal rate and paused briefly at clause boundaries and other breath group marks to allow for processing time on the part of the subjects. In no instance was any targeted item given suprasegmental emphasis to enhance its acoustical salience.

Classes were randomly assigned to complete one of four listening tasks. Task I, which constituted the control task, consisted of listening to the passage for content

Table 1. Number of subjects per task by level

	Task I	Task II	Task III	Task IV
Level I	16	21	20	16
Level II	15	19	20	23
Level III	13	14	14	11

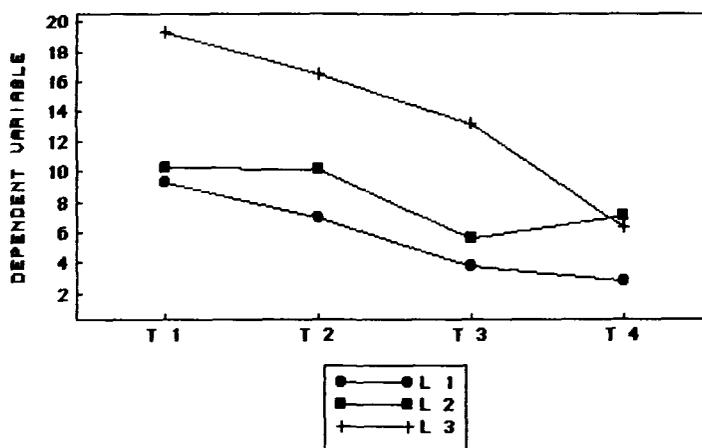
only. Task II consisted of listening to the passage for content and simultaneously noting the key lexical item, *inflación*. Task III consisted of listening to the passage for content and simultaneously noting the definite article *la*. Task IV consisted of listening for content and simultaneously noting the verb morpheme *-n*. Each item occurred 11 or 12 times in the passage. Since conscious attention is difficult to detect unless it is accompanied by some overt manifestation, it was decided that the subjects would demonstrate conscious attention to form by performing a task that would not interrupt processing. This was operationalized by having the subjects put a check mark on a blank piece of paper each time they heard the item.⁵ To ensure that the task of placing check marks did not interfere with processing, subjects were told that they could place check marks on their paper anywhere; that a dot, line, or any other indication would be sufficient; and not to worry about how they checked off an occurrence. It should be noted that eight check marks (out of 11 or 12 occurrences of the targeted item) on the page were necessary for a subject's data to be included in the pool. Table 1 offers a breakdown of the number of subjects per experimental cell.

For all tasks, subjects were instructed to listen for meaning and were told that their comprehension of the passage would be assessed afterward. Before the passage was played, subjects were told that it was about inflation in Latin America and the problems that inflation has brought to Latin countries. This was done so that subjects might activate relevant background knowledge to assist in their comprehension.

The comprehension assessment consisted of free written recalls in English. This assessment has been shown to be a valid experimental evaluation in reading (e.g., Lee, 1986) and was also shown to be valid for experimentation in listening (VanPatten, 1987). While not an exact measure of on-line comprehension, it was assumed that as a general indication of comprehension, recall protocols would reflect the relative degree of attention that learners could pay to the content. A disruption in attention to content (and therefore in comprehension) would result in lower recall protocols. Immediately after the subjects heard the passage, they were told to write down in English anything and everything that they could remember from the passage, no matter how general, no matter how specific. Quantity of information was stressed. These recall protocols were subsequently scored using an idea unit analysis (Carrell, 1985; Lee, 1986).⁶ The original passage was divided into idea units based on syntactic and semantic features, resulting in a total of 53 idea units for this passage (see Appendix). Each subject's score consisted of the raw number of idea units recalled. The recall protocols were independently scored by two assistants, who then

Table 2. Mean recall scores by task and level

	Task I	Task II	Task III	Task IV
Level I	9.13	6.90	3.75	2.75
Level II	10.13	10.0	5.5	6.96
Level III	19.15	16.36	13.07	6.27

**Figure 1.** Recall scores by task and level.

met to compare scoring procedure. Interrater reliability was .98, and in the end, the scorers agreed on all protocol scorings.

