UNIVERSITY OF SOUTHAMPTON

A Cross-sectional Study of French Interlanguage Development in an Instructional Setting

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Submitted for Doctor of Philosophy

Faculty of Social Sciences
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February 2001

UNIVERSITY OF SOUTHAMPTON

ABSTRACT

FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF EDUCATION

Doctor of Philosophy

A CROSS-SECTIONAL STUDY OF FRENCH INTERLANGUAGE DEVELOPMENT IN AN INSTRUCTIONAL SETTING

by Sarah Jane Rule

This research is framed in the context of recent developments in linguistic theory and second language acquisition theory. It examines French second language learners' interlanguages within the framework of Universal Grammar (UG).

The study is a cross-sectional study of English speaking learners of L2 French in a classroom setting: from the early stages of acquisition to learners studying for a degree. The aim was to carry out a precise study of their interlanguage grammars at various points of acquisition. Through implementation of a battery of tests the study focussed on the subjects' knowledge of negation, the placement of phrase medial adverbs, lexical verb inversion, and object pronoun placement.

The objective was to investigate the availability and development of functional categories and their features from the initial state through subsequent stages of development; in particular those functional categories implicated in the verb movement parameter and the object pronoun placement parameter. The results are used to evaluate current theoretical positions on the L2 initial state and also the various hypotheses concerned with the status of functional categories and their feature values as interlanguages develop.

A crucial factor for any theory of language acquisition is the role of input, and significantly this study also investigated the link between the learners' representations and the input that was available to them. A period of observation was set up in an attempt to establish the nature of the input for these learners and how it may effect or affect their interlanguage grammars.

ACKNOWLEDGEMENTS

I would like to express my gratitude to the four groups of learners who 'allowed' me to observe them and then carried out my tests. I must also thank the comprehensive school, sixth form college and university modern languages department which granted me to access to their students.

Additionally, a big thank you is extended to my supervisors, Professor Rosamund Mitchell and Dr Florence Myles for their advice and encouragement. They seemed to have limitless supplies of patience.

Finally, I could not have done it without the support of family and friends and my love and gratitude is also extended to them, particularly Mark, who has been in the frontline over the past few years, and is both friend and teacher.

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0 Introduction

For some years research into second language acquisition has moved increasingly from mere description to an approach that seeks to explain the phenomenon that is second language acquisition (L2 acquisition). L2 acquisition is evidently more difficult than first language acquisition (L1 acquisition). It is characterised by non-target like accents, errors and fossilisation, and even final state grammars are characterised by variation and optionality. Recently there has been a desire to find theories that not only shed light on the representations of L2 but also the development of the L2 learner. A turning point in second language acquisition research was the introduction of the concept of the L2 learner's 'interlanguage': the transitional systems that L2 learners have at every stage of the acquisition process (Selinker 1972). Interlanguage grammars are now studied in their own right, and not only as incomplete or divergent from target language grammars. In more recent developments, researchers and theorists not only study stages of development in L2 but also turn their attention to the initial state of second language acquisition: the grammatical knowledge the L2 learner starts with. Also the final state of L2 acquisition is investigated in an attempt to illuminate whether L2 acquisition can in any way be identified with L1 acquisition after years of exposure

This study sets out to investigate second language acquisition in an instructional setting; more specifically it concentrates on the acquisition of second language syntax. It aims to link theory with empirical data. The study is embedded in a framework of current generative grammar in an attempt to gain understanding of the learners' interlanguage grammars. The first chapter describes the characteristics of second language acquisition and outlines what any second language acquisition theory needs to explain. The second chapter focuses on one particular linguistic theory, Universal Grammar, which is used by both L1 and L2 theorists in their attempts to explain language acquisition. In chapter 3 recent developments of the theory and how these theoretical developments have guided studies in L2 acquisition will be examined in more detail. The role of input is crucial to any theory of acquisition, and chapter 4 focuses on the role of input in second language acquisition, particularly the distinctive linguistic environment of the L2 classroom. After this concentration on theory, the research questions and the methodology of the study will be presented in chapter 5.

Chapter 6 includes description and initial discussion of the results of the study. The final chapter presents a synthesis of the results and discussion which aims to link the data to the theory and research questions outlined in the theory section of the study.

1 The characteristics of second language acquisition: what a theory of second language acquisition needs to explain

According to Ellis (1994), to study second language acquisition we can begin by asking a set of general questions: what do second language learners acquire? How do learners acquire a second language? What internal and external factors are involved? And how do they interact (Ellis 1994:13)? Researchers into second language acquisition need to address both the representational problem and the developmental problem (Gregg 1996, Carroll 1996). The representational problem can be defined as how to characterise the type of syntactic knowledge which second language learners acquire. How a learner's syntax develops over time is the developmental problem (Hawkins, in press: 1). Various approaches to second language acquisition and attempts at answering these questions exist: linguistic approaches, sociolinguistic approaches and psychological/cognitive approaches. These different approaches to second language acquisition are in part attempts to further understanding of the structure and function of linguistic capacity. Additionally, they also guide prediction of development and may have some practical applicability. A researcher's choice of theory will determine the methodology and selection of data in any piece of research.

"Second Language Acquisition is a complex multifaceted phenomenon and it is not surprising that it has come to mean different things to different people" (Ellis 1994:15). This multidimensional nature of second language learning is generally accepted. The accepted variance in scope makes it legitimate for theories to relate different partial descriptions to selected findings in the field. For example, one researcher may concentrate on a learner's variable performance, while another may focus on their underlying competence. Theories therefore rarely purport to address every aspect of second language acquisition. However any theory needs to explain some of the accepted major findings (Long 1990), even though there is some dispute as to what these major accepted findings are.

"The main goal of second language research is to characterise the learner's underlying knowledge of the L2, i.e. to describe and explain their competence" (Ellis 1994:13). However this competence can only be inferred by examining samples of their language behaviour: their performance. This distinction between competence and performance

was first introduced by Chomsky in his early work (Chomsky 1965). **Competence** is a speaker/hearer's knowledge of language and **performance,** the actual and real-time use of language. The notion of performance will also include language processing (Cook 1996:26).

1.1 The similarities and differences between L1 and L2 acquisition

Not all theorists of L1 acquisition agree on how a first language is acquired. However the theory or theories adopted by researchers for L2 acquisition largely depend on how the similarities and differences between first and second language acquisition are viewed. Some researchers claim that L1 and L2 acquisition are fundamentally different. Schachter (1988) claims that "the facts of second language acquisition are nowhere near the same as those of first language acquisition" (Schachter 1988:222). This way of thinking is reflected in her views on theories of second language acquisition and she adopts the distinction suggested by Bley-Vroman 1986 between child language *development* and second language *learning* (present writer's italics) (Schachter 1988:223). She lists the four main areas of difference between L1 and L2 acquisition as **completeness**: L2 learners rarely attain complete mastery of the target language, **equipotentiality** (or lack of it in adult L2 learners): L1 learners are equipotential to learn any language, **previous knowledge**: the learner's first language interferes with L2 acquisition and **fossilisation**: the production of incorrect forms that are reminiscent of an earlier stage in the acquisition process (Schachter 1988:223).

Bley-Vroman (1989) shares a similar view to Schachter when he states that child language learning and foreign language learning are fundamentally different. He lists the following characteristics of second language learning and the aspects that need to be addressed; lack of success, general failure, variation in success, course and strategy, variation in goals, fossilisation, indeterminate intuitions, importance of instruction, negative evidence and the role of affective factors (Bley-Vroman 1989). This emphasis on differences led him to postulate the "Fundamental Difference Hypothesis"(Bley-Vroman 1990), which essentially claims that adult language learning resembles general adult problem solving rather than child language development. Meisel (1997), another researcher who emphasises the differences between L1 and L2 acquisition, reanalysed the studies of the L2 acquisition of negation carried out in the 1970s. He maintains that

although there are similarities in stages of acquisition between L1 and L2 acquisition the L2 acquisition is more variable, and L2 learners resort to different strategies of language use to L2 learners. According to Meisel, in L2 the objects of learning are primarily linear strings of elements encountered in utterances, not hierarchical syntactic sentence structures as in L1 (Meisel 1997). Proponents of this position maintain that most L2 learning occurs in a construction by construction fashion (Bley-Vroman 1996).

Alternatively researchers see second language acquisition as sharing some of the characteristics of child first language acquisition. The L2 learners are faced with a parallel logical problem of acquisition to that in L1 acquisition: the fact that the input vastly underdetermines the finally achieved competence. The L2 learner must acquire grammar on the basis of impoverished input –any L2 learner who attains reasonable success in the L2 will end up with very complex and subtle knowledge, which cannot be adequately accounted for by the input alone.

L2 learners produce utterances throughout their stages of development that are hierarchical and structure dependent and L2 acquisition is systematic among learners (White 1989, Flynn 1996, and Gregg 1996). Flynn maintains that L2 learners do not make the logically possible errors that would occur if acquisition was structure independent. For example, she cites a study by Jenkins 1988 that notes that L2 learners do not produce utterances of the type *'Is the dog which _____ in the corner is hungry?'* from *'the dog which is in the corner is hungry'*. These utterances would only occur if the learners were simply choosing a structure independent rule that scans the string of words for the first occurrence of *is*, based on an analogy with the formation of simpler questions in English e.g. *the dog is in the garden - is the dog in the garden?* (Flynn 1996:132). The learners seem to be adhering to the principle that what is moved to form the question is the '*is*' from the main clause VP, not just the first occurrence of *is*. Additionally, L2 learners from different L1 backgrounds make errors that cannot be traced back to their L1. These forms are often similar to forms produced by children in L1 acquisition. For a number of structures L2 learners go through developmental sequences that parallel those found in L1 acquisition (White 1987).

1.2 The observable phenomena of second language acquisition

Although it is difficult to determine just what is known about or thought to be known about second language acquisition there is a set of generally accepted observable phenomena. Towell and Hawkins outline five core areas which a theory of Second Language Acquisition must account for:

- (Subconscious) transfer of grammatical properties from the L1 mental grammar into the mental grammar that learners construct for L2.
- Staged development in second Language Acquisition: L2 learners do not acquire properties of the L2 immediately, but go through a series of 'transitional stages' towards the target language.
- Systematicity across L2 learners in the way that knowledge about the L2 being learned grows (i.e. the stages of development are common to many learners).
- Variability/ Optionality in the intuitions about and productions of the L2 at various stages of development
- Incompleteness for the majority of L2 learners in the grammatical knowledge about the L2 attained in relation to native speakers of that target language.

(Towell and Hawkins 1994:5)

Transfer of linguistic properties from a speaker's L1 into the L2 is a pervasive feature of SLA (Towell and Hawkins 1994:7). Odlin provides the following definition, "Transfer is the influence resulting from the similarities and differences between the target language and any other language that has been previously (and perhaps imperfectly acquired)" (Odlin 1989:27 cited in Ellis 1994: 301). Transfer seems to affect all linguistic levels, phonology, syntax, morphology and the lexicon, although some aspects are more susceptible to transfer than others. It can have both negative and positive (facilitative) effects and is sometimes more noticeable if the L1 and L2 differ on a particular property.

The acquisition of a second language is typically staged and systematic: learners will construct a series of stages from their initial state grammars as they move towards the target language. Longitudinal studies using naturalistic data revealed that learners from

different L1 backgrounds and in different acquisitional settings proceed through similar or identical 'developmental sequences' (Meisel 1997a). This shows resemblance to L1 learners who typically go through successive recognisable stages in the acquisition process (Brown 1973). For example, there has been a great deal of study in both L1 and L2 acquisition of the stages learners go through in acquiring negatives or interrogative forms (Cook 1993, Meisel 1997a). Both sets of learners, regardless of the L1s of the L2 learners, go through similar stages in acquiring these forms. An important point is "that there is systematic development which is independent either of the first language a learner speaks, or the type of input a learner has received." (Towell and Hawkins 1994:12)

Variability or optionality is a feature of L2 acquisition, which although it is present in L1 acquisition appears in a very different way in L2 acquisition. It can be defined as the co-existence within an individual grammar of two or more variants of a given construction (Sorace 2000:93). It is well-attested in mature L1 and L2 grammars and is particularly prevalent in the transitional stages of first language acquisition. What we have to decide is whether developmental optionality in adult L2 grammars is a phenomenon of a different nature from that of developmental optionality in first language acquisition. The mental grammars of L2 learners appear to allow more than one structural variant for a given construction where the target language has only one form. By comparison with the target norm, learners sometimes make an error and sometimes do not. What is different is that in first language acquisition the learner will eventually converge on the target form but in L2 acquisition optionality is not only found at intermediate stages but also at advanced stages and even end-state grammars.

A distinction between systematic variation and free variation is often given in the literature (Ellis 1994). Systematic variation is where one of the alternative forms appears in one environment and the other form in another environment, where environment can refer to linguistic context or context of utterance. Free variation is when forms alternate in all environments in an apparently random fashion. This distinction underlines the fact that optionality may be caused by factors external to grammars (environmental or processing factors) or it may be internal to grammars. It seems that L2 optionality is in some sense 'real' (internal to the grammar) as it involves use of optional variants in the same contexts. An example is the use of alternative

positions for the adverb in the interlanguages of French learners of English. These learners alternate between a) *Mary watches often television and b) Mary often watches television (White 1991). Ellis (1994) outlines what has become a classic example of free variation (internal to the grammar): A ten-year old Portuguese learner of English, who in the course of a card game, freely alternated between two separate utterances with the same meaning.

No look my card
Don't look my card Ellis 1994: 136.

These cases of variability may be shortlived or they can continue for a long time (Towell and Hawkins 1994:13). L2 learners seem to use variable forms for longer periods than L1 acquirers or they may never stop using them, so that they become a stabilised feature of second language acquisition (Sorace and Robertson 1999). According to Schachter, fossilised variation marks adult L2 speech as distinctly non-native (Schachter 1996:160).

Incompleteness seems to be the central characteristic of L2 acquisition that distinguishes it from L1 acquisition. Bley-Vroman maintains that a fundamental characteristic of L2 learning is that it involves more cases of failure than of success (Bley-Vroman 1989), and that L2 is characterised by a nearly uniform lack of success and the near non-existence of learners who attain native-like proficiency. L2 learners' interlanguages suffer from 'fossilisation', a term first introduced by Selinker: " the regular reappearance or re-emergence in interlanguage productive performance of linguistic structures which were thought to be eradicated" (Selinker 1975:119 cited in Schachter 1988:228). The learners seem to face an insurmountable barrier to further progress. However Schachter (1996) suggests that fossilisation could be outside of linguistic competence and could be a processing phenomenon which is not attributable to differences in grammatical competence between native speakers and non-native speakers (Schachter 1996:161). Additionally, a study by Lardière indicates that fossilisation in some cases may be caused by a specific problem in learning morphological affixes, rather than a problem internal to the syntax. Lardière studied a Chinese L1 learner of English who had lived in the US for a period of ten years. The learner despite being in an input rich environment showed very low accuracy rates in

both agreement affixes and past tense affixes. Her production data did however show evidence of syntactic development (Lardière: 2000). (See later sections for researchers' attempts to isolate competence and performance in apparent cases of fossilisation.)

According to Smith and Tsimpli (1995) a crucial difference between L1 and L2 acquisition is the question of ultimate attainment or endstate grammars. The usual failure to achieve a native like competence in a second language contrasts sharply with one of the basic characteristics of L1 acquisition: "the uniform attainment of a mature steady state in a deterministic fashion" (Smith and Tsimpli 1995:35). However some researchers dispute the claim that L2 learners never attain native-like competence; White and Genesee cite research by Birdsong 1992 and Ioup et al 1994 as evidence that some learners can achieve native-like competence. This contrasts with the generally held belief that there is a negative correlation between age of L2 acquisition and performance on a variety of measures of L2 ability (White and Genesee 1996).

The issue of incompleteness is inextricably linked to the position taken on 'the critical period hypothesis' of language acquisition and whether there are maturational effects in L2 acquisition. There is a claim by some researchers that the level of competence that can be attained by older learners is less than that of native speakers (Long 1990). Some theorists talk of multiple critical periods, where different aspects of the language will mature at different times i.e. a critical period for phonology, a critical period for syntax etc. (Long 1990 in Schachter 1996:165). Adopting and adapting Borer and Wexler's (1987) theory of maturation for L1 acquisition, Schachter extends this to include the idea that there are different critical periods for different aspects of grammar (Schachter 1996:172). In a study of proficient Chinese L2 speakers of English some who learned English as adults and some who learned English at various younger ages, (4-7 years, 8 -13 years, and 14 -16 years), Johnson and Newport claim that the results show a continuous decline in performance on subjacency violations[1] correlating with increase in age (Johnson and Newport 1991 cited in White 1996a: 11). The central premise is that when first attainment is late then ultimate attainment will be incomplete. Schachter talks of 'windows of opportunity', i.e. there is a sensitive period for acquisition of a certain aspect of grammar, and before and after that period the

[1] Subjacency is a universal principle within Universal Grammar that accounts for limitations in Wh movement in terms of what items can be moved where and also accounts for the locality of movement.

principle[2] will not be available (Schachter 1996:184). Others however have not found this to be the case. White and Juffs (1998) found that adult native speakers of Chinese who were proficient in English were not significantly different from native speakers of English in their performance on subjacency violations. In another study of francophone learners of English there seemed to be no evidence of age effects for Subjacency (White and Genesee 1996).

Gordon (1998) argues that it is the reorganisation of conceptual structures that is subject to a critical period rather than language itself. He distinguishes between critical period items: determiners, plurals and subcategorisation of verbs and non-critical period items: word order, yes/no questions. When learning languages late it is difficult to reorganise the mind. Some researchers now seriously challenge the existence of a critical period for language acquisition (Gregg 1996, Flynn 1996). Flynn 1996 asks why there is a percentage of L2 learners that are successful if there is a critical period for L2 acquisition i.e. failure is not universal. Some adults are capable of learning a second language. Bialystok (1997) argues that it is better to talk of an optimal age for second language learning because there is no decisive evidence that younger learners have a mental system that is better equipped for language learning (Bialystok 1997). We only have descriptive evidence that younger learners seem to be more successful. If there is a critical or sensitive period for second language acquisition then there should be a consensus of empirical support in which second language proficiency levels are unambiguously linked to the age at which they began (Bialystok 1997).

Another fundamental difference between L1 and L2 acquisition is the role of instructed learning and negative evidence (information about what is unacceptable in a given language). The part played by negative evidence in L2 acquisition theory is an additional source of conflict between theoretical positions (Gregg 1996). L2 acquisition can take place in a naturalistic or instructional setting. Some argue that formal instruction and negative evidence have no role at all in L2 acquisition and others insist that they are necessary for successful acquisition because of the loss of L1 learning principles. (These arguments will be explored in much greater detail in chapter 4)

[2] Schachter is referring to Universal Principles as part of Universal Grammar

For most researchers the domain of an L2 acquisition theory is not the L2 speaker's behaviour (performance) but rather their mental system (competence) (Gregg 1996:50). Competence in a second language will be represented in the form of an internalised grammar, as is the case in first language. At various stages the learner will have an 'interlanguage', a term first used by Selinker in 1972 to refer to the interim grammars constructed by second language learners on their way to the target language: they are a separate linguistic system. The learner's approach is systematic and rule governed at each transitional stage (Adjemian 1976 in Mclaughlin 1987). However, there is a lack of uniformity in the level of competence ultimately attained by L2 learners, which causes problems for a number of theories.

Investigating the properties of second language grammars is not simple. The observable phenomena are problematic in themselves, in that they are paradoxical or contradictory: how can something be both systematic and variable at the same time? This leads us back to the point made at the beginning of this section, that second language acquisition is multifaceted, and maybe needs to be explained by attention to more than one theory. All the observable phenomena and explanations for them will be discussed further in the section on Universal Grammar and Second Language acquisition. What we can ascertain is that L1 and L2 acquisition are different but they do share similarities that cannot be ignored. Second language learners are faced with some kind of logical problem of language learning i.e. constructing a mental grammar on the basis of underdetermined input. The L2 learner acquires knowledge about the properties of language that they could not have acquired on the basis of their linguistic experience. They exhibit stages of learning, which appear to be rule-governed, and they produce structure dependent utterances (though see Meisel 1997 for arguments against this.) The key differences are that the L2 learner already knows one language, the L2 learner is usually cognitively mature and most L2 learners fail to attain native-like competence. To explain the acquisition of linguistic competence in an L2 it is crucial to start with a theory of linguistic competence to provide a general frame of reference (White 1996 c): 91). This is where we now turn to a particular linguistic theory that can be used in this way. We assume in L2 acquisition as in L1, that the learner's task is to acquire a grammar, on the basis of deficient input, a grammar which constitutes a mental representation of the language being acquired, and which is involved in the comprehension and production of language.

2 Universal Grammar and first and second language acquisition

Since the early 1960s Universal Grammar (UG) has been developed and extended to include a rich and complex system of principles that pertain to natural language linguistic universals. Universal Grammar was posited because of the inadequacy of other theories to explain first language acquisition. In his critique of Skinner's work 'On Verbal Behaviour' (Chomsky 1957), Chomsky attacked behaviourist approaches to language acquisition in his theory of language description and language acquisition. Chomsky also disagreed vehemently with the developmental psychologist Jean Piaget who believed that language acquisition is part of general cognitive development (Piaget in Piatelli-Palmarini 1975). Chomsky and other UG theorists maintain that there are puzzling contrasts between language acquisition and other cognitive abilities. "A fundamental empirical problem of linguistics is to explain how a person can acquire knowledge of language" (Chomsky 1973 cited in Friedemann and Rizzi 2000:2). Universal Grammar has to be rich enough to explain how children develop competence in their native language so easily and rapidly.

In developing his linguistic theory, Chomsky addressed three questions (Cook 1996, Myles 1995). In this section the three questions will be looked at in turn in an attempt to explain what Universal Grammar is and why it came into existence.

2.1 What constitutes knowledge of language?

"There are very deep and restrictive principles that determine the nature of human language and are rooted in the specific character of the human mind" (Chomsky 1972 cited in Aitchison 1989:91).

Universal Grammar is a theory of knowledge not behaviour but the nature of this knowledge is inseparable from how it is acquired. It is a theory of linguistic competence. In UG theory a speaker knows a set of principles (i.e. rules in their head which govern their speaking attempts) that apply to all languages and also a set of parameters that vary within clearly defined limits from one language to another. Part of linguistic knowledge is innate and part has to be learned. Language within a UG framework is structure dependent, restrictive and constraining. UG is " the system of

principles, conditions and rules that are elements or properties of all human languages ...the essence of human language" (Chomsky 1976:29 cited in Cook 1996:1). UG focuses on the properties of the formal system and how the system can be acquired. It is a mental representation of language. Human beings have genetic endowment to learn language and the innate linguistic endowment must be geared to any human language and not just one (Haegeman 1994:12). Early generative grammar faced two immediate problems: 1) to find a way to account for the phenomena of particular languages (descriptive adequacy) and 2) to explain how knowledge of these facts arises in the mind of the speaker/hearer (explanatory adequacy) (Chomsky 1995:386). According to Chomsky a theory of the initial state must hold that particular languages are largely known in advance of experience: there is the "assumption that there is a component of the human mind/brain dedicated to language - the language faculty interacting with other systems" (Chomsky 1995:389).

Chomsky distinguishes between the core and periphery of language, the core being that part of grammatical competence covered by Universal Grammar and the periphery the language specific aspects that are not predictable from Universal Grammar. " Universal Grammar theory recognises that various aspects of a grammar may be unconnected to Universal Grammar" (Cook 1996:71). It is the core grammar that instantiates the principles and parameters of UG, the common possession of all human beings. The periphery is described as a mental lexicon of idiosyncratic items (Cook 1996:78), for example, the learning of morphological affixes like the English past tense forms.

One of the principles of UG is structure dependency: the principle that knowledge of language relies on structural relationships in the sentence. " The rules of language do not consider simple linear order but are structure dependent" (Chomsky 1988:45 cited in Cook 1996:8). Movement in a sentence is not just a matter of recognising phrases and then moving them around but of moving the right element in the right phrase. Elements that can be moved are constituents in the sentence. Chomsky, for example, contrasts:

Is the man who is tall here? with * *Is the man who here is tall?*

To know which element to move one needs to know the underlying structure. Thus for example, what can be moved in the question above is the auxiliary verb *is* from the main VP clause, not the first instance of *is* in the utterance. UG claims that such principles are inherently impossible to learn and if they are not learnt they must be part of the human mind, a universal principle.

2.1.2 Universal Grammar a modular theory

UG is a complex theory, which focuses on the properties of the formal system and how the system is acquired. Most UG researchers and theorists see UG as one module in a modular approach to learning. The mind is not a uniform system; it consists of a general purpose central processing system responsible for such functions as memory, belief, reasoning, and a set of autonomous systems or modules that function largely independent of one another (J A Fodor 1983 cited in Gregg 1996:56). The internal workings of any module are oblivious to the workings of the central system. These modules are input systems and feed into the central system, for example sight, smell, hearing and touch. Language is one such module that sits in the middle of other cognitive systems. Language is not merely an input system like sight or taste but crucially it is also an output system, geared to expression and communication. This output system is correlated with the input system as noone can only speak one language and understand only another different one (Smith 2000:20). Modules differ from central systems in that they are equipped with a body of genetically determined information specific to the module in question; they are domain specific. Modularity and innateness are intertwined notions (Fodor 1983 in Smith and Tsimpli 1995).

Language is cognitively particular: independent of other cognitive systems. We need to be exposed to examples of language to acquire normal knowledge of language but this does not involve the kind of cognitive activity required to learn to play chess or solve differential equations (Smith 2000:27). Linguistic knowledge is a highly specialised subsystem of rules and principles each with its own function (Weissenborn et al 1992:3). We need to account for the ways in which this domain specific faculty interacts with other mental processes. The language faculty is separate to all other aspects and faculties of the mind, and within the language faculty UG is only one domain. The language faculty consists of language learning principles, language

specific grammars and the language parser (White 1989:177). It is not yet fully understood how knowledge of language interacts with other knowledge systems, many of which have highly abstract computational properties (Clahsen and Muysken 1996:722).

2.1.3 Principles and Parameters

The conception of the relation between UG and the grammar of a language has undergone a radical change in the past decade and a half (Freidin 1996). Originally a grammar was defined as a set of rules specific to individual languages, rules derived through the application of UG to primary data from a particular language. The early model consisted of a rule writing system, with the constraint that the rules must be compatible with the data and an evaluation metric (Roeper and Williams 1987:viii). The task of finding the precise set of rules for the target language was taken to be carried out by the child searching a hypothesis space governed by UG, then finding the set of rules that fit for the child's linguistic experience in the optimum way – where optimum is determined by the available evaluation metric (Roberts 1994). There were problems with this approach primarily because the burden on the child was enormous and differences in properties across languages could not easily be related to one another.

Principles and Parameters Theory is a recent formulation of Universal Grammar and is the postulation that has proved the most useful in explaining language acquisition. Although the basic questions have remained the same throughout the development of Universal Grammar theory, principles and parameters did show some interesting departures. Principles and Parameters theory makes the basic assumption that languages have no rules in the traditional sense and no grammatical constructions (passives, relative clauses etc.), except as taxonomic artefacts to be used descriptively by grammarians (Chomsky 1995:388). Much of what had been thought to require rules specific to particular languages is automatically subsumed under the principles and grammatical mechanisms of UG. The Principles and Parameters approach questions the assumption that a particular language is in essence a specific rule system. A language is not then a system of rules but a set of specifications for parameters in an invariant

system of principles of UG. There are universal principles and a finite array of options as to how they apply (parameters). The theory is now more constrained.

Principles and Parameters theory, according to Chomsky, is a natural way to resolve the tension between descriptive and explanatory adequacy (Chomsky 1995:388). It has a dual aim: to characterise the speaker's competence and explain how the acquisition of competence is possible. It is the link between competence and acquisition (Cook 1996, Roeper and Williams 1987). The parameterised model appears to make the acquisition of language easier; rather than searching an infinite range of grammars, the child is seeking answers to a few questions, e.g. is the base head final? Is Wh movement present? "The process of acquisition becomes much more deterministic with large chunks of grammar falling into place on the basis of a single parametric decision" (Atkinson 1992:103). Universal Grammar provides a system of constraints in the form of principles and parameters which guides the child and the search space is drastically reduced, restricting the range of possible grammars that can be considered. In this model L1 acquisition proceeds on the basis of naturalistic positive evidence (utterances the child is exposed to) interacting with the principles and parameters of UG. Parameter settings are fixed on the evidence of input available to the child. The principles and parameters approach is the theoretical framework used in this study.

Under the current view a natural language grammar consists of the lexicon of the language plus UG with its relevant parameter settings for that language (Freidin 1996:725). In current theory parameters are limited to the lexicon, indeed to a narrow part of it: to functional categories, the nonsubstantive part of the lexicon. UG draws the distinction between lexical categories: an open class of categories including nouns, verbs, adverbs, adverbs etc which have a full lexical and semantic life, and functional categories: mainly syntactic entities such as determiners, complements, negation and inflection. These functional categories can be lexically filled or can be abstract features. Functional categories are the locus of parametric variation between languages (Chomsky 1992); that is languages will differ in the properties they select for functional categories.

The comparative study of different languages can help explain what is universal and what is language specific (Haegeman 1994:19). Thus the comparative study of

languages has revealed that properties, with respect to which languages vary, tend to organise themselves in clusters, which are stable across languages. Parameters can account for these clusters of properties found in languages. For example the 'null subject' parameter does not only affect the presence or absence of null subjects in a language but also other properties of the language. Italian, a null-subject language, for example, ***parla Italiano*** (she speaks Italian), can also have overt subjects in a post-verbal position, ***ha telefonato sua moglie?*** (*has telephoned your wife? = has your wife telephoned?). This is not possible in English, a language that does not allow the subject pronoun to be omitted. Additionally, in Italian a subject of a subordinate clause can be moved to the main clause across the overt conjunction ***che*** corresponding to 'that' in English: ***Chi credi che abbia telefonato?*** In English *Who do you think that has telephoned? is ungrammatical (Haegeman 1994:20). The parametric approach is well adapted to compare systems that are essentially uniform but diverge in specific and limited structural respects (Friedemann and Rizzi 2000).

The Principles of UG are thus responsible for the underlying similarities across languages while parameters are responsible for crosslinguistic variation (Chomsky 1986 in Smith and Tsimpli 1995). Principles are exceptionless and parameters are set by experience.

2.2 How is knowledge of language acquired?

From a UG perspective child language development is regular in course, rate and ultimate attainment and, success is the usual outcome. Any theory of child language acquisition needs to explain the 'logical problem of language acquisition': how the child progresses from an initial state to an implicit knowledge of the complete adult grammar, with a necessarily limited range of input (Hornstein and Lightfoot 1981 cited in Goodluck 1991). All that is necessary is for the child to be exposed to language for development to take place, and the limited nature of the input is an argument for a highly structured innate learning mechanism. "The stimulus underdetermines the knowledge that we eventually attain" (Haegeman 1994:11). How could children learn their first language so easily and rapidly without the help of an innate language faculty, a faculty independent of other aspects of the mind? "UG is a characterisation of these innate biologically determined principles, which constitute one component of the

human mind -the language faculty" (Chomsky 1986:24 cited in Aitchison 1989:104). It is a distinct system separate from human intelligence. Children are described as being 'wired' with a substantial amount of innate knowledge. The rich innate component of linguistic knowledge helps explain the absence of many logically possible errors (Weissenborn 1991:3). From this point of view negative evidence and expansion play no role. The nature of the knowledge rules out acquisition by imitation, correction, approval, social routines or other mental faculties. First language acquisition is constrained by UG in the sense that all the intermediate stages of development observe the restrictions imposed by UG.

Chomsky posited the 'poverty of stimulus argument' to explain the fact that children acquire language when they do not have enough information to do so. This argument has a clear and simple form: on one hand there is the complexity of language knowledge and on the other hand the 'limited' data available to the learner. The evidence on which individuals acquire linguistic knowledge is obviously not adequate to account for the depth variety and intricacy of that knowledge; we end up knowing more than we have learned (Smith 2000). The poverty of stimulus argument was endorsed by many researchers into child language: "The particular linguistic ability that develops in the individual child as he gradually masters his native language is grossly underdetermined by the utterances he hears " (Klima and Bellugi 1973:335). Input helps to make the choice between the two parameter settings, but the input underdetermines the end result, it is insufficiently precise to account for linguistic competence. The child achieves the complexity of language knowledge from positive evidence only, and correction or expansion appears to play only a minimal role. A child learning a language must construct an internal grammar for that language. Exposure to linguistic material is an essential ingredient in the acquisition process and UG is crucial in the organisation of primary linguistic experience. "UG guides the way the child will interpret and organise the language she is exposed to" (Haegeman 1994:15). Acquisition proceeds on the basis of input interacting with principles and parameters of UG, which leads to construction of a grammar or series of grammars, so that the child eventually arrives at a steady state grammar.

The poverty of stimulus argument is however disputed by some researchers (see Mclaughlin 1987). Not all psycholinguists look to UG to explain child language

acquisition; alternative theories see it as a general cognitive skill (Piaget 1975, Slobin 1973,) indistinct from any other hierarchical cognitive skill. Some cognitive theorists posit the notion that language is acquired through a process of proceduralising 'declarative knowledge' (Andersen 1982, in Ellis 1994:32). An alternative cognitive theory is suggested by Mclaughlin (1987), who proposes a theory based on information processing; in that learning takes place only when information, initially available only through controlled practice, becomes routinized. Both of these approaches depend on practice as being the catalyst for change. A further perspective on language acquisition is that of Vygotsky who saw language acquisition as a process of social interaction (Lantolf and Ahmed 1989). Theorists who adopt an interactionist perspective see language acquisition as an interactive process in which caretakers and children mutually accommodate (Galloway and Richards 1994). They dispute the claim that there is no role for negative evidence and maintain children do use negative evidence for acquisition. For negative evidence to work, however, parents would have to be consistent in their corrections; yet it is apparent that children do not receive feedback for all the ungrammatical sentences they produce. Also all caretakers would have to provide the same type of feedback, and parents' corrections would have to be uniquely marked as corrections, neither of which occurs, in the child's linguistic environment. Some researchers suggest that 'recasts' (repetitions where the central meaning of the utterance is preserved but certain elements are changed), play a facilitative role in acquisition (Pine 1994). However Marcus (1993) points out that the child is actually unable to distinguish these as negative evidence and argues they are an alternative form of positive evidence. Interactionist theories either try to claim that there is not an innate language faculty or to reduce its strength (see articles in Galloway and Richards 1994) but their argument needs to be more convincing. These theories that do not adopt an innate language faculty fail to address the 'logical problem of language acquisition': the fact that the linguistic rules the child attempts to formulate are underdetermined by the evidence the child has.

2.2.1 Parameter setting

Language acquisition cannot be achieved without the assumption of a substantial innate component containing a set of principles that define the range of possible human languages. "The principles of Universal Grammar capture generalisations that cut

across particular constructions and parameters, isolate areas of variability, and permit language acquisition to be mere triggering or switch setting" (Fodor 1990:225). There is a simple logic to parameter theory; it is seen as a sequence of binary choices (usually), each linked to a trigger, and the theory also defines the stages through which the child passes. There are variations within the parameter setting paradigm, including variations as to what counts as a trigger. In his seminal paper Lightfoot claimed that parameters are 0 degree learnable, in the sense that they are set by simple data drawn from unembedded domains (not complex sentences) (Lightfoot 1989). Roeper and Weissenborn (1990) disagree and emphasise that every parameter has a unique trigger: " if a given parameter is marked by several features, then there will be one unique trigger specified in UG" (Roeper and Weissenborn 1990:151). For them a unique trigger must be in an embedded domain because main clauses provide ambiguous data, and could trigger either setting of the parameter.

