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Orchestrating Strategy Use: Toward a Model of the Skilled Second Language Listener

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This article reports on an investigation of listening strategy applications by grade 7 students learning French ($N = 36$). I examine the types of strategies used and the differences in strategy use by more skilled and less skilled listeners as revealed while these students listened to authentic texts in French. Think-aloud data were coded and analyzed both quantitatively and qualitatively. Significant differences were found in the use of the category of metacognitive strategies as well as in individual strategies for comprehension monitoring, questioning for elaboration, and translation. These differences were reinforced by a qualitative analysis of representative protocols. The article concludes with a discussion of both an emerging model of the skilled listener and a pedagogic program for developing listening skills.

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Although it is generally recognized that listening plays a significant role in language learning, listening comprehension remains a "young field" that merits greater research attention (Oxford, 1993; Rubin, 1994). In a recent state-of-the-art article on learner strategies, McDonough (1999), among other recommendations, calls for further investigation into the relationship between proficiency and learning strategies in the skill areas (particularly listening and speaking) and a need to "flesh out" the concept of the skilled learner. Furthermore, Lynch (1998), in his review of theoretical perspectives on listening, calls for further investigation into the link between second language (L2) listening level and listening strategies, as well as examining listeners' on-line procedures for monitoring and remedying gaps in comprehension. This article attempts to strengthen our understanding of skilled L2 listeners and how these listeners pursue the "effort after meaning" (Lynch, 2002, p. 48).

The study reported here is part of a 2-year longitudinal investigation of listening comprehension strategy instruction in which I will compare the progress of an experimental and a control group of students from the beginning of grade 7 through the end of grade 8. The following research questions are to be addressed over this period: (a) What are the differences in listening strategy use reported by more skilled and less skilled listeners? (b) What is the difference in reported strategy use over time between the control group and the experimental group? (c) What is the difference in listening achievement over time between the experimental and the control group? (d) Are less skilled listeners in the experimental group able to make greater gains in achievement? (e) Do less skilled listeners in the experimental group report more metacognitive strategies than the less skilled listeners in the control group?

This substudy, in particular, focuses on the first research question. It seeks to identify the listening strategies used by junior high school students and then compare the strategies used by the more skilled and less skilled listeners. I will examine the baseline data collected for the main study to answer the

following questions: (a) What are the strategies that junior high school learners of French use while listening to an authentic text in French? (b) What are the differences in reported listening strategy use between the more skilled and less skilled listeners?

In order to identify the range of language learning strategies used by more skilled learners at different levels of language proficiency on a wide range of language tasks (including listening), O'Malley, Chamot, Stewener-Manzanares, Küpper, and Russo (1985) investigated the strategies of high school learners of English as a second language (ESL). Although the methods used (student and teacher interviews and observation) did not produce a high number of different reported listening strategies, the researchers found that the general learning strategies reported by the L2 learners in their study were similar to the learning strategies reported by students engaged in general learning tasks. They concluded that strategic processing appears to be a generic activity common to all areas of learning. They proposed a framework of metacognitive, cognitive, and socio-affective strategies grounded in the work of cognitive psychology (Brown & Palinscar, 1982) as a productive framework for classifying L2 learning strategies as well.

A subsequent study of high school students of Spanish and university students of Russian at different levels of language proficiency revealed a similar pattern of strategy use, further validating the framework for classifying L2 strategies (Chamot, O'Malley, Küpper, & Impink-Hernandez, 1987). In contrast to the findings in the earlier ESL study, the students of Russian and Spanish at higher proficiency levels reported more strategies than their beginning-level peers. Furthermore, contrary to expectations, the less skilled learners of Spanish and Russian were able to describe the strategies they used to accomplish various L2 tasks. Although these studies shed light on the strategies used by L2 learners of different languages at different levels of language proficiency and on a variety of language tasks, a more fruitful methodology for tapping the more covert processes and strategies involved in listening needed to be found.

A think-aloud procedure for L2 listening research was first employed by Murphy (1985) to examine the strategies used by adult ESL listeners in academic lectures. Murphy determined that more skilled listeners were open and flexible, using more strategies and a greater variety of different strategies. Less skilled listeners, on the other hand, either concentrated too much on the text or on their own world knowledge. Murphy concluded that more skilled listeners engage in more active interaction with the text and use a wider variety of strategies that interconnect like "links in a fence." Listening strategies, according to Murphy, should be seen as "interweaving components to a single animated language process" (p. 40).

In a second series of studies, O'Malley, Chamot, and their colleagues (Chamot & Küpper, 1989) used a think-aloud methodology to examine strategy development over time on a variety of language tasks. Chamot and Küpper's study uncovered more distinct metacognitive strategies related to listening, such as advance organization, selective attention, monitoring, problem identification, and self-evaluation. Chamot and Küpper concluded that more skilled listeners were more purposeful in their approach to the task, monitored their comprehension for overall meaning, and effectively used prior and linguistic knowledge while listening. In particular, these more skilled listeners used the written listening comprehension questions to establish a topic framework for what they were about to hear and used what they knew about the topic (elaboration) to predict possibilities (inferencing). Using this framework, these listeners focused on important upcoming content (selective attention) while continuing to use relevant information (elaboration) to help them understand, confirming and, if necessary, revising their predictions (monitoring) as they went along. The researchers concluded that this unique combination of strategies marks the strategic approach of the more skilled listener.

In an attempt to uncover further what listeners actually do while listening to oral texts, O'Malley, Chamot, and Küpper (1989) investigated the strategies used by ESL listeners during

the different phases of the listening process. Researchers were looking for evidence of three interrelated cognitive processes identified in first language (L1) listening (J. R. Anderson, 1985) and the strategies used during each phase of the listening process, as well as any differences between more skilled and less skilled listeners. A qualitative analysis of the listener think-aloud protocols showed that during the first phase, perceptual processing, strategies such as selective attention and directed attention proved to be crucial. More skilled listeners were able to maintain attention or redirect it when distracted, whereas less skilled listeners were easily "thrown off" when they encountered anything unknown. Listener elaborations interfered with comprehension if listeners did not monitor their attention carefully and concurrently.

