



Università
Ca' Foscari
Venezia

Corso di Laurea Magistrale
in Scienze del linguaggio

Tesi di Laurea

Comprehending Comprehension:
the key role of Expectancy Grammar
in Second Language Education

Relatore

Prof. Graziano Serragiotto

Correlatore

Dott. Giuseppe Maugeri

Laureanda

Virginia Cardinale

Matricola 884029

Anno Accademico

2021/2022

Abstract

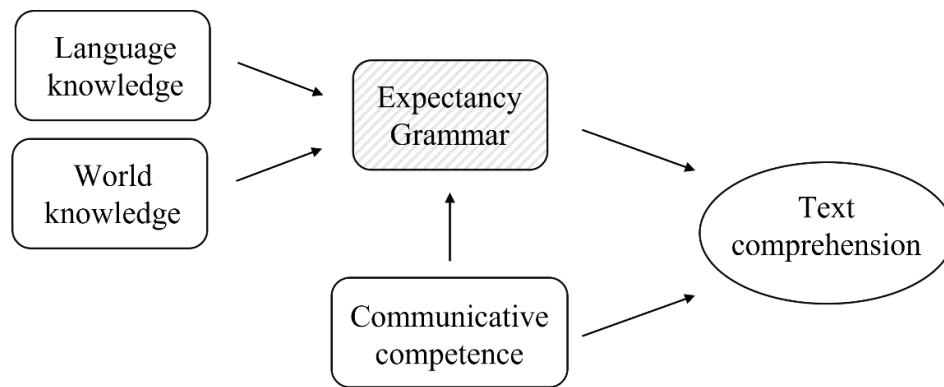
The present study is intended to provide valuable insights into comprehension processes to second language learners and teachers in order to support second language education. The bulk of the study investigates the crucial contribution of Expectancy Grammar to the active construction of meaning in the second language and suggests strategies to master Expectancy Grammar and to make full use of the knowledge SL learners possess.

First and second language acquisition theories point comprehension out as the first necessary step toward language acquisition. Chomsky suggested the existence of a Language Acquisition Device (LAD) which enabled children to gradually recognise and comprehend linguistic input and to actively construct their language knowledge by constantly formulating and validating hypotheses about the language. Bruner highlighted the importance of the Language Acquisition Support System (LASS) to construct with the child the “semanticity hypothesis” that sounds have meanings and to help children negotiate their own hypotheses about the language with other members of the same linguistic community. Krashen identified the exposure to a sufficient of comprehensible input as the fundamental and necessary requirement for second language acquisition.

Several studies have shown that comprehension results from the interaction between the text and the understander. Goodman highlighted the importance of the understander’s cognitive abilities for the active construction of meaning and described comprehension as a psycholinguistic guessing game: efficient readers and listeners sample minimal linguistic cues based on their expectations about the text, formulate hypotheses on what will come next and validate the hypotheses as the text unfolds.

The SL learner’s hypothesis formulating ability draws productive cues from three macro categories which constitute the framework of Expectancy Grammar:

- a. knowledge of the language, includes basic processes such as word recognition and parsing as well as higher level processes such as textual coherence and cohesion;
- b. knowledge of the world, defines how previous knowledge is stored in our minds and can facilitate comprehension and assimilation of new information;
- c. communicative competence, enables readers/listeners to strategically use their knowledge to reach comprehension.



Knowledge of the language. A basic knowledge in the second language is necessary to prevent short-circuit in second language comprehension. Language knowledge is activated bottom-up by the incoming textual data and enables the reader/listener to access a wide range of hierarchic processes. Microprocesses of the language concern how words are recognised (word recognition stage) and combined to form a proposition (word parsing and syntax) and how propositions are related to one another to form higher-order units (semantic analysis); macroprocesses of the language concern how higher-order units of a text are interrelated (cohesion and coherence) to construct the global structure and the gist of a text (text type and genre).

Expectancy grammar enables SL learners to create expectations on what is likely to fill a gap in their understanding based on what has been successfully understood and guides the formulation of hypotheses. For example, as far as microprocesses are involved, being able to read syntactic cues and to identify the possible function of an unknown word gives the reader/listener some information to start with to construct meaning. Additionally, the semantic context of a sentence guides the formulation of semantically plausible hypotheses. As far as macroprocesses are involved, cohesion and coherence devices such as outlines, summaries and section headers create expectations about what the reader/listener is going to read/listen and make the audience anticipate what the contents of the text are. Similarly, sequence markers, temporal connectors and conjunctions guide the expectations of the reader/listener that systematically tries to anticipate what will come next until the hypotheses are confirmed or corrected. Moreover, knowing the conventions of a specific text type gives important information about the kind of contents and style which can be expected from the text. Non-verbal information pertains to language knowledge as well. In written text, graphic elements elicit a related semantic field and create expectations about the possible topic of the text. Besides, pictures and diagrams give the reader cues about the text type and genre. If second language learners are not aware of the cultural implicit of non-verbal communication in spoken interaction, their expectancy grammar can be culturally biased and lead to misinterpretation of culturally rooted signals such as kinesics, proxemics and interlocutor appearance.

Knowledge of the world. Without previous knowledge, readers and listeners would not be able to actively make inferences and hypotheses about the text. According to schema theories, background knowledge is organised in units called schemata which also contain information about how this knowledge is to be used. One of the most renowned schema theory is the *scripts and plans theory* proposed by Schank and Abelson: a script organises and retrieves the common-based knowledge of a given situation and guides the expectations of the reader/listener. If the reader/listener is able to catch the appropriate cues from the text and to activate the appropriate schemata, new information will be interpreted top-down and will be easily accommodated in pre-existing schemata.

Second language comprehension benefits from content schemata activation but may require the activation of culture-specific schemata as well. There is a strong link between conceptual development and language development: second language learners have normally formed basic concepts around the world in the first language and culture. Therefore, SL education must be particularly sensitive to cultural knowledge and its implications for second language comprehension. Several studies have shown that the familiarity with content and culture-specific schemata lead to more accurate expectations and predictions and, as a result, to a faster and more effective second language comprehension. On the other hand, a culturally biased expectancy grammar can disrupt meaning and lead to unconscious cultural distortions of the original text.

Communicative competence. Second language education should foster an interactive compensatory model of comprehension in which knowledge deficits can be compensated by the interaction among components: if a word is not familiar, learners are encouraged to use their background knowledge and compensate with top-down method of guessing; if the topic is not familiar, learners are encouraged to rely on textual cues and compensate with bottom-up processes.

The Common European Framework of Reference for Languages (CEFR) provides illustrative descriptors for reception activities (listening comprehension, reading comprehension, audio-visual comprehension) and a clear account of the inferencing strategies that arise from the combination of bottom-up and top-down processing. Some examples of inferencing strategies are: deducing the meaning of a word from an accompanying picture or icon; deducing the probable meaning of unknown words from the context; exploiting format, appearance and typographic features in order to identify the type of text; deducing the meaning and function of unknown formulaic expressions from their position in a written text; exploiting different types of connectors etc...

The final chapter of the present study is devoted to exploring the sources available to language teachers to stimulate formal schemata, content schemata and culture-specific schemata in interesting and differentiated ways.

Language teachers have access to:

- a. a list of possible activities to acquire comprehension strategies and master expectancy grammar;
- b. suggestions for awareness-raising reflection;
- c. three real worksheets specifically designed for second language beginners to stimulate their expectancy grammar.

Contents

Introduction

Chapter 1 - Background Assumptions: First and Second Language Acquisition

Part I – First Language Acquisition

1.1 Noam Chomsky and the nativist perspective	1
1.1.1 <i>Language Acquisition Device</i>	3
1.1.2 <i>Inadequacies of the Language Acquisition Device</i>	5
1.2 Jerome Bruner and the cognitive learning theory	6
1.2.1 <i>Language Acquisition Support System</i>	7
1.2.2 <i>Later implications: formal education</i>	9

Part II – Second Language Acquisition

1.3 Stephen Krashen and the second language acquisition theory	10
1.3.1 <i>The acquisition-learning distinction</i>	11
1.3.2 <i>The Monitor hypothesis</i>	11
1.3.3 <i>The natural order hypothesis</i>	12
1.3.4 <i>The input hypothesis</i>	13
1.3.5 <i>The Affective Filter hypothesis</i>	14
1.3.6 <i>Second language teaching</i>	15
1.4 Other variables in second language acquisition	18
1.4.1 <i>Age</i>	18
1.4.2 <i>Language aptitude</i>	18
1.4.3 <i>Cognitive styles</i>	18
1.4.4 <i>Learner strategies</i>	19

Chapter 2 - Second Language Comprehension: the key role of Expectancy Grammar

2.1 Towards a definition of Comprehension	20
2.2 Expectancy Grammar	23
2.3 Knowledge of the language	25
2.3.1 <i>Word recognition</i>	25
2.3.2 <i>Word parsing and syntax</i>	28
2.3.3 <i>Semantic analysis</i>	33
2.3.4 <i>Cohesion and coherence</i>	37
2.3.5 <i>Text type and genre</i>	38
2.3.6 <i>Non-verbal information</i>	40
2.4 Knowledge of the world	42
2.4.1 <i>Formal schemata and content schemata</i>	46
2.4.2 <i>Culture-specific schemata</i>	49

2.5 Communicative competence	53
2.5.1 <i>Common European Framework of Reference for Languages</i>	54
2.5.1.1 <i>Listening comprehension</i>	55
2.5.1.2 <i>Reading comprehension</i>	57
2.5.1.3 <i>Watching TV, films and video</i>	58
2.5.1.4 <i>Reception strategies</i>	60
2.5.1.5 <i>Plurilingual comprehension</i>	61
2.6 Summary	63
Chapter 3 - Methodologies and Strategies to master Expectancy Grammar	
3.1 Inductive method	64
3.2 Multimedia texts	65
3.2.1 <i>Second culture exposure</i>	69
3.3 Activities to train expectancy grammar	73
3.3.1 <i>Bottom-up strategies</i>	74
3.3.2 <i>Top-down strategies</i>	85
3.3.3 <i>Metalinguistic and metacognitive awareness</i>	90
3.4 ESL worksheet #1	92
3.4.1 <i>Real classroom feedback</i>	96
3.5 ESL worksheet #2	97
3.5.1 <i>Real classroom feedback</i>	103
3.6 ESL worksheet #3	104
3.6.1 <i>Real classroom feedback</i>	108
Conclusion	109
References	110

Introduction

The purpose of this research is firstly to outline the processes involved in second language comprehension and secondly to shed light on the key role of Expectancy Grammar for the active construction of meaning in the second language.

Second language education is normally inclined to focus more on comprehension performance (what the learner has understood) rather than comprehension processes (how the learner has understood). Comprehension processes are normally internal, mostly unconscious and differ from person to person. Therefore, it is difficult to define the exact nature of a process and to describe it univocally. The present research will select and analyse a large number of comprehension studies in order to provide a clear and fairly comprehensive overview.

Goodman defined comprehension as a psycholinguistic guessing game in which the understander actively uses her/his cognitive abilities to guess what will come next as the text unfolds. Readers and listeners do not simply absorb the information embedded in the text but they actively interpret the text by formulating hypotheses about its meaning. In this regard, Expectancy Grammar guides expectations and the formulation of hypotheses about the text.

The Expectancy Grammar helps the understander to make

partial use of available minimal language cues selected from perceptual input on the basis of the reader's expectation. As this partial information is processed, tentative decisions are made to be confirmed, rejected, or refined as reading progresses (Goodman, 1967: 127).

Readers and listeners can draw productive cues from their language knowledge, their background knowledge and their communicative competence. Second language beginners tend to be word bound and to rely primarily on their knowledge of the second language. On the other hand, advanced second language learners are able to sample few significant textual cues to activate their background knowledge and to process information both bottom-up and top-down simultaneously. Second language education should help learners to acquire and activate relevant background knowledge in the second language and culture to strategically use every productive cue in a text and make accurate guesses. Expectancy grammar guides and supports second language comprehension. Therefore, devoting part of the SL lessons to the mastery of expectancy grammar will result in a stronger comprehension competence. In order to achieve this educational goal, this study will explore the sources available to language teachers to stimulate language knowledge as well as background knowledge in interesting and differentiated ways.

Outline of the book

Chapter 1 examines the natural development of comprehension processes in the first language as the first necessary step toward language acquisition. The second section of the chapter outlines the fundamental conditions to foster second language comprehension and consequently second language acquisition.

Chapter 2 investigates the processes underlying second language comprehension and sheds light on the crucial role of the expectancy grammar. Each of the three components of the expectancy grammar (knowledge of the language, knowledge of the world and communicative competence) is analysed in depth to highlight their contribution to the active construction of meaning.

Chapter 3 suggests methodologies and strategies to master the use of expectancy grammar. Second language teachers have access to a list of possible activities to acquire comprehension strategies, suggestions for awareness-raising reflection and three real worksheets specifically designed for second language beginners to stimulate their expectancy grammar.

A note on terminology:

The terms *second language* and *foreign language* both refer to a language acquired after the mother tongue, with the difference that a second language acquirer resides in the second language environment, whereas a foreign language acquirer resides in an area where the foreign language is not in general use. In this study the term *second language* is used as a cover term for both cases, since the bulk of this book is intended to deal with the acquisition of languages other than the mother tongue in the context of formal school education, regardless of the language spoken outside the class.

Explanatory notes:

The present study investigates comprehension processes in second language learners with no language impairment and specific learning disorders. Taking into account these two conditions would have required more research and exemplification than I have space for in this book. Nevertheless, it could be the object of a possible follow-up study.

The present study is intended to provide valuable insight into comprehension processes to second language learners and teachers regardless of what their second language is. However, for pedagogic purposes the third chapter of the book proposes real worksheets designed for second language learners of English to serve as a prime example.

Background Assumptions: First and Second Language Acquisition

As the title suggests, this first chapter summarises the most widely recognised theories of language development which serve as the basis for the following chapters. The scope of this chapter is to outline the natural development of comprehension processes in the first language in order to enable teachers to facilitate comprehension processes in second languages.

Part I of the chapter is devoted to describing the most relevant first language acquisition theories: Chomsky (1959; 1965) gives us a clear picture of the mental processes behind the acquisition of the mother tongue; Bruner (1983; 1996) highlights the importance of the support system to acquire the mother tongue and to use the first language effectively in the speech community.

Part II of the chapter is devoted to describing Krashen's (1982) second language acquisition theory and its implications for second language teaching. Finally, the analysis of some individual variables involved in second language acquisition completes the overall picture.

I

First Language Acquisition

1.1 Noam Chomsky and the nativist perspective

From the 1960s onwards, Noam Chomsky has been one of the leading voice on linguistics studies. It is not within the scope of this essay to recount all of Chomsky's work: we will, indeed, focus only on his reflections on language acquisition in order to have a better comprehension of the processes that underlie second language acquisition as well (Littlewood, 1984).

According to Chomsky (1965),

The problem for the linguist, as well as for the child learning the language, is to determine from the data of performance the underlying system of rules that has been mastered by the speaker-hearer and that he puts to use in actual performance. Hence, in the technical sense, linguistic theory is mentalistic, since it is concerned with discovering a mental reality underlying actual behaviour (4).

This statement clearly suggests that Chomsky rejects the considerable impact that the behaviourist approach had on the study of child language. Behaviourist (or empiricist) theorists assume that language is the result of a conditioning process in which the child observes the adult speech model, tries to imitate it and receives a positive reinforcement for the similar sound reproduced: language

develops from the inductive¹ generalisation of the data gathered from external stimulation² (Chomsky, 1959; Littlewood, 1984). Nevertheless, the solely influence of external stimulation on the development of language does not account for the ability to understand and produce sentences never experienced before, nor for the fact that children develop comparable grammars through comparable acquisition stages (Chomsky, 1959; Littlewood, 1984). Allegedly, the behaviourist approach does not consider “the remarkable capacity of the child to generalize, hypothesize, and 'process information' in a variety of very special and apparently highly complex ways which [...] may be largely innate” (Chomsky, 1959: 43).

On the other hand, the nativist approach investigates the “mental reality underlying actual behaviour” (Chomsky, 1965:4): this language theory does not concentrate on the actual linguistic performance, but on the underlying higher mental faculties that define humans as such. Unlike other animals, humans possess an innate intuitive capacity to develop language regardless of which particular language the child is exposed to (Chomsky, 1965). Chomsky (1965) states that “the child is not predisposed to learn one language rather than another” (p.26), but his mind features a general schematic structure of language that is activated thanks to appropriate linguistic stimulation. This general schematic structure of language, namely universal grammar, expresses the intrinsic nature of language and its “deep-seated regularities” (Chomsky, 1965:6) and enables humans to potentially understand and generate infinitely many sentences. The concept of universal grammar accounts for the general properties of language as such but it also considers the diversity between natural languages: universal grammar is activated by the input of primary linguistic data pertaining a specific language and determines its specific grammar as output (Chomsky, 1965). We shall later analyse in detail how this input-output device operates.

The study of linguistic universals makes a distinction between:

¹ The adjective “inductive” will return later in this book with reference to inductive teaching. The inductive approach will be presented as the most effective in enabling learners to actively construct their second language competence. This may lead to ambiguity, since Chomsky rejects the idea that the knowledge of a language is developed by an inductive generalization from primary linguistic data. To avoid any possible confusion, it is important to remark that Chomsky is a strong supporter of the “hypothesis about the innate language-forming capacity of humans” (Chomsky, 1965: 30), therefore he does not accept the possibility that experience is the solely responsible for first language acquisition. Moreover, Chomsky’s linguistic theory investigates the unconscious formulation of rules that lead to first language acquisition in a non-formal environment. On the other hand, inductive teaching of a second language aims to replicate the stages of first language acquisition in formal education environment in which a consistent level of consciousness is implied.

² Readers who are willing to know more about the behaviourist approach to language and learning may read Skinner, B. F., 1957. *Verbal Behavior*. New York: Appleton - Century Crofts.

- a. formal universals, which include the system of abstract rules underlying each natural language. For instance, in any language colour words refers to continuous portions of the colour spectrum (Chomsky, 1965);
- b. substantive universals, which include fixed class of items recurring in each natural language. For instance, the syntactic categories of Subject, Verb and Object can be found in any language (Chomsky, 1965).

Formal and substantive universals can be framed into three interrelated major components:

- a. the syntactic component provides a set of abstract formal categories which constitutes the deep structure of a sentence (Chomsky, 1965);
- b. the phonological component assigns to each syntactic category a phonetic signal and determines the surface structure of a sentence (Chomsky, 1965);
- c. the semantic component assigns an interpretation to the deep structure of a sentence (Chomsky, 1965).

In brief,

the syntactic component of a grammar must specify, for each sentence, a deep structure that determines its semantic interpretation and a surface structure that determines its phonetic interpretation (Chomsky, 1965: 16).

1.1.1 Language Acquisition Device

So far in this chapter, we have sketched the general properties of language as such. In this section we will analyse in detail how humans master and internalise the specific grammar of a natural language starting from their innate and intuitive knowledge of the language.

Chomsky (1965) suggests the existence of a Language Acquisition Device (LAD), an input-output device that detect primary linguistic data (input), use the universal grammar to process them and gradually construct the grammar of the specific language the child is exposed to (output). The LAD provides children with:

- (i) a technique for representing input signals
- (ii) a way of representing structural information about these signals
- (iii) some initial delimitation of a class of possible hypotheses about language structure
- (iv) a method for determining what each such hypothesis implies with respect to each sentence
- (v). a method for selecting one of the (presumably, infinitely many) hypotheses that are allowed by (iii) and are compatible with the given primary linguistic data (Chomsky, 1965: 30)

Analogously, the language acquisition model consists of different but continuous stages:

- a. children are exposed to several acoustic input, they unconsciously recognise primary linguistic data and process them through the LAD (i) (Chomsky, 1965);

- b. linguistic input undergoes a first structural scan and the device hypothesizes which information detected in the universal grammar is compatible with the input³ (ii) (Chomsky, 1965);
- c. once the device has scanned a sufficient number of representative linguistic inputs which are compatible with each other, the grammar of that language gradually comes together in child's mind (iii)-(iv) (Chomsky, 1965);
- d. at this point, linguistic inputs directly activate that specific grammar and the competence of that language gradually becomes wider and more complex (v) (Chomsky, 1965).

Figure 1.1 represents Chomsky's language acquisition model.

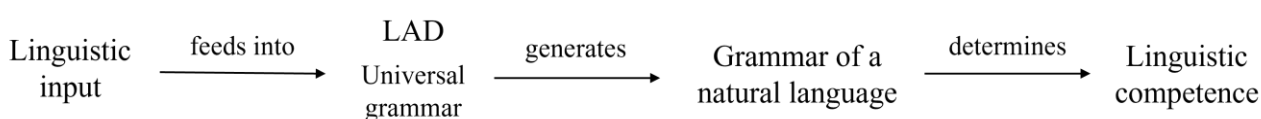


Figure 1.1 Model of language acquisition proposed by Chomsky.
Adapted from Shaffer, Kipp (2014: 392).

It is important to remark that the processes described above take place in the early stages of language acquisition and, as a consequences, they are largely unconscious and lead to a tacit knowledge of the language: a person who is not involved in the field of linguistic research may show a great mastery in the usage of a language and yet do not possess any metalinguistic awareness (Chomsky, 1965; Littlewood, 1984). In this respect, Littlewood (1984) has selected two similar sentences which serve as prime example:

- (1.1) John is easy to please.
- (1.2) John is eager to please (6).

The two sentences show a similar surface structure (*John is + adjective + to please*), but an English speaker would easily grasp the difference in their interpretation. However, probably not every English speaker would be able to describe why the two sentence are so different in their deep structure (Chomsky, 1965; Littlewood, 1984). *John* is the subject of the sentence (1.1), but he is the object of the act of pleasing (other people please John); in the example (1.2), *John* is the subject of both the

³ This natural predisposition to create and test linguistic hypothesis is highly productive and unconscious in the early stages of first language acquisition. Accordingly, this feature plays a crucial role also in second language learning. The main difference is related to the level of consciousness of the operation: in a formal education environment the hypothesis-formulating process is not spontaneous but it is guided and supported by the teacher. We will return to this subject later in this book.

sentence and the act of pleasing (John pleases other people) (Chomsky, 1965; Littlewood, 1984). This suggests that the deep relationships between the elements of a sentence are part of the grammar that the speakers of a language have automatically internalized. (Chomsky, 1965; Littlewood, 1984).

1.1.2 Inadequacies of the Language Acquisition Device

The Language Acquisition Device theory has had a major impact on the study of child language, but it has not yet been immune to some criticisms. In his article *What became of LAD?*, Levelt (1975) provides a clear analysis of the limitations of LAD which has been brought to light by later developments. I will briefly analyse only the critical notes that are relevant to the object of this research:

- a. ignorance of semantics and non-linguistic signals: the LAD operations are purely syntactic and very little attention has been paid to the semantic component and non-linguistic variables of language (Levelt, 1975). Studies investigating language development have revealed the main importance of these two aspects especially in the early stages of language acquisition: before the appearance of the first syntactically organized sentence around the age of two, children make extensive use of non-verbal signals in the attempt to communicate (Shaffer, Kipp, 2014). In the pre-linguistic period (10-13 months), for example, the infant starts to intentionally point at objects while looking at an adult in order to communicate: a child may point a bottle to say that he wants to drink or he may point a toy to say that he wants to play with it (Shaffer, Kipp, 2014). Children use gestures as declarative gestures to show interest at something or as imperative gestures to convince other to do something with the object pointed; since the first language acquisition stages the physical context is crucial in conveying meaning (Littlewood, 1984; Shaffer, Kipp, 2014). Chomsky's language acquisition model does not seem to recognise the importance neither of the physical context that surrounds the linguistic input, nor the importance of the sociocultural context⁴. In the holophrase period (13-24 months), the child starts to produce the first words and uses single words to represent the meaning of an entire sentence (Shaffer, Kipp, 2014). Slobin (1970, as cited in Levelt, 1975) observes that certain semantic functions are recurring in children's speeches collected from six different languages: request, negation and question. The tacit knowledge of semantic relations seems to be acquired before children start to syntactically combine words in simple sentences during the telegraphic period around the two years of age;

⁴ The importance of the context in which the linguistic act takes place should not be marginalized in second language learning as well. We will consider this problem in the next chapters.

- b. little attention to language presentation: Chomsky confers a major role to the syntactic component of language in its purer form not considering that natural speech shows several deviations from rules, especially the speech a child is generally exposed to (Bruner, 1983; Levelt, 1975). Parents tend to address children with the so-called motherese: this child-directed speech is characterised by short and simple sentence; usually a high-pitched voice is used to draw the attention of the child to key words (Bruner, 1983; Levelt, 1975; Shaffer, Kipp, 2014). The complexity of the adult speech increases as the child shows a more advanced competence (Bruner, 1983; Levelt, 1975; Shaffer, Kipp, 2014). This has strong implications for the role of adults' supportive guidance in language acquisition, as we will discuss in the next section.

1.2 Jerome Bruner and the cognitive learning theory

About a decade after the birth of the nativist approach, Jerome Bruner (1983) has devoted his studies to examine

how young children are assisted in mastering the language they are acquiring. Very early in the enterprise, it was plain that children enjoy a privileged access to language, that the input to them from the linguistic community is systematically arranged. It was equally plain that children, in the attempting to use language to achieve their ends [...] were negotiating procedures and meaning and, in learning to do so, were learning the ways of the culture as well as the ways of its language (11).

This new approach to language acquisition seems to address both the limitations of LAD presented in the previous section: Bruner (1983) assumes that syntax, semantics and pragmatics are interdependent and equally important for the mastery of a language.

In *Child's Talk: Learning to use Language* (1983), Bruner does not reject the existence of a "unique and predisposing set of language-learning capacities" (19), but the concept of LAD is integrated with a LASS, Language Acquisition Support System. The LASS arranges the linguistic input to train the child

not only to know the language but to use it as a member of a cultural community. It is not surprising that adults act like full-fledged members not only of the linguistic community (fine-tuned for the occasion), but also as gently demanding members of the culture into which the child must enter (Bruner, 1983: 125-126).

On the one hand the faculty of language as such is genetically determined, on the other hand the development of a specific natural language is culturally driven. The Language Acquisition Support System mediates between these two factors: genes and culture (Bruner, 1983).

Children development is propelled by the interaction with the outside world that surrounds them. The first and most powerful interaction is represented by the bond between the infant and the mother or

caretaker: the child relies on this intersubjectivity and reciprocity to construct his or her knowledge of the world (Bruner, 1983; Shaffer, Kipp, 2014). The first non-linguistic interactions of children (facial expression, crying, body movement) are largely driven by the necessity to communicate and fulfil their basic needs (Bruner, 1983; Shaffer, Kipp, 2014).

In the early years of life, children act mostly in familiar situations which tend to be highly systematic (Bruner, 1983). This systematicity leads children firstly to master their basic range of action and then to experiment – under the guide of the caretaker – coordinated actions in order to achieve more and more complex objectives: children gradually construct abstract knowledge of the world through basic mental operation such as association, classification, generalisation (Bruner, 1983; Shaffer, Kipp, 2014). This combinatorial effort to fulfil non-linguistic functions creates a fertile ground for the Language Acquisition Device to generate linguistic hypotheses (Bruner, 1983).

Social interactions with the caretaker are fundamental in the early stages of language development as well: children approach at first the dialogic nature of language to express linguistically their needs and intentions to the adult figure and to respond to adults' solicitations (Bruner, 1983). In this respect, the Language Acquisition Support System is crucial to help children learn the conventions of their linguistic community and to express their intentions clearly and effectively (Bruner, 1983). In the next section we will analyse how the LASS should work to properly support the language development of the child.

1.2.1 Language Acquisition Support System

So far in this chapter, we have determined that the child's development of language is shaped by the communicative interaction with an adult figure. We will now analyse four different modalities to effectively support the language acquisition of a child:

- a. adults foster the linguistic interaction by using a simplified language that the child can comprehend. For example, parents tend to pronounce slower and higher the key words of a speech and to repeat these words several times to highlight their importance and to construct with the child the "semanticity hypothesis" (Bruner, 1983: 83) that sounds have meanings. This simplified language is then gradually fine-tuned according to child's progress (Bruner, 1983; Shaffer, Kipp, 2014). Bruner (1983) provided evidence for the fine-tuning process by carrying out an observational study on a child from his five months to twenty-four months. The transcriptions of what has been observed show that the mother uses a dubbing format to support the acquisition of a correct pronunciation:

MOTHER: What's that?
CHILD: Ouse.
MOTHER: Mouse, yes. That's a mouse.
CHILD: More mouse (pointing to another picture).
MOTHER: No, those are squirrels. They're like mice but with long tails. Sort of.
CHILD: Mouse, mouse, mouse.
MOTHER: Yes, all right, they're mice.
CHILD: Mice, mice (Bruner, 1983: 82).