With regard to the various positions on parameter setting, one view is that of Hyams 1986, who claims that UG might predetermine a fixed initial value for a given parameter. The learner's task is to determine whether this genetically specified initial value is appropriate for the language. If the parameter is not set correctly, then the learner has to 'reset' the parameter (Hyams 1987). In this parameter setting model the given parameter is 'preset' by UG the moment it comes 'on line'. The alternative approach, which Hyams adopts in her later work (1992), is that when a given parameter comes on-line it will remain 'unset' (and so inoperative), until the time a child has accumulated sufficient linguistic evidence to arrive at a provisional setting for the parameter. The setting of parameters will affect clusters of properties in the child's grammar (see null subject parameter above) and this theory still allows for the early setting of parameters (Hyams 1994, 1996). Valian (1990) suggests that both options of the parameter are available on an equal footing until sufficient evidence causes them to be set one way or the other. She uses a set of scales as an analogy, and claims linguistic evidence will push the balance either way. The way the input data, UG and the form of the learner interact is still not clear in attempts to explain how a learner arrives at the adult state knowledge. Theorists are still working on exactly how triggers work and what exactly the algorithm is that learners use to set parameters (Wexler and Gibson 1994, Fodor 1998). It however seems quite clear that parameter values can be set on the basis of primary linguistic data, and that the parameter values are fitted to the

data (Wexler and Gibson 1994). Parameter setting is a failure driven process, driven by parsing failure, which relies on the existence of triggering data (Wexler 1990).

2.3 How linguistic knowledge is put to use

Universal Grammar focuses on the properties of the formal system and how the system can be acquired; it puts aside other aspects of the language and the role of factors not crucial to this issue. It is not an overall theory of language acquisition, and it is implausible that all of L1 development is UG driven (Clahsen and Muysken 1996: 721). UG theory integrates acquisition with the description of grammar, making explanatory adequacy central to the theory. A theory is explanatorily adequate, if it can explain why grammars contain certain forms and not others; it must be able to define exactly what the defining characteristics of human language are and how human beings can acquire their native language. In actual use, the production and comprehension of language (language processing) depends upon other mental faculties and physical systems. "It would not be surprising at all to find that normal language learning requires use of language in real-life situations in some way" (Chomsky 1965 in Cook 1996:101). We need to investigate how competence interacts with performance and in particular the role of language processing, which can be divided into language production and language perception.

UG theorists are beginning to explore how speech perception and parsing interact with the grammar (Fodor 1998, Carroll 1996, White 1998). " Grammars are representations of what we know; parsers are the mental devices, which we use to exploit that knowledge in understanding (and perhaps producing) utterances" (Smith 2000:109). A parser takes an input signal and assigns it a perceptual characterisation, which is related to a structural description. There is still not a lot known about parsers but it has been suggested that parsing strategies may be parameterised (Fernandez 1999) and that they are innate (Fodor 1999).

2.4 The Minimalist Program

Chomsky's latest formulation of his theory of language knowledge remains within the Principles and Parameters framework, and it is a progression rather than a U-turn (Cook and Newson 1996:313). It is seen as a drive for simplification. In his most recent writings he has been concerned with two fundamental questions:

1. "What conditions on the human language faculty are imposed by considerations of virtual conceptual necessity?"

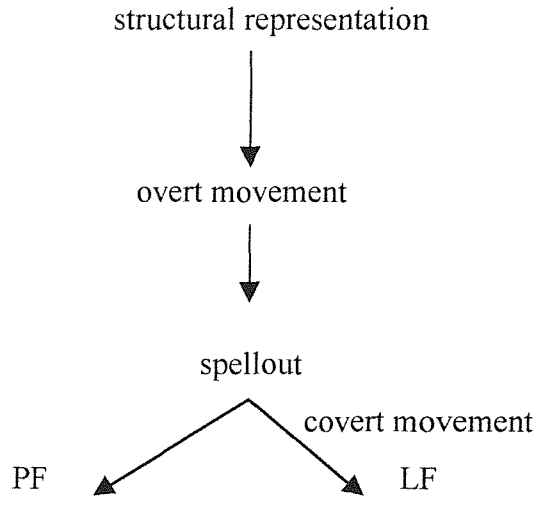
2. "To what extent is the language faculty determined by these conditions, that is, how much special structure does it have beyond them?"

He further divides question 1 into two parts: what conditions are imposed on the language faculty by virtue of a) its place within the array of cognitive systems of the mind/brain and b) general considerations of simplicity, elegance and economy that have independent plausibility (Chomsky 1995:385). It is these considerations and exploring the answers to these possibilities that drove Chomsky to further develop and streamline UG and postulate first the Principles of Economy (Chomsky 1992) and then the Minimalist Program. Chomsky is aware of the imprecise nature of question 1b, and parallels it to questions in the natural sciences generally. He also recognises that the answer to 1a is incomplete but exact, due to the limited knowledge of other but related cognitive systems. He suggests that question 2 can be answered positively to some extent and that language is something like a "perfect system meeting external constraints as well as can be done" (Chomsky 1995:386). It may have some kind of special structure.

In this formulation Chomsky outlines two levels of representation, PF (Phonetic form) and LF(Logical Form). The level of PF is the interface with motor-perceptual systems and the level of LF, the interface with conceptual systems (Chomsky 1992:419). Linguistic structure mediates between LF and PF. It is not possible to dispense with the interface between grammar and semantics (LF) or with that between the grammar and phonetics (PF) (Cook and Newson 1996:318). What goes on in the language module has to be sensitive to these interfaces, therefore 'conceptual necessity' reflects the need

for the language module to provide interpretable instructions to the other systems of the mind and brain. There is also a necessity for a computational system: a syntactic mechanism that forms the structures that appear at the interface levels. The linguistic system generates abstract structures which at some point will receive an overt form. The end results of the computations must be two fully formed structural representations; one at LF and one at PF. The computations split at a point called '**spellout**'; after spellout there are two different representations with quite different properties. Spellout is the point in the derivation at which the phonological information is split off from the semantic information, the former going to PF and the latter LF (Cook and Newson 1996:glossary). These levels of representation replace the traditional levels of D and S structures. Merely for expository reasons PF could roughly correspond to S structure (Haegeman, 1994:615).

Diagram 1: The organisation of the grammar in the Minimalist Program



(Diagram from Haegeman 1994:616)

The Minimalist Program is economy driven, and so the link between LF and PF has to be established as economically as possible. There is a 'least effort' flavour for certain locality principles e.g. **shortest move**, the one requiring the least effort. In the Minimalist program there is the distinction between movement in the syntax which is overt and happens before spellout and movement at LF which is covert. Movement which takes place before spellout, is overt and movement after spellout, i.e., at LF, is covert and thus will have no bearing on spellout. Overt movement is a more costly operation than covert movement and for reasons of economy covert movement is

preferred. Overt movement is visible in the syntax and covert movement will only affect the semantic representation of the sentence. The term **procrastinate** is used to describe the principle that prefers derivations that hold off movements until after spellout so that the results of such movements do not affect PF (Marantz 1995:357). (Movement will be returned to in Chapter 3.)

The Minimalist Program is motivated by the desire to minimise the acquisition burden placed on the child and maximise the learnability of natural languages (Radford 1997). The parameter setting approach gave no constraints on parameters and no limits to what could be parameterised, so it was difficult to see how it was explanatory. The shift to the minimalist program has caused the theory to become more restrictive again. There is only one human language apart from the lexicon and language acquisition is in essence a matter of determining lexical idiosyncracies. Furthermore if substantive elements are drawn from an invariant universal vocabulary, then only functional elements will be parameterised (Chomsky 1992:419). We may assume that S_0 (the initial state) is constituted of invariant principles with options restricted to functional elements and general properties of the lexicon (Chomsky 1992:6). There is a single computational system C_{HL} for human language and only limited lexical variety: variation of language is essentially morphological. Every adult who has acquired a single language has acquired the computational system and the lexicon that underlies every other language (Freidin 1996:725).

In the Minimalist Program there is no assumption of NP, VP, AP etc. but items **merge** together to form larger categories. Merge is the simplest way of forming a phrase, by combining two words together. In principle this allows for an infinite set of possible phrase markers to be generated - corresponding to the grammatical features associated with individual lexical items (Roeper 1996). The process starts from the lexicon as lexical elements determine the content of any legitimate expression in a language (Cook 1996:319). We start with a selection of an array of elements from the lexicon called **numeration.** For a structural description to be grammatical each element from the numeration must be used the required number of times; items cannot be left in the numeration otherwise the resulting structure will be ungrammatical. Numeration consists of both substantive elements and formal elements like agreement and tense. Individual trees are built for lexical items and then they combine at some point to form

a larger tree. Items are merged asymmetrically, and in the resultant structure you can recognise only one of the combined elements. For example, a verb '**like**' will be selected in numeration and combine with a pronoun '**him**' to form the phrase '**like him**'. The grammatical properties of the phrase '**like him**' are determined by the verb '**like**' and not by the pronoun '**him**'; '**like**' is the head of the phrase and the phrase is a verb phrase. Merge continues its work until all items drawn from the lexicon have been integrated into the syntactic structure. The process will be constrained by the convergence requirement at interface levels. Merge is essentially an "operation that forms larger units out of those already constructed" (Chomsky 1995:396). At some point the computations split and this is the point of 'spellout'. On the one hand there is a representation consisting of just phonetic information and on the other hand there is the representation of everything left. Semantic information is not allowed to appear at PF and phonetic information is not allowed at LF.

At the heart of the Minimalist Program are what Chomsky refers to as **abstract morphological features**, features associated with tense, case and agreement. Items from lexical categories are fully inflected in the lexicon, and addition of tense, case and agreement morphology to a verb in the lexicon involves the simultaneous addition of abstract tense and agreement features. Verbs are base-generated with their inflectional endings and these endings have to be checked by functional heads, for example, agreement (Agr), tense (T). Lexical categories, nouns, verbs etc. are distinguished from functional categories, determiners (D), negation (Neg) and inflection (I). Functional categories can be lexically filled or can be abstract features. Features play a role in the computational system of language but play no role at PF or LF interfaces. Functional heads are the locus of features and will check off or eliminate the corresponding features of a lexical element. Some grammatical features are interpretable at LF by virtue of having semantic content. LF representations may contain only semantically interpretable features and PF only phonetically interpretable features. If a derivation gives rise to an LF representation that contains only semantically interpretable features, the relevant derivation is said to **converge** at LF. If it gives rise to an LF representation containing one or more semantically unintepretable features the derivation is said to **crash** (Radford 1997:69-70). 'We say that a computation (derivation) *converges at* one of the interface levels if it forms an interpretable representation in this sense, and

converges if it converges at both interface levels, PF and LF; otherwise it *crashes*' (Chomsky 1995:390) (present author's italics).

The Minimalist Program is still evolving and acquisition theorists are only beginning to apply it in their work. The problems lie in the difficulty of isolating this latest version of Universal Grammar, and just what effect the revisions in the theory have on conclusions drawn from acquisition data. Clahsen et al 1996 and Roeper 1996 have however used the notion of features to advance their theories of L1 acquisition. Clahsen suggests that the idea that projections are feature bundles and the fact that their properties are determined by their head features has desirable consequences for our understanding of the acquisition of syntactic structure. Roeper maintains that Merger theory can capture neglected moments of acquisition. A lexical approach to grammar seems to create the possibility of an infinite set of possible phrase markers, corresponding to possible words. However the formal features still restrict the domain of possible words and possible nodes. He claims that this will capture the restrictiveness, which this more abstract theory seems to initially lose (Roeper 1996:416). Both of their theories and postulations will be looked at in more detail in a later section and the Minimalist Program will also be returned to. Hawkins and Chan 1997 have also attempted to adopt the notion and importance of features in their explanations of a particular phenomenon in L2 acquisition; this work will also be referred to in a later section (Hawkins and Chan 1997). Although the changes and developments are a matter of concern for some, the interesting questions and interesting empirical data still remain the same when trying to explain linguistic competence (White 1998: GASLA plenary address).

The above was a brief introduction to Universal Grammar, specifically the principles and parameters approach and its role in explaining first language acquisition. At this point it is necessary to present the arguments and discussions surrounding the role of Universal Grammar in Second Language Acquisition.

2.5 Universal Grammar and second language acquisition

In this section the characteristics of second language acquisition will be re-examined and the various theoretical positions regarding the presence or absence of UG in L2 acquisition will be outlined.

As pointed out by both Chomsky and L2 researchers, UG was not constructed for the purpose of explaining second language acquisition (SLA or L2A) and it makes no direct claims about L2 acquisition (Flynn 1996). "It is up to an L2 acquisition theory to offer an account of how such principles and parameters might play a role in L2 acquisition" (White 1996c: 90). So why do second language researchers and theorists turn to it in their attempts to formulate hypotheses about second language acquisition? The answer partly lies in the fact that it is important to have a linguistic frame of reference for our attempts to explain L2 competence. "A theory of linguistic competence is essential to our understanding of what L2 competence might consist of and should inform L2 acquisition research" (White 1992:273). UG theory gives us that well-articulated theory of linguistic competence. It is a detailed descriptive framework within which researchers can formulate rich and well-defined hypotheses. It is also a general theory that is 'independently motivated which therefore should encompass any theory dealing specifically with SLA' (Myles 1995:236). L2 theorists who adopt UG as a frame of reference believe this approach endeavours to unravel the contents of the 'blackbox' and addresses what the L2 learner knows and how she acquires it. These researchers see the similarities between L1 and L2 acquisition as being more vital to a theory of L2 acquisition than the differences.

L2 learners are confronted with the logical problem of having to construct a grammar of the second language on the basis of underdetermined input. They also display the phenomena of cross-learner systematicity and staged development; for example, the sequences that learners go through in learning negatives or interrogatives in L2 English illustrate stages of development and cross-learner systematicity. L2 learners have to construct abstract representations on the basis of the samples of language they are faced with. Additionally, there is an absence of 'wild grammars' in L2 learner's production: grammars that show violations of universal principles (White 1989:chapter 2).

If we look at the concept of a learner's interlanguage or internalised grammar at any stage of the learning process, we can see that the learner's approach to the L2 is systematic and rule-governed. From this we can assume that competence in a second language is represented in the form of a mental grammar, an abstract system of principles and rules. If the interlanguage represents knowledge, the crucial distinction between competence and performance also exists in L2. The domain of second language acquisition theory has to be not the behaviour of the speaker but the speaker's mental system: her competence.

However differences between L1 and L2 acquisition do exist and these are acknowledged by both proponents of a role for UG in L2 acquisition and those that refute any such role. Second language learners already have one instantiation of UG, their L1, so L1 interference or transfer is a complicating factor in L2 acquisition. L2 learners already have representations of a language, complete with principles and with the parameters set. The learners are also cognitively mature and will be more resourceful in their ability to solve learning problems. The input that triggers L1 acquisition is primary linguistic data: the utterances the child hears. In contrast there is much dispute as to the role that negative evidence plays in second language acquisition and in addition the role of correction and formal instruction needs to be addressed. Some researchers take the position that negative evidence does have a role: "There are L2 situations where negative evidence is required to avoid or correct faulty representations of the L2 grammar" (Gregg 1996:56).

The most central observation however, is that few, if any, manage to gain knowledge of the L2 equivalent to that of the L1. The learnability condition in L1 is the observation that L1 is uniformly successful (Pinker 1984 in Gregg 1996:54). Any theory of L1 acquisition has to account for the learnability condition and it will be a constraint on the L1 acquisition theorist. The learnability condition is not available in L2 acquisition. For L2 learners there is no uniformity in the level of competence. According to most researchers even the most advanced seem never to gain native speaker grammatical competence. Researchers, especially those, who believe that UG has no role to play, cite certain studies to support this opinion. One such study is that of Coppetiers (1987), who studied the intuitions of advanced L2 French learners and claimed that they failed to show native speaker intuitions (Coppetiers 1987 in Schachter 1988). White in a

critique of this study maintains that the results and analysis are flawed because the "intuitions involved conscious reflecting on the sentences, which is not necessarily an appropriate way to tap unconscious linguistic competence" (White 1996 c): 106). It is not really clear if the results indicate competence differences between native and non-native speakers. In a different study by White and Genesee on learners of English L2, contrasting results were found, where near-native speaker's intuitions were not significantly different from the native controls (White and Genesee 1996). White and Genesee dispute the position that no L2 learner will ever attain nativelike competence (White and Genesee 1996). Alternatively some researchers maintain the converse argument holds, that native-like performance does not equate with nativelike competence (Hawkins, Towell and Bazergui 1993 and Smith and Tsimpli 1995).

Neither the initial or final states of L2 learning are the same as those of L1 acquisition. However, even if nativelike competence is never attained in an L2, this does not necessarily mean that there isn't a logical problem. Gregg 1996 points out that if the interlanguage is underdetermined by the input then a logical problem exists however 'imperfect' the grammar might be (Gregg 1996:53). This does not automatically mean that the acquisition of L1 and L2 is the same. The poverty of stimulus argument works but it operates differently, and it can only be applied in a narrow sense. The poverty of stimulus arguments do not carry over straightforwardly to L2A; although obviously somewhat different the problem nevertheless is equally challenging (Borer 1996:719, Sprouse 1996:742). The poverty of stimulus argument is typically framed in view of the target grammar and this is not surprising because the logical problem of language acquisition is devised within the context of L1 acquisition. Normal L1 acquisition eventually converges on the target grammar (Schwartz and Sprouse 2000:170). However there is also evidence of developmental poverty of stimulus effects where children create intermediate grammars that rule out what their input tells them is possible. Additionally, L2 learners can exhibit linguistic knowledge that arises in the absence of evidence either from the L1 grammar or the L2 input.

One example of a poverty of stimulus problem in L2 acquisition is provided in a case study from Schwartz and Sprouse (1994). They collected data from a longitudinal study of the acquisition of L2 German by an adult Turkish man. In this data the learner exhibited an interesting developmental pattern in regard to verb placement. His

utterances illustrated an asymmetry between pronominal and nonpronominal subject inversion with respect to verb placement, which did not come from Turkish, the L1, or the target language, German. Schwartz and Sprouse claim that this is a genuine poverty of stimulus problem because neither the L1 grammar nor the L2 surface patterns can account for a property in the interlanguage grammar (Schwartz and Sprouse 2000:172).

Universal Grammar is the linguistic theory that can best provide a frame of reference for L2 acquisition research. It has been described by theorists within the UG paradigm as the most interesting approach to L2A (Sprouse 1996:742). It is very difficult to explain L2 acquisition if no constraint is placed on L2 learning. The Principles and Parameters framework enables second language research to employ a common descriptive framework for L1 and L2 acquisition (Cook 1993). If both L1 and L2 acquisition can be explained through UG then this also strengthens the theory of UG (Schachter 1996). The greater specificity and restrictiveness of the Principles and Parameters framework over previous proposals regarding the form and content of UG, make it a more suitable basis than previous proposals for the study of both L1 and L2 acquisition (Ritchie and Bhatia 1996:10).

We can take as a working hypothesis that L2 learners do or not have access to the abstract principles and parameters of UG to establish the exact nature of L2 competence. Are L2 interlanguages constrained by UG? However UG access in L2A cannot be reduced to an 'access or no access' dichotomy, and there are several theoretical positions that can be outlined when examining the role of UG in second language acquisition (White 1989, Cook 1996, Flynn 1996, White 1996c). These are briefly outlined below but some of the positions are discussed more expansively in the section on functional categories and their acquisition (see chapter 3).

2.6 Direct Access to UG (also known as Full Access or the pure UG hypothesis)

L1 and L2 are identical with respect to the operation of UG: this position is reflected in the work of Krashen, Dulay and Burt (see Towell and Hawkins 1994:chapter 2) and also the approach of Flynn 1994 and 1996. L2 learners still have access to UG in the same way as children: all principles and parameters available to the child are available

to adult learners. They do not typically achieve complete mastery because of different needs and language use and processing effects. Adults are capable of learning new languages so we expect that the language faculty used in L1 might also be involved in L2 acquisition (Flynn 1996:127); evidence lies in the fact that L2 learners adhere to the principle of structure dependency, and they produce an infinite number of new sentences that go beyond the available data and any explicit teaching (Flynn and Martohardjono 1994:320). The 'full access' hypothesis states that any differences in L1 and L2 acquisition can be accounted for in other ways other than by invoking non-access to UG theory. UG rather than the learner's L1 restricts the options available to the learner. The difference between L1 and L2 ultimate attainment is not caused by the lack of UG, but involves the integration of the language faculty with other domains of cognition and other problems of learning. This position has been criticised because you cannot neglect the possibility that the L1 grammar forms the learner's initial representation of the L2 and then subsequent modifications are constrained by UG (White 1996d: 745).

2.7 UG is dead or UG is inaccessible

Proponents of this view reject a UG based approach completely (Clahsen and Muysken 1986). UG cannot be accessed and it atrophies with age. These theorists emphasise the differences between L1 and L2 acquisition and claim that general problem solving strategies will replace UG. UG is biologically triggered according to a pre-determined timetable; it has a once-only life, is subject to a critical period and after this it can no longer be activated. "Second language learning is viewed as the acquisition of a complex skill" (Mclaughlin 1987:133), which needs to be explained by a cognitive theory not a linguistic one.

Some reject a UG based approach because they interpret any differences between L1 and L2 acquisition to mean that the two must be fundamentally different and therefore cannot be assigned the same theoretical framework (Flynn 1996:122). There is no logical problem in L2 acquisition: "Child L1 learners and adult L2 learners are so substantially different that adoption of a UG oriented theory of child language acquisition to account for adult L2 acquisition is biologically, psychologically and linguistically implausible" (Schachter 1996:163). Adults are more cognitively

advanced and they already have an L1.

The key difference between adult L2 acquisition and L1 acquisition is ultimate attainment. The proponents of the hypothesis that UG has no role to play in L2 acquisition frame their arguments based on this fundamental difference. For these theorists only if the L2 adult arrives at a final state identical to the L1 final state can one conclude that UG constrains adult L2 acquisition (Schwartz 1998:156). If the final states are different then you can conclude that UG is not involved. Schwartz (1998) disagrees with this emphasis on final state grammars. According to Schwartz you cannot deduce from final state differences that grammars are not of the same knowledge type. She uses historical differences in grammars to support her argument and emphasises the importance of investigating the systems that L2 learners build in the course of acquisition.

A further criticism of the no access hypothesis is that in their accounts of L2 acquisition its proponents are merely describing the tools with which learners construct grammars. Their theories tell us nothing about the content of the endstate grammar. In effect they fail to address what the learner does know and how she acquires it (Flynn 1996); they do not adequately describe the learner's internalised grammar. Additionally, if UG is dead then we cannot explain why failure in L2 acquisition is not universal (Gregg 1996). The no-access position is threatened by L2 acquisition success.

2.8 Partial Access

Bley-Vroman (1989,1990) maintains that a 'pared down' version of UG exists in L2 acquisition, as a result of specific input from a specific language. Bley-Vroman's 'Fundamental Difference Hypothesis' posits that in place of UG there is only a UG created grammar and in place of language specific mechanisms, there are only general learning mechanisms, hypothesis testing, inductive and deductive reasoning and analogy (Bley-Vroman 1989:54); all of these derive from Piaget's Formal Operating Principles. L2A takes place in a construction by construction process. Failure in this approach is explained by the insufficiency of general learning mechanisms and variation in the final state is explained by variation across individuals in their ability to use these mechanisms (Gregg 1996). The fundamental difference hypothesis holds,

that for adults information about what languages can be like is primarily available through their first language and the mental representation of its grammar (Bley-Vroman 1996:718).

The fundamental difference hypothesis only allows access to UG via L1. All that is available to the L2 learner is an L1 instantiated UG, along with unspecified learning principles. 'Wild grammars' will not occur because the learner is starting from a UG governed L1. However parameter values are already set for L1, and UG is only available to the L2 learner in as much as the principles and parameters instantiated in the L1 are realised in the L2. All else must be realised in terms of general problem-solving. According to adherents of this approach, if a particular parameter setting or principle is not realised in L1 but is necessary for the new target language, the L2 learner will not be able to acquire the principle or reset the parameter (Schachter 1988). For example, Schachter argues that L2 learners whose L1s lack syntactic wh movement fail to recognise Subjacency violations in L2s with wh movement (Schachter 1996).

Clahsen and Muysken (1986) in their comparison of L1 and L2 learners of German word order conclude that there are essential differences between acquisition in L1 and L2. At that time they supported a no-access position for the role of UG in L2 acquisition. For them the adult learners were using acquisition strategies based in principles of information processing and general problem-solving. Du Plessis et al (1987) disagreed with this and criticised the specific way Clahsen and Muysken analysed the data. They examined the same data and claimed that learners displayed interim stages where their parameter settings are those of neither the L1 nor the L2 but those of other natural languages, still constrained by UG (Du Plessis et al 1987: 73 – 74). In 1989 Clahsen and Muysken re-evaluated their position and believed that L2 learners could use UG principles in evaluation of target structures to make grammaticality judgements. They offered us a theory that UG played a role but only through the interaction of fixed principles with the processing of the input; there is no role through parameter resetting. As a result of their L1 acquisition, adult L2 learners have lost parametric options which are not instantiated in their native language (Clahsen and Muysken 1996:722). The no parameter (re) setting perspective is shared by Tsimpli and Roussou 1991. For these researchers the acquisition of one's first language takes place during a critical period; it is the acquisition of functional

categories in particular that is restricted to maturation. As functional categories are the locus of parameterisation then if there are maturational constraints on the functional module, this has implications for parameter resetting in adult L2 learning. UG principles are still available, thus constraining grammars, but parameter resetting is impossible.

Cook claims that Clahsen and Muysken's 1989 position is a theoretical non-entity, a red-herring; you cannot subdivide UG into two components, transferable principles and non-resettable parameters, because UG is not separate from the learning process through which it takes place (Cook 1996:296-297). Flynn and Martohardjono 1994 are of a similar view. They distinguish between two hypotheses for UG, in trying to explain the relationship between the language faculty and the speaker's representation of the language specific grammar. The first, the 'Identity Hypothesis', claims that UG is both the language module and the language specific grammar as parameters are fixed over time. The other hypothesis, known as the 'Separation Hypothesis', is that UG and language specific grammars are distinct but intrinsically related entities (Flynn and Martohardjono 1994:321). UG acts as a constraint on core grammars but remains constant. Parameter setting in this view is viewed not 'as setting switches but as incorporating the options provided by UG for a particular principle in the particular grammar being constructed' (Flynn and Martohardjono 1994:321). If you adopt the separation hypothesis as Flynn and Martohardjono suggest, then the full access to UG approach to L2 acquisition is possible. They cite the success of bilingual children in acquiring languages with different parameter settings as evidence of the Separation Hypothesis. Flynn 1996 in defence of a full-access approach claims that partial access fails to account for L2 learners being able to construct grammars incorporating parameter settings not found in their L1. Again any example of L2 success will threaten the partial access approach (Gregg 1996).

2.9 The Dual Access position

L2 learners have access to UG but this is partially blocked by the use of general learning strategies. One example is the Competition model (Felix 1984); in this UG is still available but general learning mechanisms also act on L2 input. Incompleteness

can be explained by the result of competition between the two different acquisition strategies; this contest does not appear in L1 acquisition (Felix 1984 outlined in Gregg 1996:64). This is a 'UG for all' position, whilst arguing that the higher cognitive processes of the adult 'interfere' with the realisation of UG. Flynn (1996) maintains that this position is flawed because recent studies have indicated that attentional and computational skills are not so very different between adults and children.

2.10 Transfer from L1 and full access to UG

Another perspective on the role played by UG in L2A is that both transfer from the L1 and UG have a part to play in the development of the L2 interlanguage. UG is available to the adult but the competence arrived at by the L2 speaker may differ from the native speaker of the same language (White 1996, Schwartz and Sprouse 1994, Vainikka and Young-Scholten 1996). The L1 grammar is part of the initial state. The theories differ as to how much of the L1 grammar is transferred to the L2 initial state. (To what extent the L1 is part of the initial state will be discussed in chapter 3.) The potential for mis-analysis will depend on what language the L1 is and the properties of the L2 data. This can help explain transfer errors and incompleteness. In this approach parameters can be reset, although not necessarily immediately, and non-parametric principles not instantiated in L1 should also be acquired successfully. A sufficient amount of relevant input is crucial for parameter resetting. What underlies the assumption of whether UG is available as an active force in L2 acquisition is the crucial notion of parameter setting or resetting: are L2 learners capable of resetting parameters?

2.11 Conclusion

Even the opponents of a role for UG in SLA say we should not abandon the theory completely (Meisel 1997). From the above we see that UG fits into their approaches in some form or another as most researchers have moved away from the UG is dead hypothesis. It is commonly recognised that many questions have become interesting to second language acquisition as a result of the development of UG, with its rich conceptions of human language (Schachter 1988). Some theorists also believe that SLA can offer reciprocal benefits to linguistic theory (Clahsen and Muysken 1996,White 1996a and Flynn 1994) in that L2 empirical evidence can be used to inform

linguistic theory. "The study of adult L2 acquisition can disambiguate the language learning process by filtering out developing cognition as a factor in language learning" (Flynn and Martohardjono 1994:319). If we can successfully investigate the division between UG and non-UG learning in L2A, this may be crucial to our understanding of the modular structure of language development (Clahsen and Muysken 1996:722). L2 acquisition can also supply empirical evidence for the Separation Hypothesis, in the case where a parameter setting differs between L1 and L2. Additionally, if L1 and L2 acquisition exhibit the same patterns of emergence for particular structures then it is unlikely that maturation can explain the sequences in L1, since the L2 learners have already gone through relevant stages of maturation (White 1996 c: 111). (See later for discussion of the maturation vs nonmaturation debate in L1 acquisition.) UG can give us a theoretical framework for understanding transfer, staged development, systematicity and to some extent incompleteness. Current linguistic theory offers both a highly detailed account of what linguistic competence consists of as well as some general indication of how that competence is acquired (White 1996 c: 91).

In conclusion to this chapter we reiterate that in L2 acquisition as in L1 acquisition, the learner's task is to acquire a grammar, on the basis of deficient input. A grammar, which constitutes a mental representation of the language being acquired and which is involved in the comprehension and production of language (White 1996 a: 2). This suggests that built in knowledge is involved and that UG has some role to play in L2 acquisition. Although not identical to L1 acquisition, poverty of stimulus arguments still hold in L2 acquisition. That is not to say that L2 acquisition merely replicates L1 acquisition. There are obvious differences at intermediate stages and in ultimate attainment between normal first language acquisition and adult L2 acquisition. The primary source of difference is the respective initial states. Non-native language acquisition depends on three components; the L2 initial state, Universal Grammar and exposure to target language input (Schwartz 1998:134).

UG does not purport to account for all that is involved in learning a new target language or even acquiring a first language. UG is a theory of constraints on representations. It claims to account for the formal properties of the language. UG is deliberately limited in scope and can never explain the totality of L2 acquisition or the ability of putting language to use. "Linguistic knowledge is an autonomous component

in second language acquisition distinct from socially determined use of the L2 and distinct from psychological capacities for understanding, storing and producing utterances in the L2" (Towell and Hawkins 1994:5).

For a complete L2 acquisition theory we would need to look at other psychological and social factors. What triggers L2 acquisition is also a crucial question. The role of negative evidence and formal instruction needs examination, and learner variables and affective factors would also have to be addressed. As suggested for L1 acquisition research it is also necessary to examine the role of processing constraints and the language parser in L2 acquisition. UG covers the area of linguistic competence and how language can be acquired. We need to investigate both the representational problem (the type of syntactic knowledge which second language learners acquire) and the developmental problem (how second language learners' knowledge of syntax develops over time) in L2 acquisition. In second language acquisition research we can use principles and parameters theory to look at variation between languages, the role played by language transfer and to investigate whether parameters can ever be reset. By applying hypotheses about the principles and parameters of UG to observable patterns of second language development we can potentially confirm or disconfirm their involvement (Hawkins, in press: 38).

3.0 Language development and the acquisition of functional categories

Developments in linguistic theory have enabled both L1 and L2 acquisition theorists to re-examine data and their theoretical positions on the initial state and also on the developmental problem: how acquisition proceeds. This chapter will discuss in more detail the linguistic notion of functional categories and their role in parameter setting and acquisition of both L1s and L2s. Additionally, current work on functional categories within the Minimalist Program will be reviewed and to what extent these developments can help explain L1 and L2 acquisition. As the current study aimed to investigate the initial state and subsequent development, these refinements to linguistic theory will provide the theoretical framework for this study.

3.1 Functional Categories

Recall that it is the parameters of UG that account for crosslinguistic variation and also account for clusters of properties in a language that prima facie seem unrelated. It has been posited that parameters are linked only to functional categories (Chomsky 1992). In the 'Functional Parameterisation Hypothesis' languages differ only in the properties they select for their functional categories (Cook 1996:189). Functional categories are distinguished from lexical categories. Lexical categories have a full lexical and semantic life, they are described as thematic and include: nouns, verbs, adjectives, adverbs etc. Functional categories can be lexically filled or can be abstract features: they include Determiners (D) Inflection (I) (Inflection is often divided into Agreement (Agr) and Tense (T), Complementiser (C), and Negation (Neg). Both lexical and functional categories project to phrasal level.

3.2 The Minimalist Program and the importance of features

In the Minimalist Program UG no longer contains a fixed set of functional categories. A fixed set of syntactic projections have been given up in favour of the idea that projections are feature bundles and their properties are determined by head features. Additionally, words carry three sets of grammatical features: **head features** (which determine the kinds of head word positions they can occupy and describe their intrinsic grammatical properties) **complement features** (which describe the kinds of

complement they take) and **specifier features** (which describe the kinds of specifier/subject they can have)(Radford 1997:67). In the minimalist view lexical heads, such as verbs are base-generated with their inflectional endings and these endings have to be checked by functional heads, which carry checking features. Some features have the special property of being visible at PF, such features are strong and must be eliminated prior to **'spellout'** at PF otherwise the derivation will crash (see earlier for an explanation of spellout). They have to be checked by features in a functional category. Weak features are not visible at PF so do not have to be checked off before spellout and are checked at LF. The distinction between weak/strong features is of fundamental importance to crosslinguistic variation, including differences in word order. In the Minimalist Program the range of possible differences between languages is laid down within the system as the dichotomy < +/-PF visible>, i.e. strong features versus weak features on functional categories. (This distinction between strong and weak will be examined further in a later section.) Checking theory ensures that grammatical features carried by different words in a sentence are compatible with those of other words in the same sentence (Radford 1997:69). Movement is driven by the principle of **greed: items move because they need to be checked.** A feature is checked when the item bearing that feature moves into the checking domain of the appropriate functional category. Features which are purely formal, for example agreement and case features, must be "checked off" and disappear before an interface is reached, either PF or LF.

3.3 The Initial State and development in L1 acquisition

"Acquisition of language is in part a process of setting the switches one way or another on the basis of the presented data, a process of fixing the values of parameters" (Chomsky 1988:63 cited in Lust et al 1994:xxvi).