RESULTS

Mean scores per cell are displayed in Table 2. Moving across the table from left to right, one can see a consistent pattern develop. Task I (content only) produced the highest recalls regardless of level, followed by Task II (content plus key lexical item), and Task III (content plus definite article), with Task IV (content plus verb morpheme) resulting in the lowest recall scores. Moving down the table, another consistent pattern develops. As one moves progressively higher in level, recall scores improve on each task. However, it should be noted that with Task IV, recall scores seem to cluster around a certain point such that both Level II and Level III subjects perform in a manner similar to Level I. This drop in performance on Task IV appears to be very dramatic for the Level III subjects (see Figure 1).⁷

To check for significance in these differences, a two-way analysis of variance (ANOVA) with a 3×4 factorial design was performed on the data. The results are reported in Table 3. As can be seen, there is a significant effect obtained for level and

Table 3. ANOVA for recall scores

Source of variation	<i>df</i>	SS	MS	<i>F</i>
Level	2	2200.660	1100.330	62.593*
Task	3	1671.769	557.256	31.700*
Level × Task	6	480.834	80.139	4.559*
Error	190	3340.016	17.579	

**p* < .001.

Table 4. Tukey HSD for level and task

	A	B	C	D	E	F	G	H	I	J	K	L
A. L1T1	X		s	s								
B. L1T2		X		s								
C. L1T3			X									
D. L1T4				X								
E. L2T1			s	s	X		s					
F. L2T2			s	s		X	s					
G. L2T3							X					
H. L2T4				s				X				
I. L3T1	s	s	s	s	s	s	s	s	X		s	s
J. L3T2	s	s	s	s	s	s	s	s		X		s
K. L3T3	s	s	s	s			s	s			X	s
L. L3T4												X

s = *p* < .01.

for task, and for the interaction of level and task. This suggests that simultaneous processing of content and linguistic form is indeed difficult for learners, but that they do improve somewhat over time. However, with a 3 × 4 design, it is possible that some cells do not obtain this effect. Thus, a pairwise test using Tukey’s HSD was conducted so that cell comparisons could be made. These results can be found in Table 4. They show that expected differences did not obtain in several cells, but that overall the task effect obtains.⁸

It should be recalled from both Table 2 and Figure 1 that all three levels seemed to converge at Task IV with their recall scores clustering around a rather low point. In addition, it was noted that there seemed to be an order for task scores: Task I to Task II to Task III to Task IV, in order, from highest to lowest mean scores. Ignoring level, a pairwise test was conducted to see if there were overall significant differences based on task type alone. In Table 5 the results of a Tukey HSD for task are reported. These data reveal that there is no significant difference between scores on Tasks I and II, nor between III and IV. However, there is a significant difference between scores on Tasks I and III, and between I and IV, as well as between II and III, and II and IV, suggesting a split along these general lines: focusing on content/lexical items versus focusing on grammatical items.

Table 5. Tukey HSD for task type

	Task I	Task II	Task III	Task IV
Task I	X	—	s	s
Task II		X	s	s
Task III			X	—
Task IV				X

s = $p < .01$.

DISCUSSION

The results of the ANOVA along with the two pairwise tests reveal a significant drop in recall scores when subjects were asked to simultaneously listen for content and note a grammatical morpheme of little referential meaning. At the same time, these results do not offer evidence that the simultaneous tasks of listening for content and noting a lexical item result in a significant drop in recall scores. Using a different population and multiple levels of exposure to the language, these data support the findings of VanPatten (1987) regarding early stage learners, in which significant differences were found between content only recalls and content plus form focused listening on the one hand, but no significant differences were found between content only recalls and content plus lexically focused listening on the other. Therefore, hypotheses (1) and (2) received empirical support from the present study: (a) conscious attention to non-communicative grammatico-morphological forms in the input negatively affects comprehension of content; and (b) conscious attention to important lexical items does not affect comprehension of content.⁹ As suggested in VanPatten (1985), it would seem that the communicatively loaded items in input receive conscious attention from early stage learners and become available as intake for the developing language system. Grammatical morphemes of little meaning may be left unattended, since they “escape” attention directed toward meaning or informational content.

Hypothesis (3), that more advanced learners would not exhibit the same results as early stage learners, received mixed support from this study. While having significantly different recall scores from Level I and Level II students on the content only task (i.e., Level III could recall much more), Level III subjects performed about the same on the verb inflection task. However, it should also be noted that on Task III (definite article), the Level III subjects performed significantly better than other Level III subjects on Task IV (verb morpheme). This was not the obtained result for Level I and Level II subjects, who performed about the same on these two tasks. This finding suggests that for lower level subjects, there may be no difference between bound and free morphemes, but that for Level III subjects there is. Thus, while we see the emergence of an overall pattern based on task regardless of level, the type of form focused attention produces differences at Level III. To what these differences are attributable can only be speculated. A tentative explanation would lead us to look at how definite articles resemble lexical items whereas bound morphemes do not. That is, *la* is a word. It stands alone and “means” ‘the’. One can also find *la* in any Spanish

dictionary. However, *-n* cannot stand alone, does not mean anything unless attached to a verb, and cannot be found in the dictionary. Thus, on a scale of communicative value where words tend to occupy the highest rank, *la* is closer to being word-like than is the verb inflection used in this study. This resemblance to words, however, is information that is not available to the language processor in the early stages.