During parsing, the second phase, grouping and inferencing proved to be crucial strategies. More skilled listeners processed larger chunks and inferred the unknown from the context using a top-down approach; when that failed, they attended to individual words. Less skilled listeners tended to segment what they heard on a word-by-word basis, using almost exclusively a bottom-up approach.

Finally, during the utilization phase, listeners made use of prior knowledge to assist comprehension and recall. Elaboration seemed to be the dominant strategy, and the degree to which listeners were able to use this strategy determined their effectiveness as listeners. More skilled listeners approached the task globally, inferring meaning from context, engaging in effective self-questioning, and relating what they heard to their world knowledge and personal experience. Their less skilled counterparts made fewer connections between new information and their own lives. From a quantitative perspective, more skilled listeners used self-monitoring, elaboration, and inferencing more than their less skilled peers. The researchers were able to conclude that listening is an active process of constructing meaning in which to fulfill task requirements, listeners match linguistic cues with existing knowledge, with the help of strategies.

Continuing in the same framework, Goh (2000) examined the comprehension problems of adult ESL listeners in an English as a foreign language setting, relating each problem to one of the phases of comprehension (perception, processing, and utilization). During the perception phase, listeners identified the following problems: (a) not recognizing words they know; (b) neglecting the next part of a text when thinking about meaning; (c) not chunking streams of speech; (d) missing the beginning of texts; and (e) concentrating too hard or not being able to concentrate. During the parsing phase, listeners noted the following difficulties: (a) quickly forgetting what is heard; (b) not being able to form a mental representation from words they heard; and (c) not understanding subsequent parts because of earlier problems. Finally, during the utilization phase, listeners mentioned problems with (a) understanding words but not the message and (b) confusion about key ideas in the message. When these comprehension problems were examined according to listening ability, two of the problems were noted by a majority of both more skilled and less skilled listeners: (a) not recognizing words they know and (b) quickly forgetting what they heard. In addition, the majority of the more skilled listeners also identified understanding words but not the message as a problem, whereas the majority of less skilled listeners also mentioned the problem of neglecting the next part of a text because they were thinking too much about the meaning of what they had just heard.

Listening strategy use during the three phases of the comprehension process (perceptual processing, parsing, and utilization) was further examined by Bacon (1992a, 1992b) in university students learning Spanish. During the perceptual processing phase, students were concerned with the speed of the text and made little use of context or advance organizers. During the parsing phase, students tended to focus on individual words rather than segments of words, and they experienced difficulty in holding chunks of meaning in memory. During the utilization phase, students made some use of previous knowledge but, because of time constraints, were not always able to evaluate

the appropriateness of their inferences. Bacon concluded that success in listening appears to be related to the use of a variety of strategies, flexibility in changing strategies, motivation, self-control, maintaining attention, and effective use of background knowledge. Interestingly, she noted that monitoring appeared to be used equally by more skilled and less skilled listeners, although the former were "more realistic in evaluating their comprehension" (1992b, p. 331).

Continuing in the vein of O'Malley and Chamot, Vandergrift investigated the relationship between listening strategy use and language proficiency, in addition to success in listening, with novice-level and intermediate-level high school learners of French. Structured interviews (Vandergrift, 1996) about strategy use on different types of listening tasks revealed that the number of total strategies as well as the number of distinct metacognitive strategies increased by course level and that females tended to report a greater number of metacognitive strategies than males. Think-aloud protocols (Vandergrift, 1997) revealed that novice-level listeners rely heavily on elaboration, inferencing, and transfer and overcome their limited knowledge of French by using cognates and extralinguistic cues such as sound effects to construct meaning of a text. Vandergrift argued that the constraints on processing at the novice level are so great that there is little attentional room for metacognitive strategies such as monitoring. On the other hand, intermediate-level listeners were able to process larger chunks of information and used over twice as many metacognitive strategies as the novice-level listeners. More skilled listeners used twice as many metacognitive strategies as their less skilled counterparts, and a qualitative analysis revealed differences in the depth of processing, the strength of predictions, and the stability of the conceptual framework established by the more skilled listeners (Vandergrift, 1998). Building on the O'Malley and Chamot (1990) strategy taxonomy, Vandergrift (1997) outlined a taxonomy of strategies specific to listening comprehension (see Appendix).

Using this same taxonomy, Peters (1999) traced the L2 listening strategy development, over a period of 1 year, on primary-level students enrolled in an intensive French program (experiential activities in French for one half of each school day). Eight students (4 more skilled and 4 less skilled listeners) completed increasingly difficult listening comprehension tasks along with a think-aloud procedure every month throughout the school year. Peters discovered that, although both more skilled listeners and less skilled listeners used many of the same cognitive strategies, the more skilled listeners used more metacognitive strategies over time (particularly monitoring and evaluation). The more skilled listeners were also more successful in linguistic inferencing and engaged in less elaboration than the less skilled listeners, which is probably indicative of the impoverished linguistic base of the latter group. Finally, because she was able to study student strategy use over time, Peters found evidence to support a possible hierarchy of listening strategy development. She found that cognitive strategies first used by the more skilled listeners became apparent in the think-aloud protocols of less skilled listeners later in the school year. There was not enough metacognitive strategy use among the participants in her study for her to ascertain any possible developmental pattern in the use of such strategies.