Adopting the interpretation above would entail that parameter setting is necessary to language acquisition, presumably instantaneous and probably binary valued. The classic metaphor of switch setting would appear to explain apparently instantaneous acquisition but leaves any real delay in language acquisition unaccounted for. We are also faced with the triggering problem: the simple input data do not always lead the child to a predicted developmental step. Some theorists maintain that potential

triggering data may be ignored because corresponding grammatical structures cannot be generated in the child's grammar (Weissenborn et al 1992: 9). Maturation could be one possible answer to the problem of timing in development and the triggering problem (Wexler 1990:109). Maturation could be of linguistic or non-linguistic abilities, constrained by UG or not. It can help explain the delay in the use of input. A theory must also be able to guarantee that misanalyses of input at an earlier stage cannot lead to premature fixing of the parameters (Roeper and de Villiers 1992:192). What happens to input, and how we account for delay, is crucial to any linguistic theory of child language acquisition. Language development exists in the child; she must get from an initial state of absence of knowledge to knowledge more or less identical to that of the adult. When considering child language acquisition most researchers agree that innate knowledge interacts with the linguistic input. As to how this actually happens varying positions are adopted. They range from the opinion that the child has set language particular parameters prior to production of the first two word utterances (Wexler 1998) to the position that early grammars are very rudimentary when compared to adult grammars and include only lexical categories (Radford 1990).

The most interesting properties of grammar from an acquisitional perspective are the parameterised principles of UG (Meisel 1992:1). Children need to find out how the values of the parameters are set in the language(s) they are acquiring. Their choices are not made a priori but have to be made on the basis of input. Parameters relate primarily to the nonsubstantive elements in the lexicon, that is the functional elements. The acquisition of functional categories has become crucial to any theory of L1 acquisition and there are different stances as to how and when these categories are acquired. There exists three possible views of the form a child's grammar can take during development, which differ in respect to how much they assume a child's grammar is constrained by UG (Weissenborn 1992:5). The data however can be ambiguous. You cannot draw far-reaching conclusions on the basis of a few occasional uses of a specific form or pattern (Smith and Tsimpli 1995). On the other hand you cannot conclude that a grammatical category is missing, if it is not lexically realised in a small number of obligatory contexts (Meisel 1992). The three theoretical positions on the initial state and subsequent development are outlined below.

3.3.1 The Strong Continuity Hypothesis

From the outset of language acquisition all principles of UG are available to the child and at each point the grammar of the child allows only for the structures that are also structures of the target language. From this perspective UG is constant. This is also known as the 'Full Competence Hypothesis' (Poeppel and Wexler 1993 in Roeper 1996), or the Universal Base Hypothesis (Roeper 1996). It is assumed that children have the full-range of functional categories from the outset and also their dominance relations: (where items appear in the structural hierarchy) CP-AGR-NEG-TP-AGR-ASP-VP-VP (Deprez and Pierce 1993,1994 ;Hyams 1994, 1996; Lust et al 1994). The grammatical constraints and parameter settings are said to be the same for both adult and child language. Differences between sentences that children produce and adult sentences should be attributed to external factors: i.e. development in other domains than grammatical competence (Clahsen 1996:xix). Hyams (1994) assumes a uniform grammatical state "prior to experience", and suggests that linguistic input immediately or almost immediately alters that initial state. Therefore parameter setting occurs early. According to some theorists if the Strong Continuity Hypothesis is adopted then UG can be given its classical interpretation as a filter and a constraint (Lust et al1994:xxxi).

For some versions of the strong continuity hypothesis certain functional categories may initially lack fully specified features (Hyams 1996, Wexler 1994). Wexler, in his study on optional infinitives (OI) and verb movement, argues that children at the OI stage can optionally omit Agr or Tns from their syntactic representations (Wexler 1998). These projections are not obligatory in every root representation and infinitives are used in root clauses, what Wexler calls the 'optional infinitive' stage. For example, children learning French, German, Dutch and English go through a stage at which finite and nonfinite verbs occur in root clauses (Wexler 1994). Children nevertheless know the relevant grammatical principles, e.g. head movement, checking. There is empirical evidence from a study by Pierce (1992) that during the optional infinitive stage children have already set parameters. In French child language acquisition finite verbs always precede adverbs or the negative and the non-finite verb will follow these elements, thus indicating a correct setting of the verb movement parameter. (See next main section for further discussion on the verb movement parameter).

3.3.2 The Weak Continuity Hypothesis

The other main position is that functional categories are initially absent and emerge gradually in response to triggering input or due to maturation. During development the grammar of the child permits structures that are impossible or marginal in the target language but are possible in other languages i.e. they obey the principles of UG. All components of UG are available to the child from the outset of acquisition, but language particular knowledge increases over time. In addition to specifying the child's initial and final states, an extrinsic ordering is required, so that in the course of development, immature states can be replaced by mature ones. Certain data might demand an analysis beyond the child's capabilities at certain times but not later. UG components such as X-bar theory constrain children's phrase structure from the beginning, but full adult like structure emerges gradually.

Weak continuity can take different forms. In one form there are UG-external learning constraints which restrict the availability of grammatical categories to the child and then are subsequently lost due to maturation (Clahsen 1996:xix, Rizzi 1994). Rizzi 1994, who adopts a maturation approach, suggests that the constraint that requires all root clauses to be headed by a CP in adult language is not yet operative in young children, but it matures around the age of 2.5. He postulates his truncation hypothesis where child root infinitives, '*voir l'auto papa' (see the car daddy)* (data from Wexler 1992 cited in Haegeman 1996:271), are truncated structures that only project an IP. Truncation is dependent on the structural hierarchy; if a projection is truncated at some point in the clausal hierarchy, all the dominating projections of the clause are also missing. From this perspective there is an optional presence of functional categories in early child grammars (Rizzi 1994).

An alternative weak continuity approach is that of 'gradual structure building plus lexical learning' (Clahsen 1996, Radford 1996). This theory predicts that "changes in the child's grammar over time are attributed to increase in the child's lexicon and increases in the child's memory size and processing capacities" (Clahsen 1992:551). It can account for the fact that early child grammars may generate underspecified phrase-structure positions i.e. positions with fewer features or feature specifications than the corresponding positions in adult grammar (Clahsen et al 1996). Clahsen maintains it will explain developmental correlations between lexical acquisitions, inflectional

paradigms and syntactic properties, such as verb and subject raising. All UG principles are ready to apply from the start but must await the acquisition of certain lexical triggers. According to Clahsen, Lexical Learning is the way to fix parameters at the appropriate values: "Lexical learning is the trigger for UG principles to emerge" (Clahsen 1992:59). Functional categories gradually emerge, based on X-bar theory and lexical/morphological evidence from the input. According to the 'Lexical Learning Hypothesis' all UG principles are available to the child from the outset of language development and syntactic development is driven by the learning of lexical and functional heads and their features.

3.3.3 The Discontinuity Hypothesis

From this perspective there are stages of development not constrained by UG and UG itself will change. The discontinuity hypothesis assumes that the principles of grammar mature (Radford 1990). These proposals argue for a qualitative change in the child's access to UG (Lust 1994:xxvii) and a complete UG is only characterised in the end-state of development. In early child grammars the sole phrasal category is that of VP – the domain within which theta role assignment takes place[3]. Children only know lexical phrases, i.e. projections of the four main lexical categories, and functional categories are absent. Radford 1990 in his 'small clause hypothesis' claims that the absence of functional categories explains the telegraphic nature of early child grammars. However children will acquire functional categories such as IP and DP almost simultaneously at around the age of 24 months (Radford 1990).

[3] Theta role assignment was postulated as part of 'Government and Binding' (Chomsky 1981) and concerns the differences that elements have in assigning thematic (semantic) roles to items.

3.3.4 The Functional Module matures

One particular perspective on UG and development linked to maturation is that of Smith and Tsimpli 1995. From this perspective we can assume that UG has submodules. For example, the set of functional categories is a submodule of UG, it is the UG lexicon. According to Smith and Tsimpli it is the functional module that is subject to a critical period. Additional to this is the proposal that each functional category is associated with an entry specified for functional features, and parameterisation is restricted to functional categories. This correlates with a structure building approach to language acquisition in which functional categories emerge in the language module. So the functional module is inaccessible at early stages of acquisition and then becomes accessible. "If the critical period hypothesis is correct then maturational constraints on the functional module can be interpreted as entailing its complete inaccessibility after the end of this period" (Smith and Tsimpli 1995:25).

3.5 Acquisition of Functional Categories and parameter setting within the Minimalist Program

Some researchers have attempted to isolate the most recent postulations of UG and adopt them in their theories of L1 acquisition and the acquisition of functional categories. In their theory of weak continuity and lexical learning Clahsen et al emphasise the role of head driven projections and structural economy, and maintain that this parallels work in the Minimalist Program. They make two major assumptions that:

1) There are no fixed set of labels for functional projections e.g. CP, IP but functional projections are feature bundles and their properties are determined by their head features (Chomsky 1995).

2) At any point in a derivation, a structural description for a natural language string employs as few nodes as grammatical principles and lexical selections require (Safir 1993:12). (Clahsen et al 1996:131).

For Clahsen et al the fact that projections are feature bundles can aid in explaining stages of L1 acquisition. If the head category of the X of the functional projection XP

has the features F_1, F_2……F_n, at some stage the child may not yet have fully determined the feature content of X, for example she may have only acquired F1. The child will posit a functional projection XP that only has the property F1 so the X and XP for the child will be underspecified. The child has to learn that in addition to F1 XP also hosts F2 etc. The child acquires new features to expand phrase structure representations.

In addition UG is also assumed to impose specific economy conditions; that is each maximal projection must receive independent content from either its specifier or its head. This is in line with Grimshaw (1994) who claims in her Minimal Projection Principle that a projection must not be empty, i.e. its specifier or head must be filled. The economy principle leads us to posit only as much structure as required. For Clahsen et al these economy considerations can help describe the various stages of language acquisition in phrase structure building terms (Clahsen et al 1996: 132). In earlier postulations Clahsen has maintained that there are close associations between overt inflectional morphology and syntactic phenomena, for example, head movement. V to I movement occurs in languages that mark for first and second person features (Rohrbacher 1994 in Clahsen 1996). The child's learning of overt morphological features has consequences for his/her phrase structure representations. They maintain that their idea of the role of overt inflectional affixes in syntactic theory can also be spelled out in terms of Chomsky's feature checking theory (Clahsen et al 1996:133). Both the weak lexicalist approach and the feature checking system have the same consequences. "Once affixes from regular paradigms distinctively mark relevant inflectional features or categories these affixes become syntactically active" (Clahsen et al 1996: 154). They maintain that this endorses their earlier postulation that developmental correlations do exist between morphology and syntax and can be interpreted in terms of syntactic consequences of the child's learning of inflectional morphology (Clahsen and Penke 1992). When new inflectional paradigms are learned corresponding features are integrated into the child's grammar (Clahsen et al 1996:155).

Roeper (1996) believes that abstract structures without category labels can capture neglected moments of acquisition. Formal features will replace node labels but still entail the presence of functional categories. Recall that the operation merge applies as

a result of a selection of an array of elements from the lexicon, called 'numeration', which creates lexical heads and allows maximal projections. Numeration requires recognition of a range of features, both substantive features and formal features, like tense and agreement. Features which are formal must be checked off and disappear before an interface is reached. Checking therefore becomes the motive for movement (Roeper 1996:420). In acquisition, features of numeration may not all appear at once. Once the numeration is set, the operation of merge then combines the MP (maximal projection) as Specifier-Head or Head –Complement with other MP projections. Items are merged asymmetrically; in the resultant structure you can identify only one of the combined elements. Merge continues its work until all items drawn from the lexicon have been integrated in some syntactic structure. Morphological features on inflections carry requirements that force functional categories into existence, which in turn require checking theory to be satisfied (Roeper 1996:421). For Roeper the existence of a lexically-oriented Merger Theory allows us to represent:

1) lexical stages in acquisition
2) potentially unique maximal projections
3) potentially unique subcategorisations
4) the possibility of individual variation
5) existence of 'underspecification' for functional categories (Roeper 1996:441).

Platzack (1996) claims that the previous Principles and Parameters theory was not strict enough and the Minimalist Program seems to introduce a healthy amount of strictness to the field. There is no confusion regarding parameters. The range of possible differences between languages is laid down within the system as a dichotomy, i.e. strong versus weak features on functional categories (Platzack 1996:375).

The distinction between lexical and functional categories is fundamental to current syntactic theories. It is inextricably linked to the important connection between the child's initial state and subsequent development. L1 acquisition theorists agree on the general make up of UG but they disagree on what they attribute to the child's initial state. The 'Strong continuity' view hypothesises that the initial state comprises all of UG, lexical elements and functional categories. The weak continuity approach proposes that only lexical projections may be available from the start and functional phrase-structure projections are constructed gradually, based on X- bar theory and

lexical learning. The maturationists maintain that certain properties of UG will mature in order to account for the delays in development. Acquisition of functional categories and the connection between initial state and subsequent development are also important for a theory of L2 acquisition.

3.6 The initial state and acquisition of Functional Categories in L2 acquisition

At this stage we make the assumption that UG has some role to play in L2 acquisition, i.e. it is involved at least in some 'attenuated form'. So we are faced with some of the same questions in L2 acquisition that have to be answered from a UG perspective in L1 acquisition, for example, how and why a learner moves from one state of knowledge to another. The different positions on L1 development can be traced back to what is attributed to the initial state. What comprises the initial state for L2 and how development proceeds is by its very nature different to the L1 initial state and L1 development. It would seem implausible to suggest that UG rematures in the course of L2 development (Schwartz and Eubank 1996). If functional categories show the same pattern of emergence in L1 and L2 acquisition, it is unlikely that maturation can explain any observed acquisition sequences. The L2 learners will already have gone through the relevant stages of acquisition (White 1996c: 111). Also the L2 learner already has one representation of UG: their L1. The initial state of L2 will bear some influence from this prior linguistic knowledge. The L2 initial state is the end state of L1 acquisition.

However the distinction between lexical and functional categories still has a role to play in theories of L2 syntax acquisition. There has been a great deal of work that explores the status of functional categories in L2 acquisition that parallels the L1 acquisition research. This research has allowed a much more detailed look at L2 word-order acquisition and verb movement, a much-studied aspect of L2 acquisition (Clahsen and Muysken 1986, Plessis et al 1987). Different perspectives on the initial state and how a learner develops can be seen in L2 acquisition research but they do not and cannot exactly mirror those in L1 acquisition. However, what position you adopt for L1 will have consequences for how you view the initial state, functional categories and development in L2.

The full competence or strong continuity hypothesis assumes that all functional categories are present in the child's initial state. White presumes that a corollary is that all languages represent all functional categories. She wonders what happens to the functional categories that a particular language does not use (White 1996a: 2). The alternative approach, 'weak continuity' or 'lexical learning', assumes that functional categories are not present in the initial grammar. Languages will draw from an inventory of functional categories and associated features. Again for White the pertinent question for SLA is, what happens to the functional categories that are not triggered in the course of L1 acquisition (White 1996a: 2). Due to the fact that the initial state is somewhat different to L1 acquisition, L2 acquisition theorists who assume some role for UG generally adopt what White refers to as 'mixed positions' (White 1996a: 4): the L2 initial state draws on properties of both the L1 and UG concurrently. It is impossible to outline the same trichotomy of views as there is for L1 acquisition. The different positions depend crucially on the role of transfer and to what extent the L2 learner is influenced by the L1 grammar.

3.6.1 No Transfer/ Full Access to UG

The strong continuity approach in L2 acquisition would entail making the assumption that the L1 final state does not constitute the L2 grammar at any point: that the L2 grammar is acquired via UG alone, parallel to the situation for L1 acquisition. UG is assumed to constitute the initial state for L2 acquisition. This appears to be the position of Flynn and Martohardjono (1994). They adopt the position that UG and language specific grammars are distinct but intrinsically related entities: 'the separation hypothesis'. " Language Acquisition can thus be viewed as the construction of discrete grammatical systems that are confined to the limits set by UG principles" (Flynn and Martohardjono 1994:320). Parameter setting is not viewed as setting switches but incorporating the options provided by UG for a particular principle in the particular grammar being constructed. L2 learners have direct access to UG alone, and a full knowledge of the full inventory of lexical and functional categories and their feature values provided by UG. So from the earliest stages the L2 learners will project the L2 functional categories (Epstein et al 1997) and will not be limited to the functional categories instantiated in the L1 (Grondin and White 1995). Epstein et al 1997 imply that transfer necessarily involves only superficial properties. They argue that L2 acquisition involves the assignment of additional parametric values where L1 and L2

do not match in terms of parameter settings. However as White points out, even in this theory the L1 is still assumed to have a role to play and is in fact the starting point (White 1996 a: 5). Thus a criticism of Epstein et al's approach is their inconsistent position on the role of L1. They attribute some influence to the L1, although its precise status is unclear. They deny that the L1 is the L2 learner's initial state but nevertheless speak of the need to assign new parametric values when L1 and L2 differ. White argues that if L2 learners start solely from UG, all parameter settings are new settings (White 1996d: 745). If this was the case then there would be no differences in interlanguages attributable to L1s.

An alternative no transfer/full access position is Platzack's 'Initial Hypothesis of Syntax' (1996). He posits that L2 learners resort to unmarked grammars and that in initial grammars (both L1 and L2) all features are weak and hence do not motivate movement in the syntax. He bases his position on the economy principles in Chomsky's Minimalist Program that overt movement is more costly and more marked than covert movement. In the Initial Hypothesis of Syntax there are no marked values so only covert movement is required (Platzack 1996:368). So an L2 learner with strong features in her L1 will initially assume weak features values for the L2. Evidence against this position is found in White's study of French learners of English (White 1991, White 2000). These learners appear to transfer a strong Agr feature and incorrectly allow overt verb movement over adverbs in English the L2, which has weak features. The evidence from these learners seems to suggest that Platzack's argument that learners start with weak features is misconceived.

3.6.2 Full Transfer/Partial Access

White (1996a) categorises Smith and Tsimpli's approach as a 'mixed position', although it does depend on maturation of a sub-module of UG. The fact that the functional module is subject to a critical period, and parameterisation is restricted to functional categories, has important implications for adult L2 acquisition (Smith and Tsimpli 1995). Although UG principles may still be available to constrain L2 learning so that learners can arrive at UG consistent grammars, parameter setting is no longer available. " If the functional module is subject to maturational constraints and the possibility of parameter setting depends on the functional module, it follows that adult

second language learning cannot involve parameter (re)setting" (Smith and Tsimpli 1995:36). So adult learners will assume L1 parameter settings in the L2 initial state and not be able to reset them. Though an L2 learner's performance may parallel that of a native speaker, the performance will not have the same underlying status. The near native L2 learner will not have the same grammatical competence as a native speaker. Some second language acquisition theorists (Hawkins et al 1993, Hawkins and Chan 1997) have now adopted this perspective. The crucial point is that where the first language differs from the second language any nativelike performance is not the result of parameter (re)setting but a function of an alternative choice regulated by UG and adopted by the L2 grammar (Sorace 1993 in Smith and Tsimpli 1995, Hawkins in press).

In their comparison of English L1 speakers acquiring French and French L1 speakers acquiring English, drawing on the theory outlined by Smith and Tsimpli 1991, Hawkins, Towell and Bazergui (1993) maintain that although UG principles remain available to L2 learners, the parameter values set for functional categories are permanently fossilised. They claim, for example, that the success of English L1 speakers in acquiring French postverbal manner and frequency adverbs is only apparent and is not a case of parameter resetting. The learners make use of nonparameterised properties of UG to handle the syntactic differences between English and French. They claim that the resistance to resetting parameters for L2 learners can explain the differences between L2 and L1 acquisition: the lack of success, differential development and relative slowness of development. The resistance to parameter resetting seems to increase with age but they do state that perhaps lengthy exposure to the L2 may eventually induce parameter resetting. If one adopts this approach then there is no need to look for answers in non-linguistic properties of the mind, like the subset principle or personality and motivation factors, to explain the differences between L1 and L2 (Hawkins et al 1993:221).

In a more recent study Hawkins and Chan use this approach in their analysis of performance data from Chinese L1 learners of English. They claim that although appearing to have nativelike levels of performance in their production of restrictive relative clauses, the learners diverge from native speaker representations. They claim that this occurs because of the inaccessibility of features of functional categories in

second language acquisition. In short the L2 learner is stuck with her L1 feature values. The features are inaccessible due to the critical period for this module of UG. They call this the 'failed functional feature hypothesis' (Hawkins and Chan 1997). The proposal that features are inaccessible suggests that where parameter settings differ between an L1 and a target L2, there will be considerable restrictions on the extent to which an L2 can build a mental grammar (Hawkins and Chan 1997:189). Again adopting the theory of Smith and Tsimpli (1991, 1995), they believe that Chinese learners of English have failed to reset a parametric difference between English and Chinese relative clauses. They are not able to reset parameters so that their restricted relative clauses involve wh-operator movement, and they use a universal principle of pro-nominal binding to produce relative clauses. In effect their underlying representations are non-native. If the UG lexicon is the locus of parametric options, it becomes impossible for language learners to set new parameters or reset options already fixed in their L1. However the morphophonological aspect of functional items is not parameterised and is thus open to change, for example, an English speaker learning French might map *'que'* onto the features for English *'that'*.

To prove this particular theory Hawkins and Chan claim that you need to select languages with different parameter settings for their functional categories. They argue that the studies of White and Genesee 1996 and Birdsong 1992 were able to claim learners had reached nativelike performance because French and English are so alike in their functional feature specifications (Hawkins and Chan 1997:220). In the failed functional features hypothesis it could be expected, where functional feature specifications in the L1 and L2 are similar, L2 learners will approximate quite closely in their syntactic representations to those of native speakers. Smith and Tsimpli insist that it is important to study the final state of L2 learners and investigate if the second language learner's performance diverges from that of a native speaker in any way.

3.6.3 Partial Transfer/ Full Access

White in her own version of a mixed approach believes that parameter resetting can occur. She adopts an intermediate position and claims that the learner will adopt the lexical and functional categories of the L1 but they will also adopt the functional categories in the L2 not realised in the L1. In her study of child L2 acquisition of French she maintains that L1 lexical features are adopted in the L2 initial state where

possible but there will however be situations where the L1 grammar cannot constitute an initial theory of L2. She suggests, for example, that if the learners show evidence of early production of syntactic clitics (a feature not realised in English), this indicates that potential functional categories made available by UG but not instantiated in the L1 can be triggered on the basis of L2 input (Grondin and White 1995,White 1996b). She questions Smith and Tsimpli's position that native-like production is not arrived at by parameter resetting but by some other means. A claim that learners can arrive at the same end by radically different means also has implications for the logical problem of language acquisition in L1 (White 1996a: 12).

White echoes the queries in L1 acquisition theory concerning the reliance on production data to answer questions about a speaker's competence. Relying on production data can often lead to an underestimation of an L2 learner's competence: late use of a form does not necessarily mean late acquisition (White 1996a:7). We also need to look at frequency of usage and how many occurrences of a form are sufficient for one to assume successful acquisition. Some researchers tend to cite sporadic instances of a form as formulaic language (Radford 1996). Alternatively a speaker may have acquired a form but does not necessarily use it all the time (Epstein et al cited in White 1996a:7). White 1996a also maintains that inaccuracy of production does not necessarily mean lack of categories. If incorrect agreement markers are present the errors suggest that the learner has certain functional categories in the grammar but has not yet worked out the details of how the categories are realised in the L2. Like Smith and Tsimpli she also emphasises the need to study further the final state of L2 acquisition. This is necessary because if interlanguages are investigated at any particular point in development and no evidence of parameter resetting is found, the possibility of parameter resetting in a later stage cannot be ruled out (White 1996 a: 10).

3.6.4 Partial Transfer/Full Access: Minimal Trees

An alternative mixed position based on weak continuity is that of Vainikka and Scholten (1994, 1996). They assume that only lexical projections are transferred from the L1. Lexical categories and their linear order are adopted in the initial state of L2 but no functional categories are transferred. L2 learners are initially assumed to project

VP and NP but not IP, CP or DP. They claim that functional categories are not present in early L2 data because there is little evidence of correct verbal inflection or of auxiliaries or modals. The development of functional projections is driven solely by the interaction of X-bar theory with the target language input. The acquisition of functional categories is input driven, resulting in an implicational sequence of development in which an early underspecified functional projection (FP) emerges as a landing site for verbs. As auxiliaries and modals begin to occur more regularly and the morphological form of the verb is used correctly this underspecified functional projection is gradually replaced by a fully specified IP or AGRP. Development involves creating the functional projections above VP by acquiring, for example, lexical items that instantiate these functional projections. This is known as the 'minimal trees' hypothesis and is based on the weak continuity, 'lexical learning' approach to language acquisition and also the notion of minimal projection: only project what is necessary. (Based on Grimshaw 1994.) Crucial to their theory is that L1 and L2 parameter setting relies on different triggers. L1 learners will use bound morphemes (inflectional affixes) but L2 learners mistakenly use free morphemes (words like auxiliaries) and this leads to misanalysis (Vainikka and Young-Scholten 1998). However in this approach parameter resetting is possible during L2 acquisition, otherwise syntactic acquisition will not take place (Vainikka and Scholten 1996:15).

Gavruseva and Lardiere (1996) use data from a Russian child learning English as evidence against the theoretical claims made by Vainikka and Scholten. They use this data to provide evidence for a very early emergence of a CP, which does not seem contingent on the prior acquisition of an IP (Gavruseva and Lardiere 1996:226). This then provides problems for the structure building approach of Vainikka and Scholten. Gavruseva and Lardiere believe that a CP is fully projected into the child's grammar prior to overt production of elements associated with an intermediate functional projection, a situation that would be ruled out in the structure building approach. Their subject seems to acquire I to C movement but inconsistently supplies auxiliaries and inflections in declarative sentences. Additionally the subject case-marks for nominative from the outset and appears to know that nominative case is assigned by elements in the IP, implicating the presence of at least this projection at the outset of L2 acquisition (Gavruseva and Lardiere 1996: 234). This is a feature which distinguishes her early grammar from child L1 acquisition of English. She produces sentences of the

type *'now I black'* with the copula missing but correct nominative case. Gavruseva and Lardiere claim that this involves transfer of lexical and functional projections from L1. She has transferred the functional feature that licenses nominative subjects in clauses without overt copulas in Russian into her L2 grammar. This suggests that despite the lack of overt evidence of functional morphology associated with a finite IP in her grammar, the subject seems to have knowledge of an abstract case-assigning feature in IP. The knowledge of these features appears to have transferred from her L1. It is interesting to note the point that White makes about production data, in that usage is not the only reflection that a speaker has knowledge of a certain functional projection (White 1996 a). The converse is assumed by Smith and Tsimpli: that evidence of morphological features does not necessarily prove the existence of functional categories (Smith and Tsimpli 1995).

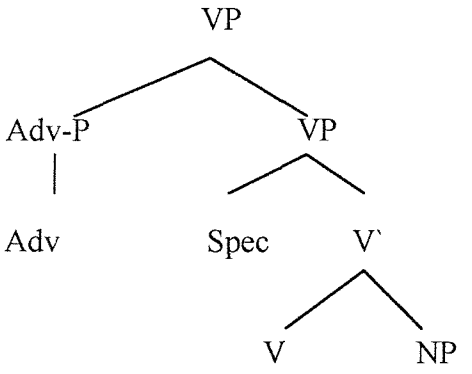
3.6.5 Full Transfer/ Full Access

The position of Schwartz and Sprouse proposes that both lexical and functional projections are transferred from the L1 (Schwartz and Sprouse 1994, 1996). The Full Transfer/Full Access hypothesis states that the initial state of L2 acquisition is the final state of L1 acquisition (excluding the phonetic matrices of lexical/morphological acquisition). The whole of the L1 grammar including the functional projections is transferred (Schwartz and Sprouse 1996). They believe that in this model development is 'failure driven': input that cannot be assigned a representation by the L1 grammar will force subsequent UG constrained restructurings, i.e. parameter resetting is possible. Sometimes the restructurings are quite rapid and others may take a longer time. "The course that L2 development takes is determined in part by the initial state, in part by input, in part by the apparatus of UG and in part by learnability considerations" (Schwartz and Sprouse 1996:41). In this model the starting points for L1 and L2 differ and the endpoints for L1 and L2 differ but there is no reason why the cognitive processes underlying L1 and L2 acquisition need necessarily differ. This position is shared by other researchers who believe that strong transfer holds for both child and adult L2 acquisition (Schwartz 1997, Lakhsmanan 1997).

Schwartz (1998) uses evidence from two studies to claim that more is transferred from the L1 than suggested in Minimal Trees i.e. functional structure is transferred. In child second language acquisition a study of a 4-year old Turkish boy showed that the boy's

early negative placement consisted of utterances all with neg-final structure, e.g. *finish no* (Haznedar 1995/1997). This is in line with the patterning of negation in Turkish and completely unlike what is found in English. We can assume that Neg is a functional head and provides evidence for transfer of functional structure (Schwartz 1998:139).

Further evidence is from White's study of adolescent French learners of English and the problems they have with the placement of phrase medial adverbs (White 1991). Despite the English input SAVO, *I often watch television*, the learners readily accept the ungrammatical order in English SVAO, *e.g. I watch often television.* According to Minimal Trees only lexical projections are transferred. It is assumed in a standard analysis that VP-adverbs are base-generated at the left periphery of VP: the structure is as below:



In the structure above adverbs precede the verb and because according to Minimal Trees there are no functional projections in the initial state grammar this is the only position for the verb; there is no functional projection for the verb to move to. So Schwartz asks the question, if this is the L2 learners' initial representation how it is that they make consistent SVAO errors (Schwartz 1998:140).

3.6.6 Eubank's Valueless Features Hypothesis

Eubank (1994) takes an intermediate position. In his 'valueless features hypothesis' he claims that the L2 initial state comprises all the L1 grammar (L1 lexical and functional categories) except for the strength values of the features under functional heads. (Recall that features can be strong or weak and will require overt or covert movement.) Eubank's theory pivots around the idea that overt inflectional morphology does not transfer and as a consequence neither do the parametric values of features that are

defined by this morphology. Transfer obliterates the values associated with the features located under functional heads. The L2 learner initially has features without a value: Eubank calls them <inert>. These valueless features differentiate the initial L2 grammar from the usual natural language grammar (Eubank 1996:73). They permit certain types of optional syntactic processes that are not part of mature grammars, for example 'optional infinitives' and the optionality in the placement of medial adverbs *vis-à-vis* thematic verbs in French learners of English (Eubank 1996:73). Optionality is more persistent in L2 acquisition than L1 acquisition. Development involves acquiring the inflectional morphology that drives the appropriate L2 values, and the presence of functional projections is inextricably linked to the presence of lexical material (Eubank 1996:74). However the L2 feature values will be acquired eventually.

Eubank (1994) follows Chomsky 1991 and Rohrbacher 1992 in that overt verb movement is driven by affixation associated with verbal morphology. However based on the Minimalist Program (Chomsky 1995) a number of researchers question the link between verbal paradigms for morphological affixes and strength of inflection (Lardière 2000, Sprouse 1998, Schwartz and Sprouse 2000 and Robertson and Sorace 1999). Within the minimalist framework syntactic variation between languages is restricted to the strength of abstract formal features. It is feature strength that is responsible for whether movement is overt or covert. However Chomsky (1995) adopts no algorithm in terms of inflectional paradigms for determining whether V features are strong or weak, so there seems to be no reason for learners not to transfer feature values because they do not depend on morphological paradigms (Schwartz and Sprouse 2000:167).

3.6.7 Partial Transfer/Partial Access

A related position is that of Beck (1998), "the local impairment hypothesis". It differs from Eubank 1994 in that according to the "local impairment hypothesis"(Beck 1998) certain functional features never become specified for strong or weak values in the course of L2 development. L2 grammars are permanently impaired in a local domain. The optionality will always be there, for example, in French learners of English interlanguages, verbs will sometimes raise and sometimes not in finite clauses, something that is not allowed in the mature target language. Verb movement in L2

competence seems to be defective; it will be a syntactic optional process linked to local impairment. 'The morphosyntactic features that require or prohibit verb raising become impaired during maturation and this local impairment results in L2 grammars that effectively overgenerate (i.e. allow optional raising) when compared to mature, adult-state NL grammars' (Beck 1998:316). The features will remain unspecified so the interlanguage grammar will potentially always evince optional processes.

3.6.8 Modulated Structure Building

Hawkins (in press) posits what he calls a composite working theory to describe the L2 initial state, The Modulated Structure Building Approach. This hypothesis combines insights from both Minimal Trees and Full Transfer/ Full Access. According to this position the L2 initial state consists of lexical projections with the structural properties of the L1, i.e. the position of the head, complement and specifier are initially determined by the L1. Hawkins qualifies this first assumption with 'in principle' because restructuring to the L2 grammar may occur so rapidly that it may be difficult to detect L1 influence (Hawkins: 107). Functional projections are added on the basis of positive evidence in the L2 input, as in the Minimal Trees theory. The syntactic properties of the L1 transfer into the L2 (as in Full Transfer/Full Access) but only once the relevant property emerges as part of the learner's development (Hawkins, in press: 109).

3.7 Conclusion

The introduction of Principles and Parameters theory has been beneficial to research on both first and second language acquisition. The parametric approach is well –suited to compare systems that are essentially uniform but diverge in specific and limited structural respects. By introducing the concept of parameters, variation between languages can be explained. This variation between languages captured by the concept of parameters also enables us to investigate the role of language transfer. Although French and English phrase structure are very similar, they do exhibit word order differences as a result of different parameter settings between the two languages. The examination of two specific parameters which give rise to syntactic differences in French and English will illuminate further the role of functional categories and their

projections in syntactic theory and also the link between these categories and acquisition. The parameters examined below are the verb movement parameter and the object clitic pronoun placement parameter.

3.8 The Verb Movement Parameter

Investigating L2 learners' interlanguage grammars in terms of presence or absence of functional categories allows a much more detailed look at word order acquisition in L2 learning. Although French and English phrase structure is similar there are differences in word order between French and English that are linked to the syntactic operation of verb movement. These word order differences can be explained if we adopt a syntactic analysis first posited by Pollock (1989). The differences can be seen in negative placement, specifically the position of ***'pas'*** and **'not',** question formation, adverb placement and the placement of floating quantifiers.

Negatives

1 a. *John likes not Mary

b. Jean n'aime pas Marie

Questions

2 a. *Likes she John?

b. Aime-t-elle- Jean?

Adverb Placement

3 a. *John watches often television

b. Jean regarde souvent la television

4 a. Mary often watches television

b. *Marie souvent regarde la television

Quantifier Positions

5 a. *My friends like all Mary

b. Mes amis aiment tous Marie

6 a. my friends all like Mary

b. *Mes amis tous aiment Marie

(White 1996c: 89).

From a UG perspective the differences in order stem from the differences in verb raising possibilities in the two languages. We will examine first the pre-Minimalist Program explanation for the differences between French and English and then investigate the explanation provided by the Minimalist Program.