But when the mother is aware that the child already knows how to correctly pronounce a word, she does not accept anymore a less advanced form and expects more from him:

CHILD: (points to all in fireplace, requesting) ogho-wa-wa-wa-wa.
MOTHER: Fire.
CHILD: wa.
MOTHER: Don't say "wa-wa". Fire, Richard.
CHILD: Fire.
MOTHER: That's better (Bruner, 1983: 101);

- b. adults encourage verbal production by promptly presenting a verbal equivalent to gestures when the child uses them to communicate in order to promote the shift from natural cues to conventional cues; similarly, the adult figure comments in real time the activity he or she is doing with the child in order to promote a symbolic representation of their routine (Bruner, 1983; Shaffer, Kipp, 2014). This narrative technique leads children to "acquire a small library of scripts and communicative procedures" (Bruner, 1983: 41). The game format is particularly useful to this scope because it involves an ordered sequence of actions and language serves a tool to negotiate and direct these actions. Moreover, like language, games have a deep structure of rules that are abstract and systematic and a set of alternatives that can realise different surface structures (Bruner, 1983);
- c. when an already scripted situation occurs to children, adults encourage them to recreate the steps to follow with their own words (Bruner, 1983). Games are functional in this stage too: once the child starts showing some mastery of the game rules, adults usually tend to promote turn-taking roles, so that the child can exploit the acquired script (Bruner, 1983). Negotiating turns helps the child to approach the "othermindedness" (Bruner, 1983: 122) and to develop linguistic reference;
- d. when a new situation occurs to children, adults encourage them to find similarities with routinized scripts which can act as a guide. Transfer and generalisation operations are consequently trained and the development of more abstract formats takes place (Bruner, 1983). Formats schematise conventional linguistic patterns and action patterns and enable

children to achieve pragmatic functions in their speech community – which shares the same formats⁵ (Bruner, 1983).

To sum up, as humans we are genetically predisposed not only to acquire the language, but also to “teach” the language to new members of our speech community (Bruner, 1983). This act of supporting language acquisition starts from a mutual negotiation and conveying of meaning and proceeds with the completion of non-linguistic task through language use (i.e. games, request for supportive action etc.) (Bruner, 1983; Wood, Bruner, Ross, 1976). Adults naturally tend to engage

a kind of “scaffolding” process that enables a child or novice to solve a problem, carry out a task or achieve a goal which would be beyond his unassisted efforts. This scaffolding consists essentially of the adult “controlling” those elements of the task that are initially beyond the learner’s capacity, thus permitting him to concentrate upon and complete only those elements that are within his range of competence. The task thus proceeds to a successful conclusion (Wood, Bruner, Ross, 1976: 90).

The child is guided to first comprehend the nature of the task in order to make a real-world plan and to effectively realise it (Bruner, 1983; Wood, Bruner, Ross, 1976). As a result the child develops a task competence: once children have grasped the structure of the task, they are able to combine skills components into higher skills to complete more complex tasks (Bruner, 1983; Wood, Bruner, Ross, 1976). Comprehension precedes production in linguistic processes and, by the same token, in the completion of tasks (Bruner, 1983; Wood, Bruner, Ross, 1976).

1.2.2 Later implications: formal education

In the scholastic environment a new impetus is given to the development of children because they come into systematic contact with members of their same speech community other than their relatives. In a familiar context, children usually have unequal interactions with adult figures that “know the answer and know how” (Wood, Bruner, Ross, 1976: 89); at school children have to negotiate their own hypothesis with a large number of peers (Bruner, 1996).

Bruner (1996) borrows Brown and Campione’s (1990, as cited in Bruner, 1996) four main ideas about learning and teaching in schools:

- a. agency: the child interacts with other peers and teachers and understands that the same real-world may be read and narrated from different perspectives; children gradually learn how to overcome their own short-sightedness (Bruner, 1996);

⁵ As we shall see in the next chapters, scripts and formats plays a crucial role in comprehension processes of second languages as well.

- b. collaboration: the child is the agent of his or her own mental activity but he or she shares the resources with others (Bruner, 1996);
- c. reflection: mental activity becomes wider and more abstract; the child starts to develop comprehension at a deeper level (Bruner, 1996);
- d. culture: once again comprehension precedes production; children understand and negotiate the conventions of their culture and therefore they become agents of the culture and of its change (Bruner, 1996).

The role of the teacher is to break those four goals into manageable tasks, to scaffold children's effort and to guide the reflection on key features (Bruner, 1996).

II

Second language acquisition

1.3 Stephen Krashen and the second language acquisition theory

Some of the language acquisition theories presented so far have been applied to second language acquisition processes without much success. Among these theory-based methods:

- a. audio-lingualism was based on behaviourist principles and supposed that dialogue mimicry and memorisation and pattern drills were the method to promote habit-formation in second languages;
- b. applied transformational grammar focused on the product of language acquisition - the syntactic and phonological competence - and ignored the process of language acquisition: linguistic competence is not considered the tacit knowledge of the language, but conscious language learning (Krashen, 1982).

In the field of second language acquisition, Krashen (1982) has been committed to outlining a second language acquisition theory which takes into account applied linguistics research as well as informal observations. Krashen's (1982) theory can be summarised into five main hypotheses:

- a. the acquisition-learning distinction;
- b. the Monitor hypothesis;
- c. the natural order hypothesis;
- d. the input hypothesis;
- e. the Affective Filter hypothesis.

In the subsequent sections each of these hypotheses will be addressed in detail.

1.3.1 The acquisition-learning distinction

As we have stated previously in the chapter, language acquisition is a subconscious process that results in a tacit competence of the language; acquisition can be also defined as a natural implicit learning (Bruner, 1983, 1996; Chomsky, 1959, 1965; Krashen, 1982). Language learning, on the other hand, is used to define explicit learning, a conscious process that results in a fully aware formal knowledge of the rules of a language (Krashen, 1982; Littlewood, 1984).

The common assumption that a learned rule become acquired through practice has been proven wrong⁶: learning does not become acquisition and is not necessary for language acquisition (Krashen, 1982). Not infrequently, second language performers show a great competence of complex structures, but they are not able to consciously state the rules; likewise, performers with a great conscious knowledge of rules, may repeatedly make errors on basic forms (Krashen, 1982).

The conscious use of formal rules leads us to the second hypothesis.

1.3.2 The Monitor hypothesis

Acquisition is responsible for fluency in a second language, learning instead has the function of a monitor (Krashen, 1982). Second language performers can use this monitor function only if they have sufficient time to revise what they have produced or to consciously use the rules as a guide for language production: this is rarely the case of conversation in which the performer is generally considerably involved in conveying meaning to focus on forms (Krashen, 1982).

Krashen (1982) has identified three basic types of Monitor users:

- a. Monitor over-users: they are heavily concerned with the correctness of their output, that they are not able to speak fluently and often interrupt the speech to self-correct. This type of users may result from a second language teaching too focused on forms and little on communication;
- b. Monitor under-users: they rely only on the already acquired forms and frequently do not use their conscious knowledge of the rules. As a result, they are not influenced by error correction;
- c. optimal Monitor users: they use the Monitor when it does not affect their communication. Usually they pay little attention to the Monitor when they are engaging a conversation but use it as a supplement to their acquired knowledge to revise writing and planned speech.

Errors are natural in acquisition as much they are in learning. However, errors correction has a little impact on acquisition but may be useful in language learning (Krashen, 1982).

⁶ Readers who are willing to know more about the evidence for this hypothesis may read Krashen, 1982: pp.83-124.

Error correction informs learners of a deficiency of some sort in their Monitor: in order to make corrections result in some fixing of the rule, it is important to give the learner time to reconsider the violated rule (Krashen, 1982). As a consequence, error correction should be only limited to written work and it is not advisable during oral production unless the error seriously interferes with the output comprehensibility (Krashen, 1982).

Lastly, the Monitor has a limited range: it is impossible for a performer to learn all the rules of a language, therefore learning may be focused on simple rules that are easiest to understand and remember (Krashen, 1982). The issue of the order in which rules should be learnt will be addressed in the next section.

1.3.3 The natural order hypothesis

As mentioned earlier, language acquisition research has found similar patterns in grammatical structures acquisition (Bruner, 1983; Chomsky, 1965; Krashen, 1982, Littlewood, 1984). Second language acquisition order is different from first language order but there are yet some similarities (Krashen, 1982). Table 1.2 compares the average order of acquisition of grammatical structures for English as first and second language.

<i>Average acquisition order for EFL</i>	<i>Average acquisition order for ESL</i>
progressive form <i>-ing</i>	progressive form <i>-ing</i>
plural marker <i>-s</i>	plural marker <i>-s</i>
irregular past	copula
regular past	auxiliary
third person singular marker <i>-s</i>	irregular past
possessive genitive	regular past
auxiliary	third person singular marker <i>-s</i>
copula	possessive genitive

Table 1.2 Average acquisition order for English as first and second language.
Adapted from Krashen (1982: 12-13).

Another similarity between first and second language acquisition is the occurrence of the so-called developmental errors or transitional forms (Krashen, 1982: Littlewood, 1984). This kind of errors do not stand for a faulty rule in the Monitor, but they are natural stages of language acquisition and will naturally disappear once the correct form is acquired (Krashen, 1982: Littlewood, 1984). For example, before reaching the correct form for English negation, first and second language acquirers usually place the negative marker before the sentence at first (1.3) and then between the subject and the verb (1.4):

(1.3) “Not like it now” (Ravem, 1974 as cited in Krashen, 1982: 14);

(1.4) “I no like this one” (Cancino et al, 1975 as cited in Krashen, 1982: 15).

The natural order hypothesis provides us with some information on what are the less complex and more complex structures to focus upon during second language learning. Since conscious rules learning does not become acquisition, some may argue that there is no need to teach grammar: however, spend some time to bring some awareness on the topic, may make learners more sensitive to a specific form when it is encountered in comprehensible inputs (Krashen, 1982). According to Krashen (1982) comprehensible inputs of a language are, in fact, the only mean to successfully achieve language acquisition.

1.3.4 The input hypothesis

Krashen (1982) introduces the input hypothesis as follows:

- (1) The input hypothesis relates to acquisition, not learning.
- (2) We acquire by understanding language that contains structure a bit beyond our current level of competence ($i + 1$). This is done with the help of context or extra-linguistic information.
- (3) When communication is successful, when the input is understood and there is enough of it, $i + 1$ will be provided automatically.
- (4) Production ability emerges. It is not taught directly (21-22).

First of all, the input hypothesis aims at language acquisition and therefore attempts to recreate the conditions in which first language acquisition occurs. As discussed earlier, the Language Acquisition Support System plays a crucial role in the initial stages of language acquisition: adult figures do not deliberately attempt to teach the language but support the process with a child-directed speech, also known as caretaker speech⁷ (Bruner, 1983; Krashen, 1982; Shaffer, Kipp, 2014). By the same token, to support second language acquisition a foreigner-talk or teacher-talk must be used (Krashen, 1982). Caretaker speech, foreigner-talk and teacher-talk share some distinctive features: they are simplified codes devoted to promoting the acquirer’s comprehension of the *here and now* (Bruner, 1983; Krashen, 1982; Shaffer, Kipp, 2014). Parents are way indulgent with child’s errors because they are interested in what the child wants to say, rather than how it has been said and teachers should behave likewise (Bruner, 1983; Krashen, 1982).

⁷ More information about this child-directed speech or motherese can be found in this book at pages 6-8. With this regard, Krashen (1982) proposes a terminology adjustment. Bruner (1983) assumes that the child-directed speech is “finely-tuned” to the child’s linguistic level, on the other hand Krashen (1982) suggests that the speech is rather “roughly-tuned” because it is “not precisely adjusted to the level of each child but tends to get more complex as the child progresses” (22).

Secondly, comprehensibility of the input is “a fundamental and necessary (but not sufficient) requirement” (Krashen, 1982: 63). Second language acquirers will be able to understand an input that it is slightly beyond their actual competence also thanks to their knowledge of the world, the context of the input and its extra-linguistic information such as objects and pictures that the teacher should provide. The students’ knowledge of the world is useful insofar as the teacher provides inputs that are familiar to the class. In addition, a good input should not only be relevant to the acquirers, but also interesting, so that “the acquirer may even forget that the message is encoded in a foreign language” (the Forgetting Principle) (Krashen, 1982: 66).

Thirdly, teachers should not consciously include $i + 1$ input by devising a lesson in which the only new form is the structure to be taught that day. The “structure of the day” (Krashen, 1982: 25) may not be new for all the students; on the other hand a natural communicative input contains a great variety of structure and may provide $a + 1$ for each student (Krashen, 1982). Moreover, a natural communicative input gives to opportunity to review and recycle already experienced structures more and more time (Krashen, 1982).

Fourthly, as we widely discussed earlier, comprehension precedes production. Speaking ability will naturally emerge when acquirers have developed enough competence and feel ready to produce the language on their own (Krashen, 1982). Unfortunately, in formal language classes, acquirers are usually not allowed the silent period that characterises the early stages of first language acquisition (Krashen, 1982). The pressure to produce the language may result in an irretrievably higher affective filter, as we will discuss later.

Language production is not necessary for language acquisition but can make an indirect contribution: actual speaking helps the acquirer control and modify the quantity and the quality of the received input (Krashen, 1982). Participating in conversations provides acquirers with more input and engages them in meaning negotiation with the speaker. The output helps language learning as well because it allows error correction and gives the opportunity to acquirers to reflect on possible deficiencies in their Monitor (Krashen, 1982).

1.3.5 The Affective Filter hypothesis

A successful second language acquisition process must consider affective variables such as:

- a. motivation: an acquirer may be driven by an instrumental motivation, which means s/he is interested in the second language for practical means (i.e. more employment opportunities), or by an integrative motivation, which means s/he has a favourable attitude toward the speakers of that language and their culture and wants to enter that speech community.

Generally, integrative motivation leads to greater proficiency (Krashen, 1982; Littlewood, 1984);

- b. self-confidence: acquirers with high levels of self-esteem are more likely to confidently engage in social interaction and thus have more input and opportunity to acquire the language (Krashen, 1982; Littlewood, 1984);
- c. anxiety: the pressure to orally produce the language in front of the class and unrelenting error correction often cause anxiety in second language acquirers; a sympathetic teacher and a cooperative classroom environment may lower the level of anxiety of acquirers and their Affective Filter (Krashen, 1982; Littlewood, 1984).

These affective factors may promote or impede language acquisition by placing an Affective Filter between Language Acquisition Device and external input: if the Affective Filter is high, the acquirer tends to seek less input and to have a negative attitude toward the second language; if the Affective Filter is low, the acquirer will seek more input and acquire language easier (Krashen, 1982). Therefore, the effective language teacher should not only focus on providing a comprehensible input, but also on creating a low filter environment in the classroom.

To summarise the key points of Krashen's (1982) second language acquisition theory so far:

- a. second language performance is due to acquisition processes, learning processes only provide a Monitor to revise the output when there is enough time;
- b. in order to acquire the language, the acquirer must be exposed to a sufficient quantity of comprehensible input, which is also relevant and interesting and not grammatically sequenced;
- c. in order to facilitate acquisition, the Affective Filter must be low.

Figure 1.3 illustrates the second language acquisition process.

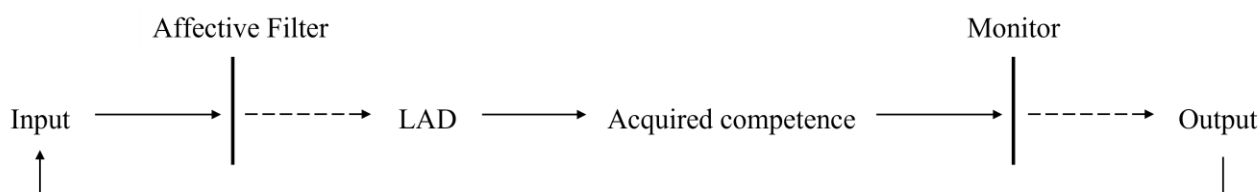


Figure 1.3 Model of second language acquisition proposed by Krashen. Adapted from Krashen (1982: 16, 32).

1.3.6 Second language teaching

According to Krashen (1982), second language teaching is particularly valuable for beginner acquirers because, in the classroom environment, acquirers are exposed to a considerable quantity of

input which is roughly-tuned to their basic linguistic competence. In the second language environment, out of school, acquirers would be naturally exposed to a greater quantity of input, but most of them would not be comprehensible for beginners and therefore useless for language acquisition (Krashen, 1982). The situation worsens for adult beginners because they would be exposed to highly complex input, since the expectations for adult comprehension are naturally higher (Krashen, 1982).

The effective language teacher uses simpler teacher-talk to provide input that is always comprehensible to students and enables them to progress rapidly to an intermediate level of competence (Krashen, 198; Littlewood, 1984). As stated earlier, the effective language teacher should also create a low anxiety environment: in order to do so, unrelenting error correction should be avoided and students should not be forced to produce the language if they do not feel ready (Krashen, 198; Littlewood, 1984).

The goal of second language teaching is to provide the acquirer with tools to obtain more input and improve in the informal environment as well. Basic rules of conversational competence can be taught in order to control the quantity and the quality of input (Krashen, 1982):

- a. greetings to start a conversation enable the acquirer to seek input outside the class;
- b. expressions to ask the native speaker for help enable the acquirer to make the input comprehensible;
- c. strategies to change the subject of the conversation enable the acquirer to avoid incomprehensible input.

Notwithstanding that grammatical rules learning will not result in language acquisition, some grammar teaching methods are more suitable to facilitate language acquisition because of the attempt to reproduce first language acquisition processes (Krashen, 1982).

In deductive teaching learners are presented with a rule and asked to apply it systematically until it is internalised; in inductive teaching specific forms, functions and meanings of the language are noticed by the students themselves with the help of the teacher, then students carry out activities to reinforce their knowledge and the rules are explicitly stated and systematized (Balboni, 2015, 2018; Krashen, 1982). With this kind of inductive method students are actively engaged, they are led to explore and reflect on language and this promotes a lasting learning (Balboni, 2015, 2018; Krashen, 1982).

The inductive approach tries to reproduce the way a child naturally acquires the mother tongue: the child first approaches the language as an instrument of communication, abstracts the linguistic system and only later the child is explicitly told about formal properties of the language. Inductive teaching tries to condense years-long acquisition processes in few hours of lessons; therefore it is highly

improbable it is sufficient to ensure language acquisition (Krashen, 1982). We will return on inductive teaching in the subsequent chapters.

Krashen (1982) has devised an evaluation schema to assess whether the existing teaching methods satisfy the requirements of his second language theory:

Requirements for optimal input

1. Comprehensible
2. Interesting/relevant
3. Not grammatically sequenced
4. Quantity
5. Filter level ("off the defensive")
6. Provides tools for conversational management

Learning

Restricted to:

1. Certain rules; those that are
 - a. learnable
 - b. portable
 - c. not yet acquired
2. Certain people ("Monitor users")
3. Certain situations
 - a. time
 - b. focus on form

Table 1.4 Evaluation schema for methods and materials.
Taken from Krashen (1982: 127).

According to Krashen, Terrell's Natural Approach is one of the few approaches that has shown "a deliberate effort to fit all requirements for both Learning and Acquisition" (Krashen, 1982: 140):

- a. Natural Approach teachers devote their class time to providing input which is comprehensible also thanks to objects, pictures and shared previous knowledge;
- b. the teacher speaks only the second language, but acquirers are not asked to produce the language until they feel ready. Error correction is employed only in formal grammar work and not in oral production.
- c. discussions about student's personal interests are encouraged and students are introduced with basic conversational management tools.

Another effective approach to second language teaching is represented by immersion programs of subject matter teaching: the second language is used to teach a non-linguistic subject and becomes a medium of instruction (Krashen, 1982). The focus of this approach is on the topic and not on form, but insofar as the input is made comprehensible language is acquired along with the subject matter (Krashen, 1982). Children are allowed to use their L1 at first and when they switch to L2 they use the language for a communicative purpose: students output aims to show their knowledge of the topic, therefore they tend to "forget" to use the monitor function (Krashen, 1982).

1.4 Other variables in second language acquisition

We have seen so far that first and second language acquisition is influenced by a wide range of variables which interact with each other. Among these variables, individual differences of the acquirers have been proven to play a crucial role in second language acquisition (Skehan, 1991). Some of the possible individual differences have been already mentioned in the present chapter (motivation, self-confidence and anxiety); other variables will be discussed in this section.

1.4.1 Age

Despite younger children receive simpler input in the second language, older children and adults are better at comprehending the input received and progress faster in the early stages of second language acquisition. Moreover, older acquirers can regulate better the quantity and the quality of the input, for example by engaging in conversation and asking for help (Krashen, 1982; Littlewood, 1984). On the other hand, children tend to acquire a better pronunciation and to achieve higher proficiency than adult acquirers (Krashen, 1982; Littlewood, 1984).

1.4.2 Language aptitude

Chomsky (1959; 1963) firmly supports human innate ability to acquire language, however some acquirers seem to be keener than others to acquire foreign languages. The study of language aptitude has led to devise tests to predict and measure students' language learning potential: the best-known tests are the Modern Languages Aptitude Test (1957) and the Language Aptitude Battery (1966) (Skehan, 1991).

Skehan (1991) suggests the existence of two different profiles of language aptitude:

- a. the analyst's model is focused on the rule-based nature of language: the analyst acquirer tends to rely on the left brain which rationally analyses and control every detail of the language;
- b. the user's model is focused on the creative aspect of language: the user acquirer tends to rely more on the right brain which intuitively grasp the globality of language and uses it to communicate.

1.4.3 Cognitive styles

A cognitive style defines the "general predisposition, voluntary or not, toward processing information in a particular way" (Skehan, 1991: 288).

- a. analytical or global style: as discussed earlier, the analytical style is linked to left-hemisphere dominance in the brain and process information sequentially; the global style is linked to right-hemisphere dominance in the brain and process information holistically. Effective language

- acquirers are able to use both the styles according to the linguistic task they are asked to complete (Littlewood, 1984; Skehan, 1991);
- b. intolerance or tolerance for ambiguity: in second language acquisition, the acquirer will often encounter unclear and ambiguous elements; some acquirers rely on a general comprehension of the speech and its context to ignore the problem, others may not be able to overcome the problem unless they resolve the ambiguity (Skehan, 1991);
 - c. field dependence or independence: field-independent acquirers are insensitive to language context and are object-oriented, therefore they learn more effectively with visual written input; on the other hand, field-dependent acquirers are influenced by the background context and are person-oriented, therefore they learn more effectively through interaction (Littlewood, 1984; Skehan, 1991);
 - d. autonomous or guided learning: some language acquirers are quite autonomous in the acquisition process, other acquirers may need extra guidance from the teacher; some support is natural especially in the early stages of acquisition, but the acquirer should learn some strategies which can be helpful to develop the second language with a certain degree of autonomy (Bruner, 1983; Krashen, 1982; Skehan, 1991).

1.4.4 Learner strategies

Generally, second language acquirers adopt active strategies to learn more effectively. In order to become more autonomous language learners, acquirers can be trained to flexibly and effectively adopt the right strategy to carry out a specific task (Krashen, 1982; Littlewood, 1984; Skehan, 1991).

Oxford (1989, as cited in Skehan, 1991) classifies strategies as indirect and direct:

- a. direct strategies include memory strategies (i.e. grouping, associating etc...), cognitive strategies (i.e. repeating, recombining, summarizing etc...) and compensatory strategies (i.e. using extra-linguistic clues, getting help, using gesture);
- b. indirect strategies include metacognitive strategies (i.e. identifying the purpose of a language task and planning for it, self-monitoring etc...), affective strategies (i.e. deep breathing to relax, self-rewarding etc...) and social strategies (i.e. asking for clarification, cooperating with peers and native speakers etc...).

Second Language Comprehension: the key role of Expectancy Grammar

In the previous chapter, the process of language acquisition has been outlined and the main assumption of this book has been presented: comprehension precedes production and it is necessary for second language acquisition (Bruner, 1983; Krashen, 1982; Littlewood, 1984). At several points in the previous chapter, we focused on the difference between performance/product – the actual use of the language – and competence/process – the underlying knowledge of the language (Chomsky, 1965; Littlewood, 1984).

By the same token in this chapter, we will investigate the processes underlying second language comprehension and the crucial role of the Expectancy Grammar will be brought to our attention.

2.1 Towards a definition of Comprehension

Comprehension studies over the years have been mostly devoted to the process of decoding which represents the main difference between the two receptive skills of reading and listening (Clapham, 1996). Nevertheless, decoding is only one of the several processes involved in comprehension and reading and listening are equivalent in many higher-level cognitive processes (Alderson, 2000; Balboni, 2015, 2018; Clapham, 1996).

Munby (1978, as cited in Alderson, 2000) distinguished several comprehension “microskills”, which should not be considered as discrete skills, but rather as skills that are often used simultaneously:

- a. recognising the script of a language
- b. deducing the meaning and use of unfamiliar lexical items
- c. understanding explicitly stated information
- d. understanding information when not explicitly stated
- e. understanding conceptual meaning
- f. understanding the communicative value of sentences
- g. understanding relations within the sentence
- h. understanding relations between parts of text through lexical cohesion devices
- i. understanding cohesion between parts of a text through grammatical cohesion devices
- j. interpreting text by going outside it
- k. recognising indicators in discourse
- l. identifying the main point or important information in discourse
- m. distinguishing the main idea from supporting details
- n. extracting salient details to summarise (the text, an idea)
- o. extracting relevant points from a text selectively
- p. using basic reference skills
- q. skimming
- r. scanning to locate specifically required information
- s. transcoding information to diagrammatic display
(Alderson, 2000: 10-11)

Comprehension processes are normally internal, mostly unconscious and differ from person to person. Therefore, it is difficult to define the exact nature of a process and to describe it univocally. Different methods have been implemented in order to externalise and analyse comprehension processes, such as monitoring eye movements of readers, introspection, reading aloud.

Goodman (1967) adopted the reading-aloud method and miscue analysis to investigate the nature of comprehension. Some of the miscues collected have proved to be particularly useful to outline comprehension processes; for example, the analysis of the substitutions made by the reader revealed some crucial regularities (Goodman, 1967):

- a. *the* is substituted for *your*: both have the same grammatical function of noun markers;
- b. *a* is substituted for *the*: both have the same grammatical function of noun markers;
- c. *sounds* is substituted for *sounded*: both are verbs with the same base, only the suffix has been changed;
- d. none of these substitutions have been corrected by the reader unless they seriously compromised the interpretation of the rest of the sentence.

These kinds of substitutions seem to prove an implicit knowledge of the deep structure of the language to the point where the reader does not need to sequentially identify every single word to guess what may come next (Goodman, 1967). These miscues are clearly not due to an oversight, but they are tentative conclusions the reader made based on what has hitherto been read.

Goodman's (1967) analysis describes comprehension as "more than precise, sequential identification" (126); comprehension occurs simultaneously with reading (or listening) the text as a whole, in its global dimension. The reader constructs the meaning of a text "on the basis of minimal textual information, and maximum use of existing, activated, knowledge" (Alderson, 2000: 17).

Similarly to the functioning of LAD (Chomsky, 1965), Goodman (1967) suggests that comprehension is activated by the external input of a text which is interpreted according to internal cognitive processes:

- a. the reader samples minimal language cues based on her/his expectations on the text;
- b. the reader predicts what will come next;
- c. the reader tests the validity of the hypotheses;
- d. hypotheses are confirmed or adjusted as the sampling proceeds (Alderson, 2000; Clapham, 1996; Kintsch, Rawson, 2005).

Sampling, predicting, confirming and correcting are not to be considered as discrete stages, but rather as elements of a simultaneous process which is graphically represented in Figure 2.1.

