99–77 Wilson, Jean (Falkirk Coll. of Further and Higher Ed., UK). The fishing rod or the fish: the dual-mode approach to language learning. *Language Issues* (Birmingham, UK), **10**, 1 (1998), 14–18.

A key aim of ESOL provision (the teaching of English to Speakers of Other Languages) is to enable the learner to participate in society. As a consequence, ESOL practitioners frequently determine the content of ESOL classes by analysing the situations in which the students need to use English–a 'situational needs' approach to content which is reflected in ESOL materials. This article suggests that ESOL learners are under pressure to acquire 'take-away' language skills for immediate communicative effectiveness; and that there is a consequent danger that communicative gain may be achieved at the expense of the longer-term development of the language system. Recent views on language acquisition imply that more attention should be paid to grammar when teaching languages. This article examines the relevance of these claims for the learning of English as an Additional Language. Classroom activities are outlined which aim to develop rule-based learning whilst retaining a focus on the ESOL student's communicative needs.

99–78 Wu, Kamyin (U. of Hong Kong) **and Sengupta, Sima**. Hong Kong ESL teachers' questions about English grammar. *Language and Education* (Clevedon, UK), **12**, 2 (1998), 137–52.

This paper reports an exploratory study of questions about English grammar sent in by a group of Hong Kong ESL (English as a Second Language) teachers to a teacher support computer network, *TéléNex*. The study examines the questions Hong Kong ESL teachers ask about the English language. Arising from the questions posed, the paper then delineates the kinds of language support that ESL teachers may need. The grammar questions sent in to the network were analysed in terms of the frequency of the content words used, linguistic categories, and teacher knowledge. The principal findings are that the teachers' grammar-related questions typically arose out of their everyday pedagogical needs, which seem to be shaped by their implicit models of grammar as a set of rules for 'correct' language use. Such information on 'correct' use does not seem to be easily available from major reference books. These findings are seen as confirming the value of a computer network where teachers can obtain continuous informational support and participate in collaborative discussions, which can develop an awareness of grammar as a meaning-making tool.

Language learning

99–79 Antón, Marta and DiCamilla, Frederick (Indiana U. - Purdue U., USA). Socio-cognitive functions of L1 collaborative interaction in the L2 classroom. *The Canadian Modern Language Review / La Revue canadienne des langues vivantes* (Toronto, Ont.), **54**, 3 (1998), 314–42.

This paper examines the social and cognitive functions of first language (L1) use in the collaborative speech of second language (L2) learners engaged in a writing task in the L2 classroom. Participants in the study were five dyads of adult students, all native speakers of English, who were enrolled in a six-week intensive Spanish course at beginner level. Viewed as a psychological tool that mediates human mental activity on the external (interpsychological) and the internal (intrapsychological) planes, L1 use is found to serve a critical function in students' attempts to mutually define various elements of their task, that is, to establish and maintain intersubjectivity (Rommetveit, 1985). Also, L1 is shown to be an indispensable device for students in providing each other with scaffolded help (Wood, Bruner & Ross, 1976). Finally, this study claims to provide evidence of the use of L1 for the purpose of externalising one's inner speech (Vygotsky, 1986) throughout the task as a means of regulating one's own mental activity. The analysis of student interaction presented here not only highlights these critical functions of L1 in the second language learning process, but attempts to show how various communicative moves and linguistic forms achieve these functions.

99–80 Appel, René (U. of Amsterdam). Linguistic minority children's knowledge of multiple word meanings: polysemy and the testing of lexical skills. *ITL Review of Applied Linguistics* (Louvain, Belgium), **119-120** (1998), 79–89.

It is often observed that minority children's lexical proficiency in the majority language lags behind that of majority children. This observation is substantiated by scores on vocabulary tests. However, in these (traditional) tests words are generally treated as having one meaning, while most words are polysemous, i.e., they have multiple meanings. A new test was designed to measure the knowledge of multiple word meanings of minority and majority children. Participants were 98 primary school children in grades 7 and 8, divided into four sub-groups in respect of their nationality/ethnic background, i.e., Dutch, Moroccan, Turkish, and other minority groups. Results pointed to a rather high correlation between the scores on a traditional vocabulary test and the newly developed test for the minority children. Furthermore, the minority children scored lower on the new test than the majority children, which suggests that they not only have a lexical deficit in their second language in respect of the number of words known, but also in respect of the number of meanings attached to each word.

99–81 Archibald, John (U. of Calgary, Canada). Second language phonology, phonetics, and typology. *Studies in Second Language Acquisition* (New York), **20**, 2 (1998), 189–211.

This paper addresses a number of issues that have to do with the nature of the mental representation of an

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interlanguage grammar. The major focus is on the need to posit some sort of hierarchical constituent structure to account for what second language learners do in their phonology. Relevant data from the domains of the acquisition of segments, syllables, moras, and metrical structure are discussed; so too is the interaction of these domains. In addition, the author looks at the acquisition of onset clusters, and argues that the acquisition of liquids is correlated with the acquisition of consonantal sequences. Evidence from language change, language typology, and language acquisition suggests that there is a causal relationship between the two. The author proposes that the theoretical framework of feature geometry and derived sonority provides the apparatus to explain what the second language learners are doing.

99–82 Bannink, Anne (Universiteit van Amsterdam). De participatiestructuur van spreekvaardigheidslessen: een verkenning van een complexe discourse situatie. [Participant roles in advanced fluency groups: an exploration of discourse complexity.] *Toegepaste Taalwetenschap in Artikelen* (Amsterdam), **58** (1998), 229–40.

In second language acquisition methodology it is recommended that students engage in conversation in fluency classes. The assumption underlying these recommendations is that conversational roles and tasks can be brought into and practised inside the classroom. This article is a report on research in progress and uses a discourse framework to demonstrate that the complexity of these settings has been underanalysed (Polanyi & Scha, 1988). What exactly are the consequences of the fact that these conversations are not, of course, 'ordinary', 'authentic' conversations, but pseudo-conversations acted out in institutional settings? If only because they occupy a position between 'instructions' and 'reporting back to the class', they construct a different type of unit. Constraints of the real-world social situation are not invalidated by embedding them into a pseudo-informal 'conversational' domain: speaking and hearing roles just become increasingly complex both for the students and for the teacher (Goffman, 'Footing', 1979). The data consist of freshmen fluency classes at Amsterdam University in various types of tasks and with varying group sizes.