Looking at the question acoustically, we can also speculate that for the early stage learner, Spanish is nothing but a stream of syllables when listened to, and that roots of known words and cognates stand out to help arrive at meaning. For the more advanced learner, word boundaries become more salient, and thus, free morphemes such as *la* are more easily “isolated” from the noun phrases in which they appear, whereas bound morphemes may still be missed since they are acoustically not as salient.

In developing an input based acquisition model, the results of the present study suggest that as input becomes comprehensible (i.e., compare Level I Task I recall scores with Level III Task I recall scores), available attention and effort are not necessarily released for focusing on form. One possible criticism that could be leveled against the current study is that although the input was comprehensible, learners had to work hard at understanding everything. Keeping in mind that humans are limited capacity processors and that the amount of conscious attention available for the processing of incoming data is finite at any given moment, we could tentatively suggest that if attention to form needs to be conscious at some point, then the input must be easily comprehended. Comments made by some of the subjects at the end of the experimentation attest to this:

“It is hard to comprehend the readings [*sic*] when listening for certain verbs because you are more concerned with listening for the verbs than the actual words.”

“I was concentrating on hearing the verbs with *-n*. I paid very little attention to the meaning of the oration.”

“I don’t know. I forgot to pay attention to the meaning of the passage. I was concentrating on the verbs.”

“How are we supposed to listen for verb endings and for the information too?”

When one looks at the recall scores for the Level I control group (Task I, where their attention is focused on content only) the scores are quite low compared to those of the Level III control group. We could hypothesize that the early stage subjects “struggled” more with meaning to begin with, and that conscious attention and effort used to continuously seek out forms in the input and process them hampered any processing of meaning in which they could engage.¹⁰ In other words, when faced with processing input both for a grammatical morpheme and for meaning, many early stage learners cannot do it.¹¹ There is a danger, however, in extrapolating this finding beyond the context of (a) the foreign language classroom and (b) experimental conditions. The results do not suggest that early stage learners are completely incapable of focusing on form in the input. What the results do suggest is that a focus on form is probably not continuous in the real world of input processing where there is a primary focus on meaning. In Schmidt’s diary study, for example, one sees a clear

conscious attention to form in the input in a negotiated context. What is not clear from Schmidt's comments, however, is whether or not there was meaning loss when attention was directed to a form in the input. The present study would suggest that there was, and that consistent and constant awareness of form in the input is improbable if the learner's task is to process the input for meaning. In addition, in Schmidt's study, the types of forms that the subject seemed to be consciously noticing were precisely those types of forms that carried some sort of meaning, for example, tense and aspect inflections.¹²

From the present study we can conclude that simultaneous conscious attention to informational content and "meaningless" form in the input is difficult for the early stage and the intermediate stage learner. Can one then infer that linguistic features of the language are subconsciously processed and that only meaning is consciously processed? The results of the present study cannot be used to argue for subconscious attention, for there exists the possibility that conscious attention to grammaticomorphological forms in the input occurs as comprehension of content improves over time. Thus, future discussion of consciousness will have to address the following: Do learners concurrently process formal features of language subconsciously (i.e., while consciously processing for meaning), or do they process all forms consciously? If the latter, does the ability to consciously process both meaning and form develop over time?

CONCLUSION

The results of the present study offer evidence that conscious attention to form in the input competes with conscious attention to meaning, and, by extension, that only when input is easily understood can learners attend to form as part of the intake process. We should caution here, however, that this study and the observations made by Swain, Schmidt, and VanPatten seem largely directed only at the processing of grammatical morphology in the input. What of syntax? Can and do learners consciously register such things as a moved noun phrase, non-canonical word order, and other structural features that operate at the level of sentence?