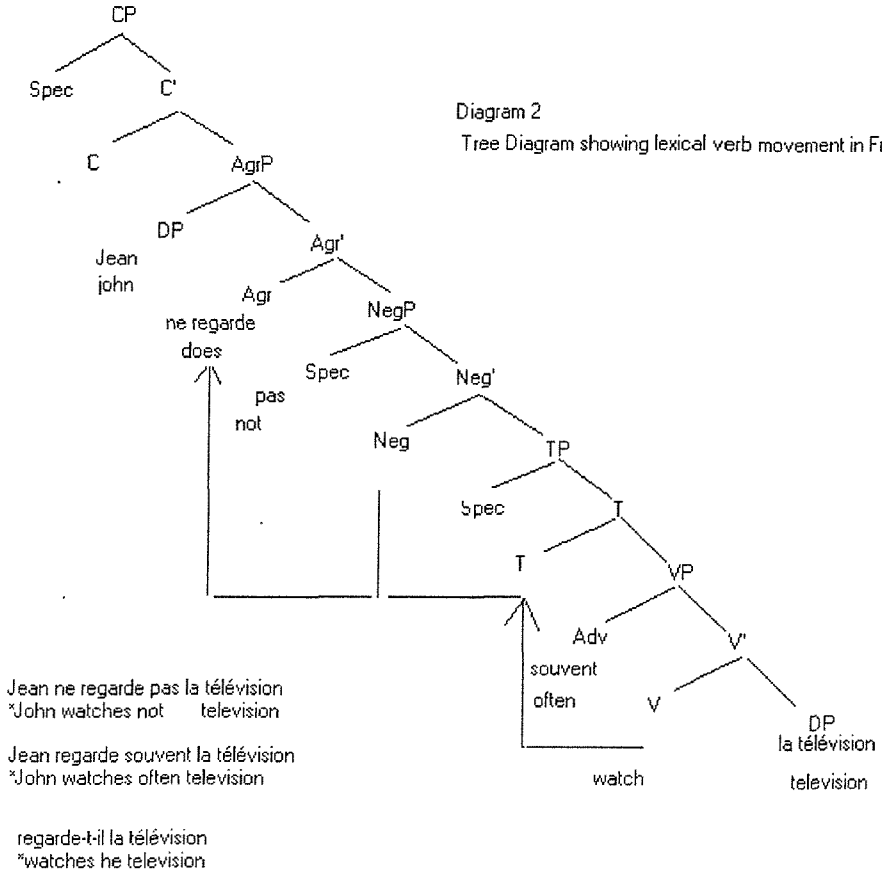


Diagram 2
Tree Diagram showing lexical verb movement in French

In pre-minimalist theory English and French share the same D (deep) structure and verbs are base generated in VP as the head of V`. However French has verb movement for all finite verbs, both auxiliary and main verbs. The verbs must raise out of the VP through Tense (T) and up to Agreement (Agr). The verb moves to collect the inflectional morphology which is base generated under the inflectional heads. In English finite main verbs do not move i.e. they remain in VP, but the auxiliaries 'be and 'have' do move. The movement is a two step process; the Verb moves first to T and then to Agr (see diagram 2). Verbs in both languages are base generated in VP as a head of V`. Both ***'pas'*** and 'not' are assumed to be in the specifier position of NegP and adverbs are generated at the left periphery of VP. So in French, finite lexical verbs move overtly to Agr past ***'pas'*** and adverbs. The French negatives ***ne....jamais*** (ever/not ever) and ***ne.....rien*** (nothing/not anything) behave in the same way as ***'pas'***; ***Il ne mange jamais le soir*** (*he ne eats never the evening*, he never eats in the evening). ***'Ne'*** in French is the head of the negative phrase and this will cliticise to the verb as it moves to Agr.

In French, finite verbs and non-finite verbs behave differently; non-finite verbs only

optionally move past adverbs and they cannot raise past the negative ***'pas'***. Auxiliary verbs in French non-finite clauses will optionally move past ***'pas'***.

V –Neg	**Neg -V**
N'être pas invité, c'est triste	ne pas être invité, c'est triste
Ne be not invited it is sad	
It is sad not be invited	
N'avoir pas reçu de cadeaux, c'est triste	ne pas avoir reçu de cadeaux, c'est triste
Ne have not received presents it is sad	ne not have received presents it is sad
*Ne manger pas de chocolat, c'est triste	ne pas manger de chocolat, c'est triste
ne eat not chocolate it is sad	ne not eat chocolate it is sad.

(examples: Haegeman 1994:594).

In English, verbs in non-finite clauses behave in a similar way to French. Auxiliary verbs may marginally precede negation but lexical verbs must follow negation.

V – neg

?To have not had a happy childhood is a prerequisite for writing novels

*To get not arrested under such circumstances is a miracle

Neg-V

Not to have had a happy childhood is a prerequisite for writing novels

Not to get arrested under such circumstances is a miracle

(examples: Haegeman 1994:595).

The fact that French non-finite verbs cannot precede negation but they can precede the adverb caused Pollock to posit the split-inflection hypothesis (Pollock 1989).

Ne pas arriver souvent en retard, c'est bien

Ne pas souvent arriver en retard, c'est bien

The examples above suggest that ***pas*** and ***souvent*** must occupy distinct positions and the non-finite verb can end up between ***pas*** and ***souvent.*** So Pollock suggested that Inflection is split into two distinct functional heads Agr and Tense (see diagram 1) to account for the data in French non-finite clauses. Chomsky (1992) also suggested a similar split Inflection analysis (Chomsky 1992).

The setting of the parameter to + or - verb movement explains the word order differences, the position of negation, the position of adverbs and the inversion of main verbs in French interrogatives (if a verb can raise to Agr it can automatically raise to C). Positive evidence in the input will trigger this parameter to be set to + or – movement, and the cluster of properties associated with verb movement will then emerge. A French child will take the position of ***'pas'*** after the main verb as evidence that there is movement and an English child will take the need for 'do support' and the fact that negatives do not occur after main verbs as evidence that there is no movement.

Recall that functional categories are the locus of parametric differences. Verb movement correlates with the relative strength of the functional category Inflection, and it is the nature of inflection that determines the possibility of verb movement. French has a rich inflectional morphology so in French Agr is strong, and the verb will move to pick up tense and agreement. In English Agr is weak; it is only marked for third person, and weak Agr does not attract the verb. There have been refinements to the link between the strength of verbal inflectional morphology and the obligatory movement of finite verbs to I. Rohrbacher 1994:108 cited in Vikner 1997:195 posited that " A language has V to I movement iff in at least one number of one tense of the regular verbs, the person features [1st] and [2nd] are both distinctively marked." Vikner 1997 further refined the requirements to include 'An SVO language has V to I movement iff person morphology is found in all tenses' (Vikner 1997:207). French satisfies both these requirements and so has V to I movement. However the link between verbal morphological paradigms and strong inflections and overt verb movement is refuted by some researchers, particularly since the postulation of the Minimalist Program (Lardiere 1998, 2000, Robertson and Sorace 1999 and Schwartz and Sprouse 2000 section 3.5.6).

Pollock further analysed the differences between French and English agreement in terms of theta role assignment. Strong Agreement (i.e. with a feature [+strong])is transparent to theta role assignment but weak agreement i.e. Agr with feature [- strong] is opaque to theta role assignment[4]. Whether verb movement occurs depends on the opacity or transparency of agreement in French and English (Pollock 1989:365). The

[4] Theta role assignment was postulated as part of 'government and binding' Chomsky 1981 and concerns the differences that elements have in assigning thematic (semantic) roles to items. Lexical verbs assign thematic roles but auxs or the copula 'be' do not assign thematic roles.

nature of Inflection determines the possibility of verb movement. Strong Inflections can support all kinds of verbs including lexical/thematic verbs. Weak inflections can only support semantically light verbs i.e. those with little specific conceptual content, for example, copula be, auxiliary 'be, auxiliary have and auxiliary support 'do'. That is why in English these semantically light verbs do move to Agr. Additionally non-finite clauses always have weak inflections in both languages so lexical verbs do not move to Agr.

If English main verbs do not raise how do they get associated with the necessary agreement and tense morphology? One proposal is that of affix lowering, where Agr and T are lowered onto the verb. However lowering processes in general cause problems because they leave traces that are not c-commanded[5] by their antecedents, thus flouting a UG principle. The trace of the lowered inflection would not be properly governed by its antecedent, the latter being lower in the structure, the trace would govern the head. This would flout 'least effort' principles because it would be a two step process. In that it yields an improper chain, the verb with its morphology would have to raise again to I to create a proper chain. (Chomsky 1992:426). The next section explains how developments in the Minimalist Program have eradicated the need to suggest that in English affix lowering occurs.

[5] C-command is a universal principle, it describes an abstract structural dominance relationship: category α c-commands another category β iff the first branching node dominating α also dominates β.

3.8.1 Verb Movement in the Minimalist Program

In previous postulations of UG, verbs were assumed to be base generated under lexical heads, and their inflectional morphology: (person, number and tense endings), to be base generated under inflectional heads. In the Minimalist Program Chomsky suggests that words are base generated with their inflectional endings, and functional heads are abstract bundles of features. The differences between languages are attributed to differences between the features of lexical items in the languages and specifically between the features of lexical items belonging to the functional categories Agr and Tense . The functional heads dominate bundles of abstract features corresponding to the inflectional morphology on the verb. The differences between the sets of bundles account for the syntactic differences between languages in the Minimalist Program (Marantz 1995:366). The features have to be eliminated in the course of the derivation before 'spellout'. Chomsky's idea is that the morphology associated with the V-stem has to be checked by the abstract features (Agr and T). The features are matched by adjoining the relevant features for the relevant head. Abstract features will be eliminated in this way.

The explanation of the Verb Movement parameter within the Minimalist Program builds on Pollock's initial analysis. Inflection is still split into Agr and T, clauses are extended projections of VP, and VP contains thematic material. VP is dominated by V related functional projections TP and AGRP. The distinction between weak and strong features is maintained and is an element of language variation (Chomsky 1995). Strong Agr features are visible at PF (Phonetic Form) and therefore have to be checked before Spellout, weak Agr is not visible at PF (Phonetic Form) and therefore can be checked after Spellout at LF(Logical Form). If strong features are spelt out this leads to ungrammaticality and the derivation will 'crash'. Weak features are not visible at PF, then the general economy principle 'procrastination' will say that movement will occur at LF. Procrastinate demands that movement only take place as a last resort. Movement at PF is overt and reflected in the syntax and movement at LF is covert. If a formal feature is strong, overt movement will be forced at PF, which is what we see in French; AGR is strong so overt movement occurs. In English Agr is weak and the inflected verb does not have to get its features checked before spellout, so movement is covert and feature checking occurs at LF. In the Minimalist Program lowering is eliminated,

all movement is now to a higher position, thus eliminating the problem of heads not c-commanding their traces. The word order differences are still explained by a + or - strength distinction, with the difference in strength entailing overt movement for French and covert movement for English.

3.8.2 L1 acquisition of Verb Movement

There is evidence that the Verb movement parameter is set early in L1 acquisition of both French and English, indicating the presence of functional categories. The placement of negation, adverbs, object clitics and presence of inversion in questions can be used as a diagnostic for the presence or absence of verb movement. Deprez and Pierce maintain that verb movement in French is acquired early, reflected in the lack of errors in the placement of negation in respect to the verb (Deprez and Pierce 1993, 1994). In looking at children acquiring languages with verb movement one can look at the placement of negation relative to the verb as a diagnostic for determining whether there are functional heads (Hyams 1992:380). Early child grammars of French show evidence of the ***'pas'*** being placed after finite lexical verbs and there seems to be no evidence of English children placing 'not' after the lexical verb, for example errors of the type, **I dance not, or want not water**. Additionally English L1 acquirers do place 'not' after auxiliaries (Deprez and Pierce 1993) and errors like the following do not occur, **I not be/am bad, the sun not is shining and I not have gone** (Hyams 1996:95). The placement of negation with respect to the verb is as expected if the verb parameter is correctly set near the start of grammatical development. The presence of Inflection **(I)** is implicated as a landing site; the fact that tensed verbs move to a position left of the negative in early French syntax indicates that **I** is also is available as a landing site.

This is linked with the fact that Deprez and Pierce predict that children will fail to raise the subject from the VP to Spec IP at S structure. In adult grammars of French and English subjects normally fail to assign nominative case in VP internal position and must raise to Spec IP where nominative case is assigned by the Spec –Head relation. In child grammars the subject is optionally raised and will sometimes remain in Spec VP. Assuming what they call the 'VP internal subject hypothesis', children are expected to produce utterances of the type: NEG –SUBJ-V in early French and English. However, in French with early setting of the verb raising parameter one finds postverbal subjects and post-verbal negation in early child French (V^{fin}-Neg-subj). They will raise the verb

but keep the subject in spec VP.

Example: **veux pas lolo** (want not water) (Deprez and Pierce 1993:42).

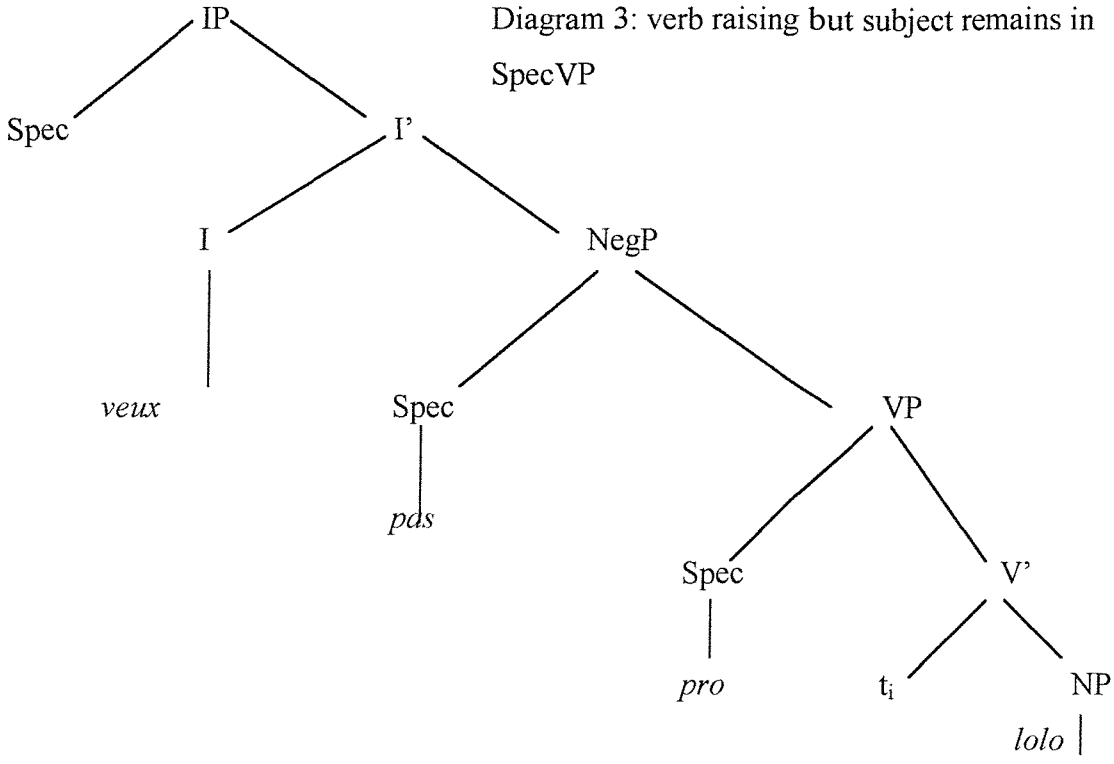
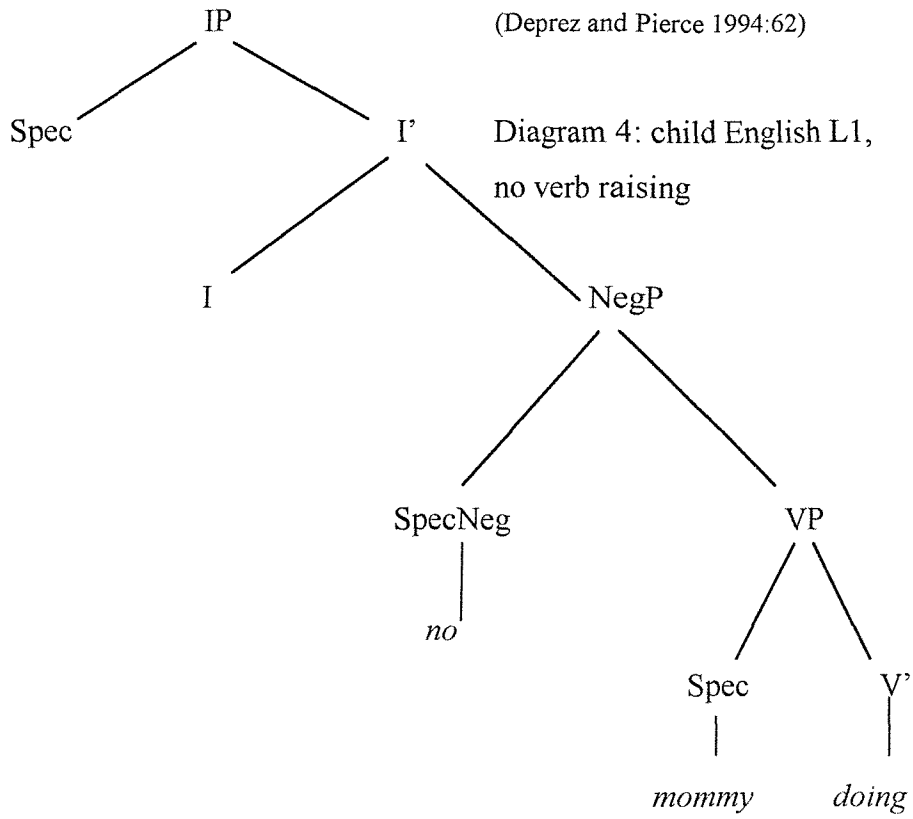


Diagram 3: verb raising but subject remains in SpecVP

In English with the absence of main verb raising one does not expect to find post verbal subjects and negation. This prediction is borne out by the empirical data: examples such as, not have coffee, no singing song, not Fraser read it, no I see truck, no mummy doing (Bellugi 1967 cited in Deprez and Pierce 1994:60).



(Deprez and Pierce 1994:62)

Diagram 4: child English L1, no verb raising

However objects and negation are expected to follow overt auxiliaries and modals in English, which occur in I, even in languages without verb raising. Negators in English are never found after a main verb in early child grammars but they are placed correctly after auxiliaries. Early setting of the verb movement parameter is evidenced in the fact that children correctly raise aux to I but they do not raise main verbs.

In French the position of the negative ***'pas'*** relative to the verb depends on whether or not the verb is finite. Data provides strong evidence that the child's early grammar instantiates X chains involving verb raising to the projection of INFL. Children recognise the finite/nonfinite distinction very early in their grammatical development.

French data showing that +/- finite determines location of Neg

[- finite]	[+finite]
a. pas manger (Nathalie 1-9-3) *(not eat)*	b. veux pas lolo (Nathalie 2-0-1) *(want not water)*
c. pas casser (Daniel 1-8-1)	d. marche pas (Daniel 1-8-3)

(not break) *(works not)*

e. pas rouler en vélo
(Philippe 2-2-1)
(not roll on bike)

f. ça tourne pas
(Philippe 2-1-3)
(this turns not)

(Pierce 1992:65).

The acquisition data show quite clearly that children have knowledge of the finite/non-finite distinction. The functional projection I is represented and is the landing site for the verb. Deprez and Pierce maintain that the parameter is set very early on. The input necessary to set this parameter appears to be available in unambiguous form in the two languages.

Further evidence for the correct setting of the verb raising parameter is that of subject clitics. Subject clitics are affixes generated and lexically realised only when bound to a raised verb. In children's early French grammars almost no cases appear of pronominal subjects in untensed clauses (Deprez and Pierce 1993:44) further illustrating knowledge of the finite/ non-finite distinction. Additional evidence for early setting of the verb movement parameter is that English children do not invert lexical verbs and subjects. There is also little evidence that French children invert lexical verbs and subjects but this may be a reflection of the lack of inverted questions in the input rather than reduced linguistic competence (Pierce 1992). An alternative suggestion is that verb raising to C occurs later in child grammars (Pierce 1992). For some theorists verb movement and subject-verb agreement are ultimately bound in L1 acquisition (Clahsen and Penke 1992). For others finiteness and adult like verb movement are available to child regardless of their knowledge of subject-verb agreement morphology (Weissenborn and Werrips 1992). For the French child to correctly position the finite verb with respect to negation, she must have knowledge of both V raising and finiteness.

3.8.3 Verb Movement in L2 acquisition

When examining L2 acquisition data we can use the same diagnostics for evidence of functional categories. Recent studies by Laksmanan (1997) and Grondin and White (1996) have indicated that early child L2 grammars do show evidence of functional

categories. In their study of two child learners of L2 French Grondin and White reported that their learners produced determiners, inflection, case marking, subject clitics, wh questions and correct negative placement. This indicates not only a presence of functional categories but also an ability to adopt L2 values of functional categories and also functional categories not instantiated in the L1 (for example English does not instantiate subject or object clitics). This indicates direct access to UG in the course of L2 development (Grondin and White 1996:3), implying that L2 learners use L1 parameter settings and also have access to parameter settings not instantiated in their L1.

If we follow the thinking behind the Minimalist Program and decide that it is feature strength that determines crosslinguistic variation in the Verb Movement parameter, then how does this affect our analysis of L2 interlanguage data? If syntactic variation is caused by differences in feature strength, what causes a feature to be coded as either weak or strong? For some researchers, knowledge of syntactic processes like verb movement is crucially tied to the development of overt morphology (Clahsen et al 1996, Meisel 1997). It is proposed that there is not the same kind of developmental relation between the acquisition of overt inflectional morphology and word order patterns in L2 as is evidenced in L1 Acquisition (Meisel 1997:374) (Tsimpli 1998:639). It is suggested that in L2A the morpho(phono)logical component is dissociated from syntax proper, i.e. the computational system of language. In L1A the mapping from functional feature matrices to morpho(phono)logical properties is granted, whereas in L2A the two systems develop independently and the mapping between them is not a straightforward process (Tsimpli 1998). According to this approach the parameter is set for F (the set of formal features) in L1 acquisition and the unexercised option is lost. Feature strength is left undetermined in L2. So when L2 learners acquire a lexical entry corresponding to some feature of the target language, there is no mechanism or device that forces them to decide whether the feature is strong or weak. This implies that phenomena such as verb movement and the syntax of subjects are not driven by morphological properties in L2 learning (Clahsen and Muysken 1996:723). Vainikka and Scholten (1996, 1998) suggest that L1 learners use bound morphemes as triggers but L2 learners use free morphemes (e.g auxiliary) and this leads to misanalysis.

Alternatively we can adopt the approach that learners can realise that the feature value

is strong without complete knowledge of the inflectional morphology (Epstein et al 1997 Lardière 2000, Schwartz and Sprouse 2000, Prévost and White 2000 for L2 acquisition, for L1 acquisition Verrips and Weissenborn 1992 and Wexler 1994, 1998). Even for L1 acquisition there are problems with linking the acquisition of morphological affixes to the acquisition of verb raising. Verrips and Weissenborn (1992) argued that the development of verb movement in L1 acquisition proceeds independently of the acquisition of subject –verb agreement morphology. Chomsky has characterised the correlation between rich morphology form and overt syntactic movement as a "tendency for which a principled explanation is lacking" (Chomsky 1995:277). Some version of a separation hypothesis is assumed in that verbal inflection may be abstractly featural rather than phonetically spelled out. From this perspective grammatical (or conceptual) features such as tense/time distinctions, person, number, +/- gender phi features are claimed to be distinct from their phonetic spellout. We need not assume a priori that the omission or variable production of particular affixes necessarily indicates lack of knowledge of these features. Vikner himself suggests "that children must keep track of such a large amount of elements and verbs during acquisition" (Vikner 1996:10). According to Sprouse (1998) if the child acquires inflectional paradigms and sets parameters (i.e. determines feature strength specifications independently, then this model relieves the child of having to perform sets of computations on inflectional paradigms (Sprouse 1998). There is evidence from developmental data from child language acquisition research to suggest that children know extremely early on whether verbs raise or not, long before they have acquired the myriad relevant morphological distinctions (Pierce 1992: 108).

Additionally, there is evidence from second language acquisition that suggests that learning morphological paradigms is separate from syntactic movement driven by strong features. Lardière studied a female adult Chinese speaker over a period of eight and half years. The first recording was made when the subject had lived in the US for ten years and she had been nearly completely immersed in L2 English for that time. It seems that the subject's suppliance of morphological markings on English verbs has apparently fossilised below the critical levels for acquisition assumed in the literature. However there is surprisingly robust evidence for grammatical knowledge that implicates the presence of the functional categories usually associated with verbal inflection (Lardière 2000). In contrast, a study of German learners of L2 English by

Sorace and Robertson (1999) illustrates that their learners show no errors in morphological markings yet some of the learners retain optional V to C raising. Finally in a study of two naturalistic learners of French and two learners of German, Prévost and White discovered that despite the frequent surfacing of non-finite forms in finite contexts the learners' knowledge of the syntactic consequences of finiteness seems to be in place. This indicates a clear distinction between knowledge of functional categories and abstract features and knowledge of surface morphology, which remains problematic (Prévost and White 2000).

If the acquisition device in L1 is reduced to 'fix the formal feature' (Roeper 1996) then what implications does this have for L2 acquisition? Is it merely a question of refixing a formal feature? One approach is to posit that the universally unmarked value is weak unless the input indicates otherwise, both in L1 acquisition (Platzack 1996) and in a slightly different way in the early stages of L2 acquisition (Klein and Perdue cited in Meisel 1997b). If this is so then one supposes that French L2 learners of English would have no problem in switching the values of their features from strong to weak. In examining empirical evidence this does not appear to be the case (White 1992 and Schwartz and Sprouse 1996).

Investigation into the verb movement parameter can provide some insight into the initial state and on the role of functional categories and feature values in both first and second language acquisition. A comparison between French and English shows that the parameter is set differently for the two languages, shows significant word order differences between French and English. Consequently we can study L2 acquisition of French by English learners and of English by francophones to see if the parameter can be reset.

3.8.4 Studies of the Verb Movement Parameter: English/French and French/English Interlanguages

There have been a number of previous studies on the verb movement parameter in both French/English and English/French interlanguages. White (1990,1991, 1992) and Trahey and White (1993, 1996) have reported extensively on studies of French learners of L2 English. These learners were part of intensive ESL programmes in Canada. The results of extensive tests showed that the learners seemed to quickly acquire negation in

English i.e. they did not accept sentences of the type ***'he likes not football'.** In effect they realised that the verb did not raise past the negative. They also did not try and invert lexical verbs in questions, for example, ***likes he football?** However, the results for medial adverb placement were not as conclusive for the learners. They accepted both the correct SAVO order, **Tom often takes the metro** and the incorrect SVAO order, ***Tom takes often the metro**. White based on Pollock 1989 concluded that the learners had realised that long movement to T (Agr) was not allowed in English but were still allowing short movement to Agr (T) (White 1992)[6]. Eubank (1994) points to the optionality of verb raising for these learners as evidence that feature values are inert.

An alternative explanation of the failure of parameter resetting in respect to adverb placement could lie in linguistic theory and a critical reanalysis of Pollock's (1989) theory. Iatridou (1990) questions Pollock's linking of adverb placement to verb raising and she argues that there is no need for a sparate Agr position to explain the differences between English and French. In Iatridou's analysis verb movement to (T)ense in French but not in English is enough to account for most of the differences between the two languages. Verb- adverb order is an independent property and we are dealing with two different phenomena (Iatridou 1990). According to this position question formation and negative placement are part of the cluster of properties accounted for by verb raising but adverb placement is not (White 1996d: 106). Although alluded to, Iatridou's position has not been adopted by most researchers into verb movement.

[6] In White's 1992 paper she uses structures in which Agr and T are reversed, whereas I adopt the position that Agr occurs higher in the tree than T.

If we keep all the properties as part of the same parameter, the problems with adverb placement may be accounted for in Eubank's theory of valueless features (Eubank 1993/94/1996). According to Eubank's valueless features hypothesis on the L2 initial state, L2 learners transfer lexical and functional categories but not the feature strength associated with the functional categories. The feature values are unspecified or inert. He uses the fact that feature values are inert to explain the apparent optionality of verb raising in the interlanguage grammars of French learners of English. He uses data from White's research (White 1991) on adverbs. From the data, these learners allow the adverb to follow or precede the lexical verb, i.e. the L2 interlanguage allows both SVAdvO and SadvVO. This acceptance of both orders indicates an optionality in verb raising. Additionally he draws on negative and question data from spontaneous production in an L2 longitudinal study of three francophone children learning English (Gerbault 1978, Tiphine 1983, no date). These learners did not produce any utterances with 'not' following the lexical verb, as would be the case for the French equivalent ***'pas'***. Eubank claims that with negatives the learners are not raising the verb. So according to Eubank, the differences evinced by the properties that fall out of the verb movement parameter indicate that verb movement is optional and the learners have not transferred the feature values from the L1.

Hawkins (in press: 148) describes a study by Devitt (1992) of 5 English speaking children acquiring French in a naturalistic environment in France. Hawkins outlines the data from two of the children in particular, Marie 11 years old and Ann 8. Hawkins is particularly interested in the data on sentential negation, i.e. what the children do with ***ne*** and ***pas***. If there is no verb movement then the children would produce utterances of the type ****elle n'aime le film*** or ****elle pas aime le film***. In the earliest productions of Marie there were some instances of ***ne V*** but additionally in the earliest stages there were also examples of ***ne V pas***. Neither girl produced utterances with the ***pas V*** pattern. This indicates knowledge in the earliest stages that the verb moves past ***'pas'***.

Hawkins, Towell and Bazergui (1993) report on a study carried out on English learners of L2 French at university level. They studied two groups one in their first year at University level (intermediate) and the other in the fourth year (advanced). The fourth year group had spent at least six months in a French speaking country. They gave both

groups a grammaticality judgement test that included items with negatives, adverbs and quantifiers in both finite and non-finite clauses. What they found is that the intermediate and advanced learners were both accurate at locating lexical verbs with negation, not so accurate with adverbs and even less accurate with quantifiers. It seemed that the acquisition of verb movement with negation did not imply that the learners have also acquired thematic verb movement in the other contexts. Hawkins (in press uses this as evidence that the learners were not resetting parameters on the basis of changing the feature strength for functional categories.

Herschensohn (1997) uses the same grammaticality judgement test as Hawkins et al on negatives, adverbs and quantifiers with a group of very advanced learners ('superior speakers' – according to Herschensohn). Herschensohn concentrated only on the items with finite verbs but her subjects showed higher levels of accuracy than the advanced group in Hawkins et al study. She maintains that the parameters have been set for this group and also that Hawkins et al intermediate subjects are also resetting parameters rather than using other strategies within UG as Hawkins et al suggest. She posits that the learners go through a period of underspecification of feature values and hypothesis testing linked to incomplete morphology. She adds that the delay found in accuracy in placing adverbs and quantifiers could be caused by the fact that these items are not restricted to a single location in the sentence and are also infrequent in the input (Herschensohn 1997: 289).

In a further study Herschensohn extends her feature underspecification hypothesis (Herschensohn 1998). She elicited production data from two groups of intermediate learners. The study examined inflection, negation and adverb placement. The accuracy rate for inflection and negatives was much higher than for adverbs. There were also differences within each category, for example, 0% error rate for negative '***pas***' but 4.8% error rate for negative ***'jamais'*** and also a difference between quality and frequency adverbs. Herschensohn uses these results to propose a constructionist view of parameter setting related to specific lexical items. The learners go through three stages, a loss of L1 parameter values, a period of feature underspecification and constructionism and then finally L2 parameter setting (Herschensohn 1998: 333). There is a problem with Herschensohn's position that parameters are set related to specific lexical items, in that it is indistinguishable from a non-parameter setting

approach, in which learners develop on a structure by structure basis (Clahsen 1996, Meisel 1997)

The results obtained from the studies outlined above are not conclusive. No study provides clear evidence of parameter resetting, which would be demonstrated by a clustering of the properties that fall out of the verb movement parameter. However the later groups in Hawkins et al's (1993) study and Herschensohn's (1998) do show substantial development from groups at earlier stages, which would suggest progress towards parameter resetting. Additionally, neither study addressed the link between acquisition data and the input the learner received. An investigation into the input may help to gain some insight into why the learners' representations demonstrate the characteristics that they do.

With regard to the L2 initial state and what grammar the learners start with, White's studies may not have started at an early enough stage, so Eubank's analysis that at the initial state L2 learners' optionally raise the verb may be mistaken. It is important to establish if the learners really are at the initial state, when attempting to analyse data.

3.9 The position of unstressed object pronouns in French

3.9.0 Introduction

If functional categories do prove to be present in early interlanguage grammars, then the question arises as to their source: are they transferred from the L1 grammar or are they present because learners access them directly from UG (White 1996)? French and English phrase structure is very similar, as they both project DP, IP and CP. However one significant structural difference between French and English is that French has clitic pronouns and these occur in structural positions higher than DPs. If UG is only accessible via the L1 then it should not be possible for speakers of a non-clitic language to successfully acquire a language that has clitics (Duffield et al 1997). English does not have syntactic clitics, therefore if English learners of L2 French 'show early evidence of syntactic clitics and their projections this suggests that potential functional categories made available by UG but not instantiated in their L1 can be triggered on the basis of the L2 input' (White 1996d:336).

If a movement analysis is adopted for clitic pronouns where the object pronoun cliticises to the verb then moves to Agr, then examination of object pronoun placement can give us further insight into the knowledge and development of verb movement in interlanguage grammars. We can also ask how object pronoun placement relates to the properties that fall out of the verb movement parameter; negatives, adverbs and inversion in questions?

Finally evidence from the development of object pronoun placement can also give us further insight into the L2 initial state and the role of L1 transfer. Does the L2 initial state consist solely of lexical categories (Vainikka and Young Scholten 1994, 1996)? Alternatively if there are functional categories in the initial state have they been transferred from the L1 along with their feature values (Schwartz and Sprouse 1994, 1996)?

3.9.1 Object pronouns in French

English and French differ in the placement of unstressed direct and indirect pronouns. In English the object pronouns follow the verb and appear in the positions where you

would find corresponding non-pronominal noun phrases. The canonical word order for both French and English is subject verb object (SVO) with complements following their heads. However in French unstressed object pronouns typically occur before the tense marked verb. They are known as clitic pronouns because they attach or 'cliticise' onto the verb. The object pronouns are linked with the verb to which they are most closely related, in declarative, negative and interrogative phrases. Below is an outline of the characteristics of object pronoun placement for French.

When the verb is a main verb, the object pronoun occurs immediately before it

1a) ***L'état me paie*** – (the state pays me)

b) ***Elle le croit*** – (she believes it)

When the verb is in a compound tense, e.g. the passé composé, accompanied by the auxiliary verbs avoir/être, the direct and indirect pronouns appear immediately before the auxiliary.

2a) ***Il m'a vu*** –(he saw me)

b) ***Nous l'avons déjà fait*** – (we have done it already)

When the verb governing a direct or indirect object pronoun is an infinitive the object pronouns usually occur in front of the infinitive.

3a) ***On peut toujours lui téléphoner*** - (he can always be reached by phone)

b) ***Nous voulons te voir*** – (we want to see you)

In the examples in 3 there are two separate events, for example, in b) one of wanting and one of seeing, and the clitic is placed structurally highest within its own event, in these cases before the infinitive verb (Uriagreka 1995).

In causative constructions the clitic can only occur in a high position. It cannot occur between the causative verb and the infinitive.

4a) ***Marie le fait manger*** – (Mary makes him eat)

(examples from Hawkins and Towell 1996)

Most theoretical analyses assume that the accusative clitic is associated with the lower verb at an underlying level of representation and that its surface position is derived by clitic climbing: the object clitic raises from the lower clause to a functional projection of the matrix clause (Duffield et al 1997:150).

Object clitic pronouns are systematically proclitic that is, they occur before the verb in both tensed and infinitival clauses. The clitic pronouns cannot be separated from the verb except by another clitic. Such pronouns are not simply placed in front of the verb but they are attached to it in some way.

3.9.2. Movement analysis of object clitic pronouns

There is a broad consensus that clitic pronouns occur in structural positions that are higher than regular DP positions and have moved there from the post-verbal position for objects to a preverbal position. The unstressed object pronouns are complements to verbs and should follow them but in French they appear to the left of the verb. The surface position of the clitic is the result of a syntactic operation of movement. In French, unstressed object pronouns are represented initially in the grammar in post-verbal position but move to a pre-verbal position. The clitics move to a V-related head, that is, they require a verbal element as their host. In simple clauses clitics move to the head of Agr to which the verb has also moved. The relevant properties of French are a consequence of universal principles. There are functional projections which are probably specific to clitics located high in the structure (Sportiche 1996). English lacks both clitic projections and verb movement. We can assume that languages without clitics lack clitic projections (Duffield et al 1997).