99–83 Bardovi-Harlig, Kathleen (Indiana U., USA) **and Dörnyei, Zoltán**. Do language learners recognise pragmatic violations? Pragmatic versus grammatical awareness in instructed L2 learning. *TESOL Quarterly* (Alexandria, VA), **32**, 2 (1998), 233–62.

Second language (L2) learners often develop grammatical competence in the absence of concomitant pragmatic competence. In an attempt to better understand how this developmental stage arises, the study reported here explores the extent to which instructed L2 learners of English are aware of differences in learners' and target-language production both in grammar, which addresses the accuracy of utterances, and in pragmatics, which addresses the appropriateness of utterances given specific situations, speakers, and content. A videotape with 20 scenarios was used to test 543 learners and their teachers ($N = 53$) in two countries (Hungary and the United States), as well as a secondary sample of 112 English as a Foreign Language (EFL) speakers in Italy. The results show that, whereas EFL learners and their teachers consistently identified and ranked grammatical errors as more serious than pragmatic errors, ESL (English as a Second Language) learners and their teachers showed the opposite pattern, ranking pragmatic errors as more serious than grammatical errors. The article concludes with a discussion of the possible causes of this pattern and its implications for teaching.

99–84 Bartlett, Catherine and Johnson, Christine (LTS Training and Consulting, Bath, UK). Is Business English a pidgin? *Language and Intercultural Training* (Bath, UK), **16**, 1 (1998), 4–6

While training international business people in English, the authors noticed that there were many types of frequent 'errors' that did not seem to be the result of interference from the first language. As these errors were so prevalent and persistent across a wide variety of non-native speakers, they began to question the nature of these 'errors'. They compiled a record of these patterns, gathering data–via role-plays, simulations, job-related presentations–from speakers of a wide range of mother tongues, including French, German, Swiss German, Swedish, Norwegian, Finnish, Polish, Czech, Brazilian Portuguese, Portuguese, Japanese and Korean. The authors at the same time undertook some research into pidgin and creole languages. The results of the error analysis led them to conclude that the 'errors' may, in fact, be simplifications that follow patterns of linguistic universals, and that non-native speaker interaction may be producing a new variant of English. The authors plan to extend their research by building up a corpus of non-native speaker usage in business situations. The article concludes with a discussion of the implications for those learning, teaching and using Business English.

99–85 Beaudoin, Martin (Alberta U., Canada). Découpage syllabique en français comme langue seconde. [Syllable division in French as a second language.] *The Canadian Modern Language Review / La Revue canadienne des langues vivantes* (Toronto, Ont.), **54**, 3 (1998), 354–75.

The research reported here is concerned with the syllable structure of Canadian French as perceived by native speakers and by second language (L2) learners. The study, in which 48 adults participated, was based on a forced-choice lexical division. Results indicate that, although second language learners acquire L2 syllable structures, their perception of syllable division is influenced by the structures of the first language. Furthermore, the division perceived by L2 learners approaches native-like performance as the learners' gen-

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eral competence in French improves. The paper concludes with a discussion of the pedagogical implications.

99–86 Belmechri, Faïza and Hummel, Kirsten (Laval U., Canada). Orientations and motivation in the acquisition of English as a Second Language among high school students in Quebec City. *Language Learning* (Malden, MA), **48**, 2 (1998), 219–44.

The study reported here investigated the emergence of orientations and their relation to motivation in a predominantly monolingual context. In this context (Quebec City), a previous study (Kruidenier & Clément, 1986) revealed that students' orientations towards learning English as a Second Language (ESL) were friendship, travel, prestige and knowledge/respect. The present study's participants consisted of 93 francophone Grade 11 high school students learning ESL. The researchers used an adapted form of Kruidenier and Clément's Likert-type scale questionnaire; they ran factor analyses and a multiple regression analysis on the resulting data. Results indicated that students' orientations were travel, understanding/school (instrumental), friendship, understanding, and career (instrumental); they also demonstrated that orientations were predictors of their motivation. However, the absence of an integrative orientation here is not seen as justifying its exclusion in the assessment of motivation, because it could emerge in other contexts.

99–87 Broselow, Ellen (State U. of New York, Stony Brook), **Chen, Su-I and Wang, Chilin**. The emergence of the unmarked in second language phonology. *Studies in Second Language Acquisition* (New York), **20**, 2 (1998), 261–80.

Much research in second language acquisition has uncovered patterns that appear to be independent of both the native-language grammar and the target-language grammar. Such patterns frequently reveal a preference for less marked structures. Simplification in the direction of less marked structures is generally described as an effect of universal principles of markedness; what has been missing from many analyses, however, is an explicit account of what role these principles play in the grammars of language learners. It is argued in this paper that the framework of Optimality Theory, which describes a grammar as a set of universal, ranked constraints, provides a potential solution. The paper discusses the simplifications of forms ending in obstruents–i.e., stop and fricative consonants–by native speakers of Mandarin, in particular two effects that are not obviously motivated by either the native-language or the target-language grammars: a tendency to devoice final voiced obstruents and a tendency to maximise the number of bisyllabic forms in the output. It is claimed that these patterns are accounted for within Optimality Theory. It is argued that the devoicing and bisyllabicity effects result from universal markedness constraints which are present in all grammars, but which are masked in the learner's native-language grammar by the effects of higher-ranking constraints.

99–88 Brown, Cynthia A. (Hokkaido U., Japan). The role of the L1 grammar in the L2 acquisition of segmental structure. *Second Language Research* (London), **14**, 2 (1998), 136–93.

Acquisition of segmental structure in first language (L1) acquisition is accomplished through the interaction of Universal Grammar (UG) and the learner's detection of phonemic contrasts in the input. This article investigates the acquisition of the English /l-r/, /b-v/ and /f-v/ contrasts by second language (L2) learners whose L1s do not contrast these segments. Based on L1 phonological acquisition and infant speech perception research, a model of phonological interference is developed which explains how the influence of the L1 phonology originates and identifies the level of phonological knowledge that impinges upon L2 acquisition. It is proposed that, if learners' L1 grammar lacks the phonological feature that differentiates a particular non-native contrast, they will be unable to perceive the contrast and therefore unable to acquire the novel segmental representations. In order to evaluate this hypothesis, two experimental studies were conducted. Experiment 1 investigates the acquisition of /l/ and /r/ by Chinese and Japanese speakers; experiment 2 compares the acquisition of the /l-r/, /b-v/ and /f-v/ contrasts by Japanese speakers. Participants were 30 adults–10 Japanese speakers, 10 Chinese speakers, and 10 monolingual speakers of American English who served as controls. The results from an AX discrimination task and a picture selection task indicate that successful acquisition of a non-native contrast is constrained by the learner's L1 grammar. Differences between Chinese and Japanese speakers (experiment 1) and differences in the acquisition of several different contrasts among Japanese speakers (experiment 2) are argued to reflect subtle phonological properties of the learners' respective L1s. These findings are taken to demonstrate that a speaker's L1 grammar may actually *impede* the operation of UG, preventing the L2 learner from acquiring a non-native phonemic contrast.