As stated earlier, knowledge about listening comprehension strategies is still limited, because most research attention regarding language learning strategies has been devoted to those involved in reading, writing, and speaking. Although an understanding of the complex processes involved in listening comprehension strategies may be limited, the research literature on such strategies points to some useful findings for both content and methodology: (a) Metacognitive strategies such as selective attention and comprehension monitoring are reported more frequently by more skilled listeners; (b) cognitive strategies such as elaboration and inferencing are used almost equally by all listeners but appear to be used in more effective combinations by more skilled listeners; (c) more skilled listeners appear to be

more flexible in strategy use, combining strategies in effective combinations; (d) the three phases of the listening process (perceptual processing, parsing, utilization) can be identified in listener think-aloud protocols, as well as strategies associated with each phase; (e) a think-aloud procedure appears to be a productive methodology for studying on-line strategy use; and (f) a qualitative analysis of protocols, in addition to a quantitative analysis, appears to provide greater insight into the differences between more skilled and less skilled listeners.

Method

Participants

Participants in this study were 36 junior high school core French[1] students in grade 7 (12–13 years old) from intact classes in two different schools in a large Canadian urban setting where French is an L2. The students' length of exposure to core French instruction ranged from 3 to 6 years; students who had been in a French immersion program or students with a francophone parent were excluded from the study. Most students represented multiple ethnic and linguistic origins with L1s other than English or French. Each student was classified as either a more skilled or a less skilled listener, according to the score obtained on the listening comprehension test. Length of previous exposure to core French instruction did not necessarily determine student placement. There were some students with 6 years of previous instruction in the less skilled group and some students with 3 years of previous instruction in the more skilled group.

Instruments

The listening comprehension test, developed from previously elaborated tests for core French students (Lapkin, 1994; Wesche, Peters, & MacFarlane, 1994), was validated

with another class for the purpose of this study with an acceptable Cronbach's alpha of .83. The test required students to listen to a number of authentic[2] dialogues in French and to verify comprehension by completing multiple-choice questions. The test took one class period to complete and was administered before the strategy instruction began.

The listening texts, taken from *A la radio* (Porter & Pellerin, 1989), consisted of three short, authentic texts (45–60 s in real time) related to the life experience of these students: an announcement of a hockey game, an advertisement for a restaurant, and a dialogue. Texts were presented at a natural speed, with a delivery that was clear and accompanied by appropriate real-life sound effects. Authentic texts were chosen because the objective of this study was to provide students with strategies for real-life listening in French. Being able to access authentic texts is motivating for students because they learn to understand language as it exists naturally. All participants listened to the same three texts because they were all at a Novice level of language proficiency (according to the proficiency scale of the American Council of Teachers of Foreign Language [ACTFL]). The level of difficulty of these texts made them sufficiently challenging to bring strategies to consciousness in short-term memory, but they were not so difficult as to lose the student.

Data Collection

The think-aloud procedure, adapted from O'Malley et al. (1989) and Rankin (1988) and used previously by Vandergrift (1997), had a training phase and a data collection phase. A training session (using mathematics problems or verbal reasoning tasks and actual oral texts in French) was conducted prior to the data collection sessions so that students had a good understanding of how to think aloud and had ample opportunity to practice. All data collection sessions were conducted on an individual basis and were audio-recorded for later verbatim

transcription and coding. Sessions, lasting for 30–40 min each, took place within a week of the training session.

Think-aloud data were recorded for three different texts. For each text, the tape was stopped at predetermined breaks indicated on the tape script, and students attempted to verbalize what they were thinking. Natural discourse boundaries were chosen as appropriate points at which to stop the tape for thinking out loud. These points were preselected and identified on the tape scripts, and the sequence was rigorously followed for each participant. If the student was unsure of what to say or how to continue, the investigator used noncueing probes such as "What are you thinking now?" "How did you figure that out?" "What's going on in the back of your mind?" and "Can you be more specific?" Great care was taken not to inadvertently plant strategies in the student's mind. A second tape recorder recorded the text, the think-aloud data, and any investigator prompts. Students approached each text "cold"; that is, they had no idea what the text was going to be about. The procedure was set up this way deliberately, so that no schemata were activated before listening began and the researcher could have access to each participant's thought processes during the perceptual processing phase of listening.

The think-aloud data were transcribed verbatim and analyzed using a predefined taxonomy of listening comprehension strategies (Vandergrift, 1997; see Appendix), based on earlier work by O'Malley and Chamot (1990) and Oxford (1990). The taxonomy is divided into three main categories: metacognitive strategies (mental activities for directing language learning), cognitive strategies (mental activities for manipulating the language to accomplish a task), and socioaffective strategies (activities involving interaction or affective control in language learning). All think-aloud protocols were coded independently by the investigator and a trained assistant, who met regularly to conduct reliability checks; any discrepancies were resolved through discussion. Each coded report of a strategy (token) was tabulated, and a listening strategy profile was created for each student by representing each strategy and strategy group

reported as a percentage of total reported strategy use by that student. Aggregate data for more skilled and less skilled listeners were compiled by calculating the mean for the use of each strategy by all listeners in the more skilled group and that for all listeners in the less skilled group.

Results

Quantitative Analysis

This study focused on the language learner engaged in the act of listening in order to uncover the strategies used and the differences in strategy use between more skilled and less skilled listeners. Students reported as completely as possible their thought processes while listening to oral texts in French. Table 1 presents the aggregate data for all strategies used by both more skilled and less skilled listeners according to major strategy categories (metacognitive, cognitive, and socioaffective) as well as the strategies within each category. An analysis of variance (ANOVA) was conducted to test for significant differences between the means for more skilled and less skilled listeners for each strategy. Table 2 presents summary results of the ANOVA for significant strategy differences.