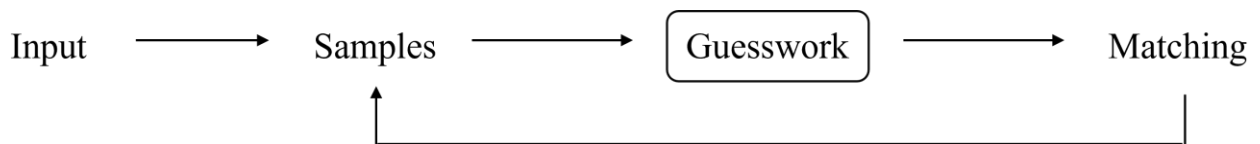


Figure 2.1 Goodman's language comprehension model.
Adapted from Goodman (1967: 5).

To use Goodman's (1967) own words, comprehension:

involves an interaction between thought and language. Efficient reading does not result from precise perception and identification of all elements, but from skill in selecting the fewest, most productive cues necessary to produce guesses which are right the first time. The ability to anticipate that which has not been seen, of course, is vital in reading, just as the ability to anticipate what has not yet been heard is vital in listening (127).

His paper *Reading: A Psycholinguistic Guessing Game* (1967) had a profound effect on research into comprehension (Clapham, 1996): Goodman highlighted the importance of the reader's cognitive abilities for the active construction of meaning. A text has only a "meaning potential" that has to be realised by the reader/listener (Halliday, 1979 as cited in Alderson, 2000).

In the 1970's Bransford and Franks carried out two experiments to prove that a series of related linguistic inputs is not processed as separate pieces of information, but they are actively integrated into a single mental representation. In the first experiment, participants were presented with a jumbled list of three semantically related sentences (2.1) (2.2) (2.3) and later reported that they had heard the fourth sentence (2.4), which had not in fact been presented to them (Bransford, Franks, 1971).

- (2.1) The ants were in the kitchen.
- (2.2) The ants ate the sweet jelly.
- (2.3) The jelly was on the table.
- (2.4) The ants in the kitchen ate the sweet jelly that was on the table.

The result indicates that our brain spontaneously integrates the information expressed in each sentence in a single holistic sentence (Bransford, Franks, 1971).

In their second experiment, Bransford, Barclay and Franks (1972) went a step further and investigated if the process of information integration may be influenced by participants' personal world knowledge. The hypothesis was correct because some participants who heard the sentence in (2.5) confused it in a later memory test with (2.6).

- (2.5) Three turtles sat on a floating log and a fish swam beneath it.

(2.6) Three turtles sat on a floating log and a fish swam beneath them.

These two sentences show a slightly different interpretation of the same scenario: the mental model for these sentences is the same, but it has been interpreted using different world knowledge and inferencing skills (Bransford, Barclay, Franks, 1972). Participants who recalled the first sentence may have preferred the position of the elements to interpret the situation: thus, there are turtles, a log, and a fish and the fish is swimming beneath the log. Participants who recalled the second sentence may have preferred animacy of the elements: they gave more importance to the animate entities in the sentence, thus the fish is swimming beneath the turtles (Bransford, Barclay, Franks, 1972).

To stay true to the title, I will conclude this section with a possible definition of comprehension: I have to use the term *possible* since comprehension studies are constantly evolving and the studies I reported may not be sufficient to present a complete picture of such a complex process. Comprehension is the result of the interaction between the reader/listener and the text and it can be defined as a dynamic, global and simultaneous process based on hypothesis generation and resolution (Alderson, 2000; Balboni, 2015, 2018; Clapham, 1996; Goodman, 1967).

2.2 Expectancy Grammar

So far in this book, the natural predisposition to deal with language through hypotheses has been a recurring thread.

In the first chapter, Chomsky (1965) suggested that the grammar of a specific language is actively constructed in the mind of the acquirer by following the sequence: input recognition, hypothesis about which universal grammar component suits it best, sampling of other input to confirm or correct the hypothesis, and repeat. This language acquisition process begins in the early stages of life and it is therefore largely unconscious.

In the present chapter, we have seen that Goodman's (1967) language comprehension model follows a similar path: sampling of the text, hypothesis about what will come next, confirmation or adjustment of predictions, and repeat. This comprehension process is largely unconscious as well.

This hypothesis formulating ability is governed by the so-called Expectancy Grammar, also known as Pragmatic Expectancy Grammar. The Expectancy Grammar leads the reader/listener to make

partial use of available minimal language cues selected from perceptual input on the basis of the reader's expectation (Goodman, 1967: 127).

To state it more clearly, efficient readers/listeners do not scan the text word by word but select the cues that are compatible with their expectation as long as the text proceeds (Alderson, 2000; Clapham,

1996; Goodman, 1967). The cues available to the reader/listener are not solely linguistic in nature (phonology, morphology, semantics, syntax), but they include also:

- a. paratextual cues (titles, pictures, notes);
- b. paralinguistic cues (speed of voice, regional accent, tone);
- c. extralinguistic cues (body movement, distance, facial expressions);
- d. personal former experiences;
- e. former knowledge and competence.

All the cues available to the reader/listener can be classified into three macro categories which constitute the framework of Expectancy Grammar (Alderson, 2000; Balboni, 2015, 2018; Clapham, 1996):

- a. knowledge of the language, includes basic processes such as word recognition and parsing as well as higher level processes such as textual coherence and cohesion;
- b. knowledge of the world, defines how previous knowledge is stored in our minds and can facilitate comprehension and assimilation of new information;
- c. communicative competence, enables readers/listeners to strategically use their knowledge to reach comprehension.

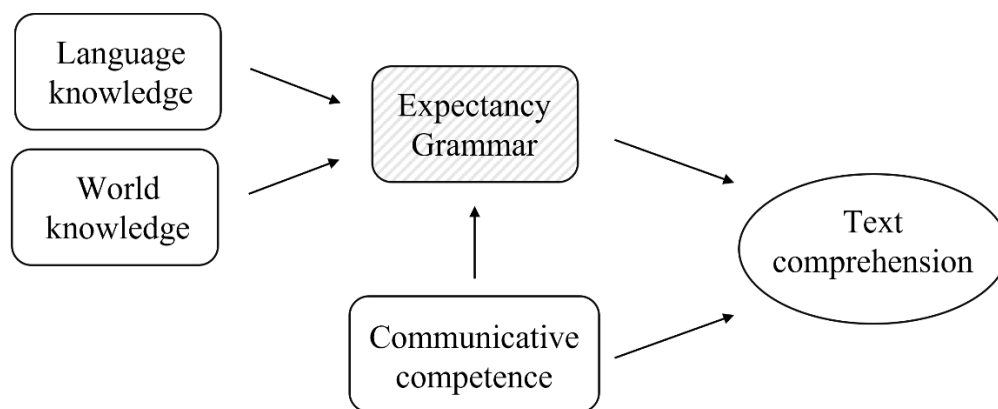


Figure 2.2 Contribution of expectancy grammar to comprehension.
Adapted from Balboni (2015: 160).

Undoubtedly, in terms of cognitive development the component *knowledge of the world* precedes *knowledge of the language*, but it is not equally true for second language acquisition (Bruner, 1983; Littlewood, 1984). As we have seen in the first chapter, there is a strong link between conceptual development and language development (Bruner, 1983; Littlewood, 1984; Shaffer, Kipp, 2014). A person who is approaching a second language has normally formed basic concepts around the world in the first language and culture (Bruner, 1983; Littlewood, 1984; Shaffer, Kipp, 2014). Therefore,

there may be a need to develop new concepts linked to the second language, especially when cultural differences and peculiarities are involved (Balboni, Caon, 2015; Littlewood, 1984).

In the following sections of this chapter, each of the three components of the Expectancy Grammar will be analysed in depth to highlight their importance and how much interrelated they are.

2.3 Knowledge of the language

The short-circuit hypothesis assumes that a basic knowledge in the second language is necessary to prevent short-circuit in second language comprehension (Alderson, 2000). An adequate knowledge of the language enables the reader/listener to penetrate different levels of understanding of a text. Gray (1960) distinguished between (as cited in Alderson, 2000):

- a. reading “the lines”, the literal meaning of the text;
- b. reading “between the lines”, the inferred meaning of the text;
- c. reading “beyond the lines”, critical evaluation of the text.

The three levels of understanding are normally considered to be hierarchically ordered: the reader/listener is expected to firstly recognise most of the words that constitute the text, then to understand what is not explicitly stated in the text, and eventually understand what the main implications of the text are (Alderson, 2000; Clapham, 1996; Kintsch, Rawson, 2005).

Kintsch and van Dijk (1978) reorganized the three-levels distinctions into two categories (as cited in Alderson, 2000, Clapham, 1996 and Kintsch, Rawson, 2005):

- a. microprocesses, which refer to how words are combined to form a proposition and how propositions are related to one another to form higher-order units;
- b. macroprocesses, which refer to how higher-order units of a text are interrelated to construct the global structure and the gist of a text.

Independently of the model adopted, it is evident that the understanding of a text is constructed through a series of processes that are likely to be hierarchic. The main processes involved will be briefly described in the following sections of the chapter.

2.3.1 Word recognition

For comprehension to take place, the very first step is to decode the graphic or acoustic symbols in which the text is encoded. Seidenberg and McClelland (1989) proposed a parallel distributed processing (PDP) model to account for the word recognition system (as cited in Lupker, 2005). In this model, three types of mental representation are involved: orthographic, phonological and semantic representations (Lupker, 2005). As represented in Figure 2.3, when a word is detected, a flow of activation spreads across all the units. Once each unit starts to be activated, it spreads the

activation to the appropriate units at other levels (Lupker, 2005). This feedback of activation makes it possible to process all the information simultaneously and to match the compatible representations for each unit. If the same word is detected multiple times over time, the process of recognition becomes faster and more accurate (Lupker, 2005).

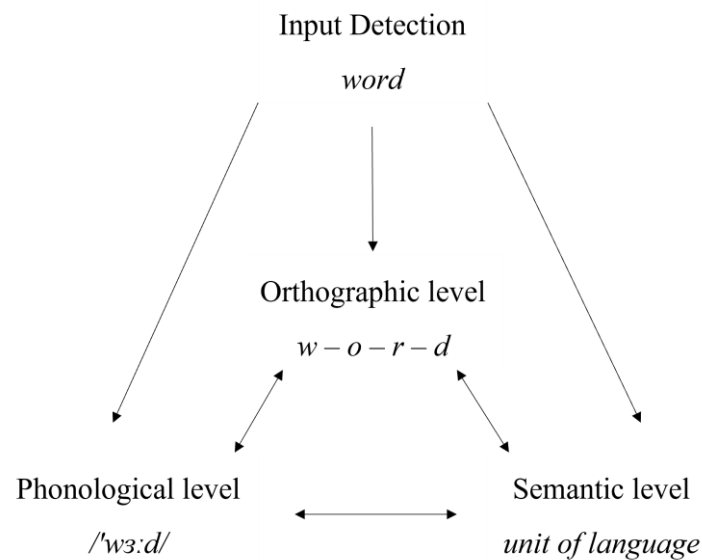


Figure 2.3 Triangle framework of the PDP model. Adapted from Lupker (2005: 49).

For example, when the word *cat* is detected, the activation flows in the three units and can lead also to the activation of competitors, namely words that are similar at a:

- a. orthographic level: *cat*, *car*, *mat*;
- b. phonological level: /'kæt/, /'kæd/, /'bæt/;
- c. semantic level: furry pets with four legs and a tail (*cat*, *dog*) (Lupker, 2005).

In this case, there is a simple match among the three representations, therefore we can expect the processing of the word *cat* to be quite fast but this is not always the case. The process may become slower if a competitor is activated in more than just one level: for example, if the word *bat* had been activated both at an orthographic and phonological level, it would have taken longer to confront not one but two couples (*cat* - /'kæt/ and *bat* - /'bæt/) with the semantic representation *furry pets with four legs and a tail*.

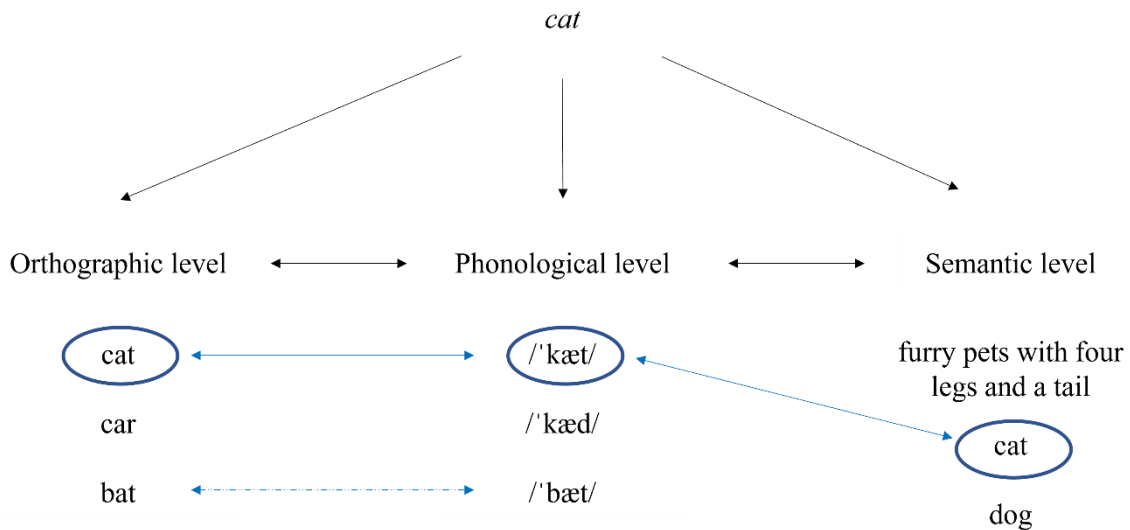


Figure 2.4 Partial activation of a competitor word.

Other complications in the word recognition process may be caused by homophones, homographs and homonyms. These types of words lead to one-to-many correspondence between two levels of representation (Lupker, 2005):

- a. homophones are words that have same pronunciations but different spellings, thus there is a one-to-many correspondence between the phonological and the orthographic level;
- b. homographs are words that have same spelling but different pronunciations, thus there is a one-to-many correspondence between the orthographic and the phonological level;
- c. homonyms are words that have same spelling but different meaning, thus there is a one-to-many correspondence between the orthographic and the semantic level.

If presented auditorily, homophones can activate simultaneously different spellings at an orthographic level leading to a delay in processing (Lupker, 2005). For example, when the listener hears /flaʊə^r/, both the homophones *flour* and *flower* receive some activation and the right semantic representation needs to be selected based on the meaning of the words previously processed or on the meaning of the words which follow.

If presented visually, homographs can activate simultaneously different pronunciations at a phonological level leading to a delay in processing (Lupker, 2005). For example, when the reader meets the word *tear*, both the homographs tɛə^r (verb) and tɪə^r (noun) receive some activation. Since the two meaning of *tear* are associated to different grammatical functions, in this case syntactic cues may help as well to select the appropriate semantic representation.

If presented either visually or auditorily, homonyms can activate different semantic representations leading to a delay in processing (Lupker, 2005). For example, the word *bank* gives some activation

both to the “financial institution” meaning and to the “river’s edge” meaning (Lupker, 2005). Once again, the correct representation has to be selected based on the global meaning of the sentence or text.

Thence, how is expectancy grammar involved in word recognition?

As noted above, while reading or listening a text – especially in a second language – we may not always be able to fill all the three levels of representation of a word. It can cause delay in the word recognition process or can even impede comprehension (Lupker, 2005). To prevent the latter prospect, it is important for the reader/listener to know how to bypass the problem: comprehension is a global process, we do not need to understand every single word to grasp the gist of a text (Alderson, 2000; Balboni, 2015, 2018; Clapham, 1996). The portion of a sentence or text that has been successfully understood creates expectations on what is likely to fill a gap in our understanding (Goodman, 1967).

In the case of the homophones *flour* and *flower* and of the homonym *bank* semantic cues from the rest of the sentence create expectation on what the appropriate spelling and meaning are and support comprehension.

In the case of the homographs *təʊ* (verb) and *tuə* (noun) the semantic representations are associated to different grammatical functions, therefore syntactic cues may fuel the expectancy grammar even more than semantic cues.

Word recognition is the very first stage of the comprehension process, but it heavily relies on the syntactic structure of the text and its semantic net. The expectancy grammar enables the reader/listener to strategically move from one level to another and to actively construct the meaning of the text. We will return to the contribution of syntax and semantics later in the chapter.

2.3.2 Word parsing and syntax

Chomsky (1965) defines syntax as the deep structure of a sentence, what gives form to language. As a consequence, the assignment of words to their syntactic roles in sentences – known as word parsing – plays an important part in the construction of the meaning of a text (Alderson, 2000; Kintsch, Rawson, 2005).

The clausal hypothesis claims that the clause is the basic unit of analysis in language comprehension. The clause is a group of words in a sentence that includes a verb (Warren, 2013: 160)

On one hand Chomsky (1965) suggests that the knowledge of syntax is largely implicit, on the other hand the analysis of the syntactic structure of a text requires a certain level of awareness which is usually fostered at school (Balboni, 2015, 2018).

Compared to the word recognition stage, word parsing works on a more abstract layer of the language and organize words in wider categories which constitutes the building blocks of the language (Kintsch, Rawson, 2005; van Gelderen, 2017). There are two main categories (van Gelderen, 2017):

- a. lexical category, includes Noun, Verb, Adjective, Adverb, and Preposition (in English);
- b. grammatical category, includes Determiner, Auxiliary, Coordinator, and Complementizer (in English).

Each of these elements has distinctive characteristics and rules that determine how they can be combined together in a sentence. For example: generally prepositions and determiners introduce a noun (2.7); generally a complementizer introduces a sentence (2.8); generally adjectives precede the noun and are conform to its number and gender (2.9) (van Gelderen, 2017).

(2.7) *The story is about love.*

(2.8) *She said that he will arrive late.*

(2.9) *Susan likes that blue bag.*

Nevertheless, syntactic category ambiguity is not uncommon. Especially in English, there are countless words that can be framed in different categories (Warren, 2013): we have already seen an example of category ambiguity in the previous section with the word *tear* which can be both a verb and a noun. Some other examples are: to walk/walk (verb or noun), to live/live (verb or adjective), to desert/desert (verb, noun or adjective), to book/ book (verb or noun), to point/point (verb or noun), to project/project (verb or noun), etc.

The appropriate category that fits an ambiguous word can be inferred by the grammatical function assigned in the sentence (Warren, 2013). As stated above, the assignment of words to their syntactic roles in sentences is crucial to the determination of word order and to the construction of the meaning of a sentence (Alderson, 2000; Kintsch, Rawson, 2005; Warren, 2013). There are five main grammatical functions (van Gelderen, 2017): verb, subject, object, predicate, and adverbials. We will briefly discuss the main implications of each grammatical function.

The verb expresses an act or state. It can be intransitive, transitive or ditransitive according on how many arguments the verb has, respectively one, two or three arguments. The most common arguments are (van Gelderen, 2017):

- a. agent: an animate entity that deliberately do the action; it is generally the subject of the sentence;

b. theme: person or object undergoing the action; it is generally the object of the sentence.

The verb represents the crux of the sentence because it determines the agreement with its arguments, the tense of the sentence (if the state/action has taken place in the past or the present) and whether the action/state is finite or not (van Gelderen, 2017).

The subject receives the nominative case (only visible on pronouns in English) (2.10) and follows the subject-verb agreement (2.11). In SVO languages, such as English, the subject generally precedes the verb (2.10) (2.11) and is inverted with the auxiliary in questions (2.12) (van Gelderen, 2017).

(2.10) *S/he is smiling.*

(2.11) *The car is blue. The cars are blue.*

(2.12) *Is the car blue?*

The object generally follows the verb in SVO languages and can be divided in direct object (2.13), indirect object (2.14) and prepositional object (2.15) (van Gelderen, 2017).

(2.13) *She wrote a letter.*

(2.14) *She sent him a letter.*

(2.15) *He replied to her.*

The predicate provides additional information about the subject (subject predicate, 2.16) or about the object (object predicate, 2.17) (van Gelderen, 2017).

(2.16) *He is a man of faith.*

(2.17) *I found the film boring.*

The adverbial provides additional information about the verb (when, where, how, why, 2.18) (van Gelderen, 2017).

(2.18) *She stood [*motionless*] [*in the corner*] [*for a while*] [*because of the shock*].*

English sentences that follow the canonical SVO order have proven to be easier to understand both for native speaker and non-native speakers (Warren, 2013). Unfortunately, the SVO order is often transformed in complex sentences such in the case of relative embedded clauses.

(2.19) *The boy who chased the dog ran home (Warren, 2013: 159).*

(2.20) *The boy who the dog chased ran home (Warren, 2013: 159).*

Sentence (2.19) is easier to process and comprehend because the embedded clause *who chased the dog* respects the SVO order (Warren, 2013). On the contrary, sentence (2.20) is unlikely to be instantly understood because the embedded clause *who the dog chased* presents a SOV order: the reader/listener requires some more time to understand who chased who (Warren, 2013). Syntax complexity does not influence only the time of processing but can also compromise the overall comprehension of a text. Savin and Perchonock (1965, as cited in Warren, 2013) conducted an experiment to investigate the effect of complex syntax on memory. Participants were asked to memorise a sentence and a list of unrelated words and evidence showed that the more complex the sentence was, the fewer words were remembered (Warren, 2013). It can be inferred that processing a complex syntax overload the working memory of the reader/listener and leaves little room for the construction of a global meaning.

Explicit syntactic markers are particularly helpful to process and understand complex structures. For example, sentence (2.21) is processed faster because the marker *the* makes it clear that what follows is an object clause (Warren, 2013). Instead, in (2.22) the reader tends to process *the answer* as the object and does not expect a verb next, therefore a re-interpretation of the sentence is required (Warren, 2013).

(2.21) John knew that the answer was wrong (Warren, 2013: 163).

(2.22) John knew the answer was wrong (Warren, 2013: 163).

Likewise, prosody and punctuation are helpful to segment and process respectively an oral or written sentence (Warren, 2013). Sentences (2.23), (2.24), (2.25) show the exact same word order but have different interpretation depending on where the comma/stress goes.

(2.23) What is this thing called love? (Warren, 2013: 164)

(2.24) What is this thing called, love? (Warren, 2013: 164)

(2.25) What, is this thing called love? (Warren, 2013: 164)

In the statement (2.23) the writer/speaker is wondering what love is; in (2.24) the writer/speaker is asking the beloved person what the name of something near them is; in (2.25) the writer/speaker is expressing surprise or disappointment towards what is considered to be love.

The important contribution of explicit syntactic markers to comprehension becomes apparent in newspaper headlines as “Man eating Piranha Mistakenly Sold As Pet Fish” (Warren, 2013: 165). This headline is a clear example of garden path, namely a sentence that induce an incorrect interpretation due to a misleading syntactic analysis (Warren, 2013). At a first reading, the headline above can be interpreted in several different ways:

- a. a man ate a piranha which was mistakenly sold as a pet fish;
- b. a man mistakenly ate a piranha which was sold as a pet fish;
- c. a man who was eating a piranha was mistakenly sold as a pet fish;
- d. a piranha of the man-eating species was mistakenly sold as a pet fish.

I deliberately reported the correct interpretation in the last place because it is generally not the first interpretation the reader gives to the headline. The possible different interpretations are due to the different possible roles that can be assigned to each word in the ambiguous sentence.

Thence, how is expectancy grammar involved in word parsing?

The syntactic structure of a sentence helps the reader/listener to “map” what has been understood and what not. For example, we can expect an unknown word that precedes the verb to be its subject, therefore our expectancy grammar makes us wonder what kind of person or thing is likely to perform that action or to be in that state. Moreover, the following verb tells us if the unknown word is singular or plural due to the subject-verb agreement. If an unknown word next to the verb ends with -ly, we expect it to be an adverb. By the same token, we can expect a noun that follows the verb to be its objects and we can expect an unknown word that precedes a noun to be an adjective.

Being able to read these syntactic cues and to identify the category or function to which the unknown word could belong gives us some information to start with to construct meaning. Unfortunately, if not properly trained, the expectancy grammar fails to grasp complex and unusual syntax and to recognise the basic underlying subject-verb-object structure (Alderson, 2000).

In the presence of complex structures, a reader/listener tends to have preferred strategies to process the sentence. Two common parsing strategies are (Warren, 2013):

- a. Late Closure: tendency to attach incoming material into the clause currently being processed;
- b. Right Association: tendency to attach incoming material to the latest elements processed.

I will propose again the sentence (2.26) to explain how the same sentence can be processed differently according to the strategy used.

(2.26) John knew the answer was wrong (Warren, 2013: 163).

According to the Late Closure strategy, *the answer* is processed as part of the first clause, therefore as the object of the verb *knew*. The transitive verb has been assigned with its two argument and the reader does not expect the verb *was* immediately after. Eye-tracking has showed that Late Closure readers gaze lingered on the word *was* and then regressed to the earliest part of the sentence (Warren, 2013). This backwards eye movement is a clear example of how the expectancy grammar can lead to an incorrect hypothesis that needs to be corrected through a re-sampling of the sentence.

On the other hand, according to the Right Association strategy, the cluster *was wrong* is attached to the element processed right before, so *the answer*. Right Association readers had a correct first guess and did not show backwards eye movement (Warren, 2013).

This kind of strategies are developed primarily during first language acquisition and are heavily influenced by implicit characteristics of the first language and culture. Strategies that are effective in our first language may not be productive in a different language because the cues we employ may not be equally reliable in that language (Warren, 2013). For example, in English word order is relatively stable, therefore English native speakers rely primarily on word order; native speaker of German tend to rely more on animacy; native speaker of Italian find useful cues in the noun-verb agreement (Warren, 2013).

Syntactic cues may be difficult to read, therefore a good reader/listener must be able to rely also on other linguistic cues which will be presented in the following sections.

2.3.3 Semantic analysis

The syntax-first approach claims that the initial analysis of a sentence relies only on syntactic information which is logically independent of semantics (Warren, 2013). This approach has been introduced by Chomsky (1965) and has been dominant for a considerable time. Nevertheless, numbers of studies have found evidence for an interactive and parallel processing approach with multiple analyses being assessed on various levels and confronted in order to interpret a sentence (Warren, 2013). As we discussed in the word recognition stage (section 2.3.1), these alternative levels of analysis may be in competition leading to a delay in processing (Lupker, 2005; Warren, 2013).

In this section, we will analyse how alternative analyses strictly related to semantics interact with the syntactic analysis. We will focus on semantic plausibility, semantic context, prosodic structure and semantic connections between and across sentences.

Semantic plausibility can facilitate or slow the syntactic processing of a sentence:

(2.27) They picnicked under the trees (Warren, 2013: 179).

(2.28) They picnicked under the teeth (Warren, 2013: 179).

sentences (2.27) and (2.28) are syntactically indistinguishable, but sentence (2.28) has shown to require longer overall reading time because it represents an implausible scenario (Warren, 2013).

As noted in previous sections, the semantic context gives important cues that are helpful for word recognition and, by the same token, for complex structures processing. Crain and Steedman (1985, as cited in Warren, 2013) conducted an experiment to test whether an appropriate semantic context may influence the processing of subordinate clauses. Participants were presented with a context and

then asked to decide whether a sentence presented was grammatical or not: each of the possible contexts (2.29) and (2.30) was combined with each of the possible sentences (2.31) and (2.32) resulting in four different experiment conditions (Warren, 2013).

(2.29) A psychologist was counselling to married couples. One of the couples was fighting with him, but the other one was nice to him (Warren, 2013: 184).

(2.30) A psychologist was counselling a married couple. One member of the pair was fighting with him, but the other one was nice to him (Warren, 2013: 184).

(2.31) The psychologist told the wife that he was having trouble with to leave her husband (Warren, 2013: 183).

(2.32) The psychologist told the wife that he was having trouble with her husband (Warren, 2013: 183).

Results showed that the sentences were judged ungrammatical only when the context mismatched the sentence; on the other hand, the complex subordinate clauses were more easily processed when the appropriate context provided the participants with useful additional information (Warren, 2013).

In spoken versions of ambiguous complex sentences, the listener may look for helpful additional information in the prosodic structure of the sentence (Warren, 2013). We have already analysed the sentence (2.33) from a syntactic point of view, as an evidence of Late Closure processing.