99–89 Carlisle, Robert S. (California State U., Bakersfield, USA). The acquisition of onsets in a markedness relationship. *Studies in Second Language Acquisition* (New York), **20**, 2 (1998), 245–60.

This article reports the findings of a longitudinal study in interlanguage phonology examining the production of two structures in a markedness relationship, biliteral and triliteral onsets, the latter being more marked than the former. The study specifically tests the Interlanguage Structure Conformity Hypothesis (ISCH)–one hypothesis that has been proposed to examine the influence of typological universals on the acquisition of structures in the second language, and which states that the universal generalisations that hold for the primary languages hold also for interlanguages. The present study tested the ISCH by measuring the acquisition of onsets in the markedness relationship against a criterion measure of 80% correct production;

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unlike previous research, however, this study examines acquisition over time. Participants were 10 native Spanish speakers enrolled in intermediate courses in a community college; data were gathered twice over a period of 10 months. Results of the study fail to provide any counter-evidence to the ISCH.

99–90 Chapelle, Carol A. (Iowa State U., USA). Multimedia CALL: lessons to be learned from research on instructed SLA. *Language Learning and Technology* (http://polyglot.cal.msu.edu/llt), **2**, 1 (1998), 22–34.

This paper suggests that some design features and evaluation criteria for multimedia computer-assisted language learning (CALL) might be developed on the basis of hypotheses about ideal conditions for second language acquisition (SLA). The author outlines a relevant theory of SLA–the 'interactionist' perspective–and enumerates the hypotheses it implies for ideal conditions such as input saliency, opportunities for interaction, and learner focus on communication. Implications of each hypothesis for multimedia CALL design and evaluation are outlined and exemplified in some detail.

99–91 Cook, V. J. (U. of Essex, UK). L2 users and English spelling. *Journal of Multilingual and Multicultural Development* (Clevedon, UK), **18**, 6 (1997), 474–88.

Effective spelling is considered important for users of a second language (L2), yet the amount of attention given to it in research is minimal. The intention of this paper is to remedy this lack by comparing the spelling of adult L2 users of English with that of native first language (L1) users, both children and adults. Data used came from the 1993 NFER (National Foundation for Educational Research, UK) survey of L1 children, from the 1980 Wing and Baddeley corpus, from a UK university EFL (English as a Foreign Language) test for overseas students and from work by overseas students in England. An overall comparison showed similar error rates in L1 children and L2 adults and a similar distribution of errors both for L1 adults and children and for L2 users across the familiar categories of letter insertion, omission, substitution and transposition, apart from a lower proportion of omission errors for L2 users. More detailed comparisons found that, while some errors were particular to certain groups, such as <l>, <r> and epenthetic <e> for Japanese, others were common with all users, such as consonant doubling, vowels representing schwa and digraph reversals <hg>. Many of the errors reflect problems with sound/letter correspondences, some with individual words such as *because*. Yet overall L2 users can perform at a level equivalent to a 15-year-old child, unlike most other areas of language.

99–92 Davies, William D. and Kaplan, Tamar I. (U. of Iowa, USA). Native speaker vs. L2 learner grammaticality judgements. *Applied Linguistics* (Oxford, UK), **19**, 2 (1998), 183–203.

Many second language acquisition (SLA) syntax studies have used non-native speaker (NNS) grammaticality judgements; but what underlies such judgements has recently come under increasing scrutiny. Some researchers using speak-aloud protocols and oral group work have presented evidence which indicates that NNSs use very different strategies in making decisions about the grammaticality of particular sentences than do native speakers (NSs) of the same language. NNSs' use of strategies such as guessing, operationalising learned rules, translation and analogy calls into question whether or not their grammaticality judgements are a reliable indicator of their operational grammar. Till now, however, oral protocol data have not been available for NS grammaticality judgements. This paper reports on an experiment which compared group oral protocols of 37 native English-speaking participants enrolled in a fourth semester college French course making grammaticality judgements in English and in French. Results indicate that they do not necessarily use the same strategies in rendering judgements in their first and second language (L2), thereby casting doubt on theoretical claims based on data elicited through L2 grammaticality judgements.

99–93 de Glopper, Kees (Universiteit van Amsterdam) **and Janssen-van Dieten, Anne-Mieke**. Modellen en metingen van taalvaardigheid. [Models and measurement of language ability.] *Toegepaste Taalwetenschap in Artikelen* (Amsterdam), **58** (1998), 169–78.

This article contains a concise discussion of models and measurement of language ability. A general definition of the concept of language ability is given, then psycholinguistic models of oral and written language production and comprehension are discussed. The nature and extent of individual differences in language ability are illustrated by means of a discussion of first language reading. Models of language ability are reviewed and areas in need of further research are identified. In conclusion, some tentative answers to pertinent questions on components, development and transfer of language ability are presented.

99–94 de Hondt, Heleen, Nienhuis, Lydius (Universiteit Utrecht, Netherlands) **and Weistra, Marjorie**. Woordenboekgebruik en tekstbegrip. [Dictionary use and text comprehension.] *Toegepaste Taalwetenschap in Artikelen* (Amsterdam), **58** (1998), 155–62.

This article describes an empirical study on the effect of dictionary use on scores of reading comprehension tests for advanced levels of French, as well as the effect on certain aspects of learner behaviour. (Readers are also directed to a more detailed description given elsewhere by one of the authors (Weistra, 1997).) In this

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research project, groups of students from the upper grades of secondary schools took parts of the final examination tests for reading comprehension (*CITO toetsen*) either with or without the use of a bilingual dictionary. Test scores and time on task under the two conditions were compared. Data were collected on the ability to select the correct meaning of the words which were looked up. The results are reported here.