First of all, with regard to the strategies used by these listeners, the taxonomy of listening strategies proposed by Vandergrift (1997) proved to be useful for describing the strategic behaviors reported by these listeners. Students appeared to use mostly cognitive strategies ($M = 90.37$), followed by metacognitive strategies ($M = 8.69$); there was very little use of socioaffective strategies ($M = 0.16$). Because the nature of a think-aloud procedure is not conducive to eliciting responses that show participants' use of these strategies, incidence of use of socioaffective strategies is presented here only and will not be discussed further.

Almost all previously identified metacognitive strategies were used by the participants in this study: planning strategies

Table 1

Mean number of strategies reported by unskilled and skilled listeners during think-aloud sessions

Strategy	Less skilled listeners ($n = 18$)	More skilled listeners ($n = 18$)	*SD*
Advance organization	0.00	0.25	0.00
Directed attention	0.63	0.63	1.33
Selective attention	0.34	2.88	7.33
Self-management	0.20	3.47	14.73
Comprehension monitoring	2.16	4.84*	3.91
Double-check monitoring	1.13	2.35	2.39
Problem identification	1.37	1.99	3.14
Total metacognitive	5.77	11.60**	9.06
Linguistic inferencing	11.91	11.06	5.00
Voice inferencing	2.58	1.87	2.11
Extralinguistic inferencing	3.48	4.67	3.00
Between-parts inferencing	1.00	1.12	1.67
Personal elaboration	0.76	0.56	1.69
World elaboration	15.41	14.22	5.54
Academic elaboration	0.96	0.00	0.00
Questioning elaboration	5.91	13.13*	11.00
Creative elaboration	1.46	1.38	3.52
Imagery	0.29	0.56	1.13
Translation	5.21	1.85***	2.37
Repetition	0.56	0.76	1.39
Transfer	3.93	2.48	2.84
Summarization	39.27	33.37	10.71
Total cognitive	92.57	88.17	9.71
Total socioaffective	0.18	0.13	0.57

*$p < .02$. **$p < .03$. ***$p < .05$.

such as advance organization, directed attention, selective attention, and self-management; monitoring strategies; and problem identification strategies. Only evaluation strategies did not appear to be used. With regard to cognitive strategies, the listeners in the study reported using all the different forms of inferencing (linguistic, voice, paralinguistic, and between parts)

Table 2

ANOVA summary results for significant strategy differences between more skilled and less skilled listeners

Strategy	*df*	*F*	η^2	*p*
Comprehension monitoring	2, 34	5.75	.13	.022
Metacognitive strategies (total)	2, 34	5.30	.12	.028
Questioning elaboration	2, 34	6.23	.13	.018
Translation	2, 34	4.01	.10	.053

and of elaboration (personal, world, academic, questioning, and creative). In addition, they used imagery, translation, repetition, transfer, and summarization to make sense of what they were hearing and to "chunk together" what they understood.

Of greater interest are the differences in strategy use between more skilled and less skilled listeners, as presented in Tables 1 and 2. Beginning with an analysis of strategy use by major category, we can see that more skilled listeners used metacognitive strategies ($M = 11.60$) more frequently than less skilled listeners ($M = 5.77$). The difference in metacognitive strategy use between the groups was significant ($p < .03$). Furthermore, an analysis of individual strategy use within each category also reveals some interesting differences. First, within the metacognitive strategy category, more skilled listeners reported using all metacognitive strategies more than their less skilled counterparts. However, only the difference on comprehension monitoring for more skilled listeners ($M = 4.84$) compared to the less skilled listeners ($M = 2.16$) reached significance ($p < .02$). It appears that more skilled listeners are more able to verify continually and correct (if deemed necessary) their comprehension as they are listening. Second, within the cognitive strategy category, there were two interesting differences between the two groups. More skilled listeners reported using questioning elaboration more than twice as often ($M = 13.13$) as the less skilled listeners ($M = 5.91$). This difference reached

significance ($p < .02$). It appears that more skilled listeners adopt more of an approach of questioning and applying world knowledge to brainstorm logical possibilities before finally deciding on a conceptual framework that confirms predictions and remains congruent with further incoming data. Finally, less skilled listeners reported using translation more ($M = 5.21$) than more skilled listeners ($M = 1.85$), a difference that also reached significance ($p < .05$). This strategy was evident in protocols when listeners verbalized word-for-word translation of a chunk of text, often at either the beginning or the end of a listening segment.

To sum up, from a quantitative perspective, the following picture emerges of differences between more skilled and less skilled listeners at the junior high level. First of all, both groups of listeners appear to be familiar with an equally wide range of metacognitive and cognitive strategies. Second, when engaged in the act of listening, more skilled listeners appear to gain more control of the listening process through the use of more metacognitive strategies, primarily comprehension monitoring. Third, more skilled listeners engage in more questioning elaboration, in that they continue to ask questions about what they are hearing, demonstrating openness and flexibility in their approach. Finally, less skilled listeners engage in more direct translation. Their approach appears to involve primarily bottom-up processing, which impedes the development of a conceptual framework and efficient construction of meaning.

Qualitative Analysis

Although a quantitative representation can provide us with numerical differences in strategy use between more skilled and less skilled listeners, it cannot capture *how* a given strategy is used or the particular *combinations* of strategies used to build meaning. Neither can it capture the effective use of a strategy, such as the accuracy of an inference, an appropriate connection to prior knowledge or the depth of summarization, all reflective of the depth of the listener's interaction with the text. Therefore,

a qualitative analysis was performed to strengthen the quantitative results and to scrutinize representative think-aloud protocols for variations in strategy use not discernable through a simple strategy count.

The following transcriptions of think-aloud protocols illustrate the difference in approach used by Rose (a less skilled listener) and Nina (a more skilled listener). Their protocols were chosen for the insight they provide into the two types of listeners. They are listening to a dialogue in which a talk show host informs a woman that she has just won a ski weekend for two in a recent Valentine's Day contest draw.