(2.33) John knew | the answer was wrong (Warren, 2013: 163).

In its spoken version, a short prosodic break | between the verb and its object clause signals the Early Closure Interpretation and prevents an incorrect processing of the sentence (Warren, 2013).

The syntactic analysis of a text interacts as well with the semantic connections within and across sentences. Each sentence of a text has its own syntactic structure and meaning, yet it is interrelated with the other sentences in a complex semantic network that represents the global meaning of the text (Kintsch, Rawson, 2005; Warren, 2013).

Coreference is the most common device used to relate sentences to one another (Kintsch, Rawson, 2005). The term anaphor is used to describe any linguistic device used to refer back to something previously stated, called referent (Kintsch, Rawson, 2005; Warren, 2013). Some kinds of anaphor explicitly refer back to their referent and can be easily comprehended, as in the case of repeated nouns (2.34) and synonyms (2.35) (Kintsch, Rawson, 2005; Warren, 2013).

(2.34) *Charles* has always wanted to become a lawyer. Unfortunately, *Charles* failed the bar exam.

(2.35) The teaching staff throw a party for their *seniors*. *The students* were very surprised.

More often, the anaphor is not explicit, as in the case of pronouns. In the example (2.36), syntactic information, as gender and number, contributes to anaphor resolution (Kintsch, Rawson, 2005; Warren, 2013).

(2.36) *Mary* will go to the cinema with *some friends*. *She* will meet *them* at 8 p.m.

When this kind of information is not enough to resolve an anaphor, other linguistic factors may help.

(2.37) John questioned Chris because he wanted the correct answers (Kintsch, Rawson, 2005: 216)

(2.38) John praised Chris because he knew the correct answers (Kintsch, Rawson, 2005: 216).

In the examples (2.37) and (2.38) the masculine singular pronoun can refer both to John and Chris, therefore gender information plays no role in anaphor resolution. Instead, the implicit semantic causality of verbs comes into play. This property indicates which of the verb's argument is the underlying cause of the action (Kintsch, Rawson, 2005). In (2.37) the subject *John* is the cause of questioning, thus the pronoun refers to John; in (2.38) the object *Chris* is the cause of the praising, thus the pronoun refers to Chris (Kintsch, Rawson, 2005).

This gap filling has been defined inference. Examples (2.37) and (2.38) are defined text-based inference because the anaphor can be resolved using the information present in the text (Kintsch, Rawson, 2005; Warren, 2013). The so-called bridging inferences, instead, require some additional information that can be normally found in the reader/listener world knowledge (Kintsch, Rawson, 2005; Warren, 2013).

(2.39) Keith drove to London. The car kept overheating (Garrod and Sanford, 1982 as cited in Warren, 2013: 205)

In (2.39) the referent *car* has never been mentioned before in the text, neither explicitly, nor through pronouns. However, the connection between the two sentences is quite clear because the reader knows that *car* is a vehicle that is likely used to drive to London (Warren, 2013). We will return on the contribution of the knowledge of the world to comprehension later in the chapter.

Thence, how is expectancy grammar involved in the semantic analysis of a text?

The active construction of meaning implies that the reader/listener has to fill some gaps that can be due to:

- a. lack of knowledge of a word: as outlined in the word recognition stage, the meaning of an unknown word can be grasped by relying on the global structure and meaning of the sentence or text;

- b. syntactic structures that are difficult to process relying solely on syntactic cues;
- c. implicit structure of the text: not every information present in a text is fully explicit.

In any cases, the reader/listener needs to use the traditional problem-solving method: sampling, predicting, confirming and correcting (Alderson, 2000; Goodman, 1967).

The expectancy grammar can be activated by syntactic cues, as in the previous example (2.40),

(2.40) *Mary will go to the cinema with some friends. She will meet them at 8 p.m.*

because we expect the singular pronoun to refer back to the singular noun in the first sentence and the plural pronoun to refer back to the plural noun in the first sentence (Kintsch, Rawson, 2005).

There is a one-to-one correlation, therefore the hypothesis is necessarily correct.

On the other hand, sometimes syntactic cues cannot be sufficient to make an educated guess. Therefore, the reader/listener makes hypotheses based on what it is believed to be more plausible based on common-knowledge.

(2.41) *As Philip was walking back from the shop, he saw an old woman trip and fall flat on her face in the street. She seemed unable to get up. Running towards ...* (Tyler, Marslen-Wilson, 1982: 174).

Tyler and Marslen-Wilson (1982) conducted an experiment to study how inferencing skills influence comprehension. Sentence (2.41) was read out loud to the participants and the visual probe words *him* or *her* for reading aloud to complete the story: evidence shows that participants took longer to read the word *him* because, due to their inferencing skills, they expected the sentence to continue with the word *her* (Tyler, Marslen-Wilson, 1982). The hypothesis of an old woman running after a fall is quite implausible according to common-sense, therefore listeners tend to expect the most plausible scenario to take place in the story (Kintsch, Rawson, 2005). When the word *him* appears to complete the story, listeners believe their hypothesis to be incorrect and their gaze linger on the word in the attempt to adjust the prediction (Tyler, Marslen-Wilson, 1982).

In the presence of ambiguous structures, a reader/listener tends to have preferred strategies to assign the meaning of a sentence. Semantic strategies are based on verb and noun preferences (Warren, 2013).

For example, readers/listeners showed a particular preference for transitive usage or intransitive usage when they were processing transitivity-ambiguous verbs (Warren, 2013).

(2.42) *I read about the match on the paper.*

(2.43) *I read a story to my son.*

Regarding the example (2.42), readers with a preference for transitive verbs expect a noun to be after the verb to cover the object function (Warren, 2013). When the preposition *about* is processed right after the verb *read*, this kind of readers realise their hypothesis was incorrect and need more processing time to correct their guess. Accordingly, readers with a preference for intransitive verb may experience delays in the processing of the example (2.43) (Warren, 2013).

Noun preferences can lead the reader/listener to expect noun referring to animate entities to cover the function of subject and noun referring to inanimate entities to cover the function of object (Warren, 2013).

(2.44) Even before the truck stopped the driver he was getting nervous (Warren, 2013: 187).

(2.45) Even before the truck stopped the driver was getting nervous (Warren, 2013: 187).

Expectancy grammar is likely to formulate an incorrect hypothesis while processing sentence (2.44) because the reader does not expect the inanimate *truck* to perform an action toward the animate *driver* (Warren, 2013). Conversely, sentence (2.45) is generally easier to interpret correctly at the first guess (Warren, 2013).

2.3.4 Cohesion and coherence

So far, we have analysed the microprocesses of comprehension: how words are recognised (section 2.3.1) and combined together to form a sentence (section 2.3.2) and how sentences are related to each other (section 2.3.3). Considering its global perspective, it would be simplistic to consider the sentence as the basic unit of a text. In this section, we will discuss how sentences are arranged in higher-order units, namely paragraphs, and how paragraphs are interwoven to construct the global structure and the gist of the text (Alderson, 2000; Clapham, 1996; Kintsch, Rawson, 2005). Paragraphs are considered the building blocks of a text because each paragraph has a single main theme and a structure that reflects the macrostructure of the text. Each paragraph should have a topic sentence, a body with supporting details and a conclusive statement that orients the attention of the reader to the following paragraph; by the same token, information in a text should be organized following a clear and logical structure (Hamp-Lyons, Heasley, 2006). In order to support comprehension, it is important to organize information following a stable sequence: for example, chronological sequencing, spatial sequencing, causation, comparison etc. (Alderson, 2000).

Coherence is crucial to maintain an overall sense of unity and understandability and cohesion is crucial for the contents of the text to flow smoothly. Different strategies can be implemented to create a coherent and cohesive text (Alderson, 2005; Hamp-Lyons, Heasley, 2006; Kintsch, Rawson, 2005), for example:

- a. repeating key terms (lexical redundancy);
- b. using synonyms, substitutions and nominalisations;
- c. repeating a sentence structure and using parallelism;
- d. using signalling devices (outlines, summaries, section headers etc.);
- e. using sequence markers (firstly, secondly, etc.);
- f. using temporal connectors (next, then, after etc.);
- g. using conjunctions (in addition, nevertheless, hence etc.).

Thence, how is expectancy grammar involved in cohesion and coherence?

The main function of cohesion and coherence is to guide the reader/listener's comprehension from inside the text in a manner very similarly to how the expectancy grammar guides comprehension from inside the reader/listener.

Outlines, summaries and section headers create expectations about what the reader/listener is going to read/listen and make the audience anticipate what the contents of the text are. This step is crucial for a successful comprehension because it leads to the activation of the so-called content schemata which include all the background knowledge that is relevant to the topic of the text. We will consider this subject in the next sections.

Sequence markers, temporal connectors and conjunctions guide the expectations of the reader/listener that systematically tries to anticipate what will come next until the hypotheses are confirmed or corrected.

2.3.5 Text type and genre

According to its contents, organisation and style, a text can be framed in a specific text type and genre. The study of text types has resulted in the definition of two macro categories of texts (Alderson, 2000):

- a. expository texts: this kind of texts presents factual information on a great variety of content with the purpose of educating the reader/listener. Academic, technical and scientific writings are examples of expository texts;
- b. narrative texts: this kind of texts engage the reader/listener in a storytelling format with a structured plotline with the purpose of entertaining and dealing with life lessons. Novels, short stories and poems are examples of narrative texts.

Generally, narrative texts are easier to comprehend because the vast majority of readers/listeners are familiar with the conventions of this genre. In addition, narrative texts usually use an emotional language to help readers/listeners connect with the story and its characters (Alderson, 2000).

Furthermore, Denis (1982) suggests that narrative texts tend to induce visualisation in readers/listeners, who see the scenes in their head while approaching and understanding the text (as cited in Alderson, 2000).

Expository texts are generally more difficult to understand for a non-specialist audience because of their formal and impersonal style and their academic contents (Alderson, 2000).

Thence, how is expectancy grammar involved in text type and genre?

Type and genre are an integral part of the global perception and comprehension of a text.

Knowing the conventions of a specific text type gives us important information about the kind of contents and style we can expect from a text. For example, we can expect the following structure from a narrative text:

- a. introduction of a status quo: we can expect a description of the main character and the setting of the story;
- b. an inciting incident that breaks the status quo: it is usually difficult to predict the exact nature of the incident, but the first part of the story has certainly given us enough element to hypothesise how the character would react to it;
- c. rising action: we can expect the character growth and some moment of self-discovery;
- d. climax: all seems lost, but we can expect the protagonist to regain control of the story;
- e. resolution: we can expect the main character to overcome the difficult moment or to learn an important lesson.

Likewise, we can expect an expository text to follow the structure S-P-S-E (Hamp-Lyons, Heasley, 2006):

- a. situation: the topic of the text is introduced and we hypothesise which problems can be related to the subject;
- b. problem: we can expect further details about the problematic situation;
- c. solution: we can try to anticipate possible solutions to the problem;
- d. evaluation: at this point we should have sufficient information to anticipate and draw conclusion on our own.

The conventionalised macrostructure of a text provides us with abstract slots to be filled with our hypotheses and information taken directly from the text.

2.3.6 Non-verbal information

Written texts generally contain non-verbal graphic information, especially in schoolbooks.

Graphic information is particularly useful for second language comprehension because it provides an alternative and complementary way of processing the text: illustrations, tables, diagrams, colour highlights make a text less dense of linguistic information and therefore easier to process. Moreover, graphic elements:

- a. are the first to be perceived and processed: attracting illustration can motivate the reader and facilitate the language comprehension and acquisition process (Krashen, 1982);
- b. elicit the language data related to what has been represented and trigger the expectancy grammar;
- c. integrate possible gaps in language comprehension.

Non-verbal information is even more important for the oral dimension of language. In oral interaction only the 15% of information passes through verbal communication, 15% passes through intonation and prosody and as much as 70% passes through other non-verbal communication (Del Campo, 1997 as cited in Balboni, Caon, 2015).

There are different types of non-verbal signals (Balboni, Caon, 2015):

- a. loudness or tone of voice can give us information about the emotional state of the interlocutor (angry, relaxed, worried);
- b. kinesics⁸: for example, eye contact can help us to regulate turn-taking and to receive feedback from the interlocutor;
- c. proxemics⁹ can reveal how close the relationship between the interlocutors is;
- d. interlocutor appearance, such as clothes and jewellery, can suggest the formality/informality of the interaction.

Thence, how is expectancy grammar involved in non-verbal information processing?

As stated above, graphic elements can trigger the expectancy grammar of the reader. As soon the text is presented, the reader's attention is drawn to accompanying images. The interpretation of these graphic elements elicits a related semantic field and creates expectations about the possible topic of the text. If the topic predicted is correct, the reader will be able to process the text faster because most of the words s/he will encounter have already received some activation in the word processor presented in section 2.3.1. Besides, pictures and diagrams give the reader cues about the text type and

⁸ Kinesics refers to the study of body movements including facial expressions, eye movement, head movement, gestures, etc. (Balboni, Caon, 2015).

⁹ Proxemics refers to the study of space and distance (Balboni, Caon, 2015).

genre as well. Referring back to the difference between expository and narrative text presented in section 2.3.5, figure 2.5 gives a glimpse on the different kinds of picture that can be found in the different kinds of text: the picture on the left makes us expect to be in front of a narrative text; the picture on the right is more likely to be found in an expository text.

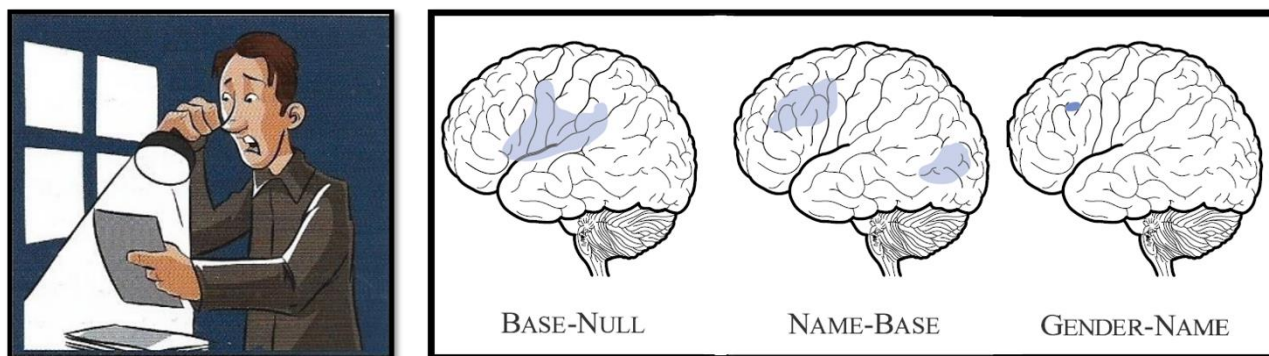


Figure 2.5 Differences in narrative and expository texts' pictures¹⁰.

We have seen that non-verbal information covers the 70% of the total amount of information in a spoken interaction. In spite of this, the communicative importance of non-verbal information in oral interaction is often underestimated by second language speakers. Balboni and Caon (2015) suggest the cause of this underestimation can be tracked down to a teaching tradition too focused on verbal communication. As a consequence, native speakers are led to think that the non-verbal communication they have been exposed throughout their life is universally shared (Balboni, Caon, 2015). If not aware of the cultural implicit of non-verbal communication, our expectancy grammar can be culturally biased and lead us to face misunderstandings with the second language community. For example, a second language speaker who does not set the parameter of her/his expectations to the second culture standard, may misinterpret some of these culturally rooted signals (Balboni, Caon, 2015):

- a. loudness or tone of voice: a high tone of voice is quite common in some countries like Italy, but is generally considered rude by the Eastern culture;
- b. kinesics: the hand gesture in which the index and middle fingers shape a V while the other fingers are clenched has a very different meaning in Commonwealth nations depending on the palm direction, the V sign with the palm outward stands for victory, with the palm inward becomes an offensive gesture similar to showing the middle finger;

¹⁰ The picture on the left is taken from Doff et al., 2015: 121. The picture on the right is taken from Warren, 2013: 9.

- c. proxemics: in some cultures, getting close to the personal space (half a meter – a meter and a half) of the interlocutor can be considered inappropriate and intrusive;
- d. interlocutor appearance: uncoordinated jacket and trousers are considered formal in the European culture and extremely informal in Japan and China.

In the first chapter, we analysed the concept of language as a by-product of culture (Bruner, 1983): when the expectancy grammar is involved, we cannot expect to make appropriate first guesses in a second language without a basic knowledge of its culture. The second portion of this chapter will discuss further how culture can influence second language comprehension.

2.4 Knowledge of the world

As stated above, comprehension is the result of the interaction between the reader/listener and the text (Alderson, 2000; Balboni, 2015, 2018; Clapham, 1996; Goodman, 1967).

So far, we have analysed the textual cues involved in language comprehension. In the following sections we will emphasise the importance of the knowledge that a reader/listener brings to the text. Indeed, the active construction of the meaning of a text/discourse

also depends on what we assume to be the normalcy of the facts, episode, or situation described. In other words, understanding a discourse presupposes understanding the world. [...] We must know or have assumptions about what is relevant and important in some communicative context, we must know how to group individuals and properties, and we must know what stereotypical aspects are involved in global events and actions (Van Dijk, 1985: 111-154).

Without previous knowledge, readers and listeners would not be able to actively make inferences and hypotheses about the text (Alderson, 2000; Clapham, 1996; Kintsch, Rawson, 2005). Hypotheses guide comprehension and knowledge guides hypotheses. Hence, to understand how language comprehension works, we need to understand how knowledge is organised and used (Alderson, 2000; Clapham, 1996; Kintsch, Rawson, 2005).

In the 1970's several psycholinguists and Artificial Intelligence scientists attempted to devise theoretic models of knowledge representation, known as schema theories (Alderson, 2000; Clapham, 1996; Kintsch, Rawson, 2005). With the purpose of providing a general account of the most recognised schema-theoretic models, Rumelhart (1980) summarises:

A schema theory is basically a theory about knowledge. It is a theory about how knowledge is represented and about how that representation facilitates the use of knowledge in particular ways. According to schema theories, all knowledge is packed into units. These units are schemata. Embedded

in these packets of knowledge is, in addition to the knowledge itself, information about how this knowledge is to be used (33).

The most renowned schema theories are the “frame system theory” proposed by Minsky (1975) and the “scripts and plans theory” proposed by Schank and Abelson (1977).

According to Minsky (1975), knowledge is divided in stereotypical situations organised in frames. A frame is constituted by (Minsky, 1975):

- a. a fixed top-level which includes general and always true information about the framed situation;
- b. lower levels terminals which are filled by specific instances of the situation and can be shared by two frames belonging to the same frame system.

Minsky (1975) provides the example of a person entering a room. The frame “walking into a room” is activated and

- a. in the top-level of this frame are stored default value expectations, such as the shape of the room, doors and windows etc.;
- b. in lower-levels terminals are stored specific characteristics of the rooms the person has already entered before.

If the new room meets the conditions of an already existing terminal, the room will be interpreted according to that terminal; otherwise the characteristics of the new room will fill a new ad-hoc terminal (Minsky, 1975).

Schank and Abelson (1977) presented the scripts and plans theory as “a specialization of (Minsky’s) frame idea” (151) in the field of language comprehension:

We see understanding as the fitting of new information into a previously organized view of the world. [...] Earlier work has found various ways in which a word in a single sentence sets up expectations about what is likely to be found in the rest of the sentence. A single sentence and its corresponding conceptualizations set up expectations about what is to follow in the rest of a discourse or story. These expectations characterize the world knowledge that bears on a given situation, and it is these expectations that we wish to explore (151).

A script is a predetermined reasonable sequence of events in a particular well-known context and defines the space in which expectations are set up and hypotheses are formulated (Schank, Abelson, 1977). Each script header defines the circumstances under which the script can recall useful previous knowledge to process, understand and store new information (Schank, Abelson, 1977).

Schank and Abelson (1977) provides the script *restaurant* as a practical example of how this stereotypical situation is stored in the mind of an average customer:

Script: restaurant

Roles: customer, waitress, chef, cashier

Reason: to get food so as to go up in pleasure and down in hunger

Scene I: entering

self into restaurant

eyes to where empty tables are

where to sit

self to table sit down

Scene II: ordering

receive menu

read menu

decide what self wants

order to waitress

Scene III: eating

receive food

eat

Scene IV: exiting

ask for check

receive check

tip to waitress

self to cashier

money to cashier

self out of restaurant

(Schank, Abelson, 1977: 152).

We can notice that the acts that constitute a script are causally chained, which means that an act must be completed for the next act to take place. Moreover, some acts are themselves a script, such as scene II *order to waitress* or scene IV *ask for check* (Schank, Abelson, 1977).

Occasionally, the expected causal chaining is not followed and a new action not included in the script has to be performed to move forward. Schank and Abelson (1977) defines this sort of unexpected events “what-ifs”. In the script *restaurant*, for example, some possible obstacles are:

Scene II: ordering

receive menu
read menu
decide what self wants
order to waitress

Possible obstacle #1: what if the waitress ignores the customer?

catch waitress eye / call to waitress
receive menu
read menu
decide what self wants
order to waitress

Scene III: eating

receive food
eat

Possible obstacle #2: what if the food is not fit?

receive not fit food
send food back
receive fit food
eat

When a what-if situation takes places, an action is required to restore the preconditions for the following actions. If the waitress ignores the customer or the food is not fit, the customer needs to plan an action in order to achieve the goal *get food* at the basis of the script *restaurant*.

Alongside with scripts, plans are a key elements of Schank and Abelson's (1977) schema theory.

Plans are devised based on scripts to answer the question "How am I expected to perform in this situation to achieve my goal?". Plans describe the deliberate actions that a person performs to achieve a certain goal: when a sequence of actions is used successfully for a sufficient number of times, the plan becomes a script (Schank, Abelson, 1977). For example, if the customer successfully draws the attention of the waitress by catching her eyes or call to her on several occasion, this plan will be implemented in the script *restaurant*.

A script organises and retrieves the common-based knowledge of a given situation and guides the expectations of the reader/listener. By the same token, plans help the reader/listeners to

make guesses about the intentions of an action in an unfolding story and use these guesses to make sense of the story (Schank, Abelson, 1977: 154).

Frames, scripts and plans are functional to the interpretation of an event or situation and are largely constructed bottom-up, through the experience of a wide repertoire of events and situations (Rumelhart, 1980). Specific instances are collected, then the general information is abstracted to create wider top-level schemata: the wider the header is, the easier it is to retrieve an adequate schema to interpret a new experience (Winston, 1984). If the reader/listener is able to catch the appropriate cues from the text and to activate the appropriate schemata, new information will be interpreted top-down and will be easily accommodated in pre-existing schemata (Rumelhart, 1980).

To come full circle about the interaction between text and reader/listener, we can summarise comprehension processes into two different kinds of information processing (Carrell, 1983; Carrell, Eisterhold, 1988; Rumelhart, 1980):

- a. bottom-up data-driven processing is activated by the incoming textual data and enables the reader/listener to notice new information to accommodate in appropriate pre-existing schemata;
- b. top-down conceptually-driven processing is activated when predictions are made on the basis of higher order schemata and the reader/listener scans the text in order to find textual input that can confirm or adjust the prediction.

2.4.1 Formal schemata and content schemata

Schemata guides comprehension of events and situation but are also functional to the interpretation of the linguistic representations of these events and situations (Alderson, 2000; Carrell, 1983; Carrell, Eisterhold 1988; Clapham, 1996).

In the field of language comprehension, it is important to draw a distinction between (Carrell, 1983; Carrell, Eisterhold 1988):

- a. formal schemata which refer to background knowledge of the language, rhetorical organisation and set of conventions of different kinds of texts;
- b. content schemata which refer to background knowledge of the topic, the content area of the text.

We have already discussed the importance of formal schemata for language comprehension in the section *2.3 Knowledge of the language* of the present chapter. We will now focus on the contribution of content schemata to understanding.

I need to premise that content schemata vary considerably from person to person; therefore it would be challenging to analyse in detail how expectancy grammar is involved in every possible aspect of content schemata as it has been explained with regards to formal schemata. As far as the effect of

content schemata on language comprehension is concerned, the dissertation will be supported by several significant studies and experiments.

According to schema theory, comprehending is an interactive process between the reader's background knowledge and the text. Efficient comprehension requires the ability to relate the textual material to one's own knowledge. Comprehending words, sentences, and entire texts involves more than just relying on one's linguistic knowledge (Carrell, Eisterhold, 1988: 556-557).

For example, the interpretation of the sentence

(2.46) The policeman held up his hand and stopped the car (Collins, Quillian 1972 as cited in Carrell, Eisterhold, 1988: 557)

involves a number of bridging inferences based on assumptions that are not explicitly stated in the mini-text. First of all, the reader/listener does not expect the policeman to have physically stopped the car with his hand, but s/he assumes that the car driver braked the car as a consequence of the traffic policeman signal to stop. The interpretation of the policeman hand up as a signal to stop the car is clearly based on background world knowledge (Carrell, Eisterhold, 1988).

The activation of a content schemata different from “traffic control” would have led to a completely different interpretation of the situation albeit from the same sentence. Carrell and Eisterhold (1988) examine how the interpretation would change whether the reader/listener assumes the policeman to be Superman: the policeman raising his hand is not a signal anymore, but the physical cause of the car’s stopping.

QUESTION	ANSWER	
	<i>Traffic Cop Schema</i>	<i>Superman Schema</i>
a) Did the policeman's hand touch the car?	No	Yes
b) Were the car's brakes applied?	Yes	No

Table 2.6 Different sets of inferential comprehension questions. Taken from Carrell and Eisterhold (1988: 558).

The few textual elements contained in the mini-text seems to be compatible with both of the interpretations, therefore the expectancy grammar of the reader/listener will consider the prediction – it does not matter which one – as confirmed.

Nevertheless, generally linguistic information in longer texts leads to unambiguous interpretation and a prediction adjustment may be required. It is the case of the following slightly longer text

(2.47) Mary heard the ice cream man coming down the street. She remembered her birthday money, she rushed into the house and locked the door (Fillmore, 1980 as cited in Carrell, Eisterhold, 1988: 559).

The fact that the ice cream man arrival makes Mary remember her birthday money creates the expectation of Mary wanting to use the money to buy an ice cream. This prediction seems to be confirmed when the reader/listener learns that Mary rushed into the house, where the money probably is, presumably to take the money before the ice cream man reaches her house. However, the hypothesis is not compatible with the closing phrase *locked the door* and the reader/listener is not able to fit the new information in the content schemata activated so far. The understander needs to revise the text in order to activate a more plausible schemata and construct a new coherent interpretation of the text. A possible inference that can help the purpose is to assume that the ice cream man has a criminal past and Mary locks the door to protect her money (Carrell, Eisterhold, 1988).

As stated above, background knowledge of specific content may differ greatly from person to person on the basis of personal experience, education, work, interest and so on.

Anderson et al. (1977, as cited in Clapham, 1996) conducted an experiment to investigate whether subjects are more likely to interpret ambiguous texts by activating prior knowledge related to their personal interest. Anderson et al. (1977, as cited in Clapham, 1996) selected two ambiguous texts to be presented to students in weight-lifting or music classes: the first text could be interpreted primarily as describing a prison break or secondarily a wrestling match; the second text could be interpreted primarily as describing a game of cards or secondarily a woodwind rehearsal. Results showed that weight-lifting students interpreted the first text as being about a wrestling match even if it was not the dominant interpretation according to textual cues and the second text as being about card playing; likewise, music students interpreted the second text as being about rehearsing musical instrument even if it was not the dominant interpretation and the first text to be about an escape from prison. Participants tended to interpret texts according to their specialised background knowledge and reported they did not realise that there may be any other perspective (Anderson et al., 1977 as cited in Clapham, 1996).

In a subsequent study, Pichert and Anderson (1977, as cited in Clapham, 1996) suggests that:

information which is consistent with prior knowledge has a storage advantage over unfamiliar information during encoding (Clapham, 1996: 30).

Weight-lifting students and music students unconsciously ignored the anomalies of the two ambiguous texts and focused on processing textual cues consistent with their specialised background

knowledge (Anderson et al., 1977; Pichert and Anderson, 1977 as cited in Clapham, 1996). The familiarity with the topic enabled readers to sample and process only the information relevant to the activated content schemata and to speed up meaning construction (Anderson et al., 1977; Pichert and Anderson, 1977 as cited in Clapham, 1996).