Future research on the relationship between input and intake and on the ability of language learners to notice forms in the input will need to address these and other issues. In addition, other methodologies must be explored. As mentioned earlier, the current study is not real world but rather laboratory based, and it is possible that it did not tap the same strategy or process for noticing/perceiving form that is used in ongoing acquisition. We may find that perceptual strategies for noticing how messages are encoded may be isolatable from comprehension strategies for simply understanding those messages, or, as Sharwood Smith (1986) suggested, we may distinguish between comprehension and acquisition as far as input is concerned. The current study certainly underscores the need to move toward more sophisticated accounts of the role of consciousness in how learners perceive and process linguistic features in the input.

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NOTES

1. It must be observed that while this article discusses the role of conscious attention to form and content in input processing, there is also the argument that intake is structured by the learner's current grammar (e.g., Liceras, 1985; White, 1985). This argument is not at issue in this article. More than likely, in order to be fully explained, the input to intake to acquisition connection will consist of a number of factors.

2. I have been asked whether or not I can assume that the classes at each level were of roughly equivalent proficiency. While I have no evidence based on cloze and/or other proficiency measures used in SL research, the fact that the students in each level take a standardized exam based on language use (reading comprehension, vocabulary, composition, and short answer), that their final grades are based on performance rather than knowledge criteria, and that the supervisors for each course did not detect differences in exam averages or final grade averages suggests that they probably were roughly equivalent. In addition, the uniform pattern of behavior on the tasks used in this study (e.g., Tables 2 and 5) where all groups' scores peak and dip in the same manner, further suggests that proficiency did not affect outcomes within each level.

3. Passages were used since much of what formal classroom learners hear as input is canned speech on tapes (or if they are lucky, television programs) or is monologued teacher talk with minimal learner interaction.

4. A near-native speaker was used rather than a native speaker since most formal language learners in foreign language classes have non-native instructors.

5. The experimenter and his assistants monitored the task carefully to ensure that subjects were not "peeking" to see when others put check marks.

6. The following is Carrell's definition of idea units: "each unit consists of a single clause (main or subordinate, including adverbial and relative clauses). Each infinitival construction, gerundive, nominalized verb phrase, and conjunct was also identified as a separate idea unit. In addition, optional and/or heavy prepositional phrases were also designated as separate idea units" (p. 737). The passage on inflation was independently analyzed into idea units by two researchers in language learning, which resulted in a final complete agreement on the units.

7. We are currently gathering data on super advanced learners' and native speakers' performance on these two tasks. Preliminary analysis suggests that there are no significant differences between native speakers on the tasks. However, due to small sample size (only 8 subjects in each cell), we are at this point refraining from reporting the results until more subjects can be obtained.

8. These cells are L1 T2 × L1 T3, L2 T1 × L2 T4, L2 T2 × L2 T4, and L3 T2 × L3 T3.

9. One possible objection to the obtained differences is that *inflación* is a key polysyllabic word with stress, whereas *-n* is a non-syllabic bound morpheme. The arguments against this are: (a) the definite article *la* is syllabic, free, and pronominal but falls in with third person *-n* in terms of subjects' task performance; (b) research on polysyllabic but asemantic verbs (the Spanish copulas) suggest that learners do not attend to something like *está* in the input (see VanPatten 1983, 1984b). The only difference between *está* and *inflación* is one of semantic contribution to sentence meaning.

10. See also Terrell (1986) for a discussion of the problem of focusing on a (non-meaningful) item in the input in a Natural Approach classroom.

11. This position is also supported by preliminary evidence gathered by Francis Mangubhai (personal communication). Using data from a think-aloud technique, Mangubhai reported that "my data suggests that learners focused on the form only when they are able to retrieve the meaning of an utterance more or less immediately." These preliminary data were reported on at the 1987 TESOL in Miami (Mangubhai, 1987).

12. Data from other sources support the claim that even in a negotiated context, many early and intermediate stage learners go for meaning first when processing input and subsequently attend to those items in the input that carry the most meaning. For example, in the following interchanges, we see that the learners were so intent on meaning that they ignored those features in the input that *they* perceived to be irrelevant to the message (I = interviewer, S = subject):

- | | |
|---|-------------------------------------|
| (1) I: ¿Cómo están ellos? | (How are they?) |
| S: Son contento. | (They are happy.) |
| I: Y ellos, ¿cómo están? | (And them, how are they?) |
| I: Son contento también. | (They are happy, too.) |
| (2) S: ¿Qué es esto? | (What's this? How do you say this?) |
| I: El trapo. | (The rag.) |
| S: La trapo. | (The rag.) |
| (3) S: . . . y él, uh, uh, y él, uh . . . | (. . . and he, uh . . .) |
| I: Se sentó. | (He sat down.) |
| S: Sentó, sí. | (He sat, yes.) |
| (VanPatten, 1983, p. 125) | |