99–95 Dowd, Annette, Smith, John and Wolfe, Joe (The U. of New South Wales, Australia). Learning to pronounce vowel sounds in a foreign language using acoustic measurements of the vocal tract in real time. *Language and Speech* (Twickenham, UK), **41**, 1 (1998), 1–20.

It is widely observed–and regretted–that adults who learn foreign languages rarely acquire an authentic pronunciation. This article reports the results of attempts by monolingual anglophones to imitate six non-nasalised vowels of French. One group used a traditional method of learning pronunciation: they heard the vowel sounds and then attempted to imitate them. Another group also heard the sounds, but were assisted by vocal tract feedback when imitating the target sounds. This feedback is described in detail in the article. An acoustic impedance spectrometer was used to measure the frequencies R1 and R2 of the first two resonances of the vocal tract. The measurement was made just outside the mouth, in parallel with the free field, using a new technique that provides precise information about the acoustic response of the vocal tract in real time. Values measured for native speakers for a particular vowel were used as target parameters for participants who used a visual display of an impedance spectrum of their own vocal tracts as real-time feedback to realise the vocal tract configuration required to pronounce the target vowel. The article reports the values (R1, R2) for eleven non-nasalised vowels of French, six of which were used in the experiment described above. It was found that the acoustic properties and recognisability of the vowels were significantly superior when the participants used vocal tract feedback.

99–96 Duquette, Lise (U. of Ottawa, Canada), **Renié, Delphine and Laurier, Michel**. The evaluation of vocabulary acquisition when learning French as a second language in a multimedia environment. *Computer Assisted Language Learning* (Lisse, The Netherlands), **11**, 1 (1998), 3–34.

This article describes a small-sample quantitative study (n = 78) which examined vocabulary acquisition by learners of French as a second language in different learning environments. The study was designed to investigate whether the contexts provided by a multimedia environment promote vocabulary acquisition; what are the characteristics of the words learned; whether learners with more extensive vocabularies have superior general comprehension; and whether there are observable differences in lexical improvements based on the independent variables of level and age of participants. Participants were Canadian anglophones learning French at secondary school, college, university and in the workplace. Vocabulary gains made by the experimental group in a multimedia context were assessed against gains made by two control groups, one of which used video support. While variances between groups were not statistically significant, differences within groups led to a tentative interpretation of findings based on four variables: learning context, second language level, and frequency of word use and of word form.

99–97 Espínola Vázquez, Juan Manuel and van Esch, Kees (U. of Nijmegen, Netherlands). Leerstrategieën bij volwassen leerders van het Spaans. [Learning strategies of adult learners of Spanish.] *Levende Talen* (Amsterdam), **531** (1998), 322–26.

Several investigations have shown that the preference for particular learning strategies is related to learner characteristics. By means of questionnaires, the authors investigated the strategy usage patterns of 48 Dutch adult learners of Spanish with respect to different aspects of language learning. The main conclusions of this exploratory investigation are the following. Firstly, adult learners are very well able to report which strategies they employ in which task or for which skill. Secondly, compared to young people, adult learners use very few so-called socio-affective strategies, such as working together. Thirdly, with the exception of age, strategy usage patterns were hardly related to learners' characteristics. Fourthly, strategy usage did turn out to be strongly related to learning tasks and language skills. The authors argue that further research is required to gain more insight into which strategies are most effective in which learning contexts, how these strategies can be taught and to what degree adequate strategy usage is promoted in current learning materials.

99–98 Everson, Michael E. (U. of Iowa, USA). Word recognition among learners of Chinese as a Foreign Language: investigating the relationship between naming and knowing. *The Modern Language Journal* (Madison, WI), **82**, 2 (1998), 194–204.

For students whose first language (L1) employs an alphabetic writing system, learning to read Chinese is especially challenging due to the non-alphabetic nature of its orthography. Because Chinese characters represent the spoken language in a largely irregular and unsystematic manner, it is important to establish the extent to which beginning Chinese language learners rely upon their developing spoken language resources when identifying Chinese word meanings. To investigate this relationship between speech and meaning, a word recognition study was conducted in which 20 university students who were beginning learners of Chinese as a Foreign Language were required to pro-

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nounce and later identify in English 46 Chinese words. The correlational analysis indicated a significant relationship between being able to pronounce and being able to identify Chinese words. Implications for theory building and pedagogical application are discussed.

99–99 Flege, James E., Frieda, Elaina M., Walley, Amanda C. and Randazza, Lauren A. (U. of Alabama, Birmingham, USA). Lexical factors and segmental accuracy in second language speech production. *Studies in Second Language Acquisition* (New York), **20**, 2 (1998), 155–87.

Much recent work in second language (L2) acquisition has focused on adults' production and perception of segment-sized units of speech (or 'sounds'). The present study aimed to determine if organisation at the lexical level exerted a significant influence on non-natives' production of stop consonants in an L2. Voice onset time (VOT) was measured in the production of /t/ in the initial position of 60 English words spoken by native English (NE) speakers and native Spanish (NS) speakers who had begun learning English before or after the age of 21 years. The participants rated the words for familiarity, age of acquisition, imageability and relatedness to word(s) in the Spanish lexicon. All three groups showed two well-known phonetic effects: they produced longer VOT values in the context of high than non-high vowels, and longer VOT in one- than in two-syllable words. As expected, the NS speakers who had learned English before the age of 21 judged the English words to be more familiar and more like a Spanish word than did those who had begun learning English later. Also, many–but not all–of the NS participants produced /t/ with shorter VOT values than did the NE participants. However, regression analyses showed that none of the lexical factors mentioned above nor the text frequency of the 60 English words examined affected the NS participants' VOT values. Thus, variation in the accuracy with which the NS speakers produce English /t/ must be accounted for by factors other than the lexical status of the words in which /t/ occurs.

99–100 Goh, Christine C. M. (Nanyang Tech. U., Singapore). How ESL learners with different listening abilities use comprehension strategies and tactics. *Language Teaching Research* (London), **2**, 2 (1998), 124–47.