Allô, est-ce que je peux parler à mademoiselle Hélène Petit, s'il vous plaît.
C'est moi-même, monsieur.

Rose: "Hello, can I talk to Mademoiselle . . . " I don't know the name. And then she said, "That's me."	Nina: This is a conversation on the phone. Yeah, and a male asked to talk to a female about something. Yeah.
Int.: O.K. Anything that you're thinking about?	Int.: What's going on in your mind?
Rose: No.	Nina: I think it has something to do with, like something, if they're advertising something because if they were going to have a long conversation like, between, like a friend, they would say, they won't call it "Mrs." whatever her name is.

The difference in approach between the two listeners is evident from the beginning. Although both listeners engage in translation to some degree, Rose appears to be translating only (bottom-up processing). Nina, on the other hand, is engaged in thinking about the input she has presumably understood. By elaborating on what she has heard (top-down processing), Nina uses world knowledge and text knowledge to interpret what she

hears. She is developing a frame of reference from which she can interpret new input.

> *Ah, bonjour et Joyeuse Saint-Valentin, Hélène. Ici Robert Bélair de CKAC. J'ai une très bonne nouvelle à vous annoncer aujourd'hui.*
> *Oui*?

Rose: "Hi. I got something new." "Nouvelle" I don't know. That's all I got.

Int.: O.K. Anything you're thinking about now?

Rose: No, just nervous.

Nina: Something new. Because he said, "nouvelle," I heard something, or something new today, he said "aujourd'hui." Maybe he is advertising something like, today, I have something new, or...

Int.: Anything else going on?

Nina: Nothing now.

Both listeners engage in individual word analysis; in particular the word *nouvelle*, which they interpret as the adjective "new" and not the noun "news." Rose does not relate it in any way to what she has previously heard, whereas Nina attempts to tie the word in with *aujourd'hui* and then speculates on how this might fit in with the conceptual framework she hypothesized earlier (questioning elaboration). Rose chooses only to comment on her unease with either the task or the situation.

> *Mais oui, Hélène. La bonne nouvelle est que vous êtes la gagnante du premier prix de notre tirage "Le coeur en fête."*
> *C'est vrai? Mais, c'est formidable! Quelle belle surprise*!

Rose: "What are you going to do when she answered me?" She said, I don't know.

Int.: O.K. Who? Who says, "What are you going to do?"

Rose: That guy.

Nina: Oh, I think now she's, it looks like she won something. Like, maybe, maybe a radio talk show or something, because she said, it's some kind of a, it's a surprise that, it's a surprise. And, I think I heard maybe something about "gagner" or something. I'm not sure.

Int.: O.K. And she says, something.	Int.: So, what's going on in your mind?
Rose: Yeah. A question.	Nina: She won something and she's very surprised.

Rose understands very little of this segment; one of her problems may well be an inadequate linguistic base. On the other hand, Nina has understood enough words (*gagnante* and *surprise*) to elaborate and to draw inferences (linguistic and extralinguistic) from her tentative conceptual framework, to consolidate her current understanding of the text, and to strengthen the framework. She indicates that she may have the full context for the text but, at the same time, leaves herself open to revising it in the light of new incoming input (questioning elaboration).

> *C'est bien vrai! Félicitations de nous tous à CKAC! Vous gagnez un weekend de ski pour deux personnes à L'auberge nordique dans les Laurentides.*

Rose: He said, "That's good" to the girl. And I think there's, at the weekend, "there's this ski thing if you want to go." And I don't know. That's what he said.	Nina: Yeah, she won everything to go skiing, I don't know. Int.: Anything else? Nina: Not really.

This segment demonstrates again how Rose continues in her surface analysis of the input through translation. She picks up on "that's good" (incorrect) and weekend and ski and ties these ideas together at a local level, but she never attempts to fit this in with what she has understood earlier. Nina adds very little to her understanding other than confirming a win of some kind and tying her understanding of skiing to the win. Her uncertainty may be indicative of her need for more confirming input before she can say with certainty what this text is about.

> *Fantastique! J'aime beaucoup skier.*
> *Alors, je suis certain que vous allez bien vous amuser.*

Bien sûr! Je peux y aller avec ma soeur Émilie? Elle aussi, elle aime skier.

Rose: "Fantastic! I like skiing." And it's like, something about her sister. Can she go, I think. And I don't know.

Int.: So anything that you're thinking about now? What's going on in the back of your mind?

Rose: I'm trying to figure out and everything. To see what they're saying you know.

Nina: She's, something about her sister or brother, or something like that. She says, she's, obviously very surprised that she won. And she's very excited. She said she loves skiing. She's also talking about her sister.

Int.: What's going on in your head?

Nina: That's about it.

Rose picks up a bit more information from this segment. She understands the first few words and then tries to tie her understanding of *soeur*, 'sister' in with the idea of going skiing. Rose's commentary on what she is attempting to do ("to see what they're saying you know") is interesting. As suggested earlier, because her protocols often appear to involve a translation of the opening words, this this may be further evidence of her strategic approach to listening. Such an approach allows her to retain only a few words before she loses track of the input and to later catch a few more isolated words from the stream of sound. This means, however, that she is never able to accumulate a context for these words, resulting in isolated stabs at meaning. Nina also adds to her understanding through her comprehension of sister or brother (she is unsure which) and loving skiing. She also uses voice inferencing ("obviously very surprised," "she's very excited") to further confirm the conceptual framework of a win.

Bonne idée! Donc, encore une fois, félicitations et au revoir.
Au revoir, Robert, et merci, merci beaucoup!

Rose: Something. "Bye. Thank you. Bye and thank you. Thank you so much." That's it.

Int.: Any thoughts on what it's about and how you figured it out?

Rose: It's about this guy, he's calling, I think it's his friend, this girl. And asked if she wanted to go skiing on the weekend. It's for two people. She said "Thanks. Yeah, I want to go. Thank you so much."