2.4.2 Culture-specific schemata

Needless to say, background knowledge not only differs from person to person, but also from people to people. Second language comprehension does require the activation of second language formal schemata as well as culture specific content schemata.

Kintsch and Greene (1978, as cited in Carrell, 1983) investigated the cultural-specificity of the rhetorical structure of simple stories. American college students were presented with a European tale and with an Apache Indian tale: results suggested that the sequence of the events as they were presented in the Apache Indian tale was more difficult to recall because the rhetorical organization of the American Indian tale did not fit the European-based schemata (introduction, inciting incident, rising action, climax, resolution) (Carrell, 1983).

Kintsch and Greene's (1978) study received criticism because it failed to account for the effect on comprehension of the different cultural content of the two tales as well (as cited in Carrell, 1983). As a consequence, subsequent studies adopted a cross-cultural perspective to investigate the joint effect of formal and content schemata on second language comprehension.

Steffensen, Joag-Dev and Anderson (1979) conducted a cross-culture study on American and Indian adults to investigate whether the familiarity or unfamiliarity of a culture-specific content has an influence on:

- a. reading time: the activation of a schemata related to a familiar cultural framework should speed up reading and processing;
- b. comprehension and recalling: detailed information that fits into the schema activated should be more accurate and accessible;
- c. elaborations: culturally appropriate extensions of the content of the text;
- d. distortions: culturally inappropriate modifications of the content of the text.

American and Indian participants were asked to read and recall two letters, one describing an American wedding and one describing an Indian wedding. Both the letters were written in English, the first language of the American subjects and the second language of the Indian subjects.

Marriage customs are profoundly different in two countries (Steffensen, Joag-Dev, Anderson, 1979):

- a. the American wedding has an elaborate traditional ritual, the ceremony assumes great importance and is generally considered the bride's area of expertise;

- b. the Indian wedding is considered as a financial agreement to consolidate the social status of two families and is generally settled by the groom's family.

As expected, the American subjects read the American wedding passage faster than the Indian wedding passage and recalled the familiar cultural content more accurately. By the same token, the Indian subjects read the Indian wedding passage faster than the American wedding passage and recalled the familiar cultural content more accurately (Steffensen, Joag-Dev, Anderson, 1979).

Culture-specific background knowledge has proven to exert a profound influence on how the two texts have been interpreted. We will now analyse how interesting cultural differences surfaced in some of the elaborations and distortions gathered in the study (Steffensen, Joag-Dev, Anderson, 1979).

The recall of the American wedding passage about the bride wearing her grandmother's wedding dress highlights distinct cultural inferences:

- a. an American participant specified that the bride's mother wanted her to wear the family wedding gown to carry on the tradition, even if this information was not explicitly stated in the text (elaboration);
- b. an Indian participant did not mention the fact the bride was wearing her grandmother's gown and simply described the dress as too old and out of fashion (distortion).

The American wedding letter mentioned a diamond ring on the bride's finger:

- a. an American participant identified the ring as her engagement ring but the text did not (elaboration);
- b. an Indian participant focused on the economic prestige of the two-carat diamond (distortion).

In the Indian wedding letter, the bride had to move to her father-in-law's home in Nagpur after the wedding:

- a. an American participant interpreted the trip to Nagpur as a honeymoon which is a distinctively American tradition (distortion);
- b. an Indian participant significantly used the passive form "she was taken to Nagpur" (Steffensen, Joag-Dev, Anderson, 1979: 25) recalling the trip as a transfer of the bride from her family household to her in-law's household.

The forementioned examples gives a clear glimpse of the effect of cultural background knowledge on foreign culture comprehension: the Indian subjects tend to interpret American wedding elements in a way that fits their culture-specific wedding schemata and the American subjects behave likewise. Johnson (1981) conducted a study to investigate whether the formal complexity of the text exert a greater influence on reading comprehension than the cultural content of the text.

Iranian intermediate ESL students and American students were asked to read an Iranian folklore story and an American folklore story, both presented in the English language. To include the formal complexity variable in the research, the set of stories (Iranian story + American story) was randomly presented in the unadapted form or in an adapted simplified form. A contrastive analysis of Farsi and English determined which English structures were more difficult to understand for the Iranian students; these structures (i.e. relative clauses, low-frequency vocabulary, figurative language etc.) were simplified and balanced in their textual distribution (Johnson, 1981).

The results concerning ESL students showed that (Johnson, 1981):

- a. the formal complexity of the text had less impact on reading comprehension than the cultural content of the text;
- b. the effect of formal complexity was slightly stronger when the cultural background was not familiar.

These main findings suggested that Iranian subjects relied more on linguistic cues when the cultural background was unfamiliar. On the other hand, when the text involved their own cultural background, Iranian subjects relied on the familiarity of the content to overcome linguistic difficulties in the comprehension process (Johnson, 1981).

Interestingly, Johnson (1981) noticed that cultural inferences about the content of the text led to a modification of the sequence of events in the recall of the American story.

[...] The men watched Cody raise his gun to his shoulder and he blasted that mule to kingdom come. Cody delivered the message inside the fort and he drank a lot from a bottle of whiskey [...] (Johnson, 1981: 176).

In the Iranian culture, drinking is considered immoral and harmful because it can lead to bad action. The cultural connotation of drinking led to a distortion of the American passage by several Iranian participants that reversed the events as in the following example:

Cody went and drank a bottle of whiskey and then he went to the mule and pointed to the mule by the gun and shot it (Johnson, 1981: 176).

Due to the intrusion of culture-specific background knowledge, Iranian subjects interpreted the immoral act of shooting the mule as a direct consequence of the corrupting act of drinking, even if this was not the sequence of events presented in the text (Johnson, 1981).

As evidenced by Steffensen, Joag-Dev and Anderson (1979) and Johnson (1981), the familiarity with the cultural background knowledge of a text leads to the activation of the appropriate content

schemata, to more accurate expectations and predictions and, as a result, to a faster and more effective second language comprehension.

Johnson conducted a follow-up study (1982) to investigate whether a L2 cultural background knowledge would result in a better comprehension of a culturally determined topic.

Johnson (1982) selected a text about the celebration of Halloween which included the more commonly known information about the festival as well as information unfamiliar even to most native readers (i.e. historical past). The distribution of low-frequency words was balanced between familiar and unfamiliar sections of the text.

72 advanced ESL students of 23 different nationalities were involved in the study and randomly assigned to one of the following testing conditions (Johnson, 1982):

- a. group 1: no vocabulary list to study or to refer to during the reading task;
- b. group 2: definitions of target words to be studied before the reading task;
- c. group 3: target words glossed in the text;
- d. group 4: definitions of target words to be studied before the reading task and target words glossed in the text.

The research study did not find a significant correlations between vocabulary knowledge and reading comprehension: results showed that the exposure to low-frequency words meaning while reading did not lead to a better reading comprehension in comparison with groups 1 and 2 (Johnson, 1982). On the other hand, all four groups showed a significantly better recall of the familiar aspects of Halloween than the unfamiliar aspects. Familiarity with a foreign culture-specific content seemed to be effective to make plausible guesses about the meaning of unfamiliar words and equally effective for reading comprehension (Johnson, 1982).

We have seen so far that second language comprehension involves background knowledge which goes far beyond the solely knowledge of the language.

Unfortunately, second language education has “failed to give sufficient emphasis to the role of background knowledge” (Carrell, Eisterhold, 1988: 556) for a long time. In native speakers’ cognitive development, conceptual development generally precedes language development and it is predominantly automatic and implicit (Bruner, 1983; Littlewood, 1984; Shaffer, Kipp, 2014). Nevertheless, a second language acquirer has normally already formed basic concepts around the world in the first language and culture (Bruner, 1983; Littlewood, 1984; Shaffer, Kipp, 2014). That is the main reason why second culture-specific schemata are not part of the second language acquirer’s background knowledge and are unlikely to be assimilated automatically and implicitly (Carrell, Eisterhold, 1988).

Second language education must be particularly sensitive to cultural knowledge and its implications in the comprehension of a second language. Carrell and Eisterhold (1988) reported some recommendations on how to maintain the strong bond between language and culture:

- a. culture-specific values should be analysed with the SL class;
- b. culturally loaded terms should be explicitly explained;
- c. culturally loaded concepts should be explicitly explained;
- d. cultural background information related to the text should be provided.

2.5 Communicative competence

In brief, the expectancy grammar relies on our knowledge of the language and on our knowledge of the world. All the same, this knowledge would be worthless if we do not know how to use it.

Being competent in the use of the receptive skills does not necessarily mean having an advance language and world knowledge; rather it means being able to use strategically the limited knowledge you have to deal with the unknown.

Comprehension concerns how effectively you can use your knowledge to guess what you do not know. Your comprehension competence actually depends on how you deal with what you do not understand.

Stanovich (1980, as cited in Alderson, 2000 and Clapham, 1996) has developed an interactive compensatory model of comprehension in which knowledge deficits can be compensated by the interaction among components: if a word is not familiar, background knowledge may compensate with top-down method of guessing; if the topic is not familiar, textual cues may compensate with bottom-up processes.

Low level second language students appear to heavily rely on word-level cues to construct the meaning of a text. As a consequence, their comprehension flows solely bottom-up and background knowledge does not actively intervene in the process (Alderson, 2000; Clapham, 1996).

On the other hand, advanced second language learners are able to sample few significant textual cues to activate their background knowledge and to process information both bottom-up and top-down simultaneously (Alderson, 2000; Clapham, 1996).

To reach that kind of proficiency, elementary students should be helped and guided in the acquisition and activation of relevant background knowledge in the second language and culture (Clapham, 1996). As evidenced by Hudson (1982, as cited in Clapham, 1996), low level students do significantly better when they are involved in schemata activation activities prior reading because the activation of the appropriate schemata helps them overcome short circuiting problems.

First language acquirers automatically construct their background knowledge in their first language and culture (Bruner, 1983; Littlewood, 1984; Shaffer, Kipp, 2014). The construction of second language formal and content schemata requires, instead, a conscious effort from the acquirer (Krashen, 1982; Littlewood, 1984).

A good level of metalinguistic and metacognitive awareness is fundamental for a strategic use of the knowledge the understander does have (Alderson, 2000). As we shall see in the next chapter, different activities can be carried out in a second language class to guide students to acquire strategies for coping with texts and to make the best use of their expectancy grammar.

2.5.1 Common European Framework of Reference for Languages

The Common European Framework of Reference for Languages (CEFR) provides a common descriptive scheme which defines each of the different levels of language competence.

The CEFR has developed six levels of language competence:

<i>Basic users</i>		<i>Intermediate users</i>		<i>Proficient users</i>	
A1	A2	B1	B2	C1	C2

Table 2.7 CEFR language competence levels.
Adapted from Council of Europe, 2018.

Each level of competence is defined by illustrative descriptors which include examples of typical language use in a particular area. Each individual descriptor is independent of the other descriptors of the scale (Council of Europe, 2018).

Language is presented as a vehicle of communication with an action-oriented approach: “can do” illustrative descriptors define learners as language users, rather than just focusing on what the learner knows about the language (Council of Europe, 2018).

The CEFR is a clear and shared roadmap for teaching and learning with the purpose of providing the metalanguage for a broader discussion on language education and of facilitating education reforms projects (Council of Europe, 2018).

This study will examine the CEFR sections dedicated to:

- a. reception activities (listening comprehension, reading comprehension, audio-visual comprehension) and strategies;
- b. plurilingual and pluricultural comprehension.

According to the CEFR (Council of Europe, 2018), reception abilities involve:

- a. the detection of the input;
- b. the activation of what are thought to be the appropriate schemata;
- c. the sampling of textual and contextual cues to check if they fit the activated schema;
- d. the confirmation or adjustment of the hypotheses formulated.

For each modality of the input (spoken, written or audio-visual) a different descriptor scale has been provided.

2.5.1.1 Listening comprehension

Spoken reception concerns solely one-way listening activities in which no oral production is requested. We will examine the overall listening comprehension scale, without going into the details of the role and the purpose of the listener¹¹.

<i>SPOKEN RECEPTION – OVERALL LISTENING COMPREHENSION</i>	
PRE-A1	<p>Can understand short, very simple questions and statements provided that they are delivered slowly and clearly and accompanied by visuals or manual gestures to support understanding and repeated if necessary.</p> <p>Can recognise everyday, familiar words, provided they are delivered clearly and slowly in a clearly defined, familiar, everyday context.</p> <p>Can recognise numbers, prices, dates and days of the week, provided they are delivered slowly and clearly in a defined, familiar, everyday context.</p>
A1	<p>Can follow speech that is very slow and carefully articulated, with long pauses for him/her to assimilate meaning.</p> <p>Can recognise concrete information (e.g. places and times) on familiar topics encountered in everyday life, provided it is delivered in slow and clear speech.</p>
A2	<p>Can understand enough to be able to meet needs of a concrete type provided speech is clearly and slowly articulated.</p> <p>Can understand phrases and expressions related to areas of most immediate priority (e.g. very basic personal and family information, shopping, local geography, employment), provided speech is clearly and slowly articulated.</p>
B1	<p>Can understand straightforward factual information about common everyday or job-related topics, identifying both general messages and specific details, provided speech is clearly articulated in a generally familiar accent.</p> <p>Can understand the main points of clear standard speech on familiar matters regularly encountered in work, school, leisure etc., including short narratives.</p>

¹¹ Different scales are provided for *Understanding conversation between other speakers* (as an overhearer), *Listening as a member of a live-audience*, *Listening to announcements and instructions*, *Listening to audio media and recordings*. To learn more about the differences between these scales, consult CEFR Section 4.4 (Council of Europe, 2018).

B2	<p>Can understand standard spoken language, live or broadcast on both familiar and unfamiliar topics normally encountered in personal, social, academic or vocational life. Only extreme background noise, inadequate discourse structure and/or idiomatic usage influence the ability to understand.</p> <p>Can understand the main ideas of propositionally and linguistically complex speech on both concrete and abstract topics delivered in standard speech, including technical discussions in his/her field of specialisation.</p> <p>Can follow extended speech and complex lines of argument provided the topic is reasonably familiar, and the direction of the talk is sign-posted by explicit markers.</p>
C1	<p>Can understand enough to follow extended speech on abstract and complex topics beyond his/her own field, though he/she may need to confirm occasional details, especially if the accent is unfamiliar.</p> <p>Can recognise a wide range of idiomatic expressions and colloquialisms, appreciating register shifts.</p> <p>Can follow extended speech even when it is not clearly structured and when relationships are only implied and not signalled explicitly.</p>
C2	<p>Can understand with ease virtually any kind of spoken language, whether live or broadcast, delivered at fast natural speed.</p>

Table 2.8 Overall listening comprehension descriptive scale.
Taken from Council of Europe (2018: 55).

As we can infer from the Table 2.8, pre-A1 level users and basic users (A1-A2) are not expected to possess yet the adequate knowledge of language to automatise low-level comprehension processes such as word recognition. Therefore, pre-A1/A1/A2 level users are word bound and able to understand a spoken input to the extent that it is clearly, slowly and carefully articulated to facilitate the word recognition stage.

Interestingly, in the very early stages of the second language acquisition (pre-A1), gestures are considered useful to gradually introduce the user to inferencing strategies, such as deducing the meaning of the word from the visual input associated with the auditory input.

At the basic level of competence, comprehension flows mostly bottom-up and users are not able to activate background knowledge by themselves. Consequently, spoken input must be related to highly simple and familiar content to promote the assimilation of meaning.

Intermediate users (B1-B2) are expected to be more efficient in word recognition. Accordingly, the spoken input can proceed at standard speed with a standard familiar accent.

At a B2 level, users are able to dig into the deep structure of the second language: they are in fact able to understand complex sentences. Moreover, B2 level users have gained competence in the activation of familiar content schemata and unfamiliar content schemata as well.

Proficient users' (C1-C2) comprehension is expected to flow bottom-up and top-down simultaneously: advanced learners can understand abstract and unfamiliar topics (top-down) and are

able to deal with unclear details (bottom-up). More importantly, proficient users have successfully assimilated second culture-specific schemata which enable them to understand idiomatic expressions and colloquialism.

2.5.1.2 Reading comprehension

Regardless of the text type and genre, overall reading comprehension may involve:

- a. skimming, reading at speed in order to judge relevance and whether to read properly some parts of the text;
- b. scanning, reading to search for specific information.

We will examine the overall reading comprehension scale, without going into the details of the particular genres and the purpose of the reader¹².

<i>WRITTEN RECEPTION – OVERALL READING COMPREHENSION</i>	
PRE-A1	Can recognise familiar words accompanied by pictures, such as a fast-food restaurant menu illustrated with photos or a picture book using familiar vocabulary.
A1	Can understand very short, simple texts a single phrase at a time, picking up familiar names, words and basic phrases and rereading as required.
A2	Can understand short, simple texts on familiar matters of a concrete type which consist of high frequency everyday or job-related language. Can understand short, simple texts containing the highest frequency vocabulary, including a proportion of shared international vocabulary items.
B1	Can read straightforward factual texts on subjects related to his/her field and interests with a satisfactory level of comprehension.
B2	Can read with a large degree of independence, adapting style and speed of reading to different texts and purposes, and using appropriate reference sources selectively. Has a broad active reading vocabulary, but may experience some difficulty with low-frequency idioms.
C1	Can understand in detail lengthy, complex texts, whether or not they relate to his/her own area of speciality, provided he/she can reread difficult sections. Can understand a wide variety of texts including literary writings, newspaper or magazine articles, and specialised academic or professional publications, provided that there are opportunities for re-reading and he/she has access to reference tools.

¹² Different scales are provided for *Reading correspondence*, *Reading for orientation*, *Reading for information & argument*, *Reading instructions*, *Reading as a leisure activity*. To learn more about the differences between these scales, consult CEFR Section 4.4 (Council of Europe, 2018).

C2	<p>Can understand virtually all forms of the written language including abstract, structurally complex, or highly colloquial literary and non-literary writings.</p> <p>Can understand a wide range of long and complex texts, appreciating subtle distinctions of style and implicit as well as explicit meaning.</p>
----	--

Table 2.9 Overall reading comprehension descriptive scale.
Taken from Council of Europe (2018: 60).

As we can infer from Table 2.9, pre-A1 level users and basic users (A1-A2) are not expected to possess yet the adequate knowledge of language to automatise low-level comprehension processes such as word recognition. Therefore, pre-A1/A1/A2 level users are word bound and able to understand a written input to the extent that it is short, simple and with high frequency vocabulary to facilitate the word recognition stage.

Interestingly, in the very early stages of the second language acquisition (pre-A1), illustrations are considered useful to gradually introduce the user to inferencing strategies, such as deducing the meaning of the word from the graphic input associated with the written input.

At the basic level of competence, comprehension flows mostly bottom-up and users are not able to activate background knowledge by themselves. Consequently, written input must be related to highly simple and familiar content to promote the assimilation of meaning.

Intermediate users (B1-B2) are expected to be more efficient in word recognition: users at these levels possess a broad vocabulary but are not yet confident with low-frequency idioms.

Intermediate users (B1-B2) have gained a broader knowledge of formal schemata. Accordingly, they are able to recognise and understand different texts and purposes and their implications.

Proficient users' (C1-C2) comprehension is expected to flow bottom-up and top-down simultaneously: advanced learners can understand abstract and unfamiliar topics (top-down) and are able to deal with difficult sections (bottom-up).

Advanced users are able to dig into the deep structure of the second language: they are in fact able to understand long and complex texts.

More importantly, proficient users have successfully assimilated second culture-specific schemata which enable them to understand highly colloquial literary and non-literary writings.

2.5.1.3 Watching TV, films and video

Audio-visual reception is potentially the ability that reflects at most Stanovich's (1980, as cited in Alderson 2000 and Clapham, 1996) interactive compensatory model of comprehension. The input is simultaneously provided through the ear canal and the visual channel; hence the user is actively engaged in filling the gaps by using other sources of meaning.

<i>AUDIO-VISUAL RECEPTION – WATCHING TV, FILMS AND VIDEO</i>	
PRE-A1	No descriptors available
A1	Can recognise familiar words and phrases and identify the topics in headline news summaries and many of the products in advertisements, by exploiting visual information and general knowledge.
A2	Can identify the main point of TV news items reporting events, accidents etc. where the visual supports the commentary. Can follow a TV commercial or a trailer for or scene from a film, understanding what the actors are talking about, provided that the images are a great help in understanding and the delivery is clear and relatively slow. Can follow changes of topic of factual TV news items, and form an idea of the main content.
B1	Can understand a large part of many TV programmes on topics of personal interest such as interviews, short lectures, and news reports when the delivery is relatively slow and clear. Can follow many films in which visuals and action carry much of the storyline, and which are delivered clearly in straightforward language. Can catch the main points in TV programmes on familiar topics when the delivery is relatively slow and clear.
B2	Can extract the main points from the arguments and discussion in news and current affairs programmes. Can understand most TV news and current affairs programmes. Can understand documentaries, live interviews, talk shows, plays and the majority of films in the standard form of the language.
C1	Can follow films employing a considerable degree of slang and idiomatic usage. Can understand in detail the arguments presented in demanding television broadcasts such as current affairs programmes, interviews, discussion programmes and chat shows. Can understand nuances and implied meaning in most films, plays and TV programmes, provided these are delivered in the standard language.
C2	No descriptors available; see C1

Table 2.10 Watching TV, films and video descriptive scale.
Taken from Council of Europe (2018: 55).

As we can infer from Table 2.10, comprehensions flows both bottom-up and top-down since the very early stages of second language acquisition.

At the A1 level, the user is already able to activate her/his background knowledge thanks to the visual stimulation. It must also be said that this early top-down activation of background knowledge is linked to first language content schemata, but it is still helpful to understand the second language-related message.

At the A2 level, the user is able to sample a greater portion of the auditory input to the extent that it is clearly and slowly delivered.

Intermediate users (B1-B2) are expected to be more efficient in word recognition. Consequently, they can understand the main points of different kind of audio-visual input provided in the standard language.

Proficient users' (C1-C2) can infer implicit meaning and understand demanding topics. More importantly, proficient users have successfully assimilated second culture-specific schemata which enable them to understand slang and idiomatic usage of the language.

2.5.1.4 Reception strategies

At the conclusion of the section dedicated to reception abilities, the CEFR provides a clear and exhaustive account of the inferencing strategies that arise from the combination of bottom-up and top-down processing.

<i>IDENTIFYING CUES AND INFERRING (SPOKEN & WRITTEN)</i>	
PRE-A1	Can deduce the meaning of a word from an accompanying picture or icon.
A1	Can deduce the meaning of an unknown word for a concrete action or object, provided the surrounding text is very simple, and on a familiar everyday subject.
A2	<p>Can use an idea of the overall meaning of short texts and utterances on everyday topics of a concrete type to derive the probable meaning of unknown words from the context.</p> <p>Can exploit his/her recognition of known words to deduce the meaning of unfamiliar words in short expressions used in routine everyday contexts.</p> <p>Can exploit format, appearance and typographic features in order to identify the type of text: news story, promotional text, article, textbook, chat or forum etc.</p> <p>Can exploit numbers, dates, names, proper nouns etc.to identify the topic of a text.</p> <p>Can deduce the meaning and function of unknown formulaic expressions from their position in a written text (e.g. at the beginning or end of a letter).</p>
B1	<p>Can exploit different types of connectors (numerical, temporal, logical) and the role of key paragraphs in the overall organisation, in order to better understand the argumentation in a text.</p> <p>Can extrapolate the meaning of a section of a text by taking into account the text as a whole.</p> <p>Can identify unfamiliar words from the context on topics related to his/her field and interests.</p> <p>Can extrapolate the meaning of occasional unknown words from the context and deduce sentence meaning provided the topic discussed is familiar.</p> <p>Can make basic inferences or predictions about text content from headings, titles or headlines.</p> <p>Can listen to a short narrative and predict what will happen next.</p>

	Can follow a line of argument or the sequence of events in a story, by focusing on common logical connectors (e.g. however, because) and temporal connectors (e.g. after that, beforehand). Can deduce the probable meaning of unknown words in a written text by identifying their constituent part (e.g. identifying word roots, lexical elements, suffixes and prefixes).
B2	Can use a variety of strategies to achieve comprehension, including listening for main points; checking comprehension by using contextual clues.
C1	Is skilled at using contextual, grammatical and lexical cues to infer attitude, mood and intentions and anticipate what will come next.
C2	No descriptors available; see C1

Table 2.11 Reception strategies descriptive scale.
Taken from Council of Europe (2018: 67).

Despite not mentioning it explicitly, the CEFR reception strategies scale outlines how our expectancy grammar works to actively construct the meaning of a - spoken or written – text.

2.5.1.5 Plurilingual comprehension

According to the CEFR, plurilingual and pluricultural competence involves “the ability to call flexibly upon an inter-related, uneven, plurilinguistic repertoire” (Council of Europe, 2018: 28). Plurilingual comprehension implies the ability to dynamically use the knowledge (even partial) of one or more languages to approach and understand a text. Plurilingual users are able to dynamically use the knowledge of their first language to facilitate comprehension processes in a second or third language and vice-versa.

<i>PLURILINGUAL COMPREHENSION</i>	
PRE-A1	No descriptors available
A1	Can recognise internationalisms and words common to different languages (e.g. Haus/hus/house) to: - deduce the meaning of simple signs and notices; - identify the probable message of a short, simple, written text; - follow in outline short, simple social exchanges conducted very slowly and clearly in his/her presence; - deduce what people are trying to say directly to him/her, provided they speak very slowly and clearly, with repetition if necessary.
A2	Can understand short, clearly articulated spoken announcements by piecing together what he/she understands from the available versions in different languages. Can understand short, clearly written messages and instructions by piecing together what he/she understands from the versions in different languages. Can use simple warnings, instructions and product information given in parallel in different languages to find relevant information.

B1	<p>Can use what he/she has understood in one language to understand the topic and main message of a text in another language (e.g. when reading short newspaper articles on the same theme written in different languages).</p> <p>Can use parallel translations of texts (e.g. magazine articles, stories, passages from novels) to develop comprehension in different languages.</p> <p>Can deduce the message of a text by exploiting what he/she has understood from texts on the same theme written in different languages (e.g. news in brief, museum brochure, online reviews).</p> <p>Can extract information from documents written in different languages in his/her field, e.g. to include in a presentation.</p> <p>Can recognise similarities and contrasts between the way concepts are expressed in different languages, in order to distinguish between identical uses of the same word root and ‘false friends’.</p> <p>Can use his/her knowledge of contrasting grammatical structures and functional expressions of languages in his/her plurilingual repertoire in order to support comprehension.</p>
B2	Can use his/her knowledge of contrasting genre conventions and textual pattern in languages in his/her plurilingual repertoire in order to support comprehension.
C1	No descriptors available, see B2
C2	No descriptors available, see B2

Table 2.12 Plurilingual comprehension descriptive scale.
Taken from Council of Europe (2018: 160).

Psycholinguists have discussed the possible existence of a language threshold beyond which first-language comprehension abilities can transfer to the second language. Cummins (1991, as cited in Alderson, 2000) stated the language threshold lies between two fundamental components of proficiency:

- a. basic interpersonal communication skills (BICS) related to the language necessary for day to day living;
- b. cognitive academic language proficiency (CALP) related to the language of academic contents which are usually abstract and decontextualised and cannot be found in everyday life situations.

The CEFR draws the line at the B1 level (Council of Europe, 2018).

Basic plurilingual users (A1-A2) construct the relationship among different language around the lexical level. Starting from the B1 threshold level, the plurilingual user shows a more abstract and analytical ability. Intermediate plurilingual users (B1-B2) are able to exploit more parallel sources in different languages, for example similar or contrasting expressions, similar or contrasting grammatical structures and functions and similar or contrasting genre conventions.

2.6 Summary

Comprehension is a dynamic, global and simultaneous process resulting from the interaction between the reader/listener and the text. The characteristics of the text interact with the reader/listener thanks to her/his expectancy grammar.

Expectancy grammar is a hypothesis formulating ability which enables the reader/listener to sample minimal language cues based on her/his expectation on the text. While reading/listening, the understander predicts what will come next and her/his hypotheses are confirmed or adjusted as the sampling proceeds.