This article presents findings from research into listening strategies and tactics of ESL (English as a Second Language) learners from the People's Republic of China studying on an intensive English language and academic skills programme in a university in Singapore. This research makes a distinction between strategies and tactics, the term 'strategy' referring to a general approach and 'tactic' meaning a specific action or step. The article identifies the cognitive and metacognitive strategies and tactics used by 16 ESL learners, and compares the way high- and low-ability learners applied them. Specifically, the frequency and types of strategies and tactics used are examined. To find evidence of these cognitive processes, retrospective verbal reports were analysed. The study showed that the high-ability listeners used more strategies and tactics than the low-ability ones; they were also able to vary their application of tactics within each strategy. Both groups used more cognitive strategies and tactics than metacognitive ones, but the low-ability listeners were particularly poor at it. In addition to reporting the results from the study, the article also discusses issues related to using verbal reports as data and training learners to use listening strategies.

99–101 Grenfell, Michael (Southampton U., UK) **and Harris, Vee**. Learner strategies and the advanced language learner: problems and processes. *Language Learning Journal* (Rugby, UK), **17** (1998), 23–28.

The first part of this paper discusses recent definitions of language-learning strategies and reviews the principal current debates in the field. The main part of the paper is concerned with what was revealed about the strategies employed by an advanced learner of French within the English secondary school system with a view to investigating how the student was managing her second language at one stage in her learning. Data were collected using 'think-aloud' and 'retrospective' techniques to reveal strategies in two skill areas: speaking and reading. Results are discussed based on an adapted version of the O'Malley/Chamot taxonomy. Finally, the strategies revealed are discussed and possible issues for further investigation are presented, including relating the profile of this learner to existing research.

99–102 Horst, Marlise (Concordia U., Montreal, Canada), **Cobb, Tom and Meara, Paul**. Beyond a clockwork orange: acquiring second language vocabulary through reading. *Reading in a Foreign Language* (Plymouth, UK), **11**, 2 (1998), 207–23.

The replication study reported here demonstrates that second language (L2) learners recognised the meanings of new words and built associations between them as a result of comprehension-focused extensive reading. The quasi-experimental study involved 34 university students following an intensive English programme. A carefully controlled book-length reading treatment resulted in more incidental word learning and a higher pick-up rate than previous studies with shorter tasks. The longer text also made it possible to explain incidental learning growth in terms of frequency of occurrence of words in the text. But the general frequency of a word was not found to make the word more learnable. Findings also suggested that participants with larger vocabulary sizes had greater incidental word learning gains. Implications for incidental acquisition as a strategy for vocabulary growth are discussed.

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99–103 Laufer, Batia (U. of Haifa, Israel). The development of passive and active vocabulary in a second language: same or different? *Applied Linguistics* (Oxford, UK), **19**, 2 (1998), 255–71.

This study investigates the gains in three types of English as a Foreign Language vocabulary knowledge–passive, 'controlled active' and free active–in one year of school instruction. It also examines how these aspects of lexical knowledge are related to one another and what changes occur in these relationships after one year. Gains in vocabulary were measured by comparing two groups of high school learners with six and seven years of instruction–26 16-year-olds and 22 17-year-olds, all native speakers of Hebrew. Relationships among the three areas of knowledge were investigated by comparing them within the same individuals. The results show that passive vocabulary size–as measured by Vocabulary Levels Test–progressed very well; controlled active vocabulary–as measured by the productive version of the Levels Test–progressed too, but less than the passive. Free active vocabulary–as measured by Lexical Frequency Profile–did not progress at all. Passive vocabulary size was larger than controlled active in both groups of learners, but the gap between the two types of knowledge increased in the more advanced group. Passive and controlled active size scores correlated with each other well. Free active vocabulary, on the other hand, did not correlate with the other two types. The results raise several questions about the nature of vocabulary knowledge and the effect of instruction on vocabulary growth.

99–104 Leow, Ronald P. (Georgetown U., USA). The effects of input enhancement and text length on adult L2 readers' comprehension and intake in second language acquisition. *Applied Language Learning* (Monterey, CA), **8**, 2 (1997), 151–82.

This study investigates the effects of written input enhancement and text length on adult first-year second language (L2) comprehension of text content and intake of targeted linguistic forms contained in the input. Participants were 84 college-level second-semester students of Spanish who were exposed to one of four conditions: a long, non-enhanced text; a long, enhanced text; a short, non-enhanced text; and a short, enhanced text. To measure learners' comprehension and intake, a two-way analysis of variance (ANOVA) and a repeated-measures ANOVA were performed on the raw scores obtained on a comprehension task and a multiple-choice recognition assessment task respectively. Results revealed a significant main effect for text length on readers' comprehension but not on intake, no significant main effect for input enhancement on either comprehension or intake, and no significant interaction. The findings are taken to provide empirical evidence that supports the validity and efficacy of exposing first-year L2 learners to short authentic reading materials to facilitate reading comprehension but not intake of linguistic items contained in the input. The findings also raise questions as to the relative effectiveness of external manipulation of written input to facilitate these learners' comprehension and further processing of linguistic forms in the input.

99–105 Leow, Ronald P. (Georgetown U., USA). Toward operationalising the process of attention in SLA: evidence for Tomlin and Villa's (1994) fine-grained analysis of attention. *Applied Psycholinguistics* (Cambridge, UK), **19**, 1 (1998), 133–59.

It has been proposed that some amount of attention to formal features in a second language (L2) plays a crucial role in adult learners' L2 development. Empirical studies of the effects of attention in second language acquisition (SLA) and its effects on learners' behavioural patterns in the classroom have generally supported this proposal. However, these studies have not precisely described what role attention played in their findings. The study reported here seeks to address the methodological issue of operationalising the process of attention in SLA by investigating, from a task-based approach and at a morphological level, Tomlin and Villa's (1994) fine-grained analysis of attention. Four groups of adult beginning learners of Spanish completed one of four crossword puzzles designed to isolate the effects of alertness, orientation, and detection. Repeated-measures ANOVAs (analyses of variance) performed on the raw scores obtained on the pre-test and three post-tests of a recognition and written production task revealed significant main effects for type of attentional function, time, and significant interactions. The results lend strong empirical support to Tomlin and Villa's fine-grained analysis of attention while indicating short-term effects of detection.

99–106 Levy, Mike (U. of Queensland, Australia). Two conceptions of learning and their implications for CALL at the tertiary level. *ReCALL* (U. of Hull, UK), **10**, 1 (1998), 86–94.