In example 1, the learner does not perceive and subsequently does not incorporate (i.e., does not copy) the correct copula *está* in his own utterance. This is particularly interesting in the second part of the interchange, where the interviewer moves the copula (which carries strong stress) to sentence final position, thus heightening its salience. In example 2, the definite article is ignored by the learner, and in example 3, the learner copies only what he perceives to be the key lexical item (*sentar* = to seat, *sentarse* = to sit down) and ignores the reflexive particle. Clearly, in these examples, learners are demonstrating the effect of limited available attention and effort in input processing coupled with putting meaning before form.

Regarding the ability to perceive third person final *-n*, the results in VanPatten (1984a) are relevant here. In that study, VanPatten tested learner's comprehension of isolated utterances of the following word order: object pronoun-verb-noun phrase subject. Following is a sample sentence:

<i>Lo</i>	<i>invitan</i>	<i>los chicos</i>	<i>al cine.</i>
him	invite-they	the boys	to the movies
'The boys invite him to the movies'.			

In that study, upwards of 70% of the learners ignored the plural verb marker *-n* as a semantic clue to the subject of the sentence, and overwhelmingly went for the interpretation that *lo* was the subject and *los chicos* was the object of the verb, i.e., 'He invites the boys to the movies'. In such an on-line sentence level processing task, the average early stage learner of Spanish relied on word order rather than morphological markers. (See Lee, 1987, for additional evidence based on subjects' comprehension of written utterances.)

REFERENCES

- Carrell, P. (1985). Facilitating ESL reading by teaching text structure. *TESOL Quarterly*, 19, 727-752.
- Dulany, D., Carlson, R., & Dewey, G. (1984). A case of syntactical learning and judgment: How conscious and how abstract? *Journal of Experimental Psychology: General*, 113, 541-555.
- Gass, S., & Madden, C. (1985). *Input in second language acquisition*. Rowley, MA: Newbury House.
- Krashen, S. (1982). *Principles and practice in second language acquisition*. New York: Pergamon.
- Krashen, S. (1985). *The input hypothesis*. London, UK: Longman.
- Lee, J. F. (1986). On the use of the recall task to measure L2 reading comprehension. *Studies in Second Language Acquisition*, 8, 201-211.
- Lee, J. F. (1987). Morphological factors influencing pronominal reference assignment by learners of Spanish. In T. Morgan, J. F. Lee, & B. VanPatten (Eds.), *Language and language use: Studies in Spanish* (pp. 221-232). Lanham, MD: University Press of America.
- Liceras, J. (1985). The role of intake in the determination of learners' competence. In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 354-373). Rowley, MA: Newbury House.
- Mangubhai, F. (1987). *Beyond input: A closer look at what learners do with the intake*. Paper presented at the annual TESOL meeting, Miami.
- Reber, A. (1976). Implicit learning of synthetic languages: The role of instructional set. *Journal of Experimental Psychology: Human Learning and Memory*, 2, 88-94.
- Reber, A., Allen, R., & Regan, S. (1985). Syntactical learning and judgment, still unconscious and still abstract: Comment on Dulany, Carlson, and Dewey. *Journal of Experimental Psychology: General*, 114, 17-24.
- Schmidt, R. (1988). *The role of consciousness in second language learning*. Plenary address delivered at the Eighth Second Language Research Forum, University of Hawaii at Manoa, Honolulu.
- Sharwood Smith, M. (1986). Comprehension vs. acquisition: Two ways of processing input. *Applied Linguistics*, 7, 239-256.
- Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 235-253). Rowley, MA: Newbury House.
- Terrell, T. (1986). Acquisition in the natural approach: The binding/access framework. *The Modern Language Journal*, 70, 213-227.
- Terrell, T. (1988). *The role of grammar in a communicative approach*. Keynote speech delivered at the Northeast Conference on Foreign Language Teaching, New York.
- VanPatten, B. (1983). *Processing strategies in second language acquisition*. Unpublished PhD thesis, University of Texas, Austin.
- VanPatten, B. (1984a). Learners' comprehension of clitic pronouns: More evidence for a word order strategy. *Hispanic Linguistics*, 1, 88-98.
- VanPatten, B. (1984b). Processing strategies and morpheme acquisition. In F. Eckman, L. Bell, & D. Nelson (Eds.), *Universals of second language acquisition* (pp. 88-98). Rowley, MA: Newbury House.