Nina: Oh, I think she was saying something about I want to bring this person, and this person, and that person. And then, he said, It's a good idea. And, he said, goodbye, and she's like "Thank you. Thank you very much."

Int.: O.K. What's going on in your head now?

Nina: Well she won and she won something. Like, she won a weekend to go skiing. But, I'm kind of like, I'm kind of curious about what she did. Whether it was like a talk radio, kind of like, I don't know, maybe she won something like, if she, it was a draw or something like that.

In this final segment, Rose just translates the final greeting and then summarizes her understanding, which remains very superficial. Nina begins by going back to the previous segment about the girl's desire to bring someone with her and relates this to the man's response ("good idea") and then, like Rose, summarizes the final greeting. Furthermore, she indicates her confirmation of a win schema, the prize being a ski weekend. However, she is still not sure about the context of the win and expresses her curiosity in resolving this unknown. This curiosity (problem identification) primes her for verification of this question during the second listen (selective attention).

Students were given an opportunity to listen to each text a second time. However, during the second listen, students were asked to indicate to the interviewer when they wanted the tape stopped so that they could further expand on their understanding of the text. At the end of the second segment, Nina verified her understanding of *nouvelle* in the context of the whole text by stating that "he had something new for her today." She then

expanded further on the significance of this segment as follows: "And this is like a big, the beginning of her trying to find out what she won and like, basically, the big news." At the end of the third segment she verified her understanding of winner ("yeah, *gagnante* so . . . she won something"), and finally, at the end of the fourth segment, she verified and explained further: "It's when I was sort of like positive that it was, that she won something, like in a draw or something like that. Because he was giving a list about a ski place. And then her expression, I mean, yeah the way she was talking, she was surprised and excited about the same time." There is much evidence of monitoring by Nina the second time through the text. On the other hand, Rose added very little to her understanding of the text during the second listen. She did not request to have the tape stopped and just added her understanding about the sister: "and then she asked, she asked him, 'Can my sister Emily go with him.' And he's like, 'Yeah sure.'" Her understanding remains very rudimentary. She understands that a man is calling a girl about a ski weekend and the girl's sister is involved; however, her understanding of the relationship between the characters is not clear.

In sum, quantitative and qualitative analyses point to some interesting convergent data concerning the differences between more skilled and less skilled listeners at this level (about Novice II level of the ACTFL scale). First of all, the less skilled listener, as seen in the case of Rose, appears to engage in translation, as evidenced in frequent translation of either the opening or the closing parts of a listening segment. This bottom-up approach, however, results in only superficial engagement with the text and little construction of meaning, because she rarely attempts to (or cannot) tie comprehension of one segment to another. It appears to be a more passive approach to the task. Because she rarely acts upon the input by activating top-down processes, a strong conceptual framework never develops, and her understanding remains incomplete. An interactive approach of applying both top-down and bottom-up processes is demonstrated by a

more skilled listener such as Nina. This more dynamic approach to the task allows her to question for elaboration and to monitor the input, as well as to deploy more forward-looking, prediction, and planning strategies, such as selective attention, problem identification, and self-management. A dynamic interactive approach of top-down and bottom-up processing ostensibly allows the more skilled listener to allocate more attentional resources to deploying more metacognitive strategies.

Discussion

While listening to texts in French, the L2 learners in this study appear to use an extensive variety of listening strategies, and there are some distinct differences between the more skilled and less skilled listeners. I will examine more closely the differences in listening ability in light of comprehension theory (e.g., Kintsch, 1998) and delineate a tentative model of the less skilled and the more skilled listener.

The listening strategies used by these adolescent (junior high school level) learners are similar to those reported by other learners of different ages, levels of language proficiency, and language backgrounds. Although the strategies used appear to be task dependent (e.g., little evidence of socioaffective strategy use during think-alouds), those reported here represent the gamut of strategies reported in previous think-aloud studies (Chamot & Küpper, 1989; O'Malley et al., 1989; O'Malley et al., 1985; Peters, 1999; Vandergrift, 1997). The only notable difference is the absence of evaluation strategies in the present study. This may be due to the language level of these students, because only the more advanced learners in the Vandergrift study reported these strategies (although their use of them was minimal). Finally, the taxonomy of listening comprehension strategies, adapted by Vandergrift (1997) for listening from O'Malley and Chamot (1990), was useful for identifying the strategic behaviors evident in the protocols, further validating this taxonomy.

More interesting, however, are the significant differences between more skilled and less skilled listeners that emerged in both the quantitative and qualitative analyses of the protocols. The fact that more skilled listeners used more metacognitive strategies, primarily comprehension monitoring, is also supported by the studies cited above. This provides further evidence for a model of a more skilled listener who is in control of the listening process, actively engaged in planning for the task and monitoring incoming input for congruence with expectations to construct a mental representation of the text in memory, that is, to comprehend. In fact, the significantly different strategies employed by more skilled listeners (less translation, more use of metacognitive strategies, more questioning elaboration, and more monitoring) all work together to generate a cycle of strategy deployment that promotes a greater depth of interaction with the text and results in more successful comprehension. Murphy (1985) described this cycle of strategy use by the more skilled listener as "[strategies] coupling together like the links in a fence or the molecular units that bond together to form the double helix of a molecule of DNA" (p. 38). Swaffar and Bacon (1993) and N. J. Anderson (2002) have described this same phenomenon as orchestrated strategy use. In fact, the orchestra may indeed offer an apt metaphor for illustrating the interaction between metacognitive and cognitive strategies. The metacognitive strategies oversee the process, directing the deployment of appropriate cognitive strategies (as the orchestra conductor directs the players in creating a harmonious performance) to interact with the input and achieve the final goal of comprehension.