Though it may not be expressed explicitly, any computer-assisted language learning (CALL) design reflects a particular conception of teaching and learning. The present author suggests that a broad division may be made between learning that focuses on the individual learner and learning that emphasises social interaction; and that the first orientation is represented by the work of Piaget, whose conception of learning is individualistic, whereas Vygotsky is the prime example of a theoretician who has focused on social factors. The two perspectives imply widely differing classroom practices, research agendas and techniques. This paper sets out to detail the theoretical underpinnings of the two approaches, and to explore their implications as they relate to research and practice in CALL, with a particular focus on the tertiary level.

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99–107 Liskin-Gasparro, Judith E. (U. of Iowa, USA). Linguistic development in an immersion context: how advanced learners of Spanish perceive SLA. *The Modern Language Journal* (Madison, WI), **82**, 2 (1998), 159–75.

This study focuses on how learners perceive the experience of their linguistic development, and particularly how contextual factors in the learning environment and individual issues such as linguistic goals, self-confidence and friendship patterns interact with their perceptions of their progress and performance in Spanish. The data consist of the reports and reflections–oral and written, formal and informal–of seven advanced learners on their experience of functioning in Spanish in the context of a U.S.-based immersion programme lasting six weeks. Three major themes emerged from the participants' introspections: (a) linguistic uncertainties and crises of confidence that pervade learners' daily lives; (b) an ambiguous relationship to formal language instruction; and (c) metaphorical frameworks in which learners cast the second language acquisition (SLA) process, which highlight the conflicting beliefs that they hold about how they can manage or control that process.

99–108 Lyster, Roy (McGill U., Canada). Negotiation of form, recasts, and explicit correction in relation to error types and learner repair in immersion classrooms. *Language Learning* (Malden, MA), **48**, 2 (1998), 183–218.

This article presents a study of the relationships among error types, feedback types and immediate learner repair in four French immersion classrooms at the elementary level. The database is drawn from transcripts of audio-recordings of 13 French language arts lessons and 14 subject-matter lessons totalling 18.3 hours and including 921 error sequences. The 921 learner errors initiating each sequence were coded as grammatical, lexical or phonological, or as unsolicited uses of the first language (English); corrective feedback moves were coded as negotiation of form (i.e., elicitation, metalinguistic clues, clarification requests or repetition of error), recasts or explicit correction. Findings indicate that lexical errors favoured the negotiation of form; grammatical and phonological errors invited recasts, but with differential effects in terms of learner repair. Overall, the negotiation of form proved more effective at leading to immediate repair than did recasts or explicit correction, particularly for lexical and grammatical errors, but not for phonological errors. Phonological repairs resulted primarily from recasts.

99–109 Munro, Murray J. (Simon Fraser U., Burnaby, B.C., Canada). The effects of noise on the intelligibility of foreign-accented speech. *Studies in Second Language Acquisition* (New York), **20**, 2 (1998), 139–54.

This paper reports a study which assessed the effect of the presence of cafeteria noise on the perception of native English and Mandarin-accented speech in a sentence-verification task and a sentence-transcription (*dictée*) task. Ten advanced-level English as a Second Language (ESL) learners and a comparison group of native English speakers read a set of simple true or false statements. These were presented in quiet and noisy conditions to 24 native English listeners who assessed their truth value and wrote out the utterances they heard. The outcomes of both tasks indicated strong adverse effects of noise on the intelligibility of many of the accented utterances. In fact, of the set of items that were verified perfectly in the noise-free condition, the Mandarin-accented ones were significantly less well verified in noise than the native English ones. A large degree of interspeaker variability was also noted, particularly for the Mandarin speakers.

99–110 Munro, Murray J. (Simon Fraser U., Canada) **and Derwing, Tracey M.**. The effects of speaking rate on listener evaluations of native and foreign-accented speech. *Language Learning* (Malden, MA), **48**, 2 (1998), 159–82.

Numerous studies of the speech of second language (L2) learners have been concerned with the notion of 'accentedness', which one might define as the extent to which an L2 learner's speech is perceived to differ from native speaker norms. The study reported here tested the hypothesis that accented speech heard at a reduced rate would sound less accented and more comprehensible than speech produced at a normal rate. In two experiments, English native-speaker listeners rated a passage read by 10 high-proficiency Mandarin learners of English. In the first experiment, 20 listeners evaluated passages read slowly as more accented and less comprehensible than normal-rate passages. In the second experiment, in which a computer modified speaking rates, 20 new listeners preferred some speeded passages, but none of the slowed ones. Overall, the findings suggest that, although native listeners may prefer to hear accented speech at slower rates, a general speaking strategy of slowing down may not help second language learners.

99–111 Nienhuis, Lydius and de Hondt, Heleen (Universiteit Utrecht, Netherlands). Bimodale aanbieding en consolidatie bij woordverwerving: het effect van verklanking op retentie. [Bimodal presentation and learning of words in foreign language acquisition: effects of vocalisation on retention.] *Toegepaste Taalwetenschap in Artikelen* (Amsterdam), **58** (1998), 185–92.

This article addresses the question of whether in word learning the effects of a bimodal (reading and pronouncing) condition are superior to the effects obtained in a monomodal (written only) condition. Research in the domains of psychology, psycholinguistics and foreign language learning lends support to the hypothesis that the effects of bimodal presentation and learning of words will be superior. In the experiment

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reported here, pupils in intermediate classes from three different schools had to learn 12 French words in a bimodal condition: they were presented in a text in a listening + reading condition, and learned by reading and pronouncing. Pupils from three other (parallel) classes in the same schools only read the same text and learned the words in a writing condition. The results provide modest evidence for better retention in the bimodal condition: overall scores of the 'bimodal' classes proved superior to scores of the monomodal classes. This result, however, is almost exclusively due to only one school; in the two other schools test results did not differ significantly. This may be due to the small number of words; and subsequent research may need to increase the number in order to produce more convincing results.

99–112 Pienemann, Manfred (Australian National U.). Developmental dynamics in L1 and L2 acquisition: Processability Theory and generative entrenchment. *Bilingualism: Language and Cognition* (Cambridge, UK), **1**, 1 (1998), 1–20.