Within the Minimalist Program clitics are still given a movement analysis but one which depends on the strength of features. In an analysis within the Minimalist Program Laenzlinger (1998) outlines the distinction between syntactic and LF clitics. Syntactic clitics (French) check their head features before spell-out and for LF clitics (English) features are checked after spellout. The head movement is triggered by checking requirements. Pronouns are associated with a set of morphosyntactic features, whose value is weak or strong. The value determines whether the features are checked before or after spellout. Strong features cannot survive at PF and must be

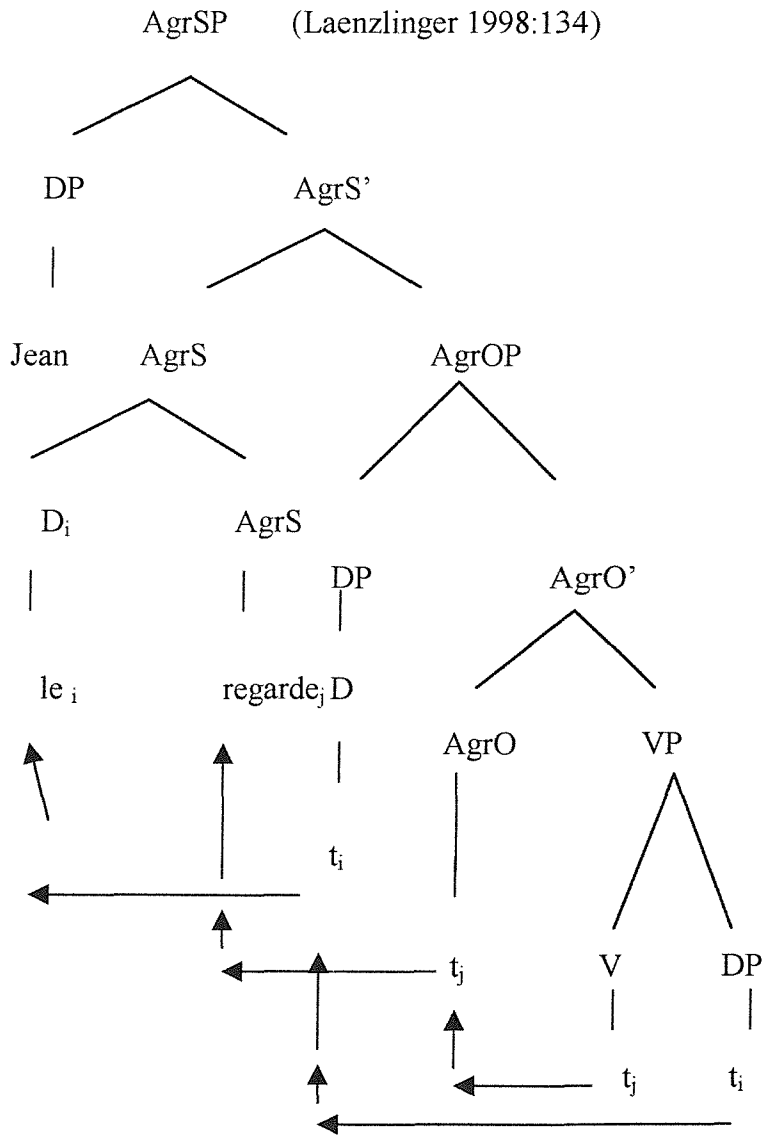
checked and erased before spellout. Syntactic clitics have strong features and cliticise in overt syntax; they search for a head bearing the appropriate features into which they can incorporate. They will move to a V-related head.

From this point of view pronouns move essentially for checking purposes. The object pronouns are base-generated in the post-verbal argument position, and will move in two stages:

1) Object pronouns move first as maximal projections DP to their case checking positions; this is XP movement.
2) The clitic head D incorporates into the verb which has moved through AgrO, the head moves to a functional head bearing the relevant Φ features against which they check their own features, namely I (typically AgrS) (Laenzlinger 1998).

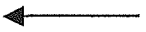
Diagram 5: syntactic movement of object clitic pronoun and verb

Jean le regarde – John looks at him

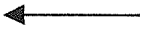


Kayne 1991 assumed that the landing site of clitics must differ from that of a verb or its trace. In Kayne's analysis no multiple adjunction can take place. For Kayne clitics occur on a functional head higher than AgrS but Laenzlinger disputes this and states that multiple adjunction can occur and there are no structural positions between the verb and the clitic, because the clitic and the verb form an indissociable unit. This is evidenced by the fact that in French nothing can occur between the verb and the clitic: ***Pierre le probablement connait**. They must adhere to a strict adjacency rule. Laeznlinger also maintains that Kayne's analysis that object clitics do not attach to the verbal host cannot predict that these clitics accompany the verb in inversion.

Comment [le feras]$_i$ tu t_i



A qui Jean [en parlera]$_i$ -t-il t_i ?



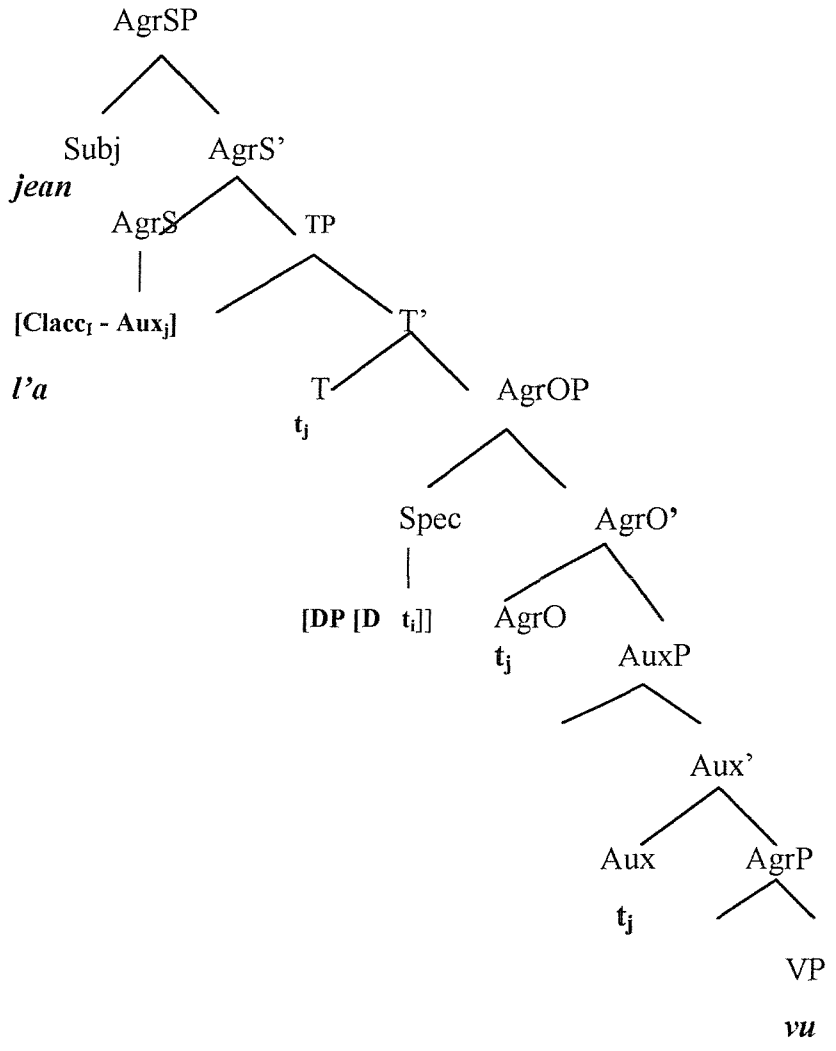
3.9.3 Object pronouns in complex tenses

As mentioned before, in passé composé constructions the object clitic pronouns appear on the auxiliary and not on the past participle, for example:

Jean l'a vu – (Jean him has seen) –*John saw him*

The auxiliary is the tense marked verb and has the relevant morpho-syntactic features. These features on the auxiliary verb enable it to enter into a checking relationship with the adjoined clitic pronoun. The object pronoun first moves to Spec AgrOP to check case features, and then its head incorporates into T. The clitic then raises to AgrS with the verbal tensed element, in this case the auxiliary.

Diagram 6: Clitic placement in complex sentence structure
(Laenzlinger 1998: 140)



3.9.4 Acquisition of object pronouns

In first language acquisition studies it has been reported that there is a delay in the acquisition of object pronoun clitics when compared to subject pronoun clitics (Clark 1985, Hamann Rizzi and Frauenfelder 1996). Hamann et al (1996) studied the acquisition of the French clitic system by Augustin, a two-year-old monolingual French speaker, over a period of 10 months. From their results the occurrence of object clitics appears to be significantly delayed with respect to subject clitics (Hamann et al 1996: 331). In their study Hamann et al used this late occurrence of object clitics as evidence that the two types of clitic (subject and object) occupy different positions and thus bring different functional categories into play (Hamman et al 196:332). However when they do occur, the first occurrences of object and complement clitics are correctly

placed left adjacent to the verb. Additionally they seem to be treated as clitics because nothing occurs between the verb and the clitic.

In second language acquisition there are conflicting results from studies carried out on the acquisition of object clitic pronouns. White (1996) outlines a study of the production data from two boys learning French as a second language. The data collection began when the boys were aged 5. In this particular paper White studied the boys' knowledge of both subject clitics and object clitics. She suggests that because English lacks syntactic clitics the native speaker of English would have no clitic projections realised in their L1 grammar because there is nothing in the input to motivate them. English pronouns are not clitics, and the question arises as to whether and when the L2 learners of French acquire appropriate properties of pronominal clitics. For White early appearance of clitics in the L2 data would be evidence of two things; that functional categories are present in the L2 initial state and that there is direct and immediate access to UG. In a reanalysis of White's data Schwartz (1999) disagrees with the assumption that English lacks pronominal subject clitics and object clitics. Based on an linguistic analysis provided by Sportiche she claims that in English subject clitics are phonological clitics, with the clitic inserted under Nom, and that object clitics are morphological clitics with the verb and clitic inserted under V and moving covertly to AgrS and then AccV (Schwartz 1999:322).

For purposes of the present study we are interested only in object clitics. The learners in White's study showed in the early stages of development that they omit object clitics where a clitic would normally occur, but when they do occur they are correctly placed to the left of the verb, with no intervening material, which suggests that they are indeed analysed as clitics. For White this indicates access to UG (White 1996) but according to Schwartz (1999) the functional projections NomP and AccVP could have derived from the L1 grammar. However although Schwartz maintains that clitics exist in English they are not syntactic clitics i.e. there is still a difference in that only in French is there overt movement and only in French is a syntactic clitic inserted under AccVP.[7]

In a study of advanced Spanish and English learners of L2 French Duffield et al 1997 found no differences in the acquisition of clitic placement between the two groups of

[7] Note that Sportiche's analysis includes the functional projection AccVP, which is not included in the analysis provided by Laenzlinger. AccVP occurs in the structure between AgrOP and TP.

learners, although the Spanish learners have object clitics in their L1. The English L2 learners were able to project functional projections not instantiated in their L1.

Other studies report results that contrast with these findings above. These other studies conclude that native speakers of English usually take time to acquire the preverbal placement of unstressed object pronouns. For example, a study by Selinker, Swain and Dumas (1975) of English Speaking Canadian children around 7 years of age, found that, after two years of exposure to French in an immersion programme some of the children were producing postverbal object pronouns,

example :a) ***le chien a mangé les*** – *The dog has eaten them*
il veut les encore – *he wants them again*

In a second phase of development, once learners begin to use preverbal clitic pronouns, it appears they are unable to produce them consistently. The result is that they omit an object altogether, producing sentences like:

b) ****le chien a mangé ø***
****il veut ø encore***

This second phase of development seems to share the same characteristics as the data presented by White 1996 for the two Canadian boys, although the two Canadian boys did not place the object pronouns after the verb when they first started using object pronouns. A further study by Adiv (1984) produced similar results. A group of Canadian children in a French immersion programme were studied after three years of exposure. It was found that 13% of their errors were of the type with the unstressed pronoun after the verb, like in example a) above and 87% of the errors were of the type where the object was omitted, example b) (Adiv 1984 cited in Hawkins in press: 14).

It has been pointed out that Spanish and French learners of English do not have the same difficulty in realising that English has postverbal object pronouns (Hawkins in press: 15). They do not produce errors with the object pronoun placed to the left of the verb, for example, * *I him like.* In English postverbal unstressed object pronouns are in the canonical position for object complements in general in English. Hawkins suggests that English learners of French have more difficulty in acquiring the placement of

object clitics because syntactic movement is a more difficult property to acquire in a second language than the ordering of phrase structure (Hawkins in press: 29).

3.10 Conclusion

Investigation into the verb movement parameter and the object clitic placement parameter can provide some insight into the L2 initial state and the role of functional categories and their feature values in L2 acquisition. Both parameters evince significant word order differences between French and English. Thus a comparison between French and English shows that both parameters are set differently for the two languages and consequently we can study L2 acquisition of French by English L1 learners to see if parameters can be reset. If we follow the hypothesis that English lacks clitic projections, then in the case of object clitic pronouns we can investigate whether functional categories can be projected in the L2 that were not instantiated in the L1. Additionally, we can examine whether the learners treat object pronouns as syntactic clitics and move them overtly. The section of the current study that focuses on object pronouns can provide insight into how instructed L2 learners analyse object pronouns at the initial state and how their knowledge develops over time. Furthermore in this study we can investigate how object pronoun placement relates to the verb movement parameter.

The following section focuses on the role of input in L2 acquisition since the role of input is crucial to every theory of L2 acquisition. More specifically for the purposes of this study, as we are studying instructed learners, we need to identify possible links between the learners' representations and the input that is available to them.

4.0 Input in second language acquisition

Introduction

There has been much discussion and investigation into the role of input in Second Language Acquisition, and whether instruction in particular actually influences the Second Language Acquisition (L2A) process. The question of input is one of the central questions in L2A: "all theories of SLA hypothesise that learners come to know the properties of a language by being exposed to instances of it in meaningful conversation"(Carroll 2000:337). What input is appropriate and usable by the L2 learner is a crucial question. The role of input is important for those who assume a role for UG in L2A and for other researchers working within other approaches; it is of course also of interest to teachers and other researchers concerned with language pedagogy. There is potentially a difference in input in L1 acquisition and L2 acquisition, particularly if the L2 acquisition only occurs in an instructional setting. From a UG perspective what triggers L2 development and parameter resetting are the critical questions.

The investigation into the role of input in L2A can be centred on a number of questions, and although listed here separately they are inextricably linked. The fundamental question is: What is the link between input and acquisition? Linked to this question is: What types of input are effective? and importantly for this study: Does instruction in L2A make a difference? Can the knowledge gained from instruction ever become part of a learner's competence (part of their underlying unconscious knowledge)? I address these questions whilst examining the role of input and instruction in SLA. The section will focus on the effect of input on a learner's linguistic competence and specifically its effect on parameter resetting, if we assume that these can be reset in the acquisition of an L2.

Much of the theoretical discussion surrounding the role of input and its effects on parameter (re) setting is centred on the concept of modularity and whether there is an interface between modules or whether modules are impermeable. Whether you believe that there is an interface or not, i.e. whether conscious knowledge can become unconscious knowledge, is reflected in the opposing theoretical positions currently held

regarding the role of instruction in L2A (Trahey 1996). Additionally, the role of input in second language acquisition cannot be divorced from the question of how our grammars interact with parsing.

4.1 Definitions

We can accept as a starting point the definition of input provided by Chaudron: "The input available to second language learners is the raw data from which they derive both meaning and awareness of the rules and structures of the target language" (Chaudron 1985:3). This input is also referred to as linguistic evidence and there is a distinction between positive and negative evidence. Positive evidence or primary linguistic data consist of (contextualised) utterances in the language environment of the acquirer (Schwartz 1993:148); positive evidence is provided in naturally occurring samples of grammatical language. Negative evidence is information or evidence about forms, which are not possible. Chomsky (1981) also talks of indirect negative evidence: information about which sentences have not appeared in the input. Thus indirect negative evidence in an L2 situation could refer to the absence of forms, indicating to an L2 acquirer that their current interlanguage grammar is wrong. However, Marcus (1993) in his analysis of negative evidence in L1 acquisition collapses implicit negative evidence with positive evidence because it depends on a reanalysis of positive evidence based on mechanisms internal to the child (Marcus 1993:55 footnote). Explicit negative evidence always requires extra information, and it has another layer of propositional content; it is information about language. It is believed by some researchers that this added layer of propositional content cannot feed directly into the language module because the language module is not programmed to process this type of input (Schwartz 1993). This also applies to the role of metalinguistic knowledge in instructed L2 acquisition: that is, explicit information given about language, for example, in the form of grammar rules.

4.2 Input and Universal Grammar in L2 acquisition

Universal Grammar is posited in L1 acquisition because negative evidence is neither necessary nor usable in the L1 acquisition process. If you adopt a UG position for L1 acquisition, then acquisition occurs on the basis of primary linguistic data interacting

with the innate principles and parameters of UG. As presented in the section on Universal Grammar, although negative evidence is sometimes available to the child L1 learner they do not make use of it in acquiring their first language. Although syntactic theory is continually being refined from a UG perspective, the poverty of stimulus points to an innate domain-specific restriction on the grammatical hypothesis space available to the language-acquiring child (Sprouse 1996). There is a requirement for an innate cognitive architecture. Crucially, development takes place when a failure to parse the input occurs, where 'parsing' refers to assigning grammatical structure to input.

The situation in L2A is a great deal more complex. In L2 acquisition negative evidence is available to the learner but theoretical positions differ on the usefulness of the negative evidence. From a UG perspective there is also a poverty of stimulus argument in L2 acquisition although it does not operate in an identical way to L1 acquisition (Sprouse 1996, Schwartz and Sprouse 2000). There is evidence in learners' interlanguage grammars of phenomena not exhibited in the learners' L1 or in the L2 target language i.e. there is no external evidence (input) available for the learners' linguistic knowledge (Schwartz and Sprouse 2000). Additionally, parsing failure in second language acquisition will trigger development (Sprouse 1996, Klein and Martohardjono 1999). However even if one takes the position that UG operates in L2, the relationship between UG and triggering input may not necessarily remain the same. Are the principles and parameters of UG only triggered by naturalistic positive evidence in L2 acquisition (White 1992a: 120)?

Some UG theorists assume a position that UG is involved in L2A but nonetheless believe negative evidence may still be necessary for successful acquisition. According to White (1987), comprehensible input is insufficient to limit overgeneralisations made by the learners (White 1987 cited in Long 1996). There may be situations where negative evidence is necessary to avoid or correct a faulty understanding of the L2 grammar (this point is explored more fully below). Other researchers in a UG framework disagree and maintain that L1 is the same as L2 and only positive evidence will have an effect in acquiring linguistic competence and act as a trigger for UG. For these researchers, instruction and error correction play no role in acquiring (Krashen 1985, Schwartz 1993). Schwartz believes that negative evidence may be available but

L2 acquirers are unable to use it because if they were able to use it, L2 instruction should be more successful (Schwartz 1993).

For some theorists, if negative evidence is seen to be beneficial to L2 acquisition then this indicates that L2 is not like L1 and UG does not have a role to play (Bley-Vroman 1990), thus supporting the 'fundamental difference hypothesis'. Non-UG researchers give negative evidence a more central role and claim that negative evidence is generally facilitative of L2 acquisition and necessary for the acquisition of specific structures (Long 1996, Larsen-Freeman 1995). For these theorists comprehensible input is felt to be necessary for acquisition to occur but it is not sufficient (Long 1996).

Alternatively it could be posited that if negative evidence has no effect and is not deemed to be necessary or sufficient then L2 acquisition cannot possibly consist in problem-solving or induction. As far as UG researchers are concerned the jury are still out; some maintain it does have a role and others firmly believe that it is only positive data that will trigger parameters and effect linguistic competence.

4.3 Input in the L2 classroom

A crucial and complicating factor in the present study is the situation for learners who receive all their input in their native country and in an instructed format. We need to address the role played by formal study and what type of input these learners receive. Instruction typically involves an attempt to intervene directly in the language learning process (Ellis 1994). The L2 classroom provides a special kind of input to the L2 learner, however there is as much variety in classrooms as there is between naturalistic and classroom environments. Some classes may predominantly consist in explicit teaching of grammar whereas in others the emphasis is on communication. In many classrooms input is likely to be modified both in terms of teacher talk and in terms of input they receive from peers. Teacher talk is classified by some theorists as being a special kind of foreigner talk (Ellis 1994, Bingham Wesche 1994.) The input is often adjusted to meet the proficiency level of the students; for example with lower levels embedded sentences are less frequent and teacher talk is almost always grammatically correct. One such type of modification may involve increased use of frequent forms as it is believed that they are more noticeable and potentially more learnable than

infrequent forms. However it still remains unclear as to what constitutes optimum teacher talk, i.e. what achieves most success (Ellis 1994a.) This question is similar to Bickerton's question: what constitutes minimum input for L2 acquisition (Bickerton 1996: 717)? Both questions are almost impossible to determine.

What effect the modified input of classrooms has on the learner's linguistic development remains to be seen. It may be the case that input is different between classroom and naturalistic environments but we must distinguish between input and learner development. Hawkins (in press:30) argues that type of input has little effect on the course of learner development and learner development is not necessarily different between the two settings. Although Hawkins does point out that formal instruction can speed up acquisition and will affect performance on academic tasks.

In some formal situations learners will receive form-focussed instruction. 'Form-focussed instruction can be taken to be any pedagogical effort, which is used to draw the learner's attention to language form either explicitly or implicitly' (Spada 1997:73). This can include the direct teaching of language (explicit positive evidence), through, for example, the direct teaching of grammar rules (metalinguistic information) and/or reactions to learner's errors (e.g. corrective feedback, which can occur in many forms). Form-focussed instruction and corrective feedback are attempts to get learners to 'notice'; to notice the difference between their interlanguages and the target language. Other strategies that are believed to be successful in getting learners to notice, are attempts to get learners to 'notice the gap', which is emphasised in theories that invoke the importance of comprehensible output in L2 acquisition (Swain and Lapkin 1995). Noticing the gap is also alluded to when theorists investigate the effects of communication breakdown (White 1992a). Some theorists believe that noticing is a prerequisite for learning (Sharwood-Smith 1991): 'Noticing is necessary and sufficient for converting input to intake' (Schmidt 1990:129 in Larsen-Freeman 1995:138). The noticing hypothesis claims that second language learners must consciously notice the grammatical form of their input in order to acquire grammar (Truscott 1998:103). For advocates of noticing, input enhancement, making a feature more salient, can bring about genuine changes in the learner's interlanguage system. 'Noticing or attention is widely claimed to be both necessary and sufficient for extracting items from a stimulus

array (e.g linguistic input) and storing them in long-term memory. (One step in several needed to convert input to intake.)' (Long 1996:426).

However 'noticing' is not a clearly defined construct and is not based on any coherent theory of language (Truscott 1998:103). It is very difficult to say exactly what attention or noticing is, and the idea that attention is necessary for learning is not supported in cognitive research. A certain amount of learning will take place independently of attention and noticing. According to Carroll (2000) attention is not a "prior selection function which picks out some part of the stimulus array and feeds it into the learning mechanisms based on objective properties which make some aspects of the stimulus array 'salient'" (Carroll 2000:350). What we perceive is what our current linguistic systems enable us to perceive. There seems no evidence at present that suggests that we cannot learn a specific linguistic phenomenon unless we notice and are consciously aware of it. Truscott suggests that noticing is necessary for the acquisition of metalinguistic knowledge not linguistic competence: "there is abundant evidence that form-focussed instruction helps learners acquire metalinguistic knowledge but this is distinct from actual knowledge of language" (Truscott 1998:119). This metalinguistic knowledge could serve as a supplement to competence and it may possibly make up for weaknesses in competence, though automatised metalinguistic knowledge could also block the use of competence (Truscott 1998:120). Sharwood-Smith (1996) considers that metalinguistic knowledge could boost the flow of primary linguistic data and also could be a generator of substitute knowledge (derived but epistemologically distinct from domain-specific knowledge (UG)). This knowledge may compete with or compensate for perceived gaps in the learner's current underlying competence. He posits that learners have no access to domain-specific knowledge but rather to a representational redescription of it (Sharwood-Smith 1996:741).

4.4 Formulaic language

A type of input that occurs in L2 acquisition and in abundance in L2 classrooms is formulaic language, also known as unanalysed chunks. These are also an important complicating factor in learners' productions. Cook 1976 stated " that you can expect formulaic language, which is assumed to reduce processing, to be important in SLA" (Cook 1976:76 in Weinert 1995). The central question is: can these formulas be

unpacked and do they contribute to analysis and rule formation? This is particularly important with regard to the type of input received by students in English comprehensive schools, as formulas constitute much of the L2 classroom input. However when analysing learner productions it is difficult to know whether a particular construction has been retrieved by the learner as an unanalysed whole or whether it is derived creatively from a rule.

In child L2 acquisition, Wong-Fillmore (1976,1979) claims that formulaic language feeds into productive rules and unpacking of these formulae is one of the most important ways in which language acquisition occurs (Wong-Fillmore in Towell and Hawkins 1994:183). Unsurprisingly this theory is controversial and disputed. As mentioned before, the classroom in L2A provides formulaic chunks in abundance, and Ellis 1994 believes that they contribute indirectly to acquisition by providing more input to be used for analytical purposes. Some researchers maintain that 'chunks' can be used as a production strategy and others disagree. In a paper based on evidence from classroom learners of L2 French, Myles et al suggest that rote learning of formulae and the construction of rules are not independent processes but interact and actively feed in to one another (Myles et al 1998). An alternative viewpoint is that the rote-learning of formulae can block the learner's own mechanisms for dealing with the language (Krashen and Scarcella 1978 in Towell and Hawkins 1994:200). For example, the overlearning of the 'ing' form in L2 English prevented learners from following a natural path of acquisition (Lightbown 1983 in Weinert 1995:193). At the moment there is no conclusive evidence, but if chunks do feed into production rules, then this could provide evidence for an interface between modules in the mind: that information from the central processing system can feed into the language module (see section 2.12).

4.5 Does input in the L2 classroom block UG?

It may be the case that the input learners receive in the classroom whether from the teacher or other learners, may not always be the best kind for acquisition (Ellis 1994b). It could be that studying grammar books, going to class and trying to figure out consciously what we ought to be saying may actually interfere with the operations of UG (Bickerton 1996, Cook 1993). Many of the traditional forms of language teaching

are based on a no-access to UG view of L2 learning. Linked to this is the belief by some that L2 learning relies on explicit use of conscious rules rather than implicit use of principles and parameters.

From the results of their research into classroom based German learners of L2 English, Felix and Weigl (1991) concluded that L2 acquisition involves two competing mechanisms: UG and problem solving. In classroom contexts it is problem-solving that is activated rather than UG, and the nature of formal instruction causes problem solving to block the operation of UG. Studies by White and Juffs (1997) dispute these findings. They compared two groups of Chinese learners learning English, one group instructed in China and one group living in Canada. Their results suggest that knowledge of UG seems to be immune to the type of L2 exposure and the specific modality in which the L2 is presented. To explain evidence apparently supporting the claim that learners do not have access to UG, White and Juffs suggest that the kinds of formal teaching methods characteristic of foreign language instruction could fail to provide appropriate input to allow principles and parameters to be triggered (White and Juffs 1997).

In L1 acquisition it is believed that specific input will trigger the setting of a parameter. If we find that L2 learners resort to an alternative cognitive modality, problem solving, then we need to ask ourselves what it is in the input that triggers this mode rather than any other. Additionally, the questions arise as to how problem solving is able to deal with language and why grammars created by problem-solving resemble those produced by UG. The most pertinent question for this study is whether there is any clear evidence that UG has a role in classroom based learning or whether these other modes of learning impede and/or replace access to UG. What is clear is that there will be many kinds of learning taking place in the L2 classroom; among them could be acquisition of grammar activated by UG, learning of metalinguistic rules, problem-solving, memorising and production of formulas.

4.6 The role of input and parameter resetting

There has been much discussion and experimental investigation as to the precise properties that can serve for parameter setting in L2 acquisition. Some theorists

believe that parameters can never be reset and L2 learners display surface changes and use other properties of UG to display apparently nativelike competence (Towell, Hawkins and Bazergui 1993, Smith and Tsimpli 1995, Beck 1998). Learners find other means of producing utterances, which appear to be governed by the properties of appropriate parameter settings.

Parameters are set up to expect certain properties in the input but it is difficult to ascertain what the crucial triggering properties are. Learning is error driven and a grammar will only change if parsing fails (Gibson and Wexler 1994). In L1 acquisition it is assumed that when children encounter a sentence that cannot be parsed they will judge that their current grammar is incorrect and will modify that grammar. However Mazuka (1998) posits that parsing failure could be caused by an inadequacy of the input, the parser or the grammar. So it does not necessarily mean that a grammar needs altering. Crucial questions remain regarding the interaction of the parser with the grammar; what enables the parser to interpret the input such that triggers motivate the setting of parameters. Even for L1 acquisition the role of the parser is not clear. There have been suggestions by some researchers that parsing strategies are parameterised (Mazuka 1998, Fernandez 1999). Fodor (1999) argues that parsing mechanisms are innate and crucially contribute to parameter setting in the development of grammars.

Roeper and Weissenborn (1990) claimed that for L1 acquisition each parameter has a unique trigger. If parameters can be reset in L2 acquisition, what constitutes the necessary triggers in L2 input for parameter resetting? Some theorists believe that although the L2 initial state is not the same as L1 a like grammatical change is triggered by the current grammatical state when analysing the target input (Sprouse 1996.) Thus L2 acquisition (like L1 acquisition) results from the presence of triggers for the values of parameters in the target input. For these theorists parsing failure drives second language development as in L1A (Dekydspotter et al 1998). Acquisition is error driven, and it only proceeds if input is incompatible with the available grammar. Initially in L2A, the input is detected and analysed based on the grammar of the L1.

An alternative perspective is that there is no theory of triggers for L2A and parsing failure does not necessarily lead to failure to interpret the stimulus, because adults have

a number of compensatory mechanisms which permit them to project an interpretation (Carroll 1996). Clahsen and Muysken (1996) suggest that it is the morpho-syntactic categories that belong to UG and have triggering properties, and this differentiates L1 from L2 acquisition. Recall that parametric options are restricted to a fixed set of formal features (F) of functional categories, which can be strong or weak. If parametric options, that is [+/- strong], are lost as a result of L1 acquisition then feature strength is left undetermined in the L2 and morpho-syntactic triggers do not work. Similarly Vainikka and Young-Scholten (1996) claim that the characterisation of L1-L2 differences concerns the differences in possible triggers for syntactic structure; such a morphosyntactic difference could potentially be tied to the notion of a sensitive period for language development. It is proposed that there is not the same kind of developmental relationship between the acquisition of overt inflectional morphology and word order patterns in L2 as evidenced in L1 acquisition (Meisel 1997:374). Vainikka and Young-Scholten (1996, 1997) suggest that L1 learners use bound morphemes as triggers but L2 learners use free morphemes (e.g. auxiliary) and this leads to misanalysis. Alternatively we can adopt the approach that learners can realise the feature value is strong without complete knowledge of the inflectional morphology (for L2, Epstein et al 1997, Schwartz and Sprouse 2000, Lardière 2000 and for L1, Verrips and Weissenborn 1992 and Wexler 1994,1998).

4.7 Can learned linguistic knowledge become part of a learner's competence?

Researchers have studied whether parameters of UG can be reset by positive evidence, whether the classroom provides appropriate input and whether negative evidence plays a role. A crucial question connected with the role of explicit positive evidence and negative evidence in parameter resetting is; can learned linguistic knowledge become part of a learner's linguistic competence? It may be that negative evidence is beneficial to L2 acquisition but does not necessarily become part of competence, where competence is the unconscious knowledge attained by the learner through exposure to the sentences of the language she is learning interacting with innate mechanisms (Trahey 1996:111). Negative evidence is not available or usable in L1 acquisition and the different positions adopted in L2 acquisition depend on how you view the permeability of the modules of the mind. Much of the experimental research questions

whether there is an interface between modules (Bruhn-Garavito 1995). Many researchers adopt a modular approach to language acquisition because it can clarify research thinking in terms of what the boundaries are between modules (Foster-Cohen 1996:1). Central to most characterisations of modularity is the notion of domain-specificity: there are different types of information and different ways of processing them. Fodor (1983) proposes the notion of information encapsulation such that each module is largely if not completely autonomous from all others. However modularity can still be adopted without adherence to the notion of information encapsulation. Modules may have access to each other in highly limited ways, or may have ready and constant access, as suggested by connectionist approaches to cognitive processing. We are still some considerable distance from understanding fully what kinds of access different modules have to the processes of the other modules (Foster-Cohen 1996:3). Whether you believe that modules are leak free or permeable has implications for how you view the role of instruction in L2A and what it actually achieves, i.e. whether it helps in resetting parameters.

4.7.1 No interface

A number of researchers adopt Fodor's modularity theory and the notion of information encapsulation to propose the hypothesis that negative and explicit data result in a type of learned knowledge that is not to be equated with linguistic competence (Schwartz 1986, 1992, 1993, Zobl 1995). Schwartz (1986) refines Krashen's distinction between acquisition and learning, places it within a modular theory, and limits its scope. She assigns acquisition to the language input system. Krashen maintained that there are two systems for internalising and representing L2 knowledge. **Acquisition** operates incidentally to processing for comprehension and results in implicit intuitive knowledge; **Learning** relies on memorisation and problem-solving, leads to explicit, conscious knowledge about the L2 (Krashen 1985 in Zobl 1995). The two systems are compartmentalised and there is no interface. Language as a system of knowledge must be distinct from other sorts of knowledge (Fodor 1983 in Schwartz 1986: 120). Learning cannot become acquisition at least with respect to grammar, because they constitute two different and completely separate domains of knowledge. The learned linguistic knowledge that results from explicit positive evidence and negative evidence can never serve as input to the language acquisition process. There is no mechanism to

translate the knowledge into input that the language module can process. The structure of UG is such that only primary linguistic data can serve as suitable input. Learned encyclopaedic knowledge is the product of central processes like analogy, induction and inference. There is learning through negative evidence but it cannot effect the learner's interlanguage. According to proponents of this hypothesis learned linguistic knowledge leads only to learned linguistic behaviour (Schwartz 1993). If parameters are reset at all it can be only through positive evidence.

Gregg (1988) vehemently takes Schwartz's 1986 theorising to task, maintaining that Chomsky and Fodor both entertained the possibility that something can be attained that looks like but is not the same as linguistic competence. He quotes Fodor: "lots of information to which input analysers do have access must be stored twice: once internal to the input analysers and once in the (putative) central memory where it is accessible to non-modular processes" (Fodor 1983:134 in Gregg 1988:72). Schwartz does not dispute the fact that we can learn something that looks like language but her central hypothesis is that there is no interface between this learned language knowledge and linguistic competence.