Efficient readers/listeners do not scan the text word by word but select the cues that are compatible with their expectations as long as the text proceeds. Expectations can be both:

- a. data-driven, which means they are activated bottom-up by some features of the text (word order, semantic field, coherence and cohesion, text type, non-verbal information etc.);
- b. conceptually-driven, which means they are activated top-down by an existing content schema that seems appropriate to interpret the text.

Second language students should possess an adequate knowledge of formal schemata as well as content schemata in the second language and culture. Culture-specific schemata have proven to be crucial for a faster and more accurate top-down second language comprehension. Not only, a culturally biased expectancy grammar can disrupt meaning and lead to unconscious cultural distortions of the original text.

However, an adequate language and world knowledge is not sufficient for an efficient construction of meaning. Competent understanders are able to use strategically the limited knowledge they have to compensate for possible knowledge deficits.

As we shall see in the next chapter, different activities can be carried out in a second language class to guide students to acquire strategies for coping with texts and to make the best use of their expectancy grammar.

Methodologies and strategies to master expectancy grammar

Competent understanders do not need to sequentially sample every single word of a text but select productive cues to effectively predict what may come next.

This final chapter is devoted to outlining how second language education can help learners to acquire and activate relevant background knowledge in the second language and culture to strategically use every productive cue in a text and make accurate guesses.

In the first section, we will sketch out the contribution of an inductive approach to the active construction of meaning and lasting learning.

In the second section, we will explore the sources available to language teachers to stimulate formal and content schemata in interesting and differentiated ways. Part of the section will investigate how language teachers can provide second culture exposure and reflection in order to build culture-specific schemata.

The third section provides a list of possible activities to acquire comprehension strategies and master expectancy grammar. Suggestions for awareness-raising reflection is provided as well.

The chapter closes with three examples of real worksheets designed for three different ESL classrooms of a primary school in Italy.

3.1 Inductive method

As has been stated here on a number of occasions, second language learners are constantly involved in an active construction of meaning during their SL acquisition process. Consequently, second language education should actively engage students, lead them to explore and reflect on language to promote a lasting learning (Krashen, 1982; Balboni, 2015, 2018). Inductive teaching method has been specifically developed for this purpose.

The inductive method refers to the three Gestalt stages of perception Globality → Analysis → Synthesis: an input is processed first holistically by the right hemisphere of our brain, then analytically by the left hemisphere and eventually it comes to a synthesis. Often, the core sequence is preceded by a Motivation stage and followed by Reflection and Evaluation (Balboni, 2015, 2018).

We shall now briefly discuss each of these stages (Balboni, 2015, 2018):

- a. motivation: crucial for the activation of the expectancy grammar. At this stage, activities are carried out in order to create interest and to promote a positive attitude toward the SL lesson. Enjoyable input such as short clips, songs, pictures, games are advisable. Motivation activities

create expectations about what will come next and fuel expectancy grammar as a result. Moreover, if students are familiar with the anticipated topic, they are naturally led to activate relevant background knowledge and to elicit related language, resulting in a faster and more effective second language comprehension;

- b. globality: language is presented in use, as a complex instrument of communication. Students are asked to grasp the general meaning of the text using all the cues available (textual, paratextual, paralinguistic, extralinguistic) and their background knowledge. At this stage, SL learners discover if the expectations created in the motivation stage are met and test the validity of the hypotheses formulated while reading/listening;
- c. analysis: students are guided by the teacher to notice specific forms, functions and meanings of the language and are encouraged to make hypotheses about these elements. This stage represents the key difference between deductive and inductive methods: students are not passively presented with grammar rules, but they actively explore and discover how second language works and construct grammar rules by their own (under the guidance of the teacher). It should be noted that the analysis stage does not focus solely on grammar, but can highlight non-verbal and cultural elements as well;
- d. synthesis: different activities and tasks lead students to re-notice, re-use and produce what they have learnt in the previous stages to consolidate their knowledge and competence;
- e. reflection: rules discovered by the students are explicitly stated to systematize the grammar;
- f. evaluation: activities and tasks are carried out to verify what has been acquired. Students should be guided to use the feedback as a formative tool to give direction to their learning.

3.2 Multimedia texts

Monomedia texts¹³ have been the backbone of traditional language education for decades. However, it would be simplistic to think that monomedia materials can cover the wide range of linguistic input a student can be exposed to. Traditional written and auditory texts can no longer be considered as the primary carriers of meaning: nowadays individuals can construct and convey meaning through several different resources and media (Caon, 2012).

Second language classroom education should be targeted at digital native students and make a good use of the multimedia texts they are familiar with. As we discussed in the previous chapter, audio-

¹³ Monomedia texts involve only one semiotic system: reading activities focus on the written semiotic system, listening activities focus on the auditory semiotic system.

visual input encourages students to fill the gaps by using different sources of meaning and to exploit the full potential of their expectancy grammar. The visual component of a multimedia text creates expectations about the possible topic and elicit prior knowledge and related vocabulary: since the early stages of second language acquisition, multimedia texts comprehension flows both top-down and bottom-up¹⁴.

ICT (Information and Communications Technology) and Internet give a great access to this kind of content. Nevertheless, being able to access wide-ranging second language information is not sufficient for second language acquisition to take place. The teacher should guide students in the process and provide the tools to critically approach the material, so that students are able to continue learning even outside the mainstream institutions and during their entire lifespan (Caburlotto, 2012; Gramegna, 2012).

By reducing the gap between school and out of school contexts, ICT promotes an active involvement in the meaning construction and higher attention and interest. Moreover, technological aids are useful to embrace different cognitive styles and to differentiate the kind of support according to each student level and potential (Caon, 2012; Oddone, 2012).

Second language education can benefit from the usage of different devices:

- a. TV: it is useful to show audio-visual material; it may affect the interaction between the understander and the linguistic input, therefore it is advisable to divide the material in short clips to be commented and analysed with the class before moving to the next clip. The subtitles function and the slow-motion function may support comprehension as well (Ballarin, 2012; Kramersch, 1993);
- b. PC: it performs the same functions as the TV, but it allows multitask and a much greater interaction with the material thanks to the web access. The computer offers an exploratory type of learning, because students can browse, find useful information to fill the gaps, edit digital materials, share with the teacher and the classmates (Ballarin, 2012);
- c. tablet: it performs the same functions as the PC. Due to the small size, tablets can be easily used in the classroom and leave the adequate room for the simultaneous use of more traditional materials such as books and notepads (Melero, 2012);
- d. interactive whiteboard: it performs the same functions as the PC, but it has a larger screen clearly visible to all students. Unlike other ICT, the interactive whiteboard has been devised for pedagogic purposes and is suitable for digital content as well as digitised traditional content. For example, a traditional written text can be integrated on the fly with explanatory

¹⁴ For further information read section 2.5.1.3 *Watching TV, films and video*.

images and a glossary of the difficult words based on the students' feedback, key words can be highlighted, hyperlinks can be provided. The editing and the strategies implemented to support text comprehension can be saved in a digital file which keep track of comprehension processes and can be shared with the students (Oddone, 2012).

These technological devices allow access to a wide range of platforms and contents, either devised for pedagogic purposes or not.

Pedagogic platforms provide a great variety of entertaining materials to engage students in always new and different activities and keep them motivated (Caon, 2012). On the other hand, materials specifically devised for second language education may give priority to specific language objective and lack authenticity. SL input that is roughly tuned to the students' linguistic competence is particularly valuable for beginner acquirers but is generally not enough interesting and challenging for intermediate and advanced learners (Krashen, 1982). Educational multimedia contents can be found on:

- a. SL education websites: different international educational institutions have created platforms to provide second language teachers with high-quality resources. For example, in the field of ESL education, the British Council have designed two useful platforms: Teaching English¹⁵ provides practical classroom materials for teachers of primary, secondary and adult learners of English; LearnEnglish Kids¹⁶ provides materials specifically devised for children (online games, songs, stories and activities) and suitable both for formal and non-formal education. Other educational platforms allow teacher to share their own materials with other colleagues, to make and receive constructive comments and to foster professional discussions and development. Some examples are: IATEFL, International Association of Teachers of English as a Foreign Language¹⁷, TeacherTube¹⁸ and SchoolTube¹⁹. Lastly, English Central²⁰ gathers countless videos; for each video subtitles are supplied and users can click on difficult words to get a definition and the pronunciation (Beccaro, 2012; Favaro, Sandrini, 2012);
- b. online dictionaries: most of the online dictionaries provides audio pronunciations of words and idioms. For example, the online version of Cambridge Dictionary²¹ provides users with British English pronunciation and American English pronunciation for each word;

¹⁵ <https://www.teachingenglish.org.uk/>, accessed September 2022.

¹⁶ <https://learnenglishkids.britishcouncil.org/>, accessed September 2022.

¹⁷ <https://www.iatefl.org/>, accessed September 2022.

¹⁸ <https://www.teachertube.com/>, accessed September 2022.

¹⁹ <https://www.schooltube.com/>, accessed September 2022.

²⁰ <https://www.englishcentral.com/>, accessed September 2022.

²¹ <https://dictionary.cambridge.org/>, accessed September 2022.

WordReference²² provides users with Irish, Scottish and Jamaican English pronunciations as well (Favaro, Sandrini, 2012).

By contrast, SL platforms not specifically devised for language education provide real-life materials that are non-sequentially organized and deal with a wide range of contents that are most likely to be noteworthy to the second language community. Real-life SL materials can be found on:

- a. streaming services: as with traditional narrative texts²³, films and cartoons follow a structured plotline which guides expectations and comprehension. Second language films give a glimpse on customs and ways of life of the SL country and are usually permeated with colloquial expressions. Therefore, it is advisable to select level-appropriate videos and to analyse elements which may be difficult both from a linguistic and a cultural point of view (Ballarin, 2012);
- b. news broadcast websites: national broadcasters such as BBC and CNN upload on their websites short reports about news and events that are noteworthy to the British and American community in that period. The language used is generally simple, precise and impartial. Journalistic materials give the opportunity to become familiar with the conventions of the genre and with relevant SL current topics (Beccaro, 2012);
- c. talk shows: television programmes increase “the sense of total immersion and the authentic slice-of-life feeling” (Kramsch, 1993: 190). Second language talk shows mirror the ways of life of the audience to which it is addressed and generally make extensive use of idioms and slang. Therefore, it is advisable to select level-appropriate shows and to analyse elements which may be difficult both from a linguistic and a cultural point of view (Ballarin, 2012);
- d. documentaries websites: documentaries are particularly useful to foster second language comprehension because the visual component is strictly related to the linguistic script. Moreover, the language used is simple and clearly articulated and the content are usually new and interesting to students. History Channel and National Geographic are among the most popular documentaries websites (Beccaro, 2012);
- e. social network: social media like Facebook, Instagram, Twitter and Tik Tok can provide a daily exposure to second language even outside the classroom. Multimedia texts coming from social network are generally perceived as interesting and relevant and can open a classroom debate on how the second language is actually used by native speakers in their everyday life (Favaro, Sandrini, 2012);

²² <https://www.wordreference.com/>, accessed September 2022.

²³ For further information read section 2.3.5 *Text type and genre*.

- f. video sharing websites: this kind of websites provide SL videos about the most diverse topics and can be therefore dispersive. YouTube is the most known user generated video sharing system and its contents may cover all the real-life materials presented so far (Beccaro, 2012).

ICT supplies a great variety of linguistic input which must be used with a grain of salt: the effective second language teacher should be able to select the appropriate input according to the students' needs, to adapt it to their level of proficiency and to guide the comprehension process with gradual activities and analyses.

3.2.1 Second culture exposure

Multimedia texts are extremely helpful to foster non-verbal information comprehension. As discussed in the previous chapter, second language students often underestimate the communicative importance of non-verbal information because they tend to think that the non-verbal communication they have been exposed throughout their life is universally shared (Balboni, Caon, 2015).

We have already analysed the concept of language as a by-product of culture (Bruner, 1983): when the expectancy grammar is involved, we cannot expect to make appropriate first guesses in a second language without a basic knowledge of its culture. A second language learner who does not set the parameter of her/his expectations to the second culture standard, may misinterpret culturally rooted signals and customs. In this respect, audio-visual materials can provide information about customs and ways of life of the SL communities to reflect upon in order to raise second culture awareness (Byram, 2002; Kramsch, 1993).

When second language culture enters the picture, we must keep in mind that there is not a unique, fixed culture distinctively associated with a language. A single natural language can be spoken in communities that are very different and far away from each other. For example, English is spoken by over 370,000,000 native speakers across more than 10 countries.

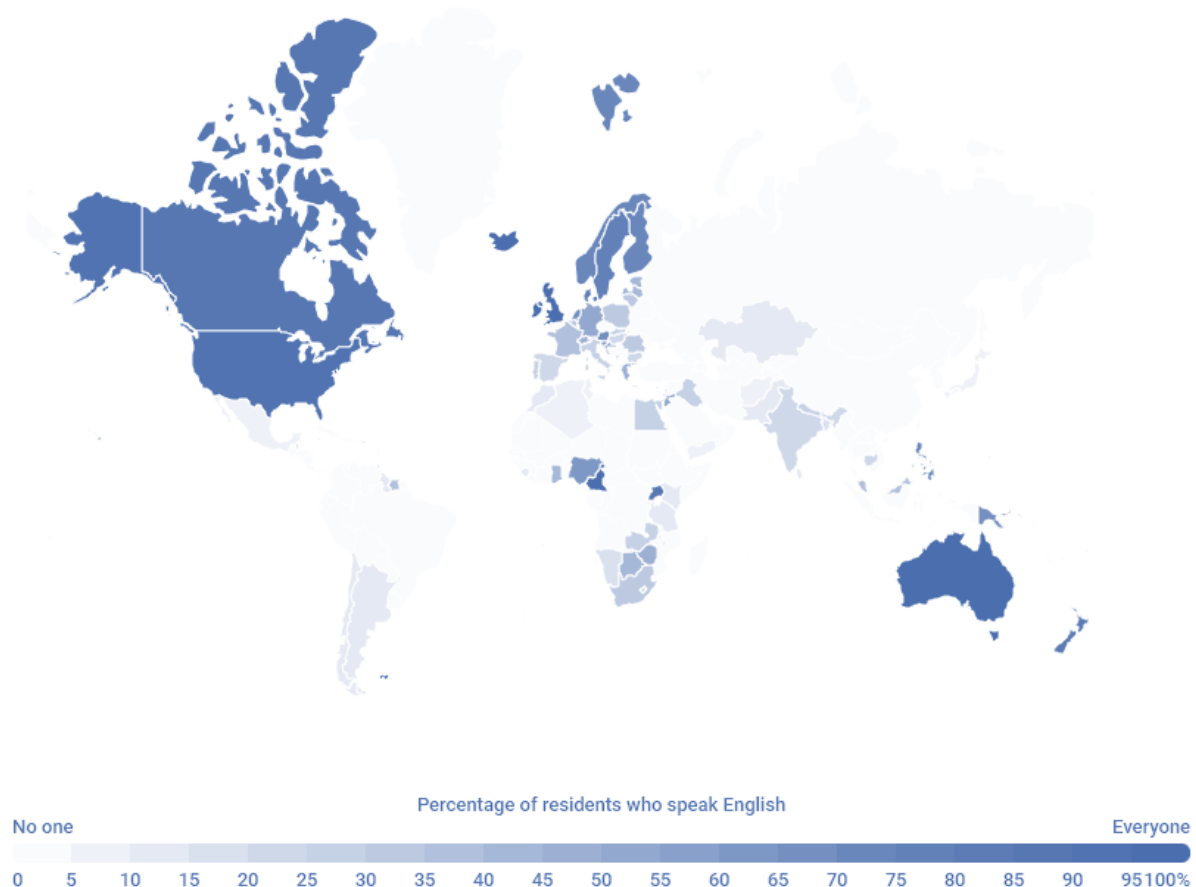


Figure 3.1 English speakers across the world.
Taken from Eberhard, Simons, Fenning (2022, online version).

We must consider that native speakers are complex human beings living in multi-ethnic and multi-cultural modern societies and not just the representative of a country. The concepts of “national identities” and “cultural myths” have been formed over the centuries by a succession of historical events and artistic productions and are by nature constantly changing. Furthermore, learners are often unaware of their own cultural myths and values and their influence on how the surrounding world is perceived (Byram, 2002; Kramsch, 1993).

Second language classrooms – and school education in general - should aim at bringing awareness about cultural differences and peculiarities in order to provide students with tools for a critical understanding of the social conventions of the first and second culture (Balboni, Caon, 2015; Byram, 2002; Kramsch, 1993). Second culture learning should be approached in its intercultural dimension, by encouraging a comparative analysis with learners’ own culture:

The best teacher can help learners see relationship between their own and other cultures, can help them acquire interest in and curiosity about “otherness”, and an awareness of themselves and their own cultures seen from other people’s perspectives (Byram, 2002: 6).

Balboni and Caon (2015) have outlined six “relational abilities” which are the basis for the intercultural competence:

- a. ability to observe from a third perspective, outside one own’s culture and the other’s culture;
- b. ability to relativise one’s own values to be able to see how a different set of values may look from an outsider’s perspective;
- c. ability to suspend pre-judice and disbelief about other cultures;
- d. ability to actively listen to others and to ask appropriate questions to avoid cultural misunderstanding;
- e. ability to identify and understand others’ emotions (empathy) and to look at oneself from outside (exotopy);
- f. ability to negotiate meaning with others.

The acquisition of intercultural competence is never complete, but it provides a positive and proactive attitude to cultures and the tools to have constructive interactions with others outside the time and space constraints of classroom education (Balboni, Caon, 2015; Byram, 2002; Kramersch, 1993). So far, we have highlighted the importance of culture-specific schemata for an effective interpretation of second language texts. We will now briefly analyse how second culture-specific schemata are constructed thanks to an intercultural approach to language education.

Generally, second language learners have already acquired culture-specific schemata related to their first language: these culture-specific schemata will be the starting point for the active construction of a pluricultural repertoire of interpretation (Byram, 2002; Kramersch, 1993). A comparative analysis between the first and the second culture enables students to understand that their own cultural values and practices are just a particular instance of a general category, they are just lower-level terminals of a wider frame to recall Minsky’s (1975) frame system theory.

The exposure to customs and patterns usually followed by second culture communities gives students a glimpse of other possible instances of the same abstract frame. Comparison and analysis of culturally rooted elements of a second language text enable students to adjust their pre-existing content schemata in order to accommodate new culture-specific information and to gradually construct culturally appropriate scripts to be activated in culture-specific content (Schank, Abelson, 1977; Rumelhart, 1980).

To give an example, we shall consider how the script *restaurant*²⁴ (Schank, Abelson, 1977) presented in the previous chapter may be adjusted to accommodate new culture-specific information. We will focus on the cluster of events labelled as “exiting”. An Italian native speaker usually does not consider

²⁴ To see the detailed script *restaurant* read section 2.4 *Knowledge of the world*, page 45.

“tip to waitress” (Schank, Abelson, 1977: 152) as an essential step to be included in the script: restaurants in Italy generally charge a small fee to each guest which covers table service and breadbasket. When the Italian ESL students learn that in the UK and in the US it is strongly recommended to tip the waiter with about 15% of the check, a script adjustment is needed. Therefore, the script *restaurant* will have different “exiting” options according to the country in which the restaurant is located.

Script: restaurant

Roles: customer, waitress, chef, cashier

Reason: to get food so as to go up in pleasure and down in hunger

Scene I: entering

Scene II: ordering

Scene III: eating

Scene IV: exiting a restaurant in Italy

ask for check

receive check

self to cashier

money to cashier

self out of restaurant

Scene IV: exiting a restaurant in the UK/US

ask for check

receive check

verify if service fee is already included

tip to waitress

self to cashier

money to cashier

self out of restaurant

As long as second culture learning progresses, students may need to add new details to pre-existing schemata or to model new schemata (Rumelhart, 1980). For example, students may prefer to create two separate scripts for *restaurant in Italy* and *restaurant in the UK/US* according to their cognitive styles.

Balboni and Caon (2015) have outlined some of the main culturally rooted values and practices that can lead to cultural misunderstanding and should therefore be objects of the comparative cultural analysis. These cultural values and practices are related to:

- a. non-verbal information, such as loudness or tone of voice, kinesics, proxemics and interlocutor appearance;
- b. concepts of time, hierarchy, public and private, family;
- c. conventions associated to social events such as business meetings, group works, calls, parties, lunch and dinner.

3.3 Activities to train expectancy grammar

Expectancy grammar relies on our knowledge of the language and on our knowledge of the world. According to Stanovich's interactive compensatory model of comprehension (1980, as cited in Alderson, 2000 and Clapham, 1996), knowledge deficits can be compensated by the interaction of these two components: if a word is not familiar, background knowledge may compensate with top-down method of guessing; if the topic is not familiar, textual cues may compensate with bottom-up processes. Logically, being competent in the use of receptive skills means being able to use strategically the limited knowledge you have to guess what you do not know.

In the previous chapter, we have analysed in detail the contribution of bottom-up processes (section 2.3 *Knowledge of the language*) and top-down processes (section 2.4 *Knowledge of the world*) to the interpretation of a second language text.

In the present chapter, I will propose different activities which can be carried out in a second language class to guide students to acquire strategies for coping with texts and to make the best use of their expectancy grammar. The mastery of the expectancy grammar is clearly a long-term objective, I will propose short-run methods to serve as a prime example.

A good level of metalinguistic and metacognitive awareness is fundamental for a strategic use of the knowledge the understander does have (Alderson, 2000). Therefore, these activities need to be supported by classrooms conversations (or other informal assessment procedures) to raise awareness of processes and strategies implemented.

The activities listed in the following sections are inspired or adapted from five main sources:

- a. Alderson (2000) proposes a series of testing practices to assess learners' reading strategies. The activities presented can be adapted to the inductive stages that precede evaluation in order to master comprehension skills and strategies that are going to be tested;
- b. Balboni (2015, 2018) suggests activities specifically designed for second language learners to develop their receptive skills;

- c. Caon, Battaglia and Brichese (2020) gives an interesting intercultural perspective to most of the subjects across the school curriculum, including second language education;
- d. Sheils (1993) provides a well-sorted list of pre-reading/listening, while-reading/listening and post-reading/listening activities designed for the “modern language classroom”.

For pedagogic purposes, the activities have been sorted in two categories: the first category aims at strengthening bottom-up strategies; the second category aims at strengthening top-down strategies. Since bottom-up strategies imply the use of formal schemata, there is not always a sharp difference between bottom-up and top-down strategies. The ratio behind this categorisation is that (Carrell, 1983; Carrell, Eisterhold, 1988; Rumelhart, 1980):

- c. bottom-up strategies are activated by incoming textual data and are therefore grounded to what has been said in the text; hypotheses about the meaning of the text are formulated while reading/listening; comprehension flows from the text (bottom) to the construction of abstract schemata (up);
- d. top-down strategies are activated by the understander’s predictions and are therefore grounded to her/his background knowledge; hypotheses about the meaning of the text are formulated and then the reader/listener scans the text in order to find textual input that can confirm or adjust the predictions; comprehension flows from abstract schemata (top) to text processing (down).

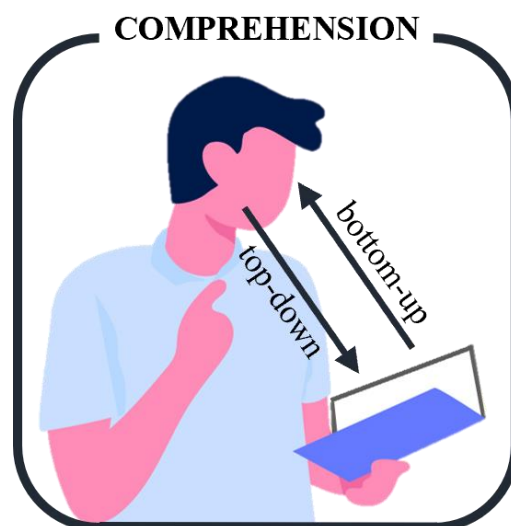


Figure 3.2 Comprehension processes.

The activities are not solely meant to be used in isolation but should be combined with other activities to promote interactive compensatory comprehension.

3.3.1 Bottom-up strategies

Strategy: Deducing the meaning of unfamiliar words from textual and contextual cues.

Activities:

- a. second language beginners are presented with unfamiliar words accompanied by pictures or icons. Words can be presented in isolation or highlighted in short simple sentences. Learners are asked to deduce the meaning of unfamiliar words from the accompanying pictures. Possible follow-up activity: match the unknown words associated to pictures with definitions.

b. the input is represented by a text dealing with an unfamiliar topic. The text is accompanied by explanatory pictures which provide an alternative and complementary way of processing the text. Learners are asked to deduce the meaning of unfamiliar words from the accompanying pictures.

c. learners are presented with an unfamiliar word contextualised in a short text. Teacher focuses the attention of the class to the semantic field of the text and syntactic roles of familiar words to guide the hypotheses formulation process²⁵. Learners may be led to formulate a plausible interpretation of the word on their own, in groups or collectively as a class.

To focus on the process rather than on the product (the real meaning of the word), Alderson (2000) suggests the use of nonsense words as targets of the activity. For example,

(3.1) Michael gave me a beautiful bunch of flowers: roses, dahlias, marguerites, chrysanthemums, *nogs*, and orchids (Alderson, 2000: 346).

(3.2) Well, if it isn't a *mungle* horse, it must be female (Alderson, 2000: 346).

Otherwise, the topic word (not necessarily unfamiliar) can be omitted from the entire text. Learners are asked to guess the meaning of the mysterious word from textual cues. Grellet (1981, as cited in Alderson, 2000: 314) provides an example of this kind of activity:

Read the following paragraph and try to guess the meaning of the word 'zip'.

Zip was stopped during the war and only after the war did it become popular. What a difference it has made to our lives. It keeps people at home much more. It has made the remote parts of the world more real to us. Photographs show a country, but only *zip* makes us feel that a foreign country is real. Also we can see scenes in the street, big occasions are *zipped*, such as the Coronation in 1953 and the Opening of Parliament. Perhaps the sufferers from *zip* are the notable people, who, as they step out of an aeroplane, have to face the battery of *zip* cameras and know that every movement, every gesture will be seen by millions of people. Politicians not only have to speak well, they now have to have what is called a '*zip* personality'. Perhaps we can sympathize when Members of Parliament say that they do not want debates to be *zipped*.
(From *Britain in the Modern World* by E. N. Nash and A. M. Newth)

zip means cinema
 photography
 television
 telephone

Figure 3.3 Deducing the meaning of unfamiliar words.
Taken from Grellet (1981, as cited in Alderson, 2000: 314).

²⁵ For further details read sections 2.3.1 *Word recognition*, 2.3.2 *Word parsing and syntax*, 2.3.3 *Semantic analysis*.

To make the activity more playful and challenging, answer options may be removed and learners may be asked to guess the word in small groups within a limited amount of time: the group that guess the answer faster or gets closer will win the game.

d. learners are asked to deduce the meaning of unfamiliar phrasal verbs from textual cues. Phrasal verbs can be presented in text or in isolated sentences as long as they provide enough context. Here an example provided by Heyderman and May (2010: 31):

Underline the phrasal verbs in sentences 1–6, then match them with meanings a–f.

1 You can <u>catch up with</u> everyone else if you run fast.	a took part with others
2 My sister took up singing; she's got a lovely voice.	b registered to do something
3 I want to learn Chinese so I've put my name down at a language school.	c started doing a hobby
4 My friends were all playing cards so I joined in, too.	d started a journey
5 Some children enjoy stamp collecting, but go off it when they get older.	e get to the same level as others
6 We set off early and took the ten o'clock ferry.	f stop liking

Figure 3.4 Deducing the meaning of unfamiliar phrasal verbs. Taken from Heyderman and May (2010: 31).

Strategy: Predicting what will come next.

Activities:

a. the text is stopped by questions to guide expectations while reading/listening on what may come next based on what has been read/listen so far. In the case of a written text, questions may be provided at the margin of the text or after each paragraph. In the case of an auditory or audio-visual text, the teacher can stop the text every now and then to ask questions to the class and to discuss together the plausibility of the prediction. Baudoin et al (1988, as cited in Alderson, 2000: 318) propose the article “The Changing Family” written by Maris Vinovskis and provide questions after each paragraph to guide expectations as the text unfolds. Here, some excerpts of the activity:

Now read the opening paragraph to see what the focus of the article will be.