This paper has two major objectives: (a) to summarise Processability Theory, a processing-oriented approach to explaining language development; and (b) to utilise this theory in the comparison of development in first (L1) and second (L2) language acquisition. Proponents of the Fundamental Difference Hypothesis (between L1 and L2) assume that L1 development can be explained with reference to Universal Grammar, which, in their view, is inaccessible to L2 learners. Instead, they claim that a second language develops on the basis of language processing strategies. The present author sets out to show that the fundamentally different developmental paths inherent in first and second language acquisition can both be explained on the basis of the same language processing mechanics (as specified in Processability Theory). He seeks to demonstrate that the developmental differences between L1 and L2 are caused by the qualitatively different early structural hypotheses which propagate through the acquisition process. The concept of 'propagation of structural features' is viewed as 'generative entrenchment', a logical-mathematical concept, which has proved to be highly productive in examining other kinds of developmental processes.

99–113 Qi, Donald S. (Ontario Inst. for Studies in Ed., Toronto U., Canada). An inquiry into language-switching in second language composing processes. *The Canadian Modern Language Review / La Revue canadienne des langues vivantes* (Toronto, Ont.), **54**, 3 (1998), 413–35.

This paper aims to investigate the factors that influence the language-switching behaviour in the thinking processes of a bilingual person engaged in second language (L2) composing tasks, based on a review of related research studies and a report of an empirical case study. The study used a multi-task within-subject design. The participant–a bilingual adult, first language Mandarin, who had been resident in Canada for three years–was asked to carry out three sets of L2 composing tasks, which included text composition in English, written translation from Chinese into English, and maths problem-solving in English. Each set consisted of two tasks: one with a low level of knowledge demands, the other with a high level. An analysis of the think-aloud protocols reveals several factors which may affect code-switching, and suggests that levels of knowledge demands may play an important role in influencing switching between languages in second language composing processes.

99–114 Riney, Timothy J. (Internat. Christian U., Tokyo) **and Flege, James E.**. Changes over time in global foreign accent and liquid identifiability and accuracy. *Studies in Second Language Acquisition* (New York), **20**, 2 (1998), 213–43.

A common research strategy in exploring the acquisition of a second language (L2) sound system is to isolate and measure one variable at a time (typically a feature, segment, syllable type, or rule) and then relate the findings about that one variable to the overall development of a much larger and complex dynamic system. The study reported here examined both large and small variables at two times separated by a period of 42 months, primarily in order to examine changes over time in foreign accent, and with an important secondary aim of exploring the extent to which L2 theory and theories of perception and production can account for unobserved changes. The study assessed global foreign accent in sentences and the production of two English consonants, /ɹ/ and /l/, by 11 Japanese college students during their freshman and senior years (T1, T2). In Experiment 1, native English-speaking listeners rated five sentences spoken by the Japanese speakers and five native English control speakers. Experiments 2 and 3 examined 25 word onsets containing /ɹ/ and /l/. Auditory evaluations by native English-speaking listeners were used to determine: (a) to what extent the consonants produced could be identified as intended at T1 and T2; and (b) whether /ɹ/ and /l/ were produced more accurately at T2 than at T1. The results provided little support for a markedness hypothesis based on statistical frequencies and mixed support for a hypothesis based on perception studies. Some speakers made significant improvement, however, in both global foreign accent and liquid identifiability and accuracy.

99–115 Schmitt, Norbert (U. of Nottingham, UK). Tracking the incremental acquisition of second language vocabulary: a longitudinal study. *Language Learning* (Malden, MA), **48**, 2 (1998), 281–317.

Previous vocabulary research has focused on the size of lexicons and the number of words learned through various activites. To date, this type of research has generated little understanding of how individual words are acquired. To explore this issue, the present author

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tracked the acquisition of 11 words over the course of a year for three adult learners with advanced proficiency in English. Four kinds of word knowledge were measured: spelling, associations, grammatical information, and meaning. The participants had little problem with spelling, but rarely knew all of a target word's meaning senses or derivational word forms. Knowledge of the meaning senses of the target words improved about two and a half times more than it was forgotten, and some of the word knowledge types appear to be interrelated. However, the study did not show evidence of a developmental hierarchy for word knowledge types.

99–116 Segalowitz, Sidney J. (Brock U., Ontario, Canada), **Segalowitz, Norman S. and Wood, Anthony G.**. Assessing the development of automaticity in second language word recognition. *Applied Psycholinguistics* (Cambridge, UK), **19**, 1 (1998), 53–67.

This study investigated the development of automaticity in second language word recognition. An earlier study conducted by the first two authors demonstrated that a reduction in the coefficient of variation of lexical decision reaction time (CV_{RT})–the standard deviation of reaction time divided by mean reaction time (RT)–reflects a restructuring of underlying cognitive processing mechanisms in the direction of increased automaticity and not a simple speed-up of those mechanisms. In the present study, 105 English speakers studying French at university–ranging from beginner to near-fluent–performed multiple lexical decision tasks. Differences in CV_{RT} were compared cross-sectionally and longitudinally. As in the earlier study, cross-sectional analyses showed that CV_{RT} correlated positively with RT for initially fast, but not initially slow, responders. CV_{RT} also correlated positively with RT in longitudinal analyses. These results are taken to confirm that, with extended learning experience, the cognitive components underlying word recognition are restructured (automatised) and not simply speeded-up.

99–117 Shirai, Yasuhiro (Cornell U.) **and Kurono, Atsuko**. The acquisition of tense-aspect marking in Japanese as a second language. *Language Learning* (Malden, MA), **48**, 2 (1998), 245–79.

Researchers have argued that the developmental sequence of tense-aspect morphology in second language (L2) acquisition follows a universal pattern (the Aspect Hypothesis). Although such a tendency fits the acquisition of typologically similar languages (English, French and Spanish), the universal claim requires testing against non-Indo European languages. The study reported here tested the Aspect Hypothesis using L2 Japanese data. Experiment 1 showed that in oral production data three learners of L2 Japanese showed stronger association of achievement verbs and past marking (*-ta*), and of activity verbs and progressive/durative marking (*-te i-*), than native speakers. Experiment 2 showed that, in an acceptability judgement test of tense-aspect forms, 17 learners of L2 Japanese had more difficulty correctly judging the acceptability of the progressive/durative marker (*-te i-*) with achievement verbs than with activity verbs. The results extend the applicability of the Aspect Hypothesis to a non-Indo European language.

99–118 Shresta, Tej B. (Bilkent U., Turkey). Instruction and exposure: how do they contribute to second language acquisition? *Foreign Language Annals* (New York), **31**, 2 (1998), 231–40.