Zobl (1995) maintains that you can test the claims of the acquisition-learning distinction in classroom experiments involving form-focused instruction, which disputes the claim that the distinction is insulated against empirical disconfirmation, as proposed by Gregg (1988). Zobl insists that we should be interested in the uniformity of development in L2 learners and not in the lack of uniformity of outcome, thus removing the lack of an ultimately attained steady single state as a reason for positing the necessity of negative evidence in L2 acquisition. Zobl (1995) quotes studies by Van Patten (1988) which illustrated that a group of students who receive metalinguistic instruction will be more variable than those receiving communicative input. Explicit positive and negative evidence will give rise to variation because some learners are better equipped to use this type of information. Zobl maintains that the scores of the communicative group are more similar because the input is engaging the acquired system. To reinforce his argument Zobl uses results from a study of Lightbown and Spada (1993) into the role of form-focused instruction in the production of questions. He states that the comparison group that supposedly received communicative input only, showed less variation than the groups instructed in question formation. However

as Lightbown and Spada pointed out in their analysis the comparison group did in fact receive instruction and had been doing so for some time (Lightbown and Spada 1993). So this experiment actually contradicts what Zobl is claiming and doesn't reinforce it. He also points to the lack of retention in experiments on instructed learning as evidence that it is only learned knowledge, pointing out that information in implicit memory may be less susceptible to forgetting than information in explicit memory (Nilsson and Baeckman 1989 in Zobl 1995). For Zobl retention has as much to do with frequency in classroom discourse as instructional treatment (Zobl 1995).

4.7.2 Yes, there is an interface

Other researchers, although they also adopt a modular approach, believe that there is an interface and that conscious knowledge of the rules facilitates in some fashion the development of subconscious knowledge (Ellis 1985 in Hawkins and Towell 1992). Natural orders are not altered by rule-learning and instruction but the rate at which the learners move along the route may be speeded up, suggesting a kind of seepage from conscious to subconscious L2 knowledge (Hawkins and Towell 1992). Sharwood Smith as previously mentioned describes input enhancement as language input that becomes salient to the learner; it can be deliberate manipulation or the natural outcome of some internal learning strategy. According to Sharwood Smith input enhancement should take into account a modular view of the learner as a set of systems and signalling information to the learner is in effect, signalling to one or more of the separate knowledge systems (Sharwood-Smith 1993:131). However he believes that manipulation of input, albeit indirectly, will effect changes in the learner's linguistic competence. Others believe that with the application of metalinguistic knowledge, learners might generate correct utterances which themselves would serve as comprehensible input to be acquired (Ellis 1994 and Swain and Lapkin 1995). The learner's metalinguistic behaviour can function as input. The distinction between distinct forms of linguistic knowledge remains but for these researchers there is an interface.

The UG studies which have most rigorously tried to ascertain whether positive evidence triggers parameter setting or whether negative evidence is necessary, are reported by White (1991), Trahey and White (1993) and White (1992). They believe

that positive evidence does not necessarily trigger the appropriate L2 value of a parameter and that input enhancement can bring about genuine changes in interlanguage systems (White et al 1991). Trahey and White (1993) examined the acquisition of adverb placement by Francophone learners of English within one of the ESL Canadian immersion programmes. Their results led them to believe that positive evidence was enough to acquire the English SAV order, '**The boys carefully wash the car**' but not to tell them that '*** The boys wash carefully the car**' is ungrammatical in English. They then carried out a study where one group received negative evidence and explicit evidence on adverb placement, one group on question formation and one control group. Those that received explicit evidence on adverb placement were more successful in not accepting the ungrammatical order, but unfortunately the results did not last. For the other group the positive evidence in L2 classrooms did not necessarily trigger the appropriate L2 value, and acquiring the correct L2 value did not lead to unlearning of the L1 parameter setting.

Schwartz and Gubala-Ryzak (1992) in a criticism of White's analysis suggested that L2 learners do change their linguistic behaviour, but this cannot be analysed as affecting their competence. They claim that this is evidenced in the lack of retention and the overgeneralisation of the rule to disallow the correct form SVAPP in English. When questioned, subjects said that ' **he walked slowly to the shop**' was incorrect (Schwartz and Gubala-Ryzak 1992). They maintained that this nonacceptance of correct forms indicated superficial pattern-matching rather than parameter resetting. For Schwartz this counts as evidence that negative evidence is too explicit to tap unconscious parameter setting mechanisms (White 1996). The assumption that negative evidence is necessary for parameter setting also neglects the possibility that there is positive input which can show that the L1 value must be incorrect (Schwartz and Gubala-Ryzak 1992). According to White (1992a) the positive evidence that Schwartz suggests, ' **It's normal not to always accommodate other people's wishes**' is too obscure to act as triggering data (White 1992 in Trahey 1996: 135). Evidence to show that AGR is weak is seen in examples like '**John usually drinks coffee**' which White believes is truly primary linguistic data in the accepted sense, i.e. simple and readily available (Lightfoot 1989). If it is positive data alone that triggers parameters in L2 acquisition then you would expect this kind of data to motivate the resetting of the verb movement parameter (White 1992a: 128).

White (1992a) does however accept some of Schwartz and Gubala-Ryzak's criticisms and she concedes that because the learners did not show long term gains and because they overgeneralised the rule, it is not likely that in this study the negative evidence had led to parameter setting. However she does not accept the claim that it can never lead to resetting (White 1992a: 129). Additionally, she points out that although primary linguistic data did not trigger the parameter setting for the L2 either it did bring about changes in the learners' interlanguage grammars that need to be explained (White 1992a: 136).

The fact that the learning of the correct SAV form in English did not lead to unlearning of the incorrect SVA form, so that learners accepted the two forms at the same time suggests that the learners are entertaining two parameter settings at the same time. However Schwartz and Gubala-Ryzak state that parameter settings in an L2 interlanguage should be mutually exclusive – there should be no stage where learners entertain more than one parameter value at a time or switch back and forth (Schwartz and Gubala-Ryzak 1992). White in reply to this maintains that language acquisition is not instantaneous even in L1: "if there are two or more alternative settings of a single parameter, only one is permitted to survive" (Berwick 1985:95 in Trahey and White 1993: 201). Even in L1 acquisition parameter settings might compete for a period of time. Incorrect forms can exist for a period of months in L1, in spite of appropriate input. The Uniqueness Principle does not operate instantaneously. For example Valian 1990 argues that L1 acquirers learn their mother tongue with both settings of the null - subject parameter activated, so that L1 acquisition may involve a trying out of both parameter settings at the same time (Valian 1990 in White 1992a). What White (1992a) does suggest is that there may not have been enough positive input, either in amount or duration. She also asks the question: if negative evidence is necessary why did the instructed groups lose their long term gains (Trahey 1996:136)? Trahey posits that what may be necessary is a combination of the two, "an incorporation of attention to structure within the context of an input flood": primary linguistic data and attention to form (Trahey 1996:136).

White (1991) argues that the failure to retain effects of focus on form does not necessarily mean that focus on form does not affect the learner's internalised system.

This is in contrast to Schwartz and Gubala Ryzak 1992 who state "the absence of any long-term effects indicates that negative evidence did not result in the restructuring of the interlanguage grammar". Conversely, Izumi and Lakhsmanan argue that if long-term effects were observed one still cannot necessarily conclude that the knowledge involved has to do with competence, since the type of knowledge attained is independent of the retention factor (1998: 64). They believe that you cannot rule out the possibility that learned linguistic knowledge can persist for a long period of time. Even if long term effects are observed, they can tell us nothing about the status of the knowledge - that is whether it is competence or knowledge of some other type. (Izumi and Lakhsmanan 1998, Footnote 1 page 64). However other researchers hold the view that if the knowledge is retained over a period of time then the conclusion can be drawn that it is part of the linguistic competence of the learner (Trahey 1996). In a conciliatory gesture Schwartz (1993), admits that maybe it is the retention that is important in L2 acquisition rather than arguing about what type of knowledge it is. "...whereas explicit data and negative evidence effect Learned Linguistic Knowledge, they do not effect competence. They may, nevertheless, affect linguistic behaviour, and sometimes that may be all we are seeking" (Schwartz 1993:160).

4.8 Conclusion

In this study we are interested in how input effects the underlying competence of the second language learner and how environmental factors influence development. If we are to look at second language acquisition within Principles and Parameters theory, then a pertinent issue is still, what input is appropriate to trigger parameter resetting? Evidence for parameter resetting mainly comes from the acquisition of a target cluster of properties which are theoretically associated with the parametric value concerned (Neeleman and Weerman 1997, Prévost 1999). The results in the L2 studies conducted up until now have failed to provide conclusive evidence that the same properties cluster around the verb movement parameter as in L1.

We may discover, as some researchers maintain, that parameters can never be reset (Smith and Tsimpli 1995, Hawkins and Chan 1997) on the basis of changing feature values, or that they can be reset only with positive evidence (Schwartz 1993), or that negative evidence is necessary to induce unlearning of the L1 parameter setting (White

1991), or that a combination of the two is necessary: an abundance of primary linguistic data (input flood) and an attention to form (Trahey 1996).

The latest formulation of UG, the Minimalist Program and its emphasis on features, may be facilitative in providing an explanation to the problem of parameter resetting in L2 acquisition and what type of input is appropriate. The acquisition of individual features of functional categories (Clahsen et al 1996) may explain why learners appear to mix parameter values and entertain two different parameter settings at the same time. Tsimpli (1997) with the benefit of the Minimalist Program posits that lack of access to a functional module may be too powerful a suggestion. In a previous formulation Smith and Tsimpli (1995) suggested that an interlanguage grammar was a collection of L1 settings which appear target-like if alternative UG routes can give rise to a PF representation that resembles more or less the L2 equivalent. A feature based minimalist approach could be implemented to specify the status of the features which are least accessible to re-setting in the L2A process, given i) constraints on their learnability and ii) their selected setting in the L1 grammar (Tsimpli 1997:639.)

Universal Grammar is a theory of formal constraints on the development of L2 knowledge and not a complete theory of acquisition (Harrington 1996:731.) We need to understand how this structural knowledge interacts with other aspects of the learning process and specifically how it interacts with parsing (Carroll 1996, White 1998 plenary address GASLA). We cannot focus on the representation question alone as we need to investigate the process of grammar construction. We need to understand the non-UG effects that contribute so heavily to performance outcomes; any computational deficits need to be specified and related to UG structures. It may be these process issues that explain the apparent lack of parameter resetting in L2 acquisition. If predicted transfer of a cluster of properties associated with a given L1 parameter setting does not occur then we can investigate processing issues. A cluster of properties results in surface strings each with a different processing load. These differences might explain why the L2 acquisition of a set of structures deriving from the same parameter is not simultaneous in real –time (Klein and Martohrdjono 1999: 14).

Assigning grammatical structure to a string of speech sounds (parsing) plays a crucial role in language development, and non-native parsing routines may constrain restructuring of the target language grammar and impede L2 achievement (Klein 1999, Fernandez 1999). Carroll (1996) claims that adult L2 learners transfer parsing strategies and these transferred strategies will overlook particular stimuli in the environment, so what may be a trigger in L1 acquisition is not recognised as such in L2 acquisition. Additionally L2 learners perceive L2 input on the basis of the L1 grammar. Carroll (2000) repeats the claim that Principles and Parameters theory alone does not explain L2 knowledge and development and it needs to be linked to a theory of speech perception and language parsing.

Recently there have been developments in exploring how other factors may interact with L2 development and L2 knowledge. For example, Juffs and Harrington (1996) show that the problems Chinese speaking learners of English have with long-distance wh extraction may be a parsing problem rather than a deficit in linguistic competence (Juffs and Harrington 1996:283.) "L2 performance may diverge from that of native speakers due to greater processing difficulties rather than competence differences" (White 1998:220). As a final comment on this section on input it seems that parsing has a crucial role to play in L2 acquisition but a parser still has to be fed by a grammar. How the two interact has become a critical area of development in attempts to explain overall L2 proficiency.

In order to study the initial state in L2 acquisition and its subsequent development it is crucial to study the sources of knowledge during the very early stages of language acquisition (Meisel 1997.) L2 interlanguages may consist of a mixture of UG knowledge, transfer from L1 and other types of cognitive processes, for example problem solving. The varied types of learning in the L2 classroom will further complicate matters: for example, explicit teaching and the learning of metalinguistic rules and production of unanalysed chunks and formulas. What effect all these types of knowledge have on a L2 learner's underlying competence in the second language is a critical question. We are still a long way from understanding the different roles for the different processes. If we can ascertain that UG does have a role to play in the learning process in the classroom, how does this relate to the input in this environment? If we cannot see evidence of UG however, we may only be able to suggest that it is the

impoverished classroom input that is insufficient to trigger the human language making capacity.

We can use the study of two specific parameters, the verb movement parameter and the clitic placement parameter and the related acquisition of feature values for functional categories, to enlighten us regarding the more general question of the role of UG in the L2 classroom. A cross-sectional study starting from the very early stages may also enlighten us further on the L2 initial state. Do we see evidence for the weak continuity theory of Vainikka and Scholten (1996), the theory that all the features are initially transferred from the L1 (Schwartz and Sprouse 1996), or that L2 feature values are initially inert (Eubank 1993/4, 1994)? Additionally, how do the learners' interlanguage grammars develop? Can feature values change during the course of development and thus lead to parameter resetting? Is the classroom input appropriate and sufficient for parameter resetting to take place? The study described in the following chapters was designed to investigate these questions.

5. The study

This chapter outlines the study in respect to the research questions, which stem from my review of previous empirical studies, current linguistic theory, theories of linguistic development, and the various hypotheses on the initial state in second language acquisition. The study is embedded in a framework based on recent developments in Universal Grammar theory and its emphasis on the role played by the features of functional categories in parameter setting. This investigation into the initial state and subsequent development in second language acquisition focuses on two specific parameters: the verb movement parameter and the object clitic pronoun placement parameter. French and English phrase structure is very similar, however both of these parameters are set differently in French and English and there are observable consequences in the syntax between the two languages.

The chapter will take the following form: a presentation of the research questions, the research context and methodology, a description of the test types selected and designed, and an outline of the intended methods of scoring and analysis.

5.1 The research questions

The study aims to investigate the initial state and evolving interlanguages of English learners of L2 French within the framework of Universal Grammar. From this perspective it is assumed that the second language learners build subconscious mental grammars for the second language: that the task facing the L2 acquirers is similar but not identical to the L1 acquisition task. However, as in L1 acquisition, the learner must acquire a mental representation on the basis of deficient input. UG concentrates on a core grammar and the object of investigation is linguistic competence. It is a theory of constraints on representation and not a theory of language acquisition. A learner's linguistic competence will be affected by processing and performance demands. Within the UG paradigm the study focused on the following questions, which stem from an evaluation of current linguistic theory, hypotheses on the initial state in second language acquisition and theories of linguistic development:

1. The L2 learner's initial state, particularly the availability and development of functional categories. Can we find evidence for functional categories not instantiated in the L1? And do we find evidence of transfer of L1 functional categories and their feature values into the L2?
2. a) Subsequent development and whether the learners exhibit an increased knowledge of functional categories indicated by a qualitative change in the interlanguages of the learners at different levels. Furthermore is there evidence that feature values can change indicating that parameter resetting is possible?
   b) Additionally, is there evidence of clustering regarding the properties; i.e. is there evidence that once the subjects show knowledge of negative placement they are also aware of adverb placement? As discussed in chapter 3 evidence for parameter setting mainly comes from the acquisition of a target cluster of properties, which are theoretically associated with the parametric value concerned (Neeleman and Weerman 1997, Prévost 1998).
3. Finally the aim was to investigate the nature and influence of classroom input: can we see any evidence of developmental poverty of stimulus arguments in the learners' interlanguage systems? Can classroom input trigger restructuring of the interlanguage grammar? Or do we only find the effects of explicit teaching and/or problem solving, use of analogy etc.

5.2 The research context and methodology

The study intended to shed some light on the L2 initial state and the development of L2 learners' interlanguages, specifically in relation to functional categories. With the benefit of recent developments in linguistic theory we can investigate whether classroom L2 learners can change their feature values for functional categories and consequently reset parameters. The study examined the structures that fall out of the verb movement parameter and also object clitic pronoun placement. Due to time constraints which ruled out a longitudinal study, the study is cross-sectional. It is a non-interventionist study starting from the first year of learning (year 7) to a stage after 7 years of learning (first year undergraduate).

In order to answer the (groups of) research questions regarding the L2 initial state, and subsequent development, samples of language are obtained at one point in time from groups of learners who are at different developmental stages, using a battery of specially developed tests. In order to answer the research questions regarding the role of input for these instructed learners, a series of classroom observations were carried out and documented through fieldnotes. These procedures are outlined in more detail in section 5.3 and 5.4.

The subjects are second language learners of French in the school, sixth form and university system in England. Our first group of learners are year 7 pupils in an English comprehensive school who have just started learning French for the first time. It is vital to include these learners if we really desire to investigate the initial state; as it is crucial to study the sources of knowledge during the very early stages of language acquisition (Meisel 1997). Year 9 pupils, two years of French study further on, are the next group of learners. The third group of subjects is first year sixth form pupils, studying for the French A level examination having previously studied French to GCSE level. The final group of learners for this study are first year undergraduates studying French either as a single honours course or combined with other subjects. They are uniform in the fact that they all achieved A/B grade in their French A level examination. Although this is the final group for this study, these learners are a long way from their L2 final state. This study is not concerned with ultimate achievement, but with what learners know about the structure of the language at the initial state and how this knowledge changes over time as learners reach an intermediate level.

Number of respondents

Year 7: N = 15

Year 9: N = 13

Lower VI: N = 15

Undergraduate: N = 13

5.3 Observation

The study began with a period of silent non-participant observation. The researcher did not interfere in classroom interaction at all except, of course, by her presence. This

period of observation was important first of all to contextualise the research. We need to learn about the learners and the learning environment they are in, their general proficiency and the materials they are working with. It is also important to build up trust between the researcher and the subjects and importantly between the researcher and the teacher. For the purposes of this research the teachers were given some explanation of what the research involved but it was also necessary that the teachers avoided biased, imbalanced concentration on questions, negatives, adverb placement and placement of object pronouns. A second purpose of the observation was to build a profile of the learners, their general proficiency and to gain an overview of the activities in the classroom: the amount of listening, reading, speaking, writing. Observation of this sort was also essential when deciding on the materials to be used in the tests designed to gain insight into a learner's linguistic competence, e.g. to avoid unknown or complex lexical items that might increase parsing difficulties. However the principal aim was to investigate the potential relationships between classroom instruction and learner language data (Spada, Lightbown and Ranta 1996). What kind of input are the learners exposed to? How frequently do they hear the features that fall out of the verb movement parameter? Are the learners exposed to explicit teaching about language? If so, does the teaching involve the structures being testing? Does the teaching style change between the stages?

Each group of learners was observed over a period of time with the above aims in mind. The researcher was a silent observer and kept written field records, concentrating on input related to the verb movement parameter and object pronoun placement, and on teaching styles –particularly explicit teaching of the grammatical structures that fall out of the verb movement parameter and placement of object pronouns. The use of chunks which involve structures connected to the verb movement parameter and object pronouns was recorded. The spontaneous production of any relevant structures with or without errors was also noted.

The groups of year 7 and year 9 learners were observed once a fortnight during the autumn term of 1998. The sixth form pupils were observed once a week for most of the same term. The undergraduate students were observed once a week for a semester in a French language class, and also once a week in a conversation class given by a French native speaker. During these periods any teaching materials used with the

classes were collected and the researcher had access to any textbooks used. These procedures for observation provided the researcher with crucial information about the learners, the teaching styles, the learning context, the input and production related to the verb movement parameter. Additionally it guided the development of the tasks to be used in the next stage of the research. (There is a sample from the observed lessons in Appendix one.)

5.3.1 Spontaneous production

A further reason for this period of observation was to collect data from the learners' oral production rather than that elicited in the form of tests, to see if this data converges with data collected from the tests. If results converge across a variety of methods, they support conclusions in which one can have a high degree of confidence. Although the language produced in a L2 classroom may not necessarily be spontaneous, this data differs in that it is not elicited specifically via tests. This production data can provide a wealth of information about the L2 learner's grammatical development, and it can also provide information about how frequently specific grammatical items occur in the classroom. The grammatical structures that fall out of the verb movement parameter and object pronoun structures were accordingly noted and recorded.

However analysing classroom production data is not sufficient to study the competence of an L2 learner. There is no control over the data and there may be gaps in the data. We cannot rely such data alone to detect presence of functional projections in an interlanguage grammar. Production data can lead to an underestimation of a learner's linguistic competence. If a learner does not produce a particular structure it does not necessarily mean that it is not part of their linguistic competence. UG parameters are often tested through complex syntax and it is unlikely that appropriate sentences will be used spontaneously with any frequency (Tarone et al 1994:XIV). Spontaneous production provides little or no information about whether or not alternatives would be possible; Additionally, in spontaneous speech 'the absence of UG violations can never unequivocally be ascribed to a constraint that exists in the learner's grammar' (Thornton 1996). A naturalistic study; one that relies on spontaneous production, is primarily a study of performance and processing.

5.4 Using standardised tests to gain access to a speaker's competence

In any research project the research methods are related to the theoretical questions. From a UG perspective we are hoping to determine the underlying competence of L2 learners: are their interlanguage representations constrained by UG? A competence based theory attempts to determine which sentences are allowed by a learner's grammar and which sentences are not allowed. Competence is an abstraction, it is unempirical and eludes direct measurement. One can only find out about competence by measuring performance.

As we have seen in 5.3.1, spontaneous production is not sufficient to gain systematic access to a L2 learner's competence so we need alternative methods. "Obviously one can find out about competence only by studying performance, but this study must be carried out in devious and clever ways, if any serious result is to be attained" (Chomsky 1964:36 in McDaniels et al Preface). In practice tests are needed to elicit a sufficient number of tokens of a given sentence type. The methods used in this study will be a variety of standardised tasks based on those used in other studies, from which inferences can be made about a learner's linguistic development. The use of formal tests, which do not work with very young informants, is one advantage of working with older instructed L2 learners.

Methodology is not an end in itself and methods affect results which in turn can drive conclusions (McDaniels 1996). The fact that disparate claims can arise from inquiry into the same grammatical problem is partially explained by the use of different methodologies across the studies (Martohardjono 1997). All possible task types have advantages and disadvantages and raise questions of reliability and validity. A measure is valid if it measures what it is intended to measure, while reliability refers to the accuracy or consistency of a particular task. In designing our tasks the researcher has to decide what aspects of syntactic development are under investigation, what theory is being tested and what predictions are entailed by the theory. We must be sure we know precisely what aspect of language ability each experimental task evaluates with respect to an interpretation of the results elicited (Munnich et al 1994). The problem remains that no single task directly or exclusively reflects a learner's competence. However we

require tasks from which inferences can be made about a learner's linguistic development. The researcher has to select a number of comprehension and elicitation tasks and is looking for convergence from these sets of data. That is we aim to cross-validate performance from task to task (Bley-Vroman and Chaudron 1994).

So the tasks used with all the sets of learners in this study, are two types of grammaticality judgement tasks, sentence manipulation tests and elicited production tasks. The grammatical properties tested are, a) those that fall out of the verb movement parameter in French: inversion of main verbs in questions, the placement of ***ne*** and ***pas/jamais*** in negatives and the placement of adverbs, and b) the placement of object clitic pronouns. We needed these different types of task to elicit a sufficient number of tokens of a given property and to assess a common response across various conditions. When designing the tasks it was necessary to take into account both the age and proficiency of the learners and also the type of input they have received. "A given stimulus set will be insensitive to syntactic differences at too high a proficiency level (because performance will be at a ceiling) and also insensitive at too low a level (because performance will be at a floor)" (Bley-Vroman and Chaudron 1994:252). So to avoid floor and ceiling effects, the items in the tests for each group are different. This decision to vary test content by student's level had consequences for data analysis, which are discussed below in section 6.2.0. However there are common threads connecting the tests through the age groups. We have to avoid the interference of extragrammatical factors as much as we possibly can. Lexical items were carefully selected to avoid extra processing difficulties. One way of increasing the validity and reliability of tests is to pay careful attention to experimental design and to carry out rigorous pilot tests. We had to be sure that the tests are testing the linguistic ability we want to be tested, so pilot testing with a native speaker was essential. We also needed to pilot test to check for appropriate sentence length, number of sentences in a battery, problematic lexical items and possibly misleading instructions. Each test was therefore piloted with students from the relevant year group, students who were not going to be part of the main study. Most of the tasks also included items that were distractors, and each subject was given a number of practice sentences.

Table 1

Overview of tests taken by the different groups of learners

Test / group	**Grammaticality Judgement**	**Preference test**	**Sentence manipulation**	**Adverb Placement Elicited production**	**Object pronoun placement**
Year 7 (15)	Yes, with pictures & corrections **7a**	Yes **7b**	Yes **7c**	no	no
Year 9 (13)	Yes, with pictures & corrections **9a**	Yes **9b**	Yes **9c**	Yes **9d**	no
Lower VI (15)	Yes, with corrections **LVIa**	Yes **LVIb**	Yes **LVIc**	Yes – same as Year 9 **LVId**	Yes – visual prompts **LVIf**
Undergraduate Year 1 (13)	Yes, underlined incorrect part of sentence & scale of confidence **Undergrad:a**	No	Yes **Undergrad:c**	Yes – some overlap of items with year 9 and lower VI test **Undergrad:d**	Yes, same items as LVI test but only with oral prompts – Elicited imitation with production task **Undergrad:f**

* numbers in the table indicate references for the tests in the appendix

An overview of the completed battery of tests is shown in Table 1, and each test type is discussed in individual sections below. The actual tests are to be found in Appendix 2.

5.4.1 Elicited Production

Tests were designed that elicit the specific grammatical structures in a controlled way. Elicited production procedures were used primarily to elicit structures that involve adverb placement. A set of pictures of various activities is shown to the subject, and underneath each picture is an adverb of frequency, for example, ***'toujours'*** (always),

'***souvent***' (often). The subject is asked to describe what the person does in the picture and how often they do it, by using the word underneath. Once the subject has produced a phrase then the researcher asks the subject if there is any other way they can say the same sentence. This procedure is used to try and avoid reliance on sentence initial and sentence final adverb placement. The grammatical structures are not modelled by the researcher in English or in French. This task was used for subjects in year 9 upwards (see appendix, test 9d, LVId and UGd). The proficiency of the year 7 group was too low to be able to cope with this test.

This test type involves more than comprehension and parsing procedures. Speech production is one part of language processing, and production in a second language is a highly complex process. It involves suppression of L1 production procedures and also accessing L2 lexical entries from a store. The speed with which words can be accessed will affect sentence production. Additionally the test involves coding L2 lexical and functional categories into linear sequences which do not violate word order constraints for the target L2 grammar (Carroll 2000:footnote 22). As the learners are unable to draw on memorised unanalysed chunks for this test the processing load is demanding, particularly for the lower levels. Sentence production is a process of constructing rather than selecting sentences from memory.

This elicited production can be considered to directly reflect the L2 learner's grammar. In this way the experimenter can evoke sentences corresponding to complex syntactic structures, ones that will occur rarely in the learner's speech. Constraints are placed on the learner so that he is forced to make choices within a severely restricted area of syntactic competence (Thornton 1996). We can collect a robust data sample of the targeted structure and avoid gaps. The tests were carefully piloted to ensure that native speakers produce the target structure in the experimental context before testing the L2 learners. These production tasks can reveal what the learners do say and what the learners do not say; that is whether the learners exclude sentences from their grammars because of the principles of UG. The sessions of elicited production were taped by the researcher. It is important with these elicited production tasks to take steps to ensure that the experimental hypothesis is not favoured by the experimental design, we should avoid type one errors (Thornton 1996): errors that assert a connection that is actually absent. Therefore the researcher never modelled the structures.

The test used for testing the placement of object pronouns was a type of elicited production. The subjects in the lower VI and undergraduate groups were given sentences with a noun phrase highlighted and they had to replace the noun phrase with an object pronoun and produce the sentence. The lower VI subjects had visual prompts i.e. they could read the sentence, but the undergraduate subjects only had oral prompts. They had to listen to the sentence twice and the noun phrases to be replaced were supplied in written form (see appendix two LVIf and Undergrad:f). So the test for the undergraduate group involved both elicited imitation and elicited production of object pronouns. Elicited imitation crucially involves both the language processing system and the memory system: a limited capacity short term memory system is involved. Short-term memory is supposedly limited to 7 units +/- 2. In the native speaker the language processor automatically and obligatorily produces representations of the input and does not itself require the use of short-term memory. It is believed that the store used by the parser is not the same as that by a subject in remembering, so parsing cannot affect imitation accuracy directly by filling up short term memory (Bley-Vroman and Chaudron 1994). For native speakers the language processing system is encapsulated in a language module. In non-natives, if the foreign-language processing system is not fully encapsulated, then foreign language learners will in effect have less memory available for imitation as the processing of language input in principle places a load on the working memory. This test involving imitation and elicited production places a considerable processing load on the learner; processing the input to form a representation, keeping the representation in short-term memory and using the speech production system to reproduce the phrase.

5.4.2 Sentence Manipulation

This is a test adapted from Trahey and White (1993). It was used to test word order in respect of the structures that fall out of the verb movement parameter and the placement of object clitic pronouns. The subjects are handed a set of cards with each card containing a word or in the case of nouns two words, the article and the noun. From these cards the subject is asked to make as many grammatical sentences as he or she can using all the cards in the set. Some sentences have more than one possible correct order. As each order is laid out the researcher reads and records the sentence onto a tape, then asks if there is any other way that might also be correct. The subject

manipulates interrogative sentences, negative sentences, sentences with object pronouns and sentences with adverbs. For the lower two groups there are also some distractor sentences. All groups of learners were given a version of this test at varying levels of difficulty (see test **c** for all groups of learners).

5.4.3 Grammaticality Judgement Tasks (GJs)

In a theory of UG, judgements of grammaticality have been argued to reflect an individual's linguistic competence (Chomsky 1975 in Munnich et al 1994:229). A subject is asked to listen to or read a particular sentence and evaluate whether or not the sentence is grammatical or acceptable. In some instances they are asked to correct the sentences they feel are not 'good' or acceptable. In both L1 and L2 acquisition GJs have been used to evaluate knowledge of ungrammaticality. These tests do not tap UG competence directly: competence is an abstraction, it eludes direct measurement. But by asking informants for judgements, i.e. for information on allowable and disallowable sentences, the researcher can indirectly evaluate hypotheses about grammars. The methodology of grammaticality judgements assumes that the subject's correct response on the test indicates that the subject has access to the linguistic knowledge sanctioning the structure of the target sentence, and the subject's incorrect response indicates the absence of that access (Sorace 1996). It is claimed a grammaticality judgement can be used to evaluate almost any area of syntax (McDaniels 1996).

The use of grammaticality judgements is not without controversy and there has been much debate about the suitability of grammaticality judgements for L2 acquisition studies. The most fundamental challenge to validity is that the judgement task is not a reflection of competence but of a separate faculty characterised by its own set of properties not shared by other kinds of linguistic behaviour (Sorace 1996). However Sorace claims that because the use of judgements has led to significant generalisations about syntactic processes (Sorace 1996), then the results could hardly be explainable "if there was no more than a chance relationship assumed between grammatical knowledge and expressed linguistic intuitions"(Sorace 1996:376.) Often results from production and judgement tasks can be seen to converge; a correlation between the two can be assumed.

Another argument against grammaticality judgements is that they are not devoid of intervening extragrammatical factors, such as lexical problems, processing, the number and order of sentences etc. (Martohardjono 1998). These extraneous factors give rise to questions about both validity and reliability. In grammaticality judgement tasks "validity is concerned with the relationship between judgements and the state of knowledge they are supposed to reflect (linguistic competence). Reliability is the degree of consistency among the judgements produced by different informants (intersubject consistency) or by the same informant (intrasubject consistency) in different replications of the test" (Sorace 1996:376). The question of parsing sentences should also be investigated because presumably a subject must parse a sentence before being able to give a response. How parsing interacts with linguistic competence is one of the most pertinent questions in UG related research at present (White, plenary GASLA 1998). In this study the use of rigorous piloting can help reduce the parsing difficulties of the test items.

If we accept grammaticality judgements for L1 acquisition research, can we assume that rendering judgements for L2 is also acceptable? There has been much debate over what underlies non-native speakers' grammaticality judgements (Gass 1994, Sorace 1996, Davies and Kaplan 1998). The uncertainty of response is particularly acute with L2 classroom learners. These learners may use a variety of different strategies to reach their response: guessing, analogy, translation and recall of explicit rules they have been taught. The L2 classroom is an environment that fosters metalinguistic knowledge, so that it may be difficult to tell if the subject's judgements reveal what they think or what they think they should think (Sorace 1996). The responses might be influenced by an individual's prescriptive knowledge about language rules rather than reflect an individual's underlying competence. This would indicate that there is contamination of the data by the learner's explicit knowledge base (Tarone 1994, Robertson and Sorace 1999). If there is evidence of structures in the interlanguage grammar that violate principles of UG this cannot necessarily be taken to be an accurate picture of the L2 learner's competence. The violations could be explained either by imperfect learning or the incorrect application of explicit grammar rules (Schwartz 1990 in Rutherford 1994).

There is also the problem of indeterminate knowledge in L2 learners: of learners who have yet to stabilise their linguistic competence (Goss et al 1994). 'Indeterminate knowledge' refers to the learner's incomplete knowledge or absence of knowledge of parts of the second language grammar. It seems that because of the instability of interlanguage grammars grammaticality judgements are less reliable if the subjects are presented with sentences for which they have indeterminate knowledge (Gass 1994, Sorace 1996, Davies and Kaplan 1998). This suggests that the reliability of grammaticality judgements will increase with increased proficiency. In this study I have decided to use grammaticality judgements and thus assume that L2 learners have internalised interlanguage grammars and their linguistic intuitions are primary indicators of interlanguage competence. However, it is essential that extralinguistic factors are controlled for.

These extralinguistic factors can be controlled for by carefully selecting the test sentences, the test design and the informants (Sorace 1996, Cowan and Hatasa 1994). Careful thought about design and lexical items can minimise parsing complexity (McDaniel and Smith Cairns 1996). To be sure that subjects are judging form not content, again pilot studies are a must (Cowan and Hatasa 1994). Careful attention needs to be given to choice of lexical items and the number of tokens for each type. Distractors are used to break a pattern in materials, to break a response pattern and also to check to see if the subject is paying attention (McDaniels and Smith Cairns 1996). Also when presenting the subject with sentences it is important that the subject cannot refer back to earlier sentences in the battery, to avoid attempts at applying learned grammar rules.

In this research two types of grammaticality judgements were used. The first involves the subject deciding if a sentence is correct or incorrect and then trying to correct the disallowable sentences or underlining the part of the sentence they think is incorrect. The other type is what is known as a preference test: judgements are constructed in pairs so that each item has an equivalent that differs from it only in the syntactic structure under investigation, for example, why is Joe running? why Joe is running? If a subject rejects one member of the pair and accepts the other one, it can be assumed that the rejection is due to the syntax. The judgement task used for the undergraduates also includes a scale of confidence for their judgements. The subjects are asked to indicate

if they think the sentence is grammatical or not by choosing ✓ or ✗ and then asked to assess the degree of confidence they had in their judgement by selecting from a scale on the response sheet:

-3	-2	-1	0	+1	+2	+3
definitely incorrect			unsure			definitely correct.

This scale was used to assess the level of indeterminate knowledge and what effect this was having on the subjects' judgements. In the undergraduate grammaticality judgement test some of the items used have been taken from the grammaticality judgement test used by Hawkins et al in their 1993 study (see Hawkins et al 1993 appendix).

For all the tasks the subjects are told to work through the activity quickly and not to change any of their answers because it is important that it is their first response. Pilot studies were used to decide on the preferred modality of these tests for the present research design: oral or written. The Year 7 subjects heard the stimulus sentences as well as reading them, in order to reduce the complications that reading can bring to the task. (Each group had a grammaticality judgement test, **test a** for all levels in appendix two, and year 7, year 9 and the lower VI group had a preference test, **test b**.)