The results of this study lead to the following tentative model of the less skilled listener. The finding that less skilled listeners appear to translate is indicative of a bottom-up approach to listening. This has important implications for what these listeners will or will not be able to do in their comprehension efforts. When they translate on-line, less skilled listeners are incapable of keeping up with the incoming input, and they

experience greater difficulty holding meaning in memory, a problem also noted by Goh (2000) and Eastman (1991). Their interaction with the text remains superficial, because translation, which involves only surface mapping between languages, generally fails to activate conceptual processes (Swaffar, 1988). A compulsion to translate does not allow the less skilled listener to free the necessary attentional resources for deliberating potential conceptual frameworks against which to interpret new input (questioning elaboration) and for maintaining in memory a sufficiently developed conceptual framework against which to monitor new incoming input. An inability to develop a solid mental representation of the text in memory precludes the suppression of irrelevant information, resulting in rapid fading of recently comprehended information (Gernsbacher, Varner, & Faust, 1990).

Furthermore, although less skilled and more skilled listeners appear to use inferencing and world elaboration strategies at about the same rates, the nature of the elaborations and inferences they make appears to be qualitatively different. Because less skilled listeners appear to engage in less comprehension monitoring, their elaborations and inferences are not generated at a deep level, that is, at discourse level, within the context of a solid conceptual framework. Kintsch (1998) notes that the conceptual framework is both an "inference machine" for filling gaps in meaning and a perceptual filter for suppressing irrelevant information. Therefore, if the conceptual framework is not well enough developed to suppress irrelevant information, elaborations and inferences will remain superficial and never attain the depth necessary for forming a robust, coherent mental representation of the text. All of the above, in addition to the failure by the less skilled listener to provide direction to the listening process (through monitoring and planning strategies), together result in sparse and disjointed summarization, as noted in the protocols presented earlier.

On the other hand, the model of the more skilled listener points to a more dynamic listener who is both purposeful and flexible in approach to the task. In contrast to the seemingly

passive approach of the less skilled listener, the more skilled listener appears to be more purposeful in approach, a characteristic also noted by O'Malley et al. (1989). This approach is further characterized by a systematic yet flexible use of both top-down and bottom-up processes in interacting with the input. The flexible approach is further evident in the careful deliberation of potential frameworks before a decision is made (questioning elaboration). A systematic approach is evident in a pattern of allocating more attentional resources to the development of a framework (instead of translation), inferencing on what is not understood, and monitoring new input in light of potential frameworks before deciding on a framework that is congruent with previous input and expectations. Precious attentional resources are not squandered on inefficient on-line translation. Meaning is constructed in a continuous metacognitive cycle in which new material interacts with listener inferences and is monitored against world knowledge and expectations generated by the conceptual framework and the developing mental representation of the text in memory. Such a systematic cycle of elaborating, inferencing, predicting, and monitoring based on global comprehension, world knowledge, and "internal measures of plausibility" was also noted by Mareschal (2002). This deeper-level processing cycle used by the more skilled listener results in richer, more coherent, and more complete summarizations than those produced by the less skilled listener.

The nature and role of the strategy of questioning elaboration merits further exploration. This strategy, also described by O'Malley et al. (1989) as effective self-questioning, is defined as the "use of a combination of questions and world knowledge to brainstorm logical possibilities" (Vandergrift, 1997, p. 394). This strategy was coded whenever a listener indicated the possibility of more than one conceptual framework for interpretation, with a choice among the potential frameworks to be determined after further confirming input. The behavior underlying this strategy, which is used significantly more often by more skilled listeners in this study as well as the more skilled listeners in other studies

(O'Malley et al., 1989; Ross, 1997), demonstrates a flexibility essential to success in comprehension. This behavior is also noted by Kintsch (1998, p. 94), who describes human comprehension as a process that is flexible and context-sensitive, relatively chaotic in its early stages, that cannot be forced into a "procrustean" schema before a coherent mental representation of the text develops in memory. Furthermore, the flexibility inherent in this strategy is consistent with the conception of comprehension as a problem-solving process in which the listener arrives at comprehension through a combination of "conventional procedures involving language use and . . . problem solving procedures involving logic and real-world knowledge" (Rost, 2002, p. 64) When listeners engage in questioning elaboration, they entertain different possibilities and look for information, based on world knowledge and inferencing, that will confirm one of many possibilities.

The processes underlying this questioning elaboration involve more than just cognitive strategies (mental activities for manipulating the language to accomplish a task). Inherent in problem solving and questioning elaboration are other behaviors that are more metacognitive in nature, that is, mental activities for directing language learning, such as planning, monitoring and evaluating. When listeners question for elaboration, they plan for resolution by considering possibilities (metacognitive strategies of problem identification, self-management and/or selective attention) and then verify their anticipations (metacognitive strategy of monitoring). In short, the strategy of questioning elaboration is inextricably linked with the use of metacognitive strategies, even though there may not be always be direct evidence of these strategies in the think-aloud reports.

We have seen that L2 listening competence is a complex skill in which the astute use of metacognitive strategies appears to enhance success. How can less skilled listeners acquire these strategies? Students need to be taught how to listen, to reflect on the process of listening and consciously focus on using the

metacognitive strategies of planning, monitoring, and evaluation. Listening competence can be consciously developed with practice. When listeners know how to (a) analyze the requirements of a listening task; (b) activate the appropriate listening processes required; (c) make appropriate predictions; (d) monitor their comprehension; and (e) evaluate the success of their approach, they are using metacognitive knowledge for successful listening comprehension. This is critical to the development of self-regulated learning (Wenden, 1998) but unfortunately is not actually incorporated into most textbook listening activities (Mendelsohn, 1998). Guiding students through the process of listening not only provides them with the knowledge through which they can become more skilled listeners; it also motivates them and puts them in control of their learning (Vandergrift, 2002). By following the pedagogic cycle outlined below, teachers can help language learners develop an awareness of the process of (one-way) listening and help these students acquire the metacognitive knowledge about strategic processing critical to success in listening comprehension: planning, monitoring, and evaluating.