There is widespread fear among policymakers and the public today that the family is falling apart. Much of that worry stems from a basic misunderstanding of the nature of the family in the past and lack of appreciation for its strength in response to broad social and economic changes. The general view of the family is that it has been a stable and relatively unchanging institution through history and is only now undergoing changes; in fact, change has always been characteristic of it.

The Family and Household in the Past

2. This article seems to be about the changing nature of the family throughout history. Is this what you expected?
3. The introduction is not very specific, so you can only guess what changing aspects of the family will be mentioned in the next section. Using information from the introduction and your general knowledge, check (✓) those topics from the list below that you think will be mentioned:

- | | |
|---|---|
| <input type="checkbox"/> a. family size | <input type="checkbox"/> f. the family throughout the world |
| <input type="checkbox"/> b. relations within the family | <input type="checkbox"/> g. the economic role of the family |
| <input type="checkbox"/> c. the definition of a family | <input type="checkbox"/> h. sex differences in family roles |
| <input type="checkbox"/> d. the role of family in society | <input type="checkbox"/> i. the role of children |
| <input type="checkbox"/> e. different family customs | <input type="checkbox"/> j. sexual relations |

Now read the next section, noting which of your predictions is confirmed.

In the last twenty years, historians have been re-examining the nature of the family and have concluded that we must revise our notions of the family as an institution, as well as our assumptions about how children were perceived and treated in past centuries. A survey of diverse studies of the family in the West, particularly in seventeenth-, eighteenth-, and nineteenth-century England and America shows something of the changing role of the family in society and the evolution of our ideas of parenting and child development. (Although many definitions of *family* are available, in this article I will use it to refer to kin living under one roof.)

4. Which aspects of the family listed above were mentioned in this section?

5. Which other ones do you predict will be mentioned further on in the article?

6. What aspects of the text and your general knowledge help you to create this prediction?

Figure 3.5 Predicting what will come next.
Taken from Baudoin et al (1988, as cited in Alderson, 2000: 318).

- b. omit some non-consecutive lines from a dialogue. Learners are asked to choose the right option or to write a plausible line based on what precedes and follows the gap.
- c. omit the ending of a sentence in a narrative or the finale of the story. Learners are asked to choose the right option or to write a plausible ending based on what they have read/listened.

Strategy: Identifying abstract features from textual cues.

Activities:

- a. learners are provided with a list of words or expressions and are asked to classify them in appropriate categories. Categories may be provided beforehand or may be created by students. If categories pertain syntactic functions or semantic field, this activity may lead to reflection about syntactic and semantic ambiguity of some words. Heyderman and May (2010: 81) propose this kind of activity in a unit dedicated to health:

In pairs or groups, put these words under the three headings.

aspirin bandage bruise cut disease earache
 flu fracture high temperature injection injury
 medicine operation pill plaster plaster cast
 sprain tablet wound X-ray

accidents	illnesses	treatments
injury		

Figure 3.6 Identifying abstract features of a word list.
 Taken from Heyderman and May (2010: 81).

- b. learners are asked to scan a text to find suitable words to fill in categories of a table.
- c. learners are asked to scan a text to find cues that reveal the text type and genre. Teacher guides learners to focus not only on word choice, but also on format, appearance and typographic features. Cues are collected on the board. Learners are guided to schematise the main features and organisation of the text to systematise formal schemata. This kind of formal schemata will be useful to activate top-down comprehension the next time students will approach the same text type.

- d. learners are asked to scan a text to find cues that reveal the text style (formal/informal). Teacher gathers the cues collected on the board. Learners are guided to schematise the main features and organisation of the text to systematise formal schemata. This kind of formal schemata will be useful to activate top-down comprehension the next time students will approach the same text style.
- e. the input is represented by two parallel texts dealing the same topic but with different genre and style. Learners are asked to scan the text to find differences and similarities between the texts. Findings are collected on the board and learners are guided to schematise the main features of the texts.
- f. learners are presented with jumbled sentences or jumbled paragraphs and are asked to reorder these elements in order to form a coherent and cohesive text. Teacher guides learners to rely on unfolding content, lexical redundancy, signalling devices, sequence markers and different kinds of connectors. In the process, students are asked to highlight the textual cues that led to the reconstructed version of the text.
- g. the input is represented by two texts jumbled together. The two texts deal with the same topic, but with different styles. Learners are asked to separate and reorder the texts and to highlight the textual cues that led to that result.
- h. an auditory or audio-visual input shows an interaction in a given situation (ordering food in a restaurant, asking for directions, offering and asking for help, making offers, asking for permission etc...). Learners are guided to note and list discourse strategies. Teacher guides learners to construct a script for the situation.
- i. learners are asked to listen to short texts and are guided to deduce the speaker's intention (inform, complain, warn, etc ...) and attitude based on textual and paralinguistic cues (word choice, tone and speed of voice). Answer options can be provided or learners can write freely their opinion.
- j. learners are asked to match written short texts with the purpose of the text (inform, complain, warn, etc ...) based on textual cues (word choice, tenses, adverbs). Answer options can be provided or learners can write freely their opinion. Heyderman and May (2010: 148) provide this kind of activity taken from a sample PET certification exam:

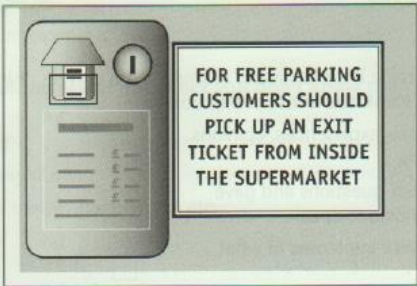
1		<p>A Supermarket customers are not charged for parking but need to collect a special ticket.</p> <p>B Supermarket customers should show their receipt at the exit to the car park.</p> <p>C Supermarket customers have to pay for the car park inside the supermarket.</p>
2	<p>Graham,</p> <p>King Otleys Books – the dictionary you ordered is no longer published. They recommended another one (£5 extra) – they could get a copy for tomorrow.</p> <p>Marina</p>	<p>A Graham has to wait an extra day for the dictionary he ordered from Otleys.</p> <p>B If Graham wants a dictionary from Otleys, it'll cost more than he expected.</p> <p>C The dictionary Graham needs is unavailable at Otleys, so they recommend trying another shop.</p>

Figure 3.7 Identifying abstract features from textual cues.
Taken from Heyderman and May (2010: 148).

Strategy: Recognising main ideas of a text.

Activities:

- a. learners are asked to propose a title for each paragraph of the text based on what has been read. It may be provided answer options for each paragraph, a list of titles to match with paragraphs or learners may write freely a suitable title.
- b. learners are asked to propose a title for graphs/tables based on the information contained. At lower levels of proficiency, graphs and tables may be provided in a text to give more contextualization. At higher levels of proficiency, graphs and tables may be provided in isolation, so that learners are led to focus solely on their content. Answer options can be provided or learners can write freely a suitable title.
- c. learners are asked to recognise the main idea for each paragraph of the text. Answer options can be provided or learners can write freely their opinion.
- d. learners are asked to write a summary or to create a mind map of the text key points. This activity is particularly useful to systematize new information in the second language and to accommodate it in the background knowledge of the students.
- e. the input text presents events that are not chronologically ordered. Learners are asked to reconstruct the sequence of events. This activity is particularly useful to systematize new information in the second language and to accommodate it in the background knowledge of the students.

f. learners are asked to match descriptions of people to suitable short texts on a particular topic (hobbies, books, holidays location, etc...). Learners are asked to highlight information they expect to be relevant for the matching activity. Heyderman and May (2010: 150-151) provide this kind of activity taken from a sample PET certification exam:

Questions 6-10

The people below all want to buy a book for the young person shown in each picture. On the opposite page there are descriptions of eight books. Decide which book would be the most suitable for the following people to buy. For questions 6-10, mark the correct letter (A-H) on your answer sheet.

6



Gina wants a book for her nephew who is interested in nature. He's always asking questions about the world around him and Gina thinks he's ready to start learning a few simple facts.

7



Bruno is looking for a book his daughter will enjoy reading and which will also help with a project she is doing at school. She has to describe an important event from the past.

8



Edita's son loves animals and she would like to buy him a book with beautiful pictures and a strong message about the need to respect the environment.

9



Tony wants to buy a novel for his teenage sister. She likes stories that are true to life and that show people in difficult situations.

10



Lydia is looking for a book about animals for her granddaughter, who cannot read yet. She wants a book with several stories in it, and some attractive pictures.

Figure 3.8 Recognising main ideas of a text. Taken from Heyderman and May (2010: 150).

A I Wonder Why

The wonders of science come alive for children in this delightful book. As well as enjoying the lovely pictures, they will also learn about how plants grow, see how different birds care for their young and discover some interesting information about insects.

C Painting History

This is a beautiful book showing famous paintings through history. Each painting is described in detail, including simple facts about the people shown in them and their lives. Children are invited to look more closely at the pictures and to try some of the techniques themselves.

E Forest Tales

This book is a collection of seven well-known animal stories from different cultures around the world. They are particularly suitable for reading aloud and would make good bedtime stories. Each story is about six pages long with bright and colourful pictures on every page.

G Time Travellers

This very interesting set of stories shows what life was really like for people at certain points in history – the building of the Eiffel Tower, the sinking of the *Titanic*, the first moon landing. Written as diaries, these stories are historically accurate.

B Basic Technology

A love of knowledge begins early with this colourful reference book. Find out interesting facts and learn about important inventions in the last century. If you know a child who asks questions like 'What makes a car go?', then this is the book for you.

D The Hunter

In this exciting story, wonderfully illustrated by a famous wildlife artist, Jamina finds a baby elephant whose mother was killed by hunters. Looking for help, she travels back through the African bush and is able to enjoy the nature all around her. Her journey teaches her the importance of doing all we can to save and protect our world.

F Journey to the Past

Lying ill in bed, Lucien knows he is not like other boys. In this imaginative story he finds out just how different he is. He discovers that he has the power to transport his mind through space and time. This amazing novel will appeal to those who read to escape from the real world.

H Joanna's Search


Joanna was brought up by her aunt and uncle and has never known her parents. At 14, she decides to try and find the answers to the questions that she has always asked herself – 'Who am I?', 'Where do I come from?' The novel tells the moving yet funny story of Joanna's search for her identity.

Figure 3.9 Recognising main ideas of a text. Taken from Heyderman and May (2010: 151).

Strategy: Filling the gaps based on formal schemata.

Activities:

a. cloze texts reflect the processes underlying text comprehension (sampling of the text, hypothesis about what will come next, confirmation or adjustment of predictions). To test solely knowledge based on formal schemata, cloze texts can be specifically designed by deleting mostly function words (articles, auxiliaries, demonstratives, quantifiers, prepositions, pronouns, conjunctions, subordinators, etc ...). Answer options can be provided or learners can write freely. In the latter case, teacher should accept synonyms for the exact words as well (Oller, 2006). Cambridge A2 English qualification exam (Cambridge English Assessment, 2021a: 82-83) propose a multiple choice cloze:



The Seasons

Inmany..... countries there are four seasons in the year. These are called spring, summer, autumn and winter. season is about three months long and then a new season comes.

In the north of our planet summer usually in June. It is the warmest time of the year and it sometimes does not get dark 10 o'clock at night. In September it gets colder and the trees their leaves. This season is called autumn. Winter comes in December it is usually very cold and a lot of countries have snow. On some winter days, it gets dark at about 4 o'clock the afternoon so the days are very and the nights are long.

In March the weather gets warmer and plants and flowers start to grow This season is called spring.

In the south of the planet the countries have the seasons, but they happen at different times the year. They have summer in December and winter in June.

Example	many	much	any
1	Each	Other	All
2	began	begins	beginning
3	until	for	during
4	lost	loses	lose
5	which	when	where
6	at	in	on
7	shorter	short	shortest
8	after	again	already
9	both	same	more
10	of	up	with

Figure 3.10 Filling the gaps based on formal schemata. Taken from Cambridge English Assessment (2021a: 82-83).

Strategy: Deducing cultural peculiarities and differences.

Activities:

- a. the input is represented by short clips taken from a L1 film and from the L2 remake. Otherwise, clips may be taken from a L2 film and from the L1 remake. Learners are asked to notice differences and similarities between the clip and to hypothesise which of them is culturally driven.
- b. the input is represented by a short clip taken from a L2 film which depicts at least a L1 character. Learners are asked to list and note stereotypical features and/or accurately portrayed cultural elements. This activity helps raise awareness of the mutual role of “other” in intercultural interactions: I see my interlocutor as “the other” and have some expectations about her/him, meanwhile the interlocutor sees me as “the other” and has some culturally-driven expectations about me. Learners may be asked to reflect about L2 literary characters with their same cultural background as well.
- c. in capitalist societies, goods are status symbols and thus tend to convey implicit cultural values. The input is represented by a commercial designed for SL countries. Learners are guided to grasp the cultural myth and values behind the commercial.
- d. the input is represented by two commercial for the same product but targeted respectively for L1 communities and L2 communities. Learners are guided to make a comparative analysis between C1 and C2 elements noted in the commercials.

3.3.2 Top-down strategies

Strategy: Anticipating the text topic from paratextual cues.

Activities:

- a. learners are asked to anticipate what will be the topic of the text and text type based on their expectations on the title. Learners are then asked to write down key words they expect to find in the text in order to elicit relevant background knowledge and related language. Possible follow-up activity for high proficiency levels: given the headline of an article, learners try to write the article based on their expectations.
- b. learners are asked to anticipate what will be the topic of the text and text type based on their expectations on accompanying pictures. Learners are then asked to write down key words they expect to find in the text to elicit relevant background knowledge and related language.
- c. given a sequence of pictures related to the text, learners are asked to anticipate the text topic and to write a plausible summary based on the pictures.

Strategy: Anticipating the text topic from linguistic cues.

Activities:

a. given key words, learners are asked to anticipate what will be the topic of the text and text type. This activity elicits relevant background knowledge and related language. Possible follow-up activity for high proficiency levels: learners try to write the text based on their expectations.

Sheils (1993: 83) provide an example of a similar activity:

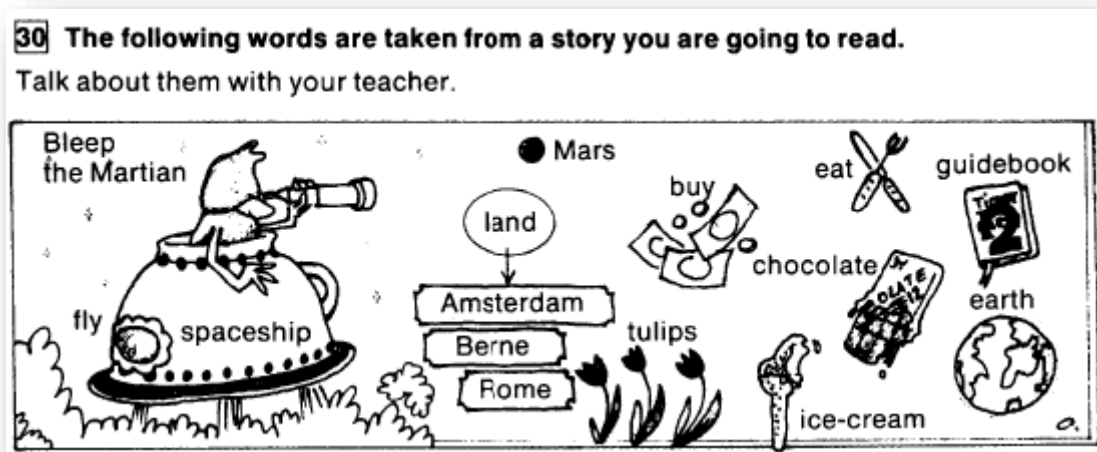


Figure 3.11 Anticipating the text topic from linguistic cues.
Taken from Sheils (1993: 83).

b. learners are provided with a list of jumbled words taken from two or more texts and with the titles of these texts. Learners are asked to match the words with the titles according to their expectations.

Strategy: Filling the gaps based on background knowledge.

Activities:

a. cloze texts reflect the processes underlying text comprehension (sampling of the text, hypothesis about what will come next, confirmation or adjustment of predictions). To test background knowledge, cloze texts can be specifically designed by deleting mostly content words (nouns, verbs, adjective, adverbs). To be effective, this kind of cloze texts should deal with a familiar topic (Oller, 2006). Cloze activity may provide answer options or allow learners to write freely. In the latter case, teacher should accept synonyms for the exact words as well.

Cambridge A1 English qualification exam (Cambridge English Assessment, 2021b: 46-47) propose a multiple choice cloze with the jumbled sequence of deleted words associated with a picture:

Read the story. Choose a word from the box. Write the correct word next to numbers 1–5. There is one example.

Lucy and Matt's mum is a doctor. The children and their dad were at home last Monday evening when Mum *phoned* She said, 'I have to do some more work here at the (1) Ask Dad to make your dinner.'

'Oh no!' said Matt. 'Dad can't (2) !'

The family looked for some food in the kitchen cupboards. They found some onions, potatoes and carrots. 'What can we make with these?' asked Matt. 'I'm very (3) !' Then Lucy said, 'I know! We can make soup.' Matt was not happy. He said, 'I don't like soup. I want pasta and meatballs!' 'Sorry, Matt,' Dad said. 'We haven't got any pasta or meatballs. We only have these (4) to eat for dinner.'

Lucy and Dad made the soup. Then the three of them sat down and started eating. Lucy asked Matt, 'So, what do you think?' 'It's fantastic! I love it!' Matt answered. 'Can I have another (5) of soup, please?' And they all laughed.

Example










		
phoned	hungry	hospital
		
vegetables	cry	afraid
		
cups	cook	bowl

Figure 3.12 Filling the gaps based on background knowledge. Taken from Cambridge English Assessment (2021b: 46-47).

Strategy: Predicting what will come next based on background knowledge.

Activities:

- a. given the text topic, learners are asked to write down a list of expected points based on background knowledge about the topic. The brainstorming session may be held individually, in groups or as a classroom discussion.
- b. the input text has to be scanned to fill a grid with specific information. Before reading, learners are asked to fill the grid with the data expected based on their background knowledge. Learners are then asked to read the text and validate their hypotheses.
- c. learners are asked to read the questions to be answered before reading the text to create expectations based on their background knowledge and guide reading.
- d. the input is represented by a branching story, namely a text in which readers choose from different options what the character will do next. Different decisions lead to different endings: learners are asked to take decisions based on what is the expected consequences of the different options provided. Sheils (1993: 126) provides an example of written branching story:

The image shows a page from a branching story. On the left, there is a black and white illustration of a woman with dark, curly hair lying in bed, looking thoughtful. An alarm clock is on a bedside table next to her. Above the illustration, the text reads "MAZE ONE" and "FEELING ILL". On the right side of the page, the title "FEELING ILL" is followed by a large number "1". Below the title, there is a paragraph of text: "You wake up one day; you don't feel right. The next day it's the same. There's nothing very wrong — nothing hurts, you have no aches or pains. You just don't feel right. The third day it's just the same—a bit like a fever. You take your temperature. It's slightly higher than normal. This goes on for another two days." Below this paragraph, the question "What do you do?" is followed by three numbered options: "3 Ignore it but try to get some more sleep.", "8 Drink a lot of liquids.", and "10 Take some aspirin."

Figure 3.13 Predicting what will come next based on background knowledge.
Taken from Sheils (1993: 126).

If readers choose option 3, they will then read the following paragraph and make a further choice between other options (Sheils, 1993: 127):

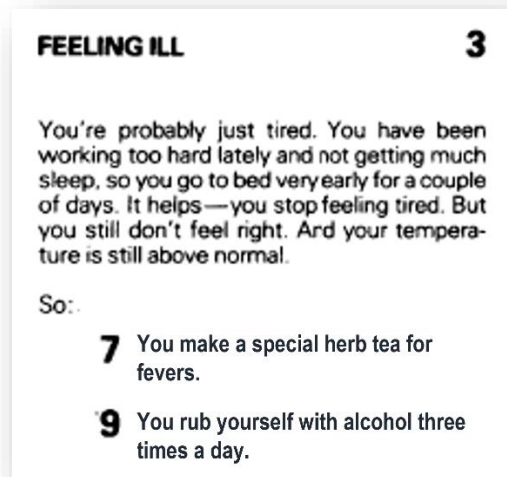


Figure 3.14 Predicting what will come next based on background knowledge.
Taken from Sheils (1993: 127).

Branching stories can be more interactive if supported by ICT.

Strategy: Predicting what will come next based on textual conventions.

Activities:

- a. learners are asked to recall the conventions of the text type they are going to read. Teacher guides learners to schematise the main features to guide expectations about the text.
- b. learners are asked to recall the conventions of a text type and to schematise the main features. Learners are then asked to skim rapidly a jigsaw text and to reorder the paragraphs by relying on their background knowledge about the text type, rather than by sampling every single words of the text.
- c. teacher asks native digital learners about textual conventions of different media well-known to them (a tweet, an Instagram story, a Tiktok video, etc ...). Learners are guided to schematise the main features of each media. Given a topic, learners are then asked to create texts suitable for the media.

Strategy: Predicting what will come next based on social conventions.

Activities:

- a. learners are asked to recall social conventions related to a given situation. Learners are guided to schematise a possible script and are then asked to perform it in small groups.
- b. the input is represented by a short video played without sound. Learners are asked to write a plausible script based on known social conventions related to the specific situation portrayed in the video.

Strategy: Taking a different perspective.

Activities:

- a. learners read/listen a story with different characters involved. Learners are asked to choose a secondary character and reimagine the story from her/his point of view based on their background knowledge (How are people expected to (re)act in that situation? How are people expected to feel in that situation?). Learners may be asked to rewrite the whole story or to simply to write a comment from the secondary character's point of view.
- b. Churchill said that history is written by the victors. Learners are asked to read an historical text and to rewrite it from the point of view of the losers based on their background knowledge. For example, rewrite colonisation from the point of view of the people who were colonised by the SL country (if there are any). This kind of activity helps learners to decentre and reinterpret their background knowledge in an intercultural perspective. Learners may not be able to complete satisfactorily the task, but it would be a great opportunity to encourage learners to challenge their assumptions and take a different perspective.
- c. learners read/listen a story about a cultural misunderstanding. Learners are asked to use their cultural background knowledge to provide plausible solutions to the problem.
- d. learners are asked to advertise a typical product of their country; the commercial must be targeted to a SL country. Learners are asked to change their frame of reference and to see their culture from a distance. This activity encourages learners to make the best use of their cultural background knowledge about the other country.
- e. the input is represented by a short L1 clip referring to a popular culture element. Learners are asked to write L2 subtitles that refers to a similar popular culture element in the target country. This activity encourages learners to use non-institutional sources such as streaming services and social media to get in touch with SL culture.

3.3.3 Metalinguistic and metacognitive awareness

As stated earlier, the activities presented need to be supported by some awareness-raising reflection. Guiding students to apply specific strategies is not sufficient. Learners need to know how those strategies can improve their comprehension skills and, more importantly, they need to master those strategies in order to be able to choose the appropriate strategy to be implemented to overcome difficulties.

Firstly, learners should be guided to self-observe the strategies they naturally implement while approaching a SL texts. After comprehension is checked, learners may answer some guiding questions such as (Alderson, 2000):

- a. What was the first thing you did to approach the text?
- b. Did it help to process the text?
- c. Did you understand most of the text?
- d. What did you not understand?
- e. What was the nature of the difficulty? (337)
- f. Have you tried to use a particular strategy to overcome the difficulty? Did it work?
- g. Did you notice that you had misunderstood something? (337)
- h. How did you notice? (337)
- i. What could you have done about this misunderstanding? (337)

Awareness-raising reflection can be in the form of an individual introspection or in the form of an open-ended classroom conversation to dispel the doubts and collect unexpected insights (Alderson, 2000). At the end of the lesson, teacher should ask simple questions to spark conversation, for example (Alderson: 2000):

- a. What have you learnt from this lesson?
- b. Did you find it helpful?
- c. Is there anything unclear?
- d. Will you be able to apply what you have learnt in other contexts? If so, which ones?

Those kind of questions give direction to learners' reflection and learning. At the same time, the teacher can assess the need for other ways of eliciting the same strategies and knowledge.

The final section of this book collects three examples of real worksheets designed for three different ESL classrooms of a primary school in Italy. For each of the worksheet will be provided:

- a. age, relevant background knowledge and level of proficiency of the target students;
- b. feedback collected after the activities have been carried out.

3.4 ESL worksheet #1

Target: Italian 8 years old, 3rd year of primary school

Relevant background knowledge:

- a. numbers and counting;
- b. food;
- c. communicate food likes and dislikes.

Level of proficiency: Pre-A1

PRE-A1	Can understand short, very simple questions and statements provided that they are delivered slowly and clearly and accompanied by visuals or manual gestures to support understanding and repeated if necessary. Can recognise everyday, familiar words, provided they are delivered clearly and slowly in a clearly defined, familiar, everyday context. Can recognise numbers, prices, dates and days of the week, provided they are delivered slowly and clearly in a defined, familiar, everyday context.
--------	---

Type of lesson: Frontal teaching, revision lesson (1h and a half) - first week of school

Sources: Input texts are adapted from Nixon and Tomlinson (2017: 55-57).

Teacher Sheet

Motivation

Activity:

- a. learners are asked to look at the pictures and guess the topic of the following listening activity.
- b. once the topic has been identified, teacher writes the word *food* on the board and asks students if they remember the name of each food represented. Food vocabulary is noted on the board.

Specific aims: To activate background knowledge; to elicit relevant vocabulary; to create expectations.

Strategy elicited: Anticipating the text topic from paratextual cues.

Globality

Activity number 1:

- a. learners are asked to listen to the recording and circle the correct picture. Learners will hear the recording twice.
- b. teacher asks different students what picture they have circled for each statement; correct answers will be provided on the IWB.
- c. if a consistent number of students have misinterpreted a statement, the statement will be played again and commented.

Specific aim: To understand very simple statements delivered slowly and clearly and accompanied by pictures.

Strategy elicited: Using pictures to support understanding.

Transcription:

I've got cake and milk.

I've got eggs and fruit.

I've got eggs and chips.

I've got fruit and milk.

I've got tomatoes and chips.

I've got cake and tomatoes.

Globality

Activity number 2:

- a. learners are asked to listen to the recording and write the number to order the pictures. Learners will hear the recording twice.
- b. teacher numbers the pictures on the IWB with the help of the learners.

Specific aim: To understand very simple statements delivered slowly and clearly and accompanied by pictures.

Strategy elicited: Using pictures to support understanding.

Transcription:

I don't like cake.

I like chips.

I don't like milk.

I like tomatoes.

I don't like eggs.

I like fruit.

Analysis

Activity:

- a. learners are asked if they have noticed recurring expressions other than food vocabulary during activity number 2.
- b. if needed the recording will be played again.
- c. teacher notes on the board the expression *I like* followed by a smiley face and the expression *I don't like* followed by a sad face.

Specific aims: To understand very simple statements delivered slowly and clearly and accompanied by pictures; to train selective listening.

Strategies elicited: Using pictures to support understanding; exploiting the known sequence of pictures to focus on specific information.

Analysis

Activity:

- a. learners are asked to draw a smiley face if the speaker likes the pictured food and a sad face if the speaker does not like the pictured food. They will hear the recording twice again.
- b. teacher draws the faces on the IWB with the help of the learners.
- c. if a consistent number of students have misinterpreted a statement, the statement will be played again and commented.

Specific aims: To understand very simple statements delivered slowly and clearly and accompanied by pictures; to train selective listening.

Strategies elicited: Using pictures to support understanding; exploiting the known sequence of pictures to focus on specific information.