5.5 The use of the undergraduate 4 group.

It was decided after carrying out the battery of tests with the first four groups to also give the undergraduate grammaticality judgement test to a group of 17 students in their fourth year at Southampton University. All of these students entered Southampton University at the same time, and they had all spent at least six months in a French speaking country. The reason for this further test administration was to see if there was any significant development in intuitions from the undergraduate year 1 to the intuitions in the undergraduate year 4 group. If the results for the other groups suggest problems with parameter resetting or resetting for only some of the cluster of properties associated with verb movement, then we can look at the results for a more advanced group to see if there is concrete evidence of parameter resetting taking place at a later stage. Unfortunately results for this group only appear for each property in the grammaticality judgement test results as they only did this task.

5.6 Scoring procedure

Respondents were given a positive score if they judged an item correctly or correctly manipulated a sentence correctly. In the elicited adverb production tests the respondents were given a correct score if they correctly produced a phrase with an adverb placed phrase medially. Finally in the elicited object pronoun test the respondents were given a correct score if they reproduced the phrase with the object pronoun in the correct position.

In the year 7, year 9 and lower VI grammaticality judgement and preference tests 'not sure' responses were counted as incorrect. In the grammaticality judgement tests if the respondent underlined a part of the sentence in a grammatical item that was not relevant to the grammatical phenomena we are interested in, the response was counted as correct. Additionally, if in the production tests, (object pronoun and adverb placement), mistakes were made that were not relevant to word order, these responses still counted as correct. Incorrect gender and number or choice of direct or indirect pronoun in the object pronoun placement test, or wrong agreement for verbs in the elicited adverb production test, are examples of errors which were ignored for scoring purposes. The scoring procedure was carried out several times to check for inconsistencies, and also as a result of supervisory consultation.

5.7 Conclusion

The domain of enquiry in UG related research is linguistic competence. There is no methodology at present that can gain access to competence directly or exclusively. As a consequence the study uses this variety of different tasks to try and tap the implicit L2 knowledge of the learner, bearing in mind the caveat that various extragrammatical factors are likely to intervene. The best strength of a particular test lies in whether or not the evidence it provides converges with spontaneous production and the other types of tasks used in this study. There are other tests that could be added to the selection chosen: on-line sentence matching tasks, reaction time experiments etc. Unfortunately access to the subjects was not unlimited and disruption to the classes had to be kept to a minimum.

In our eventual analysis we will look for convergence in the findings across the tasks. However the method of analysing converging evidence can be complex. When interpreting the results we must bear in mind how the research methods relate to the theoretical paradigm being investigated (Tarone 1994) and how each task is 'mediated by different sets of processing and general cognitive factors' (Lust et al 1996). We will not only be comparing the data to the target language but also analysing it to see if the interlanguage representations are constrained by UG and to see if there is any systematicity in the learners' grammars. In this study only descriptive statistics will be used in the analysis of the results; inferential or comparative statistics cannot be used because the items in the tests were different for each level. In order to maintain consistency, and because in some cases the number of tokens is very small, inferential statistics will again not be used to compare the different structures within each level. As group statistics sometimes hide important information regarding the response patterns of individuals (Hsu and Hsu 1996, Robertson and Sorace 1999), both group and individual scores will be examined. We focus not only on differences in particular stimulus types but also on possible differences among subjects.

6. Results

The following main chapter presents results for all aspects of the study and is divided into 3 sections. The first section presents the information collected from the period of observation for each group. The following section includes the results for the properties that fall out of the verb movement parameter and an initial discussion of these results. The final part provides the results for placement of object clitic pronouns and again discusses these results with reference to linguistic theory and second language acquisition theory.

6.1 Observation

This section outlines the information obtained from the period of observation for each group. Recall that the period of observation had multiple aims. Importantly its initial aim was to contextualise the research; to build a profile of the learners, their general proficiency and the learning environment they are in. For these learners their classroom experiences constitute their predominant encounter with the target language, and the nature of their linguistic environment is quite distinctive. With regard to this study, a further explicit aim was to examine the input they received in order to investigate the potential relationship between classroom input and learner language data. Are the learners exposed to explicit teaching about grammar? Particularly teaching about the grammatical structures we are investigating: negatives, inverted lexical verb questions, adverb placement and object pronoun placement. How frequently do the learners hear the structures that are being studied? Or produce the structures being studied? If they produce the structures in class are their phrases correct in terms of word order? Additionally, what role do unanalysed chunks play in the learners' input and production routines? The period of observation was also essential in aiding test development, in order to avoid unknown lexical items or items that cause excessive parsing demands.

The results from the observation period will be covered separately for each group, starting with the year 7 group.

6.1.1 Year 7

The year 7 group were observed in their very first term of learning French, a few weeks into their course. They were observed once a fortnight because the school operates a two-week timetable, which meant they had French lessons only in one week per fortnight. Each lesson lasted one hour and the students had three lessons per fortnight. The researcher also had access to the textbook used, ***Avantage 1***, and any additional teaching materials used. The researcher observed a total of six lessons as a non-participant observer.

The lessons observed by the researcher were all highly teacher centred. In the lessons the teacher used French as the normal language of instruction and only resorted to English if there was a comprehension problem. She also checked for comprehension by asking a student to explain the instructions in English. A few weeks into their course, the students were not concerned by this use of French in the classroom. However the students' own use of French was extremely limited and the children only spoke French in a whole class situation in response to the teacher's questions or in drilling routines; if they had a question they asked it in English. There were instances of pair work when the learners practised structures they had been taught by the teacher.

In her production the teacher continually asks questions: mostly with ***est-ce-que*** or ***qu'est-ce-que***, for example, ***qu'est-ce que c'est*** or ***est-ce que tu as une calculette***? The teacher does not regularly use inverted lexical verb questions, but she did occasionally use ***aimes-tu***? and ***comment dit-on***?. One unit in the textbook concentrated on ***as-tu***? for example ***as-tu un crayon***? And this was returned to in a section on pets ***as-tu un chat***? There was a section on ***aimer***, and the students heard three types of questions, ***aimes-tu....?, est-ce-que tu aimes....?, and tu aimes...?*** Also there were the questions, ***comment t'appelles-tu?, où habites-tu? Comment ça s'écrit***?. The students were also asked the question, ***où est-ce-que tu habites?*** at the same time as ***où habites-tu?*** In the book there were a few examples of inverted questions, for example, ***connais-tu bien l'Europe?, parlez-vous franglais?, quel Sports aimes-tu?, comment dit-on ça en anglais?*** Some questions were also produced by the learners as chunks, the teacher had previously modelled and rehearsed the questions with little variation or analysis. These were ***où habites-tu?, as-tu*** followed by a noun phrase? ***Quel âge as-tu?***

and ***comment t'appelles-tu?*** These interrogatives are complex phrases that involve wh-fronting and inversion.

The occurrence of negative forms in the classroom was less frequent. The teacher used them occasionally and the students learned some specific chunks. They were not explicitly taught 'this is how you make negative sentences in French', and they did not have their attention drawn to the negative particles '***ne***' and '***pas***'. The teacher occasionally used phrases like ***tu n'as pas une feuille***? ***Je ne peux pas dessiner*** in her general classroom language. On occasions she omitted '***ne***' as is possible in informal spoken French, ***c'est pas à la montagne***. The pupils were explicitly taught ***je n'aime pas***, and ***je n'ai pas de*** .... But these expressions were learnt as unanalysed chunks. They also learned the phrase '***c'est pas mal'***; and these chunks were also produced in pair work by the learners. Additionally, the phrases ***je ne comprends pas*** and ***je ne sais pas*** appeared in the book but I did not hear the teacher or the learners use them.

The teacher used object pronouns in her classroom language: ***la classe me dit , vous me dites, qui peut me dire ,*** and these phrases were used relatively frequently. However the students were not taught the position of object pronouns neither did they see them written down. In the lessons observed I heard no adverbs and they do not occur in the textbook ***Avantage 1***.

Although I did not observe all their lessons during the observation period I feel quite confident that the lessons observed were representative of a typical lesson for these learners. All the lessons were predominantly teacher centred with no explicit commentary on grammatical features apart from gender of nouns. The classroom practice centred on the presentation, memorisation and rehearsal of chunks with conversational functions.

6.1.2 Year 9

The year 9 students are at the same school, so again they were observed once a fortnight, for a total of six one-hour classes. The language of instruction for the class was a mix of French and English. The teacher often started in French and then switched to English if he realised that there were problems with comprehension. Again

the students' production was very limited and was mostly in response to the teacher's questions or in controlled pair work. I had access to the textbook, ***Avantage 3*** and any other teaching materials. I was also given a copy of ***Avantage 2,*** the book they had used in the previous year.

The teachers' questions were again mostly ***est-ce que*** and ***qu'est-ce que*** types of questions. There were examples of non-inverted questions, e.g. ***vous avez combien?*** And some examples of inverted questions with lexical verbs, e.g. ***aimes-tu écouter de la musique pop?, que font nos parents?*** There were numerous examples of questions with inverted lexical verbs in the textbook, for example, ***préfèrez-vous boire du thé ou du café?*** There were one or two instances of students producing questions spontaneously in class, usually with ***qu'est-ce que***, e.g. ***qu'est-ce que c'est en anglais?*** In one particular lesson, the students had to produce a survey and the teacher began the lesson by asking students to write down as many questions as they could. The examples from the students included, ***où habites-tu?, comment ça s'écrit***?, ***quelle heure est-il?, qu'est ce que c'est ça?, qu'est-ce qu'ils vont faire***?, ***as-tu des frères ou des soeurs,? est-ce que tu aimes le chocolat? aimes-tu?*** For this list the learners seemed to produce questions that they had learned as chunks in their previous years of French learning. They then looked at a mini-survey in the book, where most of the questions were inverted lexical verb questions, ***e.g. aimez-vous la musique hard?*** The students created their own surveys mostly with ***est-ce-que*** questions or without inversion, e.g. ***quelles sortes d'animaux tu préfères?***

Again the use of negatives was less frequent. The teacher used negative sentences occasionally but the students did not receive explicit instruction on creating negative sentences during the observation period. This teacher also produced examples of the negative without ***'ne'***, e.g. ***c'est pas allemand.*** In one lesson for the purpose of the activity the teacher checked the students understood, ***je ne peux pas...***, ***je ne veux pas...***, ***je n'ai pas de temps***, and they all did. There was also use of the phrase ***ça ne m'interesse pas***, a negative phrase with an object pronoun, in a unit in the textbook. The phrase was also used by the students when carrying out activities from this unit. The students quite often produced the phrase ***je ne sais pas*** and I twice heard ***ce n'est pas moi*** in response to being told off for something. There was an example of an elicited negative form, when the teacher first asked the students for the French

equivalent of 'I agree', ***je suis d'accord***. Then when this was given he asked for 'I don't agree', one student said ****je n'accord pas,*** and when the teacher said no, someone else said ****je ne pas accord***. The teacher then wrote ***être d' accord*** on the board and underneath ***je suis d'accord,*** and one student said ****je ne suis__ accord*** but was corrected by another student to ***je ne suis pas d'accord.***

There was no direct teaching of object pronouns but the teacher did use them in his classroom language; ***quelques personnes ne l'ont pas fait, il faut me regarder***. There was also the phrase ***ça ne m'interesse pas***, in one unit in their book and ***il faut le chercher dans le vocabulaire,*** throughout the book and the occasional object pronoun in reading texts. I heard only one adverb, ***bien*** (well) in the phrase ***vous avez bien travaillé*** used by the teacher. In the book the students occasionally see ***souvent*** but without a following object NP.

The lessons for this group were still predominantly teacher centred though the teacher did less modelling and rehearsal of target expressions. However the learners still rely on chunks when producing phrases and there is very little form-focussed teaching or explicit instruction.

6.1.3 Lower VI

The lower VI group consisted of A level students at a sixth form college. There were 17 in the group. This group was observed 8 times, and each of the lessons was 70 minutes long. The teacher was a French native speaker, who mostly used French in the classroom. Occasionally she gave grammar instruction in English. The language produced by the students in class was still minimal. However, at the beginning of most lessons the teacher asked the students to talk in pairs about what they had done at the weekend or the previous evening. The textbook used was *Au Point*, aimed at leading students through an A level course. The students had come from different secondary schools but had all gained A or B in their GCSE French.

Again the most frequent question forms were ***est-ce que*** or ***qu'est-ce que*** questions. The students alternated between ***est-ce que*** question forms and inversion in questions in

the passé composé, for example ***as- tu regardé la télévision hier soir?*** or ***est-ce que tu as regardé la télévision hier soir?*** .

There were examples of negatives in the classroom input but no explicit teaching of this grammatical property. Most of the examples were produced by the teacher but there were one or two examples produced by the students in the simple present tense and the passé composé. Incorrect examples from two different students were, ****elle n'a osé pas lui parler, *je ne suis allée pas.*** There was also the incorrect example, ****je ne pas voulais quitter.*** The teacher also produced phrases with the negative adverb ***'jamais'*** ,e.g. ***Je ne l'ai jamais lu.*** I heard one example of ***'jamais'*** produced by a student ***je n'ai jamais vu...***

The teacher used countless examples of object pronouns in simple and compound tenses and also with infinitive verbs, ***je vous donnerai, au lieu de vous donner, je voudrais le donner, il va t'aider.*** I observed a grammar lesson on the placement of object pronouns, in simple tenses and the passé composé. The grammar instruction was given in a mixture of French and English. There were incorrect examples produced by the students of the type ****je vois le*** and ****ils ont lui offert.*** I also heard correct examples produced by the students, ***je l'adorais, je l'ai détesté.***

I observed no explicit instruction on the placement of adverbs although there were a few in the teacher's input, mostly ***vous avez bien fait***. Additionally, they occurred in the textbook, ***je fais toujours un peu de planche à voile, je n'aime pas trop le sport.***

6.1.4 Undergraduate

The undergraduate group was observed once a week over a semester in a language class and a conversation class. Both classes lasted 45 minutes. The language class was taught from the front of the class in a mixture of French and English. The teacher switched to English when grammar explanations became tricky. Most of the classes were grammar classes based on a series of grammar sheets 'Focus on Grammar'. The conversation classes were given by a French native speaker. These included general conversation, discussion of reading texts and the occasional role-play. All the students had achieved an A/B grade at A level French. The language classes did not involve much spontaneous production from the students. However they often had to translate

sentences from English to French. The conversation classes were, by their very nature, where most of the spontaneous production occurred.

Again the most frequent question type was questions with ***est-ce-que***. This type of question was used by teachers and students. In the conversation class the French native speaker used ***est-ce que*** questions and non-inverted questions, ***elles mènent vers où?*** There were very few inverted lexical verb questions in the input.

There were copious examples of the negative used by both teachers and the students. I heard correct examples of the negative in simple tenses and compound tenses from the students, particularly in the conversation classes, ***nous ne parlons pas la langue, je n'ai pas compris, il n'y avait personne dans la rue***. I observed a grammar lesson on double negatives in the language class which involved explicit teaching in both French and English. After the teaching the students had to translate sentences from English to French. From this I heard the following incorrect sentences produced by the students, ****nous ne l'avons vu plus jamais*** and ****il n'a jamais écrit rien.*** Other students corrected both of the incorrect sentences.

The students were exposed to object pronouns in both the language class in the teacher's general speech and in the conversation class. They were used in all grammatical contexts, with simple tenses, passé composé and infinitives. In the conversation class the students used object pronouns without difficulty, e.g. ***il les aide, il lui donnait, je pense que je l'ai trouvé sur la plage, on m'a dit*** and ***je ne la trouve pas.*** In the language class the students had a specific lesson on verbs that can be transitive and intransitive and during the lesson the students were reminded of the placement of object pronouns. Also when translating the 'ing' form into French the students had to use object pronouns and produced, ***ils l'ont étonné en lui demandant son identité*** and ***ils nous ont vu arriver.*** The grammar point for this lesson was the gerund in French so the students were not paying particular attention to object pronouns but they seemed to place them correctly. However because the students were involved in translating they were paying particular attention to the language they were producing.

Even at this level the use of adverbs was limited, though I heard ***'bien'*** in ***vous avez bien compris*** and '***encore'*** in ***vous n'avez pas encore compris***. Both of these examples

were used by the teacher in the language class. There was no explicit instruction on the placement of adverbs. However it could be the case that these students have received explicit teaching on adverb placement in the two years that they studied for A level.

The observations made concerning the type of input received by the learners, the oral production of relevant grammatical structures, and the use of unanalysed chunks will be referred to when describing the results for the tests in section 6.2 and 6.3.

6.2 Results for properties that fall out of the Verb Movement Parameter

6.2.0 Introduction

In this second results section, the results for the tests are examined across the groups for each grammatical property that falls out of the verb movement parameter: negative placement, phrase medial adverb placement and lexical verb inversion in questions[8]. In this way comparisons can be made between the grammatical intuitions from the different groups, as we intended to investigate the stages of acquisition by investigating a variety of proficiency levels. We can infer likely development over time on the basis of these comparisons. Recall from section 5.1 that we are interested in:

- The L2 learner's initial state, particularly the availability and development of functional categories. The aim was to investigate the properties that fall out of the verb movement parameter to see if there is evidence of transfer of functional categories and their feature values.
- Subsequent development and whether the learners exhibit an increased knowledge of functional categories indicated by a qualitative change in the interlanguages of the learners at different levels. Furthermore is there evidence that feature values can change indicating that parameter resetting is possible?
- Additionally, is there evidence of clustering regarding the properties; i.e. is there evidence that once the subjects show knowledge of negative placement they are also aware of adverb placement? As discussed in chapter 3 evidence for parameter setting mainly comes from the acquisition of a target cluster of properties, which are theoretically associated with the parametric value concerned (Neeleman and Weerman 1997, Prévost 1998).
- Finally can we see any evidence of developmental poverty of stimulus arguments in the learners' interlanguage systems?

In this study we are investigating the nature of the learners' mentally represented grammars at different stages of development. However the data we collect is performance data and this data can therefore be somewhat messy. In our investigation of the learner's mentally represented grammar we cannot forget the developmental

[8] Object pronouns are dealt with in the next section.

problem of acquisition, the process by which language is acquired, how the learner moves from one knowledge state to another. The role of input and processing must also be examined. Input must be adequate and also it must be processible to become a trigger for restructuring a grammar. Parsing the L2 input may be a problem for the L2 acquirer. In this study the mentally represented grammars of our instructed learners can be affected by a number of different variables, including unanalysed chunks of language, transfer of processing procedures, problematic lexical items and explicit teaching. The period of observation and piloting of the tests were carried out in an attempt to ascertain how these variables might affect the learners' linguistic competence (see chapter 5 and section 6.1).

The results are laid out in tables below for each grammatical property, first for the pooled results from all the tests subdivided by learner group, and then for each test. The results for each test are then given individually for comparative purposes because each test has different task demands. All the tasks were designed with the aim of using performance to gain some kind of insight into competence, so it is felt that it is legitimate to pool the results of the tests. The performance effects are different for each task but the knowledge should remain constant. The figures in the tables show the number of tokens correct out of the total number of group responses. As we saw in chapter 5 the items in the tests for each group are different because the levels of proficiency are so different and in devising the tests it is necessary to avoid floor and ceiling effects i.e. the tests should not be too easy or too hard for the learners. As a consequence the results cannot be compared statistically across the groups. However qualitative comparisons can be made.

Results for negatives and adverbs are further broken down by type of tense construction the property occurs in, i.e. whether it is a simple tense e.g. simple present, future, etc, or a compound tense, the passé composé, or an auxiliary and infinitive construction[9]. Can we observe any similarities across the groups that relate to the type of tense construction? The reason for this breakdown into tense construction type was to enable us to see how type of tense construction affects results within groups and also see if there is evidence of staggered development of knowledge of verb movement depending

[9] In both the text and tables where auxiliary (aux) and infinitive is written it actually refers to auxiliary modal verbs and infinitive

on the tense construction type. Recall that it is only finite verbs that move overtly to Agr in French. We can investigate the data from these learners to see if they exhibit differences in verb raising related to a distinction between finite and nonfinite verbs.

6.2.1. Negatives

Table 2a Results for negatives from all tests

	Year 7			Year 9			Lower VI			Undergrad 1		
	Total no.*	Total ✓	%	Total no.	Total ✓	%	Total No.	Total ✓	%	Total no.	Total ✓	%
Simple present	150	56	37.33	169	52	30.77	120	92	76.67	52	41	78.85
				With only 'pas' 48/130 36.92%								
Aux and inf	30	11	36.67	52	34	65.38	30	24	80.00	39	19	48.72
Passé composé							60	39	65.00	130	86	66.15
Negated inf							75	19	25.33	104	68	65.38
All constructions	**180**	**67**	**37.22**	**221**	**88**	**39.82**	**285**	**174**	**61.05**	**325**	**214**	**65.85**

Number of respondents in each group, Year 7, N = 15; Year 9, N = 13; Lower VI, N =15; Undergraduate 1, N = 13

*** column 1 for each group shows total number of possible tokens**

Table 2a shows that the overall score for negatives from the pooled results from all the tests increased across the groups. However we cannot make any formal statistical comparison of the differences between groups because there were different items in each test for each group. The higher score for simple present negatives for the year 7 group (37.33%) than the year 9 group (30.77%) can be explained by the fact that, based on evidence from the observation period, many of the items in the year 7 group tests were familiar as 'unanalysed chunks, for example, ***je n'aime pas*** (I ne like not – I don't like). Based on the observation period we have assumed that items like ***je n'aime pas*** and ***où habites-tu?*** are recalled as unanalysed chunks for a number of reasons. They are structures that have been drilled and memorised in whole class practice and pairwork. Also these structures are far more complex than productive patterns in the learners' speech. The learners use no other examples of ***ne*** and ***pas*** to produce negatives and there are no other examples of questions with wh operators and inverted lexical verbs apart from these examples that have been drilled in class.

Additionally, the year 9 tests included the negative particle '***jamais' (never)*** as well as ***'pas'***, and in most tests the results for items with '**ne....jamais'** were low. There is a noticeable improvement between the year 7 and year 9 groups in auxiliary and infinitive constructions. The year 9 results also showed much better accuracy in judging or producing negatives in auxiliary with infinitive constructions (65.38%) than in simple present constructions (30.77%); a result that is consistent with other studies for early learners of L2 French (Meisel 1997). There is striking improvement in both simple tense and auxiliary and infinitive contexts between the year 9 and lower VI groups. For all constructions the year 9 score is 39.82% and the lower VI score 61.05%.

The result for auxiliaries and infinitives (48.72%) was surprisingly low for the undergraduate 1, which affected their overall score for negatives. This may be because the items all included the negative adverb '***rien***' (nothing or not anything) as opposed to ***'pas'***, suggesting that learners treat '***rien'*** differently to ***'pas'***. This low result for negatives in an auxiliary plus infinitive construction pulled the overall negative result down for undergraduate 1. However the difference in correct responses for the lower VI (25.33%) and the undergraduate group (67.31%) in non-finite contexts is striking. There seems to be an important development in intuitions about ***'pas'*** placement in non-finite contexts between the stage represented by the learners in the lower VI and the stage represented by undergraduate 1.

6.2.1.1 Negatives in the preference test: Year 7, Year 9 and Lower VI (no test for undergraduate 1)

Table 2b Negative results from preference test

	Year 7			Year 9			Lower VI		
	Total No. tokens	Total ✓	%	Total No. tokens	Total ✓	%	Total No. tokens	Total ✓	%
Simple present	30	9	30.00	39	9	23.08	45	26	57.78
				With only 'pas' 9/26 34.62%			Without inverted neg question 14/15 – 93.33%, inverted neg question 12/30 40.00%		
Aux and infinitive	30	11	36.67	39	25	64.10			
				Without inverted neg question 21/26 80.77% Inv neg ques: 4/13 30.77%					
Passé composé							30	21	70.00
Negated infinitive							15	4	26.67
All constructions	**60**	**20**	**33.33**	**78**	**34**	**43.59**	**90**	**51**	**56.67**
				Without 'jamais' 34/65 52.31%			Without negated infinitives 46/75 62.67%		

In the preference test the respondents scored a correct score if they correctly rejected items with ***'pas'*** before the finite verb in simple tenses and accepted items with ***'pas'*** after the finite verb. With passé composé and auxiliary and infinitive items the response was marked as correct if the respondent rejected ***'pas'*** after a nonfinite verb or accepted ***'pas'*** after the finite auxiliary.

In this test both year 9 and year 7 simple present items were with lexical verbs excluding ***aimer*** (to like) or ***être*** (to be). With items with ***'pas'*** there is no real difference between the year 7 results (30.00%) and year 9 (34.62%) results. The simple present items in the year 9 test included an item with ***'ne..jamais'*** and this scored 0. However in auxiliary and infinitive tense constructions the year 9 group's accuracy rate is much higher: year 7, 36.67%, year, 9 64.10%. The year 7 group have heard these

structures in their input but only in their teacher's classroom language. In contrast, the year 9 group covered a particular structure ***tu ne peux pas + infinitive verb*** (you cannot + infinitive verb) in their previous textbook in year 8. This exposure could explain their better knowledge of negatives in this construction. They seem to have had no explicit teaching of simple present negatives and these tend to occur only incidentally in the textbook: particularly ***je n'aime pas*** and ***je n'ai pas*** (I ne have not – I don't have). Both of these phrases seem to have been learned as chunks.

The lower VI group score for simple present negatives in the preference test is skewed by the presence of two inverted negative questions which caused the respondents to reject grammatical sentences or accept the placement of ***'pas'*** before the finite verb in ungrammatical items. These inverted negative questions seemed to cause parsing difficulties: i.e. difficulties with segmenting the sentence into relevant processing units and constructing a syntactic representation for the sentence. The score for a declarative simple present negative was 14/15 (93.33%). The presence of the negated infinitive items pulled down the overall results for negatives in the lower VI. Without the negated infinitive score the overall score for the lower VI group does show a substantial increase from the year 9 group: 43.59% for year 9 group, 62.67% for lower VI group.

6.2.1.2 Negatives in the Grammaticality Judgement Test

Table 2c Results for negatives in grammaticality judgement tests

	Year 7			Year 9			Lower VI		
	Total No.	Total ✓	%	Total No.	Total ✓	%	Total No.	Total ✓	%
Simple present	60	21	35.00	52	17	32.69	No items		
				Only 'pas' 17/39 43.59% Neg inverted ques: 6/13: 46.15%					
Aux and infinitive				13	5	38.47	30	24	80.00
Passé composé				No items			No items		
Negated infinitive				No items			45	12	26.67
All constructions	**60**	**21**	**35.00**	**65**	**22**	**33.85**	**75**	**36**	**48.00**

Table 2c continued

	Undergraduate 1			Undergraduate 4		
	Total no. tokens	**Total ✓**	**%**	**Total no. tokens**	**Total ✓**	**%**
Simple present	26	19	73.08	34	23	67.65
Auxiliary and infinitive	26	11	42.31	34	23	67.68
	With ne..rien not ne... pas			With ne ...rien not ne...pas		
Passé composé	65	38	58.46	85	67	78.82
Negated infinitive	78	47	60.25	102	77	75.49
All constructions	**195**	**115**	**58.97**	**255**	**190**	**74.51**

The score for this test is counted as correct if the respondents accept ***'pas'*** or other negative particles after a finite verb and reject ***'pas'*** before the finite verb in simple tenses. In passé composé and auxilary and infinitive items the score is counted as correct if the respondents accepted the negative particle after the finite auxiliary and rejected it after the non-finite verb. The negative particles used in the tests are ***'pas'*** or ***'jamais'***, and in the undergraduate test ***'rien'*** is also used.

The year 7 grammaticality judgement test included more items that were chunks than the year 9 test, which may explain the respondents' apparent relative success. Additionally, in the simple tense items the year 9 test included an item with ***'ne...jamais'*** which scored 0 correct responses; all respondents incorrectly accepted ****ils ne jamais jouent au football le lundi*** (They ne never play football on Monday). In contrast all the year 7 items were with ***'pas'***. If we compare the items that only included ***'pas'*** for the year 7 and the year 9 group, then the year 9 group did show improvement, year7 21/60 (35%), year 9 22/52 (42.31%). Year 9 did not show the same amount of accuracy for auxiliary and infinitive constructions in this test as in the other tests, and in an ungrammatical item 8 of the respondents incorrectly accepted the negative particle ***'pas'*** after the infinitive verb ****il ne veut faire pas le lit .*** The lower VI result was again pulled down by the negated infinitive items, score 26.67%. However this group did show striking improvement from the year 9 group in auxiliary and infinitive tense constructions: year 9 group 38.47%, lower VI group 80.00%.

The undergraduate 1 group and the undergraduate 4 group had exactly the same test, in which the two simple present constructions were in complex two clause items, both with ***'pas'***: one grammatical and one ungrammatical. The respondents accepted the grammatical item but some failed to reject the ungrammatical item, allowing ****puisqu'elle a beaucoup de travail en ce moment Julie ne pas prend de vacances***. This error could be caused by the item in the test because surprisingly one of the native speaker controls also accepted this ungrammatical item. This variability appears to be at the level of performance and is known as experimental variability. The design of the test prevents the learners from retrieving linguistic knowledge in the experimental situation (Sorace and Robertson 1999). The incorrect answer could be attributed to lack of attention or reading the item too quickly. The auxiliary and infinitive items were with the negative particle ***'rien'*** so it is difficult to make a clear comparison with the other groups. The items for the other groups were with the negative particle ***'pas'*** in auxiliary and infinitive constructions. However in spite of these complications there is marked improvement for the undergraduate year 4 group compared with the undergraduate 1 group in these constructions; undergraduate 1, 42.31% and undergraduate 4, 67.68%.

The negative with the passé composé still caused some problems and in both undergraduate groups there was a tendency to accept ***'pas'*** after the past participle, although the tendency had decreased by the undergraduate 4 stage. With these items the accuracy in judging grammatical items was far better than judging ungrammatical items for both groups: grammatical items undergraduate 1, 84.62%, undergraduate 4, 94.12%, ungrammatical items undergraduate 1, 46.15%, undergraduate 4, 61.76%.

The results for the negated infinitive show substantial improvements from the lower VI group and the difference between the undergraduate 1 group and undergraduate 4 group is less pronounced and caused primarily by one item, ****pour moi, être jeune, ça veut dire n'avoir pas d'obligations*** (for me, to be young, it is to say ne have not any obligations – for me, being young means not having any obligations). For this item more of the undergraduate year 1 group incorrectly accepted the negative ***'pas'*** after the infinitive lexical verb ***'avoir'*** than the undergraduate year 4 respondents. It seems that the learners have difficulty in distinguishing between ***avoir*** as a lexical/thematic verb and '***avoir***' as a non-thematic auxiliary verb. If this was an auxiliary use of ***'avoir'***,

then *'pas'* after the non-finite verb is correct according to Pollock's theory (Pollock 1989). (Although some of the native speaker controls also accepted **'pas'** after **'avoir'** in this item.)

For all the tense construction types apart from the simple present the undergraduate 4 group showed a marked increase in accuracy from the undergraduate 1 group, although their accuracy was not perhaps as high as expected after an academic year in France. This indeterminacy in their grammars could be caused by the nature of the tests or in some cases by individual items in the test, i.e. their unwillingness to accept inverted negative questions e.g. ***ne regardes-tu pas la télévision?*** This type of question is not commonly used in spoken French but was however accepted by the native speaker controls who did the tests. The undergraduate learners could be illustrating some kind of performance preference with these items.

6.2.1.3 Negatives in Sentence Manipulation Test

Table 2d: results for negatives in sentence manipulation test

Year / construction	Year 7			Year 9		
	Total No.	Total ✓	%	Total No.	Total ✓	%
Simple present	60	26	43.33	39 (all lexical verbs)	14	35.90
Not incl. **'aimer'** and the copula to be **'suis'**	30	4	13.33			
Aux and inf				26	12	46.15
Passé composé						
Negated infinitive						
All constructions	**60**	**26**	**43.33**	**65**	**26**	**40.00**

Table 2d (continued)

year / construction	Lower VI			Undergraduate 1		
	Total No.	Total ✓	%	Total No.	Total ✓	%
Simple present Incl ne....jamais	75	66	88.00	26	23	88.46
Aux and inf				13	8	61.54
Passé composé	30	18	60%	65	46	70.77
Negated infinitive	15	3	20.00	26	18	69.23
All constructions	**120**	**87**	**72.50**	**130**	**95**	**68.13**

The year 7 group show greater accuracy than the year 9 group in this test for the simple present construction probably as a result of the items used in the year 7 test. They included a chunk ***je n'aime pas le football*** (I don't like football), which scored 12/13 and ***je ne suis pas grande*** (I am not tall; eight respondents placed ***'pas'*** after ***'suis'***. This higher accuracy rate for correct ***'pas'*** placement after the copula has also been recorded in other studies (Meisel 1997a). If we compare the remaining items, with lexical verbs that were not part of a learned chunk and not the copula; the year 7 group scored 4 out of 30 (13.33%) and the year 9 group scored 14/39 (35.90%). In the year 9 group there were still 25/39 incorrect responses with ***'pas'*** placed before the finite verb. With these lexical verbs the learners in the year 7 group placed ***'ne'*** and ***'pas'*** before the verb and as they did so I heard them commenting 'do not'. In the year 9 test there was an item with ***'ne.... jamais'***. With this item 6 of the respondents in the year 9 group correctly placed ***'jamais'*** after the finite verb, although 4 of these respondents also placed ***'ne'*** after the verb with ***'jamais'***. Again the year 9 group show slightly better accuracy in this test for auxiliary and infinitive constructions than in simple present constructions.

On this test both the lower VI group and the undergraduate 1 group show accuracy in placing negatives in simple present constructions. The items included ***'ne...jamais'*** but for items with ***'ne....pas'*** the figures were 97.78% for lower VI and 100% for undergraduate. The tendency to place ***'ne'*** and ***'pas'*** before the verb in simple tenses has disappeared. However it still persists for ***'ne....jamais';*** 4 respondents in the lower VI group placed ***'ne'*** and ***'jamais'*** before the verb and 2 did so in the undergraduate

group. The simple present item with *'pas'* in the undergraduate test was in a complex two-clause sentence, but this complexity does not seem to have the same effect as in the grammaticality judgement test. The auxiliary and infinitive construction for the undergraduate group was with **'rien'** and the five respondents who placed it incorrectly all placed it after the infinitive: ***Je ne pouvais faire rien*** (I ne could do nothing or I could not do anything)[10]. It seems that ***'rien'*** causes parsing problems for the learners and the learners appear to be using the L1 grammar to process the L2 input, and they place ***'rien'*** in the normal object position. In French when ***'rien'*** is a direct object then it is placed after the verb marked for tense. I suggest that based on the results from the lower VI group the respondents would not have done the same with ***'pas'*** but unfortunately this has not been empirically tested in this study for this group.

With negatives in the passé composé: there were 9/30 examples (30%) of the negative particle, ***'pas'***, '***jamais'*** or '***rien'*** being placed after the past participle in the lower VI results and in the undergraduate results there were 17/65 examples (26.15%) of the negative placed after the past participle. These results include the incorrect placement of ***'pas'*** after the past participle in passé composé items; 6/15 (40%) for the lower VI group and 4/13 (30.77%) in the undergraduate group. The passé composé constructions with ***'jamais'*** show a similar score for both groups, the lower VI item scored 11/15 (73.33%) and there were two items with ***'jamais'*** in the undergraduate test, which scored 23/26 (88.46%). As with the negative particle ***'pas'*** some learners placed the negative adverb '***jamais'*** after the past participle in passé composé constructions, 3 for the lower VI group and 2 for the undergraduate group.

The undergraduates again show much better knowledge of negated infinitives when compared to the lower VI group. One item was identical in the two tests, ***il prend un taxi pour ne pas rater son train*** (he took a taxi to ne not miss his train). In the lower VI group there were 3/15 (23.08%) correct responses for this item; in the undergraduate group there were 9/13 (69.23%) correct responses.