First, students need to plan for the successful completion of a listening task. During this critical phase of the listening process, teachers prepare students for what they will hear and what they are expected to do. They must help students bring to consciousness knowledge of the topic, knowledge of the type of text, and any relevant cultural information. Teachers will provide a purpose for listening so that students know the specific information they need to listen for and/or the degree of detail required. Using all the available information, students can then make predictions to anticipate what they might hear.

Second, students need to monitor their comprehension as they listen. They need to continually evaluate what they are comprehending and check for consistency with their predictions and for internal consistency with the ongoing interpretation of the oral text or interaction. If the teacher provides a number of different opportunities to listen to the texts, groups of students

can compare notes between each listening to develop and/or verify alternate hypotheses or verify selected details. Although teachers can prepare students for attentive monitoring, teacher intervention during this phase is virtually impossible.

Third, students need to evaluate the approach used, the decisions made, and the outcomes of a listening task. Teachers can encourage this self-evaluation and reflection by asking students to assess the effectiveness of strategies used. This can be done orally through group or class discussions or in writing through the use of performance checklists or journals (see Field, 1998; Goh, 2002; Vandergrift, 1999). (For an example of this pedagogic cycle applied to a real teaching situation, see Vandergrift, 2003.)

This study has attempted to identify the types of listening strategies used by adolescent learners of French while engaged in listening to authentic texts and to examine the differences between more skilled and less skilled listeners. A number of statistically significant differences were presented. Furthermore, a qualitative analysis of representative think-aloud protocols was able to reinforce these quantitative differences and, in addition, to highlight how the more skilled listener is able to systematically orchestrate a cycle of cognitive and metacognitive strategies to arrive at a coherent mental representation of the text in memory. Finally, this analysis has helped both to flesh out the concept of the more skilled listener and, at the same time, to examine listeners' on-line procedures for monitoring and remedying gaps in comprehension.

The results of this study are limited by the proficiency level of the language learners examined. It is important that differences between more skilled and less skilled listeners be further studied, particularly with older learners, learners at more advanced levels of proficiency, and learners of other languages, especially languages that are not cognate to their L1s. Furthermore, future research needs to investigate further how less skilled listeners can acquire the metacognitive knowledge that will help them to experience greater success in listening

comprehension. Finally, it should be noted that the participants in this study were engaged in one-way, nonparticipatory, decontextualized, transactional listening, meaning that the results of this study do not necessarily apply to listening contexts that are more participatory and interactional in nature.

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Notes

[1]Core French programs, in contrast to French immersion programs, provide instruction in French as a subject for about 200 min per week.
[2]Authentic, in the context of this study, refers to oral texts that "reflect a naturalness of form, and an appropriateness of cultural and situational context that would be found in the language as used by native speakers" (Rogers & Medley, 1988, p. 468).

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Appendix: Metacognitive and Cognitive Listening Comprehension Strategies

Metacognitive strategies

1 Planning	Developing an awareness of what needs to be done to accomplish a listening task, developing an appropriate action plan and/or appropriate contingency plans to overcome difficulties that may interfere with successful completion of the task.
1a Advance organization	Clarifying the objectives of an anticipated listening task and/or proposing strategies for handling it.
1b Directed attention	Deciding in advance to *attend in general* to the listening task and to ignore irrelevant distracters; maintaining attention while listening.
1c Selective attention	Deciding to *attend to specific aspects* of language input or situational details that assist in understanding and/or task completion.
1d Self-management	Understanding the conditions that help one successfully accomplish listening tasks and arranging for the presence of those conditions.
2 Monitoring	Checking, verifying, or correcting one's comprehension or performance in the course of a listening task
2a Comprehension monitoring	Checking, verifying, or correcting one's understanding at the local level.
2b Double-check monitoring	Checking, verifying, or correcting one's understanding across the task or during the second time through the oral text.
3 Evaluation	Checking the outcomes of one's listening comprehension against an internal measure of completeness and accuracy.
4 Problem identification	Explicitly identifying the central point needing resolution in a task or identifying an aspect of the task that hinders its successful completion.

Cognitive strategies

1 Inferencing	Using information within the text or conversational context to guess the meanings of unfamiliar language items associated with a listening task, or to fill in missing information.
1a Linguistic inferencing	Using known words in an utterance to guess the meaning of unknown words.
1b Voice inferencing	Using tone of voice and/or paralinguistics to guess the meaning of unknown words in an utterance.
1c Extralinguistic inferencing	Using background sounds and relationships between speakers in an oral text, material in the response sheet, or concrete situational referents to guess the meaning of unknown words.
1d Between-parts inferencing	Using information beyond the local sentential level to guess at meaning.
2 Elaboration	Using prior knowledge from outside the text or conversational context and relating it to knowledge gained from the text or conversation in order to fill in missing information.
2a Personal elaboration	Referring to prior experience personally.
2b World elaboration	Using knowledge gained from experience in the world.
2c Academic elaboration	Using knowledge gained in academic situations.
2d Questioning elaboration	Using a combination of questions and world knowledge to brainstorm logical possibilities.
2e Creative elaboration	Making up a storyline or adopting a clever perspective.
3 Imagery	Using mental or actual pictures or visuals to represent information.
4 Summarization	Making a mental or written summary of language and information presented in a listening task.

5 Translation	Rendering ideas from one language in another in a relatively verbatim manner.
6 Transfer	Using knowledge of one language (e.g., cognates) to facilitate listening in another.
7 Repetition	Repeating a chunk of language (a word or phrase) in the course of performing a listening task.

Source: Vandergrift (1997).