Adults have access to two distinct approaches to develop their second language competence: instruction and exposure (Krashen, 1982). Both approaches may contribute to second language acquisition (SLA) in their own unique ways. This article describes how they contributed to the development of oral proficiency in English as a Second Language in mutually exclusive learning situations in Nepal. The 58 participants in the study were randomly selected and came from two distinct groups: those who had learned English mainly through formal classroom instruction with grammar-based approaches; and those who had learned it mainly through informal contact with English-speaking people. English speech samples were collected through personal interview and presentations based on visual materials. These oral responses were judged holistically by five independent judges. They were also analysed by means of grammar and fluency-related errors. Data were analysed using t-tests and correlation procedures. The main finding was that both instruction and exposure contributed to SLA each in their own unique ways. The former seemed to promote accuracy and the latter fluency. For communication purposes, however, fluency seemed to be more critical than accuracy.

99–119 Truscott, John (Nat. Tsing Hua U., Taiwan). Noticing in second language acquisition: a critical review. *Second Language Research* (London), **14**, 2 (1998), 103–35.

Recent years have seen a growing concern with the role of conscious processes in second language acquisition, frequently centred on the Noticing Hypothesis: the claim that second language learners must consciously notice the grammatical forms of their input in order to acquire grammar. This article examines the hypothesis. It is first argued that the foundations of the hypothesis in cognitive psychology are weak; research in this area does not support it, or even provide a clear interpretation for it. The problem of interpreting the hypothesis is much more acute in the area of language acquisition. Partly because the hypothesis is not based on any coherent theory of language, it is very difficult to determine exactly what it means in this context, or to draw testable predictions from it. In the absence of specific predictions, research on form-focused instruction and feedback provides indirect tests, the results of

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which create additional problems for the hypothesis. It is suggested that the various problems can be eliminated or greatly reduced if the Noticing Hypothesis is reformulated as a claim that noticing is necessary for the acquisition of metalinguistic knowledge but not competence.

99–120 van Isselt, Jet van Dam (Universiteit van Amsterdam). Stemmen in de klas: structurele dimensies van sprekersrollen. [Voices in the classroom: speaker roles in lesson situations.] *Toegepaste Taalwetenschap in Artikelen* (Amsterdam), **58** (1998), 193–200.

In publications on language acquisition in formal and informal settings it is often assumed that utterances are addressed to one co-present other: the dyadic metaphor for communication which has 'conversation' as its paradigmatic format. Hymes (1972), Ochs (1983), and especially Goffman (1981)–among others–have emphasised that more complex participant *roles* are involved. This paper investigates structural features of the production of teacher and learner turns. The data derive from a first English lesson, an 'action research' project and a longitudinal school diary co-authored by two teenage girls in the Netherlands. Their insider view of what happens in (language) classes corroborates the view that descriptive models of classroom talk underanalyse the notion of what are 'the' data that need to be accounted for. A more sophisticated tool is needed. It is suggested that Polanyi and Scha's Dynamic Discourse Model (Polanyi, 1988)–with modifications–could provide such a tool.

99–121 Vanniarajan, Swathi (San José State U.). An interactive model of vocabulary acquisition. *Applied Language Learning* (Monterey, CA), **8**, 2 (1997), 183–216.

In this article, an attempt has been made to propose what the author terms 'An Interactive Model of Vocabulary Acquisition'. The model is interdisciplinary. More importantly, it goes beyond the traditional studies which equate vocabulary acquisition with learning to match the form and the meaning. Although the model attempts to account for the acquisition of knowledge as well as the mental processes involved in vocabulary acquisition, the emphasis is much more on the characterisation of mental processes than on any other aspects. An important feature of this model is that it is L1 (first language) and L2 (second language) neutral, and can account for both. One of the major claims made in this article is that acquisition of phonetic form, morphology, syntax, semantics, pragmatics, and world knowledge converge in the acquisition of vocabulary, and that the depth of knowledge one has about a word depends on one's experience with the word which determines the richness of its connections with other words. The article also contains a section on the pedagogical implications of the model.

Reading

99–122 Akamatsu, Nobuhiko (Joetsu U. of Ed., Japan). L1 and L2 reading: the orthographic effects of Japanese on reading in English. *Language, Culture and Curriculum* (Clevedon, UK), **11**, 1 (1998), 9–27.

Transfer has been an important concept in research on second language (L2) learning. L2 reading research, for example, has considered aspects of learners' first language (L1) which appear to influence their L2 reading. Using psycholinguistic perspectives, this article focuses on the influence of L1 on L2 reading, specifically addressing the orthographic effects of L1 Japanese on reading in L2 English. Background on the Japanese writing system and the systems of education in Japanese and English in Japan is followed by an overview of key research on L1 orthographic effects on L2 word recognition, which leads into a discussion of how Japanese affects reading in English. In the conclusion, practical pedagogical questions are raised, and the need for more research in this area is addressed.

99–123 Barry, Sue and Lazarte, Alejandro A. (Auburn U., USA). Evidence for mental models: how do prior knowledge, syntactic complexity, and reading topic affect inference generation in a recall task for non-native readers of Spanish? *The Modern Language Journal* (Madison, WI), **82**, 2 (1998), 176–93.

The study reported here tested how domain-related knowledge, syntactic complexity and reading topic influence inference generation in the written recalls of English-speaking participants after reading Spanish historical texts. Three types of inferences were examined: *within-text* inferences, *elaborative* inferences, and *incorrect* inferences. The total number of inferences generated indicated the richness of the mental model, and the type of inferences generated provided evidence for the nature and accuracy of the model. Two groups of students, a high-knowledge and a low-knowledge group, read three Spanish passages, each on a different topic and at a different level of syntactic complexity as defined by the number of embedded clauses per sentence. Results suggest that high-knowledge readers generate a richer and more accurate mental model than low-knowledge readers. In addition, the level of complexity and the reading topics indicate a complex pattern of influence on the generation of inferences.

99–124 Bernstein, Wolf Z. (Tel Aviv U., Israel). Die Lesegrammatik als Grundlage des Leseverstehens im Unterricht 'Deutsch als Fremdsprache'. [The use of grammar in reading as a basis for understanding in the teaching of German as a foreign language.] *Zielsprache Deutsch* (Munich, Germany), **29**, 2 (1998), 79–86.

This paper is concerned with the use of grammar in reading for increasing the level of reading comprehension in

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