- VanPatten, B. (1985). Communicative value and information processing in second language acquisition. In P. Larson, E. Judd, & D. Messerschmitt (Eds.), *On TESOL '84: A brave new world for TESOL* (pp. 89–100). Washington, DC: TESOL.
- VanPatten, B. (1987). *The effects of monitored listening comprehension on learners' processing of input*. Paper delivered at the annual TESOL Convention, Miami.
- White, L. (1985). The pro-drop parameter in adult second language acquisition. *Language Learning*, 35, 47–62.

APPENDIX

Analysis of *Inflación* Passage

Total words in passage:	274
Total sentences:	17
Average words per sentence:	16.11
Average syllables per word:	2.01
Average syllables per sentence:	32.47
Total clauses headed by <i>que</i> :	3

Sample Passage: *La Inflación*

Uno de los problemas más graves en los países latinoamericanos es la inflación. Claro, en los Estados Unidos la inflación también es un problema, pero no es tan elevada como la inflación de algunos de los países hispanos. Como los Estados Unidos sufre de una inflación de 2–3%, un país como Chile cuenta con 30% y la inflación en la Argentina es ahora 200%.

¿Cómo afecta la inflación a la gente? La inflación afecta a todos, sobre todo a la clase trabajadora. Sus salarios muchas veces no son suficientes para comprar las cosas básicas. Es un círculo vicioso porque cada vez que suben los salarios, suben los precios también. Cuando los precios suben es necesario aumentar los salarios otra vez. Así la inflación está constantemente alta.

En una situación económica como ésta, es casi imposible poner dinero en el banco: primero porque la gente tiene que pagar más para vivir y no tiene dinero para poner en el banco; y segundo porque no es buena idea ahorrar nada en estas circunstancias. La gente cree que en vez de ahorrar dinero, es mejor invertirlo en cosas que no pierden su valor. Entonces, las personas que tienen suficiente dinero lo invierten en propiedades y otras cosas que mantienen un valor constante. Y si no tienen mucho dinero, compran televisores, ropa o aparatos eléctricos porque saben que en poco tiempo los precios de estos artículos van a ser aún más altos.

No sabemos muy bien del futuro económico de Latinoamérica respecto a la inflación. Con los problemas de la industria petrolífera, hasta países como Venezuela y México son muy afectados. La inflación está consumiendo a estos países. . . .

Sample of Idea Unit Divisions: La Inflación

(Based on Carrell, 1985, p. 737)

1. Uno de los problemas más graves en los países latinoamericanos es la inflación.
2. Claro, en los Estados Unidos también
3. la inflación es un problema
4. pero no es tan elevada
5. como la inflación de algunos de los países hispanos.
6. Como los Estados Unidos sufre de una inflación de 2–3%
7. un país como Chile cuenta con 30%
8. y la inflación en la Argentina es ahora 200%.
9. ¿Cómo afecta la inflación a la gente?
10. La inflación afecta a todos
11. sobre todo a la clase trabajadora.
12. Sus salarios muchas veces no son suficientes
13. para comprar las cosas básicas.
14. Es un círculo vicioso
15. porque cada vez que suben los salarios
16. suben los precios también.
17. Cuando los precios suben
18. es necesario
19. aumentar los salarios otra vez.
20. Así la inflación está constantemente alta.
21. En una situación económica como ésta
22. es casi imposible
23. poner dinero en el banco
24. primero porque la gente tiene que pagar más
25. para vivir
26. y no tiene dinero
27. para poner en el banco
28. y segundo porque no es buena idea
29. ahorrar nada en estas circunstancias.
30. La gente cree
31. que en vez de ahorrar dinero
32. es mejor
33. invertirlo en cosas
34. que no pierden su valor.
35. Entonces, las personas . . . lo invierten
36. que tienen suficiente dinero
37. en propiedades
38. y otras cosas
39. que mantienen un valor constante.
40. Y si no tienen mucho dinero
41. compran televisores
42. ropa
43. o aparatos eléctricos
44. porque saben
45. que en poco tiempo
46. los precios de estos artículos van a ser aún más altos.
47. No sabemos del futuro económico de Latinoamérica
48. muy bien
49. respecto a la inflación.
50. Con los problemas de la industria petrolífera
51. hasta países como Venezuela
52. y México son muy afectados.
53. La inflación está consumiendo a estos países. . .