Synthesis

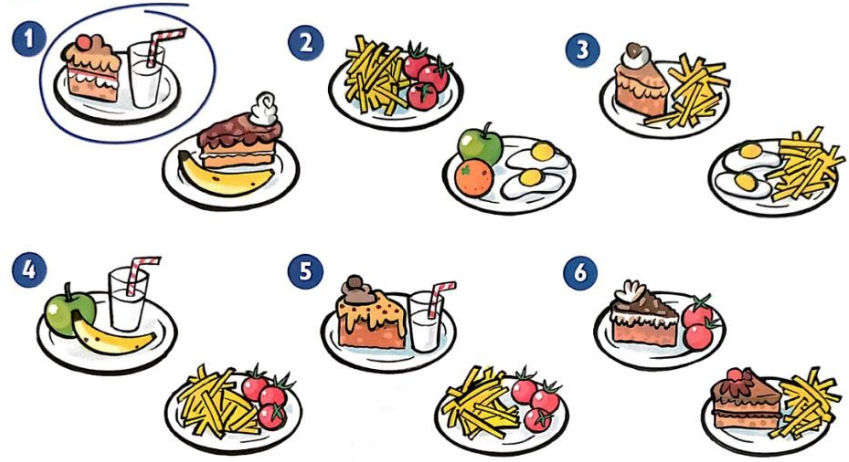
Activity number 3:

- a. learners are asked to draw foods they like and don't like.
- b. learners are asked to say which foods they like and don't like to their deskmate.

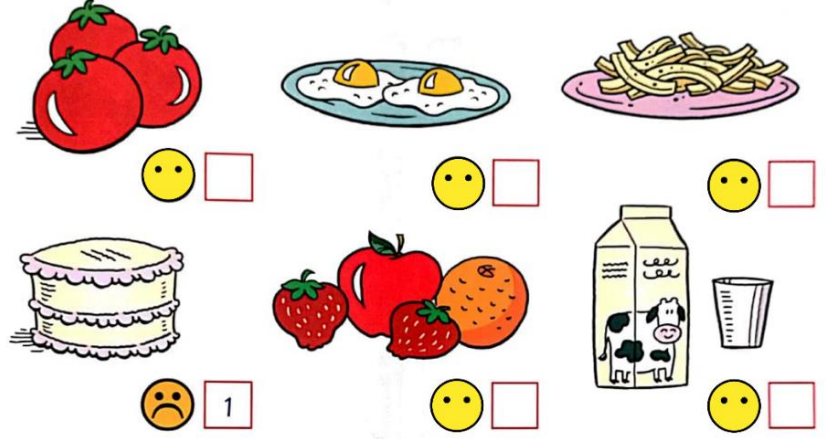
Specific aim: To re-notice and produce vocabulary and expressions revised during the lesson.

Strategy elicited: Using notes on the board to support production.

1 Listen and circle.



2 Listen and write the number.



3 Draw foods you like and don't like. Say.

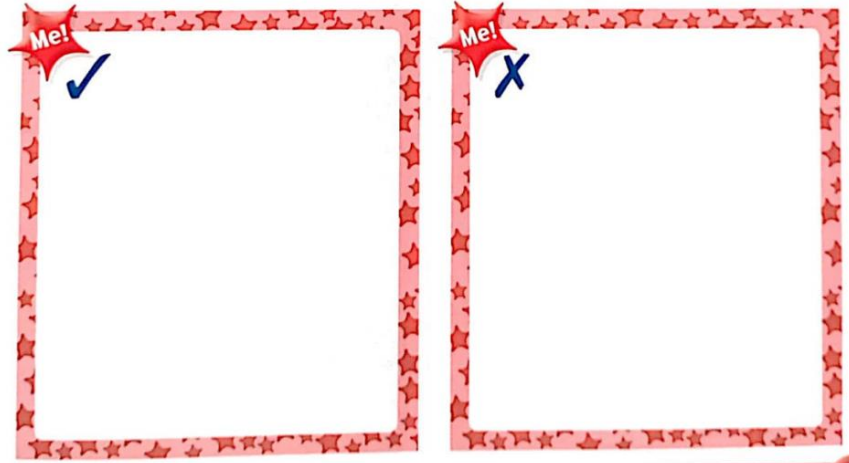


Figure 3.15 ESL worksheet #1. Adapted from Nixon and Tomlinson (2017: 55-57).

3.4.1 Real classroom feedback

In the last half hour of the lesson, students have been involved in an open-ended awareness-raising classroom conversation. The main purposes were to raise awareness of processes and strategies implemented as well as to collect a feedback about form and content of the lesson.

The motivation activity has been described as useful to revise food vocabulary and to create expectations about the food that was going to be mentioned in the listening activity. Interestingly, students found pictures and the words noted on the board extremely helpful to decode unclear words. For example, at first listen some students had difficulties to recognise the word *milk* because they did not expect the letter *i* to be nearly not pronounced at all. The picture combination of the glass of milk with another food helped students to fill the comprehension gap and to circle the correct dish.

It has emerged that students are not used to analyse in depth the listening activities script as they do in reading activities. Learners have particularly appreciated that the second listening activity was broken down into two manageable tasks focusing on two different aspects of the language: food vocabulary and then the grammatical forms I like / I don't like. As a result, they have reportedly directed their effort to one goal at a time, leading to better comprehension.

Unexpectedly, a short reflection about the differences between American English and British English sparked from a student's question. The learner was wondering why the worksheet used the word *chips* to refer to thick potato fry and a famous Italian commercial used the same word to advertise a packet of thin slices of fried potatoes instead. The difference between UK chips / crisps and US French fries / chips has been clarified and other differences related to food vocabulary have been presented (i.e. UK aubergine / US eggplants; UK courgette / US zucchini; UK biscuit / US cookie etc...). A map has been presented on the IWB to underline the long distance between the UK and the USA and children seemed to have grasped that Britons and Americans speak almost the same language but cannot be considered the same people.

3.5 ESL worksheet #2

Target: Italian 9 years old ca., 4th year of primary school

Relevant background knowledge:

- a. family;
- b. feelings;
- c. food.

Level of proficiency: Pre-A1/A1

PRE-A1	Can recognise familiar words accompanied by pictures, such as a fast-food restaurant menu illustrated with photos or a picture book using familiar vocabulary.
A1	Can understand very short, simple texts a single phrase at a time, picking up familiar names, words and basic phrases and rereading as required.

Type of lesson: Frontal teaching, revision lesson (1h and a half) - first week of school

Sources: Input text is adapted from Harper and Pritchard (2018: 34-35-36). The illustrated Goldilocks and the three Bears story has been transformed in a cloze text; only content words have been deleted.

Teacher Sheet

Motivation

Activity:

- a. learners are asked if they know the Goldilocks and the three Bears story.
- b. an Italian video²⁶ of the story is reproduced on the IWB.

Specific aims: To activate background knowledge; to elicit relevant vocabulary; to create expectations.

Strategy elicited: Anticipating the text topic from multimedia cues.

Globality

Activity:

- a. learners are asked to read the story and try to fill the gaps.

²⁶ <https://www.youtube.com/watch?v=NiginILU4C0>, accessed September 2022.

Specific aim: To train interactive compensatory comprehension.

Strategies elicited: Filling the gaps based on background knowledge; filling the gaps based on paratextual cues; filling the gaps based on lexical redundancy.

Globality

Activity:

- a. each gap of the text is analysed with the classroom. Teacher asks learners who made the right guess how they came to that answer. Synonyms and plausible alternatives for the exact words will be accepted and commented.
- b. if nobody provides the correct answer, the teacher guides the reflection and gives clues.

Specific aim: To train interactive compensatory comprehension.

Strategies elicited: Filling the gaps based on background knowledge; filling the gaps based on paratextual cues; filling the gaps based on lexical redundancy.

Analysis

Activity:

- a. teacher underlines adjectives used to describe feelings on the IWB.
- b. learners are asked what the function of those words is. Teacher guides the formulation of hypotheses.
- c. once the function has been recognised, teacher asks some students to mime the feelings on the board to check their comprehension of each word.

Specific aims: To recognize adjectives to describe feelings; to raise metalinguistic awareness.

Strategies elicited: Using pictures to support understanding; using background knowledge to support understanding.

Synthesis

Activity:

- a. learners are asked to take the perspective of one of the character of the story and to discuss with their deskmate what of those feelings they would have experienced.

Specific aim: To re-notice and produce vocabulary revised during the lesson.

Strategies elicited: Taking a different perspective; using pictures to support production; using notes on the IWB to support production.

2 Story time

Goldilocks and the 3 Bears



Look at the pictures and read the story. Try to fill the gaps.

1  That is a nice blue _____.

2  I'm hungry.

3  This porridge is too hot!

 This porridge is perfect. I'm happy!

 This porridge is too _____!

4  I'm _____!

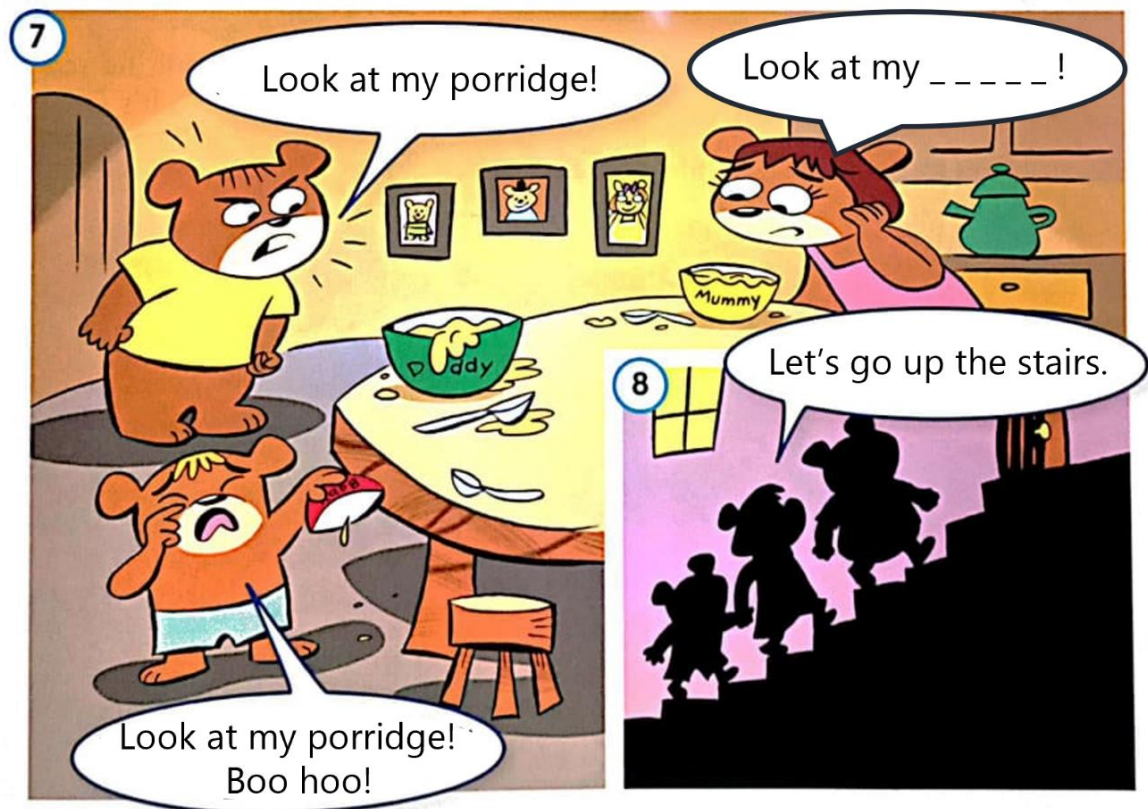


Figure 3.17 ESL worksheet #2. Adapted from Harper and Pritchard (2018: 35).



Figure 3.18 ESL worksheet #2.
Adapted from Harper and Pritchard (2018: 36).

3.5.1 Real classroom feedback

In the last half hour of the lesson, students have been involved in an open-ended awareness-raising classroom conversation. The main purposes were to raise awareness of processes and strategies implemented as well as to collect a feedback about form and content of the lesson.

Students have particularly appreciated the comic strip format of the story, not a common format in their English book. This novelty factor has been considered as highly interesting and motivating. Moreover, looking carefully at the very clear pictures has been reported as the main strategy implemented to overcome comprehension difficulties. Some students have indicated lexical redundancy as a helpful tool as well.

Interestingly, the influence of background knowledge seemed to be stronger than lexical redundancy: in scene 7 of the story a large number of students (11 out of 19) have filled the gap with the word *soup* even if the same exact sentence ended with the word *porridge* twice in the same scene²⁷.

This common mistake sparked a reflection on cultural adaptation of stories and fairy tales: a simple word may convey a different cultural mindset which must be familiar to children that are usually the target audience of the genre.

²⁷ In the Italian version of the story, Mama Bear prepares soup for her family instead of porridge.

3.6 ESL worksheet #3

Target: Italian 10 years old ca., 5th year of primary school

Relevant background knowledge:

- a. colours;
- b. nature;
- c. describing animals.

Level of proficiency: A1

A1	Can understand very short, simple texts a single phrase at a time, picking up familiar names, words and basic phrases and rereading as required.
----	--

Type of lesson: Frontal teaching, revision lesson (1h and a half) - first week of school

Sources: Input text is adapted from Cambridge Assessment English (2021b: 48-49). The topic word *parrot* has been replaced with the word *zip*. The text has been divided in two parts to create information gap.

Teacher Sheet

Motivation

Activity:

- a. teacher splits learners in small groups. Half of the groups will be given Text Part 1, the other half of the groups will be given Text Part 2 to create an information gap.
- b. teacher tells learners they are going to read a text about a mysterious animal. The name of the animal has been replaced with the word *zip*.
- c. teacher draws a blank grid on the board and asks learners which kind of information about the animal they expect to find in the text. Teacher guides the hypotheses toward the categories *colours, physical features, habitat, abilities, food, other*.
- d. once the top line of the grid has been filled, teacher asks learners to reproduce the grid under the text.

Specific aims: To activate background knowledge; to elicit relevant vocabulary; to create expectations.

Strategy elicited: Predict what will come next based on background knowledge.

Globality

Activity:

- a. learners are asked to read and fill the grid with the partial information they find in their part of the text.
- b. learners are asked to hypothesise and write down the identity of the mysterious animal.

Specific aim: To scan the text for specific information; to create expectations.

Strategies elicited: Deducing the meaning of an unknown word from textual cues; deducing the meaning of an unknown word based on background knowledge.

Analysis

Activity:

- a. teacher asks learners that read Text Part 1 to list the information they found. Teacher fills the grid on the board with the information. Teacher notes the hypotheses as well.
- b. teacher asks learners that read Text Part 2 to list the information they found. Teacher fills the grid on the board with the information. Teacher notes the hypotheses as well.
- c. teacher focuses the attention on each of the possible animal listed and asks learners if it matches the information found both in Part 1 and Part 2. Animals which do not pass the matching test will be crossed out.
- d. if more than one animal passes the test, learners are asked to bet only on one of them.
- e. the mysterious animal is finally revealed and learners are awarded with a parrot sticker.

Specific aim: To train hypothesis formulating ability.

Strategies elicited: Deducing the meaning of an unknown word from textual cues; deducing the meaning of an unknown word based on background knowledge.

Synthesis

Activity:

- a. learners are asked to choose one animal and to fill the same grid with the information they know about the animal.

Specific aim: To re-notice and produce vocabulary revised during the lesson.

Strategies elicited: Using notes on the board to support production; using background knowledge to support production.

Text Part 1

Name of the animal:

There are 350 kinds of *zip* in the world. They are clever animals. A lot of *zips* are green, but you can find *zips* which are red, yellow and blue. They live in trees and rocks in hot places. They have big heads and short necks.



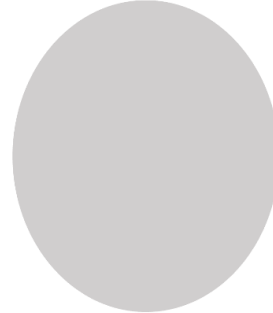
Hypotheses:

Figure 3.19 ESL worksheet #3.
Text adapted from Cambridge Assessment English (2021b: 48-49).

Text Part 2

Name of the animal:

Zips are very good at climbing trees. Most *zips* eat fruit and plants. They fly to many places every day to look for food. When they are eating, they hold their food in one foot. *Zips* make a lot of noise when they are with their families.



Hypotheses:

Figure 3.20 ESL worksheet #3.
Text adapted from Cambridge Assessment English (2021b: 48-49).

3.6.1 Real classroom feedback

In the last half hour of the lesson, students have been involved in an open-ended awareness-raising classroom conversation. The main purposes were to raise awareness of processes and strategies implemented as well as to collect a feedback about form and content of the lesson.

According to the students' opinion, the game format has made revision more entertaining compared to the pattern drills included in the Welcome Unit of their English book.

Guessing the mysterious animal has promoted interest and competition. At the same time, group work has lowered the affective filter and has contributed to a fruitful peer interaction: some groups have reportedly divided the activity into smaller sub-tasks (reading out loud, underline important information, fill the grid, verify the validity of the hypotheses) and assigned each sub-task to a couple of group members.

Most of the students have agreed that organizing all the information they expected to find in wider categories to create the table headers has been challenging. However, it has reportedly resulted in a clearer picture of what to expect and it has been helpful to construct a sort of animal identity card and to guess the name of the mysterious animal.

The information gap configuration may be considered as a first step toward the internalisation of an interactive model of comprehension: students have grasped that they do not need to understand every piece of information to construct a plausible meaning. For example, groups assigned to Text Part 1 have been told that the mysterious animal was able to climb trees but not that it was able to fly. Despite this, most of the Part 1 groups have successfully identified the animal.

Conclusion

In this book, I have attempted to provide a fairly comprehensive overview of the processes involved in second language comprehension. The reflection on second language comprehension went hand in hand with the analysis of the key role of the Expectancy Grammar in such a complex process.

The active construction of meaning in a second language requires a conscious effort from learners: the mastery of expectancy grammar breaks this demanding goal into manageable tasks and scaffold learners effort. Expectancy grammar enables SL learners to strategically use their formal and content schemata to compensate for possible deficits. Several studies presented in the book have shown that learners that are able to process information both bottom-up and top-down simultaneously reach a faster and more effective second language comprehension.

I devoted the last chapter of this study to highlighting that the mastery of expectancy grammar can be easily integrated in a SL lesson from the very early stages of second language acquisition. I proposed to ESL beginners three simple and clear worksheets to lay the foundations for an interactive compensatory model of comprehension: open-ended classroom conversations have suggested that if properly stimulated and guided, even lower-level students are able to use their limited background knowledge and all the available cues to actively construct a plausible meaning for the text they are dealing with.

I hope second language teachers have found in my work valuable insights to approach comprehension competence dynamically and to help learners make the best use of their knowledge from low levels of proficiency.

I hope second language learners feel encouraged to dare more with foreign languages, however limited their knowledge may be: do not limit your challenges, challenge your limits.

References

- Alderson C.J., 2000, *Assessing Reading*, Cambridge: Cambridge University Press.
- Balboni P. E., 2015, *Le sfide di Babele: insegnare le lingue nelle società complesse* (4th ed.), Torino: UTET Università.
- Balboni P.E., 2018, *Fare educazione linguistica. Insegnare italiano, lingue straniere e lingue classiche*, Torino: UTET Università.
- Balboni P. E., Caon F., 2015, *La comunicazione interculturale*, Venezia: Marsilio.
- Ballarin E., 2012, Audio e video nel testo multimediale. In Caon F., Serragiotto G. (Eds.), *Tecnologie e didattica delle lingue. Teorie, risorse, sperimentazioni*, 143-154. UTET Università, Torino.
- Beccaro O., CLIL e Youtube: nuove risorse e nuovi materiali. In Caon F., Serragiotto G. (Eds.), *Tecnologie e didattica delle lingue. Teorie, risorse, sperimentazioni*, 211-223. UTET Università, Torino.
- Bransford J. D., Barclay J. R., Franks J. J., 1972, Sentence memory: A constructive versus interpretive approach. *Cognitive Psychology*, 3(2), 193–209. [https://doi.org/10.1016/0010-0285\(72\)90003-5](https://doi.org/10.1016/0010-0285(72)90003-5)
- Bransford J. D., Franks J. J., 1971, The abstraction of linguistic ideas. *Cognitive Psychology*, 2(4), 331–350. [https://doi.org/10.1016/0010-0285\(71\)90019-3](https://doi.org/10.1016/0010-0285(71)90019-3)
- Bruner J., 1983, *Child's Talk: Learning to Use Language*, Oxford: Oxford University Press.
- Bruner, J., 1996, *The Culture of Education*, Cambridge, Massachusetts: Harvard University Press.
- Byram, M, Gribkova, B, Starkey, H, 2002, *Developing the Intercultural Dimension in Language Teaching: a practical introduction for teachers*. Council of Europe: Strasbourg, France.
- Caburlotto F., 2012, Le nuove potenzialità glottodidattiche del computer e della rete. In Caon F., Serragiotto G. (Eds.), *Tecnologie e didattica delle lingue. Teorie, risorse, sperimentazioni*, 49-56. UTET Università, Torino.
- Cambridge Assessment English, 2021a, *Pre A1 Starters, A1 Movers and A2 Flyers sample papers for exams from 2018. Volume 1*, Cambridge: Cambridge University Press.
- Cambridge Assessment English, 2021b, *Pre A1 Starters, A1 Movers and A2 Flyers sample papers for exams from 2018. Volume 2*, Cambridge: Cambridge University Press.
- Caon F., 2012, Tecnologie e insegnamento/apprendimento linguistico. In Caon F., Serragiotto G. (Eds.), *Tecnologie e didattica delle lingue. Teorie, risorse, sperimentazioni*, 5-32. UTET Università, Torino.
- Caon F., Battaglia S., Bricchese A., 2020, *Educazione interculturale in classe. Una prospettiva edilinguistica*, Milano, Pearson.

- Carrell P. L., 1983, Some Issues in Studying the Role of Schemata, or Background Knowledge, in Second Language Comprehension. *Reading in a Foreign Language*, 1(2), 81-92.
- Carrell P. L., Eisterhold J. C., 1988, Schema Theory and ESL Reading Pedagogy. In Devine J., Eskey D. E., *Interactive Approaches to Second Language Reading*, 73-92. Cambridge: Cambridge University Press.
- Chomsky N., 1959, Review of *Verbal Behavior* by B. F. Skinner. *Language*, 35, 26-58.
- Chomsky N., 1965, *Aspects of the theory of syntax*, Cambridge, Massachusetts: MIT Press.
- Clapham C., 1996, *The Development of IELTS. A Study of the Effect of Background Knowledge on Reading Comprehension*, CUP, Cambridge.
- Council of Europe, *Common European Framework of Reference for Languages: learning, teaching, assessment. Companion volume with new descriptors*. February, 2018.
- Doff A., Thaine C., Puchta H., Stranks J., Lewis-Jones P., 2015, *Empower B1+. Student's book*, Cambridge: Cambridge University Press.
- Eberhard D. M., Simons G. F., Fennig C. D. (eds.), 2022, *Ethnologue: Languages of the World*. (25th ed.), Dallas, Texas: SIL International. Online version: <http://www.ethnologue.com>
- Favaro L., Sandrini I., 2012, Materiali e applicativi web per la didattica delle lingue. In Caon F., Serragiotto G. (Eds.), *Tecnologie e didattica delle lingue. Teorie, risorse, sperimentazioni*, 224-248. UTET Università, Torino.
- Goodman K. S., 1967. Reading: A psycholinguistic guessing game. *Journal of the Reading Specialist*, 6(4), 126–135. <https://doi.org/10.1080/19388076709556976>
- Gramegna B., 2012, Il WorldWideWeb nella lezione di lingua: il ruolo del docente di LS/L2. In Caon F., Serragiotto G. (Eds.), *Tecnologie e didattica delle lingue. Teorie, risorse, sperimentazioni*, 95-102. UTET Università, Torino.
- Hamp-Lyons L., Heasley B., 2006, *Study Writing* (2nd ed.). Cambridge: Cambridge University Press.
- Harper K., Pritchard G., 2018, *Cambridge Global English Starters. Learner's Book A*. Cambridge: Cambridge University Press.
- Heyderman E., May, P., 2010, *Complete PET student's book without answers*. Cambridge: Cambridge University Press.
- Johnson P., 1981, Effects on Reading Comprehension of Language Complexity and Cultural Background of a Text. *TESOL Quarterly*, 15 (2), 169-181.
- Johnson P., 1982, Effects on Reading Comprehension of Building Background Knowledge. *TESOL Quarterly*, 16 (4), 503-516.
- Kintsch W., Rawson K. A., 2005, Comprehension. In Snowling M. J., Hulme C. (Eds.), *The science of reading: A handbook*, 211-226. Hoboken, New Jersey: Blackwell Publishing.

- Kramersch C., 1993, *Context and Culture in Language Teaching*, Oxford: Oxford University Press.
- Krashen, S., 1982. *Principles and Practice in Second Language Acquisition*. Oxford: Pergamon Press.
- Levelt W. J. M., 1975, What became of LAD? In *Ut Videam: Contributions to an understanding of linguistics*. The Netherlands: Peter de Ridder Press.
- Littlewood, W., 1984. *Foreign and second language learning: language-acquisition research and its implications for the classroom*. Cambridge: Cambridge University Press.
- Lupker S. J., 2005, Visual Word Recognition: Theories and Findings. In Snowling M. J., Hulme C. (Eds.), *The science of reading: A handbook*, 39-60. Hoboken, New Jersey: Blackwell Publishing.
- Melero C., 2012, Tablet nell'aula e didattica delle LS: integrare le TIC nell'aula di LS. In Caon F., Serragiotto G. (Eds.), *Tecnologie e didattica delle lingue. Teorie, risorse, sperimentazioni*, 180-189. UTET Università, Torino.
- Minsky M., 1975, A framework for representing knowledge. In Winston P. H. (Eds.), *The Psychology of Computer Vision*. New York: McGraw-Hill. <https://doi.org/10.1016/B978-1-4832-1446-7.50018-2>
- Nixon C., Tomlinson M., 2017, *Kid's Box Starter. Class book for the revised Cambridge English: Young Learners*, Cambridge: Cambridge University Press.
- Oddone C., Lavagna interattiva multimediale e didattica delle lingue. In Caon F., Serragiotto G. (Eds.), *Tecnologie e didattica delle lingue. Teorie, risorse, sperimentazioni*, 168-179. UTET Università, Torino.
- Oller J., 2006, Cloze Tests of Second Language Proficiency and What They Measure. *Language Learning*. 23, 105-118. <https://doi.org/10.1111/j.1467-1770.1973.tb00100.x>
- Rumelhart D. E., 1980, Schemata: the Building Blocks of Cognition. In Spiro R. J., Bruce B. C., Brewer W. F. (Eds.), *Theoretical Issues on Reading Comprehension*, 35-58. Hillsdale, NJ: Lawrence Erlbaum.
- Schank R. C., Abelson R. P., 1977, Script, Plans and Knowledge. In Johnson-Laird P. N., Wason P. C., *Thinking*, 421-432. Cambridge: Cambridge University Press.
- Shaffer, D. R., Kipp, K., 2014. *Developmental psychology: Childhood and adolescence* (9th ed.). Belmont, CA: Cengage.
- Sheils J., 1993, *Communication in the Modern Language Classroom*, Council of Europe Press.
- Skehan, P., 1991, Individual Differences in Second Language Learning. in *Studies in Second Language Acquisition*, 13, 275 - 298. <https://doi.org/10.1017/S0272263100009979>
- Steffensen M. S., Joag-Dev C., Anderson R. C., 1979, A Cross-cultural Perspective on Reading Comprehension. *Reading Research Quarterly*, 15 (1), 10-29.
- Tyler L. K., Marslen-Wilson W. D., 1982, Speech comprehension processes. In J. Mehler, E. C. T. Walker M. Garrett (Eds.), *Perspectives on Mental Representation: Experimental and Theoretical Studies of Cognitive Processes and Capacities*, 169 -185, Hillsdale, NJ: Erlbaum.

Van Dijk T. A. (Eds.), 1985, *A Handbook of Linguistic Analysis*, London: Academic Press.

van Gelderen E., 2017, *Syntax: An Introduction to Minimalism*, Amsterdam: John Benjamins.

Warren P., 2013, *Introducing Psycholinguistics*. Cambridge: Cambridge University Press.

Winston P., 1984, *Artificial Intelligence*, Reading: Addison-Wesley.

Wood, D., Bruner, J. S., Ross, G., 1976. The role of tutoring in problem solving. *Child Psychology & Psychiatry & Allied Disciplines*, 17(2), 89–100. <https://doi.org/10.1111/j.1469-7610.1976.tb00381.x>