[10] Note that *'personne'* (noone/not anybody) can occur after the past participle or infinitive ***je n'ai vu personne, je ne veux voir personne.***

6.2.1.4 Summary and discussion of results for Negatives

The results for negatives have illustrated a difference in the way learners treat *'pas'* and the other negative particles *'jamais'* and *'rien'*. The study by Hershensohn (1998) discussed in section 3.8.4, also recorded a distinction between the negative *'pas'* and *'jamais* ' She noted "the first (*'pas'*) being totally mastered while the more peripheral second one still shows noticeable L1 influence in production errors" (Herschensohn 1998:332). In the present study we cannot claim that the placement of *'pas'* has been totally mastered but there are far more errors with the placement of *'jamais'*. In the presentation of results I have included the items with *'jamais'* because it is interesting to investigate what learners do with the different negative particles i.e. do they treat *'jamais'* like an adverb. However if we only look at items with *'pas'* in all the tests and for all tense types, then we can see a steady development across the groups.

Table 2e: negative results only with 'pas' in all the tests across all the groups

	Year 7			Year 9			Lower VI			Undergraduate 1		
	Total No.	Total ✓	%	Total No.	Total ✓	%	Total No.	Total ✓	%	Total No.	Total ✓	%
All tense constructions	**180**	**67**	**37.22**	**169**	**76**	**44.97**	**195**	**115**	**58.97**	**195**	**143**	**68.21**

We can compare the results that include *'jamais'* (table 2a) with the results in table 2e for the lower VI group. Interestingly, the results are marginally higher when *'jamais'* is included (61.05%) than when the items with *'jamais'* are taken out (58.97%). Again, the undergraduate score only shows a slight difference but in the other direction, the result for items including *'jamais'* being (65.85%), with *'pas'* only (68.21%). The largest difference appears in the comparison of results for the year 9 group, items including *'ne....jamais'* 39.82% and with only *'pas'* 44.97%, nonetheless this is only 5% difference. It seems that the presence of *'ne....jamais' / 'ne ....rien'* does not make an enormous difference to the accuracy of placing negatives to the group results. However some individuals do evince problems with *'ne..jamais',* particularly at the early stages of learning. This may be accounted for by its lack of frequency in the input or its analysis as a frequency adverb as in the L1, English.

Although the groups of learners are not uniform we can propose a series of stages that the learners pass through in their development of negatives. The first stage is when the learners almost always place '***ne***' and '***pas***' before the finite verb in the simple present tense. The year 7 respondents were heard translating '***ne***' and '***pas***' as 'do not' as they placed them before the verb in the sentence manipulation test. However even when they place ***'pas'*** after the verb they do not separate it from ***'ne'***, so there are examples like ****je sais ne pas***. Based on evidence from the observation period learners were familiar with some chunks of unanalysed language, so that the negative particles '***ne***' and '***pas***' were placed correctly by nearly all the learners in expressions like ***je n'aime pas***. However the learners did not seem to break down these chunks in any way. With the verb 'to be', in this case in the inflected form '***suis***', there was greater accuracy in placing '***pas***' after '***suis***' than with other verbs in items that were not chunks. This increased accuracy with 'to be' could be attributed to the fact that 'to be' raises overtly in English. However although they placed ***'pas'*** after ***'suis'***, again as with lexical verbs, they did not separate it from '***ne***' e.g. ****je suis ne pas grande.*** This was the case with all respondents who placed ***'pas'*** after '***suis***' in the year 7 group in the sentence manipulation test. This again may reflect the input as '***ne***' was not used consistently by their teacher, as is also usual in native speaker spoken French.

In French ***'pas'*** is in the specifier position of NegP and '***ne***' is the head of NegP, so when the verb raises to Agr the head '***ne***' cliticises to the verb and both raise to Agr; ***'pas'*** is left behind in specifier position. The initial analysis given to negatives in French by the learners in this study indicates that they are not analysing the negative particles in this way. The learners do not separate '***ne***'and '***pas***', whether they put it before the verb or after e.g. ****je ne pas regarde la télévision*** or ****je suis ne pas grande***. In these analyses both particles are either in the specifier position of NegP or in the head position of Neg P; as 'not' is in the specifier position in English, maybe we can assume that '***ne***' and '***pas***' are both in the specifier position of NegP. So when the verb is raised to Agr both '***ne***' and '***pas***' are left behind in the specifier position, e.g. ***je sais ne pas.*** In later stages a reanalysis occurs, when ***'pas'*** correctly follows the verb and '***ne***' is correctly cliticised to the verb; then ***'pas'*** is in the specifier position of NegP and '***ne***' in the head position. It is not clear whether these learners are treating Neg as a lexical or functional category.

In the second stage the learners showed more accuracy with auxiliary and infinitive constructions, though this could be a result of explicit teaching. Additionally there was some improvement with simple present tenses; however there was acceptance of both grammatical items and ungrammatical items. In the grammaticality judgement test 12/13 respondents accepted the ungrammatical item ***je ne pas mange les pommes.*** In contrast the score for correct items was 16/26. In the preference test 12/26 responses showed incorrect acceptance of '***ne***' and '***pas***' before the finite verb. This acceptance of ***pas*** before the finite verb shows a contrast with simple present negative phrases produced spontaneously in the classroom by these learners, in examples like ***je ne sais pas***, ***c'est pas moi***. This may be because the phrases produced in the classroom are being produced as unanalysed chunks, or it could be a variability problem caused by the specific tasks in this study.

At stage 2 the accuracy with negative placement only improved with ***'pas'.*** The scores for placement of ***'jamais'*** after a finite verb were very low, in fact 0 in the grammaticality judgement test and preference test. It was only in the sentence manipulation test that some learners placed ***'jamais'*** after the finite verb 6/13 (48.15%); 4 of these correct responses also had ***'ne'*** after the verb with '***jamais'.***

The third stage showed learners placing ***'pas'*** correctly after finite verbs in simple tenses, and knowledge of correct '***pas***' placement in auxiliary and infinitive constructions[11]. However knowledge of negative placement in passé composé constructions showed more indeterminacy: in ungrammatical items some respondents accepted ***'pas'*** after the past participle and also placed ***'pas'*** after past participles in the sentence manipulation test. The learners at this stage also showed better knowledge of the placement of '***jamais'***; however their intuitions were not as accurate as with '***pas'***. These learners have moved away from placing both ***'pas'*** and '***ne'*** or '***jamais'*** and '***ne***' after the verb. If they place ***'pas'*** or ***'jamais'*** after the finite verb then '***ne'*** is correctly placed before it.

At this stage learners were unsure of negative placement where the infinitive verb is negated. Recall that in non-finite contexts the verb does not move past the negative

[11] One learner in the lower VI group accepted '***ne'*** and '***pas'*** before the finite verb in all test types

particle ***'pas'***. In the grammaticality judgement test only two respondents in the lower VI rejected ****il prend un taxi pour ne rater pas son train*** and in the preference test only 4 respondents both accepted ***il y a des avantages à ne pas se marier*** and rejected ****il y a des avantages à ne se marier pas***. These results are surprising because in the English equivalents 'not' also occurs before the verb 'he took a taxi so as not to miss his train' 'there are advantages in not marrying'. So the respondents have moved away from the L1 which also disallows 'not' from occurring after the verb in non-finite contexts. It seems they are not only relying on their L1 grammar to make judgements.

In the final stage for the learners studied here, knowledge of negative placement was accurate in simple tenses but there were still problems with the passé composé constructions. Here the respondents mostly accepted the grammatical items, 22/26 (84.61%), but some respondents also accepted ungrammatical items, where ***'pas'*** is placed after the non-finite past participle. The number of tokens correct for ungrammatical items was only 12/26 (46.15%). This tendency to accept ***'pas'*** after the past participle still occurred in the undergraduate year 4 grammaticality judgement test, but to a lesser extent. In the tests for this stage the auxiliary and infinitive items were with '***rien***' and not ***'pas'*** and they caused problems for the learners, suggesting that learners do not acquire knowledge of negative placement with different negative particles simultaneously. There is however substantial improvement in the undergraduate 4 group for the same items. The learners at the undergraduate 1 stage showed better knowledge of negating in non-finite contexts than the previous stage.

6.2.2 Adverb placement

Table 3a: Results for adverbs over all tests (excluding elicited production. see below)

	Year 7			Year 9		
	Total No.	Total ✓	%	Total No.	Total ✓	%
Simple present	150	13	8.67	104	29	27.88
Aux and inf						
Passé composé						
All constructions	**150**	**13**	**8.67**	**104**	**29**	**27.88**

	Lower VI			Undergraduate 1		
	Total No.	Total ✓	%	Total No.	Total ✓	%
Simple present	90	55	61.11	143	104	72.73
Aux and inf	60	20	33.33	65	31	47.69
Passé composé	60	17	28.33	78	33	42.30
All constructions	**210**	**92**	**43.81**	**286**	**168**	**58.74**

Table 3a illustrates that the pooled results from all tests show a steady increase across all groups in their accuracy in placing adverbs phrase medially after the finite verb. The year 7 group consistently places the adverb before the verb in SAVO order, i.e. the English word order, and the year 9 group do so most of the time. The lower VI group and the undergraduate group show substantial improvement in their placement of adverbs in simple tenses but avoid placing adverbs after the finite verb in passé composé and auxiliary and infinitive tense constructions.

6.2.2.1 Adverbs: Grammaticality Judgement Test

Table 3b: Results for adverbs in grammaticality judgement test

	Year 7			Year 9			Lower VI		
	Total No.	Total ✓	%	Total No.	Total ✓	%	Total No.	Total ✓	%
Simple present	60	6	10.00	39	14	35.89	45	24	53.33
Aux and inf							30	13	43.33
Passé composé							15	9	60.00
All constructions	**60**	**6**	**10.00**	**39**	**14**	**35.89**	**90**	**46**	**51.11**

Table 3b continued

	Undergraduate 1			Undergraduate 4		
	Total No.	Total ✓	%	Total No.	Total ✓	%
Simple Present	117	87	74.36	153	119	77.78
Aux and inf	39	22	56.41	51	31	60.78
Passé Composé	65	26	40.00	85	52	61.18
All constructions	**221**	**135**	**61.09**	**289**	**202**	**69.89**

In this test the respondents received a correct score if they accepted SVAO order and rejected SAVO order for phrase medial adverbs. The year 7 group had not come across adverbs in their input at this stage. Nonetheless 5 respondents judged ***Joe et Sue jouent parfois dans la piscine*** (Joe and Sue play sometimes in the swimming pool – Joe and Sue sometimes play in the swimming pool) as correct. In some discourse contexts 'Joe and Sue play sometimes in the swimming pool' is correct in English. One subject judged ***Richard regarde toujours la télévision*** (Richard watches always television) as correct. These were the six correct responses, all with grammatical items. All ungrammatical items with SAVO order were judged to be correct e.g. ****elle souvent joue au tennis*** (she often plays tennis).

The year 9 group showed a marked improvement in their placement of adverbs in simple tenses, and this cannot be attributed to explicit teaching. These learners have not

been taught the placement of phrase medial adverbs, which rarely appear in their book and were not used by their teacher during the period of observation. Again the correct responses were predominantly with grammatical items 13/26 and only one respondent correctly rejected an ungrammatical SAVO item.

The lower VI group results show improvement from the year 9 group in simple present constructions. The test for this group included items in different tense constructions and the respondents were least accurate in accepting the adverb after the finite auxiliary in auxiliary and infinitive constructions. The undergraduate group continues to show improved accuracy in placement of adverbs in all tense constructions except for passé composé constructions. There is however some difference in judging grammatical items and ungrammatical items. For a simple present two-clause grammatical item the score was 13/13, ***puisqu'il ne travaille pas en ce moment David lit souvent des romans,*** but for a two clause ungrammatical item the scores correct were only 4/13, ****que le supermarché ferme tous les jours de midi à 15 heures souvent irrite les clients***. In the undergraduate 4 results the difference is not quite so marked; for the grammatical item the score was 15/17 and for the ungrammatical item 12/17.

6.2.2.2 Adverbs: Preference test

Table 3c Results for adverbs in the preference test

	Year 7			Year 9			Lower VI		
	Total No.	Total ✓	%	Total No.	Total ✓	%	Total No.	Total ✓	%
Simple present	60	5	8.33	39	10	25.64	30	19	63.33
Aux and inf							15	3	20.00
Passé composé							45	8	17.78
All constructions	**60**	**5**	**8.33**	**39**	**10**	**25.64**	**90**	**30**	**33.33**

In this test the respondents score correctly if they accept SVAO orders and reject SAVO orders. The tests for each group all included simple present items and the correct scores increase substantially across the groups. The lower VI test also included passé composé items and auxiliary and infinitive items. In these tense constructions the

lower VI respondents scored low scores because they rejected the adverb between the finite verb and the nonfinite past participle or infinitive. For example, ***Tom a souvent passé le weekend à Londres*** (Tom has often spent the weekend in London) and ***j'aime toujours regarder la télévision*** (I like always watching television – I always like watching television)

6.2.2.3 Adverbs: Sentence Manipulation

Table 3d Results for adverbs in the sentence manipulation test

	Year 7			Year 9		
	Total No.	Total ✓	%	Total No.	Total ✓	%
Simple present	30	2	6.67	26	5	19.23
Aux and inf						
Passé composé						
All constructions	**30**	**2**	**6.67**	**26**	**5**	**19.23**

Table 3d continued

	Lower VI			Undergraduate 1		
	Total no.	Total ✓	%	Total no.	Total ✓	%
Simple present	15	12	80.00	26	17	65.38
Aux and inf	15	4	26.69	26	10	38.46
Passé composé				13	5	38.46
All constructions	**30**	**16**	**53.33**	**65**	**32**	**49.23**

In this test the score is counted as correct if a respondent correctly places an adverb phrase medially in SVAO order. Although sentences are also correct if the adverb is placed in phrase initial and phrase final position these responses were not counted as correct, because in these cases adverbs are peripheral to the phrase and do not tell us anything about verb movement. Recall that in this test the respondents could produce more than one correct version of the phrase.

The year 7 group only placed 2 adverbs correctly in phrase medial position, ***'souvent'*** in each case. There were some instances of peripheral phrase final adverbs but the majority of subjects placed a phrase medial adverb before the verb in the incorrect SAVO order. There were 26 adverbs placed phrase medially, and 24 of these were placed in the incorrect SAVO order. So of the adverbs placed phrase medially, we could say they were placed categorically before the verb.

In this test the year 9 group showed little improvement in their placement of adverbs from the year 7 group. There were only five examples of phrase medial adverbs placed correctly, all with the adverb ***'souvent'***. No respondents placed ***'toujours'*** correctly when it was phrase medial; they all placed it before the verb. For this group there were 21 incorrect responses with adverbs in SAVO order, 21/26.

In the sentence manipulation test the score for the lower VI group is higher than the undergraduate group for simple present constructions. In the lower VI test the simple present item is ***'je ne joue pas souvent au football'*** (I 'ne' play not often football – I don't often play football), and for some reason, with the negative, most of the respondents placed the adverb correctly in phrase medial position. On the other hand for the undergraduate group the respondents avoided placing the adverb phrase medially in one of the items: ***les garçons regardent régulièrement la télévision*** (The boys watch regularly the television – The boys regularly watch television) only scored 5/13. The remaining respondents placed the adverb in phrase final position. Recall that once they had manipulated the sentence the respondents were asked if there were any other ways they could place the phrase that were also correct. The undergraduate respondents avoided placing the adverbs phrase medially in the sentence manipulation test.

Neither group seemed to like placing the adverb between the finite verb and the infinitive in auxiliary and infinitive constructions. The test for both groups had the item ***je veux souvent faire du cyclisme*** (I want often to do the cycling – I often want to go cycling) , 4 respondents placed the adverb between the auxiliary and the infinitive in the lower VI group and only 3 in the undergraduate group. In the lower VI group one respondent incorrectly placed ***'souvent'*** before ***'veux'***. The remaining responses had the adverb in phrase final position, ***je veux faire du cyclisme souvent.*** The passé

composé item in the undergraduate test was with '***parfois***' and most of the respondents avoided placing the adverb in a phrase medial position and placed it phrase finally; as a result this item only scored 5/13.

6.2.2.4 Elicited Adverb Test (All constructions simple present)

In the elicited adverb test all constructions are in the simple present. Respondents are shown pictures of people carrying out activities with a frequency adverb underneath. Subjects are asked to form a sentence with the adverb in, for example, '***il regarde toujours la télévision***'. Once they have produced one phrase they are asked if they can produce the phrase in any other way that is also correct. The negative adverb '***ne...jamais***' was also included in the test in an attempt to see if the learners treated this in the same way as the other adverbs or whether they treated it like '***ne...pas***'. This test was not given to the year 7 group because their proficiency was so low after only 3 months of learning French and they would not have been able to produce the sentences. The results for this test are not included in the pooled results at the beginning of this section because there is not a fixed number of correct responses.

Table 3e: Results for elicited adverb placement

	Year 9			Lower VI			Undergraduate 1		
	Total phrase medial*	Total correct	%	Total phrase medial	Total correct	%	Total phrase medial	Total correct	%
Adverbs (excl ne..jamais)	24	2	8.33	19	13	68.42	31	27	87.10
	Total no.	Total correct	%	Total no.	Total correct	%	Total no.	Total correct	%
Ne...jamais	11	2	18.18	15	5	33.33	13	8	61.54

*** column one shows the number of sentences provided by subjects with adverbs placed in a phrase medial position**

As illustrated in Table 3e the results indicate that knowledge of phrase medial adverb placement increases across the groups. Apart from the year 9 results the respondents

also show better accuracy with adverbs than they do with the negative adverb '***ne....jamais'***, even at undergraduate level.

Year 9 (number of subjects 13)

The potential number of medially placed adverbs is 52. The respondents scored a correct score if they placed an adverb phrase medially after the verb, SVAO. The negative adverb '***ne...jamais'*** is covered separately. There were four pictures with adverbs beneath them (excluding '***ne....jamais')***; the adverbs were '***toujours'*** (always), ***'souvent'***(often), ***'tout le temps'*** (all the time) and ***'quelquefois'*** (sometimes). The year nine respondents placed 24/52 adverbs phrase medially (46.15%). Of these only 2 out of 24 were placed in the correct order SVAO, and the remainder were in the order SAVO, giving 2/24 correct (8.33%). The total out of the potential 52 was 2/52(3.85%).

There were 8 examples of '***ne....jamais'*** placed phrase medially: 6 placed incorrectly before the verb and 2 placed correctly post verb. When '***jamais'*** was placed correctly post verb it was not separated from '***ne'*** and '***ne'*** was placed post verb as well. There were 3 examples of '***ne....jamais'*** in phrase final position; perhaps the respondents in this case were following the pattern of placing adverbs at the end of the sentence. 2 subjects did not use a verb with '***ne...jamais'*** so their responses were discounted. There were 2 correct responses out of a total of 11 (18.18%).

Lower VI (number of subjects 15)

The lower VI group had exactly the same test as the year 9 group. So the total possible for phrase medial adverbs was 60 (excluding '***ne.....jamais'***). The lower VI groups avoided placing the adverb phrase medially and tended towards placing the adverb either in phrase initial or phrase final position i.e. phrase peripheral. This gives the impression that they produced the phrase in two stages, producing the phrase for the activity in the picture and then adding the frequency adverb. Their total number of phrase medial adverbs was less than that in the year 9 group. However when they did place the adverb phrase medially they showed a higher accuracy rate than the year 9 group. The lower VI respondents placed 19/60 (31.67%) adverbs phrase medially. Of

these 13 out of 19 were placed correctly (68.42%). The total correct out of the potential was 13/60 (21.67%).

The accuracy rate for ***ne...jamais*** was still not very high. 5 respondents placed the negative adverb correctly after the verb, giving a total correct of 5/15 =33.33%. Unlike the year 9 students when they placed ***jamais*** correctly after the verb they placed ***ne*** correctly before the verb. Students who placed other adverbs phrase medially in the order SVAO did not necessarily correctly place '***jamais***' after the verb. Of the 10 incorrect responses 2 placed ***jamais*** in phrase final position and 8 placed it before the verb. In the sentence manipulation test there were two subjects who placed ***'jamais'*** in phrase final position but they were not the same students who placed it in phrase final position in the elicited adverb test.

Undergraduate 1 (number of subjects 13)

The undergraduate group had five pictures with adverbs (excluding ***'ne..jamais'***); the adverbs are ***'toujours', 'souvent', 'quelquefois', 'tout le temps'*** and ***'régulièrement'*** (regularly). The group total possible for phrase medial adverbs was 65. The respondents placed 31 adverbs phrase medially: 31/65 =47.69%. Of these 27 were placed correctly in SVAO order: 27/31 = 87.10%, (27/65 = 41.54%). So the group were more inclined to place an adverb phrase medially and their accuracy rate was higher than the other two groups. The accuracy rate for ***'ne.....jamais'*** was not so high. 8 placed ***'jamais'*** correctly after the verb: 8/13 = 61.54%.

Of the 5 incorrect responses all the subjects placed ***'jamais'*** before the verb. Unlike the other two groups there were no examples of ***'jamais'*** in phrase final position in this test. In the sentence manipulation test two respondents placed '***jamais***' pre-verb and one placed '***jamais***' phrase final. The two respondents who placed ***'jamais'*** pre-verb in the Sentence Manipulation test also placed it pre-verb in the elicited adverb test, however the respondent who placed it phrase final in the sentence manipulation test placed ***'jamais'*** correctly in the elicited adverb test.

6.2.2.5 Summary and discussion of adverbs

From the results of all the tests we can see that there is significant development in the placement of adverbs in simple present constructions across all groups but particularly between the year 9 and the lower VI group. It must be pointed out that adverbs were rarely heard in the input for any of these groups of learners and were not explicitly taught to any group during the observation period. The first two groups are happy to accept SAVO order of phrase medial adverbs and will reject the correct order SVAO, correcting these to the incorrect English word order. The year 7 group almost all categorically accepts the incorrect SAVO order. In the sentence manipulation task almost all the respondents in the first two groups placed the adverbs in SAVO order when they placed the adverb phrase medially. There were correct cases of adverbs placed phrase initially and phrase finally but these were not counted because we are only interested in the phrase medial position. Interestingly the early learners did not avoid placing adverbs phrase medially. There are some learners in the year 9 group who are beginning to place adverbs in SVAO order and there is some consistency across tests for individual learners. However, looking at individual scores, increased accuracy in placing adverbs correctly in phrase medial position does not necessarily coincide with better accuracy in the placement of the negative.

There is a noticeable increase in accuracy at lower VI level for the placement of adverbs in simple present constructions. The difference in the score between the lower VI group and the undergraduate group is much smaller but still marked. For the other tense construction types the accuracy of adverb placement is not so high and the learners avoid placing the adverb after the finite auxiliary and before the non-finite past participle or infinitive. The optionality of where an adverb can be placed in a phrase seems to cause problems for the learners, and this also makes it very difficult to assess their knowledge of verb raising, because phrase medial adverbs can be avoided. The learners in the later stages exhibit a preference for phrase final adverbs. The similarity between French and English for the position of phrase peripheral adverbs also causes a problem. In French as well as in English adverbs can occur in phrase initial and phrase final position. For adverbs in these positions the L1 grammar will accommodate the L2 input adequately and a restructuring of the grammar will not be motivated. This may

then incorrectly constrain the necessary restructuring of the grammar to accommodate the position of phrase medial adverbs in French.

6.2.3 Questions

Table 4a: Results over all tests

Year Group	Total number	Total correct	percentage
Year 7	195	138	70.77%
Year 9	195	120	61.54%
Lower VI	210	145	69.05%
Undergraduate 1	182	122	67.03%

Table 4a shows the results for all question items across all the tests. The question items in these tests were only counted as correct if the subjects showed acceptance or knowledge of lexical verb and subject inversion, that is acceptance in the preference and grammaticality judgement tests and knowledge in the sentence manipulation test, for example, ***aimes-tu la pizza?*** (like you the pizza? do you like pizza?). The results in this test have not been broken down into items of different tense types because the vast majority of items were in the simple present tense. We are interested in whether the learners allow the movement of lexical verbs to Comp (C) position, which is not allowed in their L1, English. For the year 7 group this is the most accurate of all the structures tested. However there is a caveat here; most of the questions in the tests for year 7 could be classed as unanalysed chunks (see observation section 6.1), because they have been heard, repeated and produced as chunks in the classroom. There seems to be no real difference between the scores at each level, but why this is will become clearer when we look at the individual test results.

6.2.3.1 Questions in Preference Test

Table 4b: Results for questions in preference test

Year Group	Total number	Total correct	percentage
Year 7	60	48	80.00%
Year 9	52	31	60%
Lower VI	60	35	58.33%

The response is counted as correct in this test if the respondent accepts lexical verb inversion with the subject. In the year 7 test the respondents happily accept lexical verb inversion with the subject, but as mentioned before the questions in the test could be being treated as unanalysed chunks by the learners. They have learned a number of questions with wh fronting and lexical verb inversion as unanalysed chunks, and these made up the majority of the questions in the test.

For the year 9 group the questions in the preference test provided evidence for inconsistent knowledge of the fact that lexical verbs can be raised to I and then to C position in French. With familiar phrases i.e. those with verbs they are accustomed to, they accepted raising, for example, ***aimes-tu aller à la piscine?*** (like you to go to the swimming pool?- do you like going to the swimming pool?). 10 out of 13 respondents accepted this. However with less familiar verbs and phrases they rejected raising, for example, only 3 subjects accepted ***comment voyagent-ils aux Etats Unis?*** (how travel they to the United States – how do they travel to the United States) as correct. When confronted with raising of both the finite verb and non-finite verb only 8 of the subjects rejected the raising of the infinitive, so 5 happily accepted the item; ****où préfères passer tu tes vacances?*** (where prefer spend you your holidays?). This is a phrase they have not heard before, and which also points to an absence of knowledge as to what can be inverted with the subject. Nine of the respondents in the year 9 group were aware that you do not invert the verb with ***'est-ce que'*** and they correctly rejected ****est-ce-que peux je enlever ma veste?*** (Can I take off my jacket?)

The lower VI group also showed a reasonably accurate score in the preference test for questions. On the whole they accepted verb raising but with one item ***que fait-il le soir?*** (what does he the evening- what does he do in the evenings?)in contrast to ****qu'il***

fait le soir? There were only 3 correct responses for this item. Presumably the respondents did not realise that verb raising was obligatory here. In the item that was an inverted question in the passé composé, ***es-tu déjà allée en France?*** (have you already been to France?), four of the respondents accepted ****es allée tu déjà en France?*** So these respondents allowed inversion of both the finite auxiliary and the non-finite past participle with the subject.

6.2.3.2 Grammaticality Judgement Test

Table 4c: Results for questions in grammaticality judgement test

Year Group	Total number	Total correct	percentage
Year 7	75	48	64.00
Year 9	91	57	62.64
Lower VI	75	60	80.00
Undergraduate 1	117	98	83.76
Undergraduate 4	153	125	81.70%

Again the question items were accurate in this test for the year 7 group. Some of the respondents showed a tendency to reject lexical verb inversion with a subject, for example, ***aimes-tu le coca-cola?*** and ***aimes-tu le football?*** With these two items, of the subjects that marked them ungrammatical, 10 then reversed the inversion. The majority of the subjects (12/15) did not allow the raising of the infinitive past the subject in ****veux jouer tu au tennis?*** (want play you tennis?) Nine of the respondents correctly accepted ***peux-tu fermer la fenêtre?*** a word order that occurs in English, where the auxiliary can move to C (auxiliary verb subject inversion); (can you close the window?).

There was no noticeable difference between the year 7 score and the year 9 score in this test for questions. In the year 9 group less than the half of the responses showed acceptance of raising of lexical verbs to C position in two grammatical items. Many of the respondents reversed the inversion in ***préfèrez-vous aller à la piscine ou jouer au foot?*** (prefer you to go to the swimming pool or play football?) (6) and ***manges-tu les escargots?*** (eat you the snails) (8). 11 subjects correctly rejected raising of the infinitive in the construction ***aimes jouer tu...?*** In the phrase ****as fait tu tes devoirs?***

(Have done you your homework) 6 respondents rejected the raising of the past participle, though seen from the gloss this word order is also incorrect in English. The items ***as-tu de la peinture?*** and ***pouvez-vous fermer la fenêtre?*** both scored 10 correct responses. As mentioned in section 6 that reports on the observation period ***as-tu....*** followed by a noun phrase to produce a question is learned very early on by classroom learners in English schools. In addition possessive 'have' in some English varieties can move from V to I, then I to C, like auxiliaries, although in most cases we would use 'have you got'. The other question phrase has the same word order as its English equivalent: can you close the window? Transfer of word order may be occurring here, because in English, auxiliaries can invert with the subject.

In the lower VI group the respondents scored consistently highly. The item that caused most problems was ***achètes- tu du lait au supermarché?*** (buy you some milk at the supermarket – do you buy milk at the supermarket) . This is a yes-no question with an inverted lexical verb without a wh operator; only 8 respondents accepted the inversion of the lexical verb, 5 respondents recorded a not-sure response and 2 respondents corrected the inversion. If there was a question word preceding the inversion the respondents were happier to accept it, for example, ***comment voyagent-ils aux Etats Unis?*** scored 13/15. In the item ****qu'est-ce que penses- tu du collège?*** (what do you think of college?) 5 respondents incorrectly accepted the inversion.

Questions again scored a high correct response for the undergraduates in this test. They happily accepted inversion of lexical verbs, although they seemed to find it difficult to process in a negative construction. In the case of ***ne regardes-tu pas la télévision pendant le weekend?*** (ne watch you not the television during the weekend- don't you watch television during the weekend) only 7 out of 13 accepted this sentence as correct. The score for questions without inverted negatives is 70/78 (89.74%), while inverted negative questions scored 28/39 (71.79%). Only nine respondents correctly rejected ****que tu fais le soir?,*** whilst all the native speaker controls rejected this item.

6.2.3.3 Sentence Manipulation

Table 4d: Results for questions in sentence manipulation test

Year Group	Total no.	Total correct	percentage
Year 7	60	42	70.00%
Year 9	52	32	61.54%
Lower VI	75	50	66.69%
Undergraduate 1	65	24	36.92%

In this test the response was counted as correct if the respondent manipulated the cut up parts of the sentence to make a question where the lexical verb was inverted with the subject. For the year 7 test, 3 of the 4 items were phrases that they had heard and produced in class, probably as unanalysed chunks. With these items the subjects were happy to invert lexical verbs with subjects, e.g. ***où habites-tu?*** (where live you –where do you live?) However the item ***manges-tu les pommes?*** (eat you the apples? Do you eat apples?) is a phrase they had not heard or produced before although they knew the individual lexical items. Only 4 respondents inverted the lexical verb and the subject.

The year 9 group also scored quite highly in this test for questions. Questions with Wh phrases scored a higher rate of inversion than yes/no questions where there is no Wh operator, for example, ***aimes-tu jouer aux échecs?*** (like you to play the chess – do you like playing chess). In native speaker spoken French inversion is more likely with Wh questions, which is reflected in these results.

In the lower VI sentence manipulation test all the question items were in the present tense, and in four of them inverting a lexical verb was either optional or obligatory. In the 2 items where it was obligatory, the score was 24/30, for example, ***à quelle heure part le prochain train?*** (what time leaves the train next – what time does the next train leave?) In the other two items in which lexical verb inversion is optional in spoken French, ***comment vont-ils faire le voyage?*** (how go they do the journey – how are they going to travel?) and ***quel emploi veut-elle choisir?*** (what job wants she to choose – what job does she want to choose?) only 8 subjects inverted the finite modal verb with the subject. In the final item, ***est-ce-que je peux emprunter votre voiture?*** (can I

borrow your car?) 3 of the respondents incorrectly inverted the verb and 2 put '***est-ce-que***' in the middle of the sentence.

Of the five items in the undergraduate sentence manipulation test, 4 could be inverted optionally, and the respondents in this group tended to avoid inversion of the lexical verb if it was optional. For the one item where the inversion was obligatory 9 subjects scored correctly: ***que pensent les jeunes de leur avenir professionel?*** (what think the young of their future professional- what do the young think of their professional future?) In the yes/no question item without a wh operator ***achètes-tu du lait au supermarché?*** 9 respondents chose to invert the lexical verb. In the item ***pourquoi ne vas-tu pas jouer dans le jardin?*** (why ne go not you play in the garden –why don't you go to play in the garden?) 9 respondents avoided inversion, 4 inverted the verb but two were incorrect producing, **** ne vas pas tu*****.....** . In the final two items only two respondents inverted the verbs. Again both of these were intended to be inverted negative questions. It is the avoidance of inversion in the sentence manipulation test that pulled the overall score for questions down for the undergraduate group. This avoidance however does not necessarily show a non-acceptance of inversion; the learners may simply be showing a preference. Additionally, these learners have probably had more contact with spontaneous spoken French, which hardly ever contains inversions.

6.2.3.4 Summary and discussion of verb raising in questions

The score for questions was counted as correct if the respondents correctly raised a lexical verb to **I** and then raised it further to **C**. The year 7 result is so high because most of the items in their test were chunks, for example, ***où habites- tu?*** Their knowledge of vocabulary is so limited, it was very difficult to avoid these chunks. However if the item was not a chunk the respondents would reverse the inversion. There were not so many chunk items in the year 9 test, and there were more instances of respondents disallowing main verb and subject inversion. Like the year 7 group, however they also accepted the inversion in items with very familiar verbs, for example, ***aimes- tu....?*** The lower VI group shows slightly increased acceptance of lexical verb raising and the undergraduate shows another slight increase on this. On the whole no group liked inversion of negative questions, for example, ***ne regardes-tu pas***

la télévision? In the grammaticality judgement test these items were either rejected as incorrect or invoked a 'not sure' response and they were avoided in the sentence manipulation test. This was even the case for the undergraduate year 4 group in the grammaticality judgement test, which showed a stronger non-acceptance of inverted negatives than the undergraduate year 1 group. Inverted negative questions are rarely heard in native speaker spoken French. If we separate the inverted negative questions from the other questions in the grammaticality judgement test, the scores are as follow:

> **undergraduate 1** score for questions without inverted negative questions 70/78 (89.74%), score for inverted negative questions 28/39 (71.79%),
> **undergraduate 4** score for questions without inverted negative questions 94/102 (92.16%), score for inverted negative questions 31/51 (61%).

However the native speaker respondents did not show the same dislike of inverted negative questions and accepted them as correctly formed questions.

This avoidance of lexical verb inversion in questions does not necessarily imply lack of knowledge of lexical verb inversion, nor that it is not part of the learner's competence. The divergent outcomes in Second Language Acquisition have many sources, including grammar, parsing and quality and frequency of input. It may be the type of input which causes this avoidance of inversion in questions. In spoken French the use of inversion in questions is mostly optional, and during the observation period spent with these groups of learners it was rare to hear an inverted question. In most cases both teachers (including native speakers) and students used declarative phrases with rising intonation to produce questions, or else used '***est-ce que***' type questions, again where there is no inversion of the lexical verb. So the pattern of questions accepted and produced by the learners is related to the input. In her study of L1 acquisition of French, Pierce (1992) also accounted for the slow development of lexical verb inversion by invoking the lack of inverted questions in the input.

The use of lexical verb inversion in questions as a diagnostic of development of verb movement is thus not very satisfactory. Although it is a grammatical property assumed to fall out of the movement parameter, its use is not compulsory in the target language.

6.2.4 Evidence of a cluster of properties

Recall that in this study we are looking for evidence of a developmental cluster of properties to support the claim that parameter resetting is possible (research question 2b). So in addition to looking at the properties individually across the groups we need to compare all the properties that fall out of the verb movement parameter for each group. This developmental cluster is to be expected only if parameters are accessible (Neeleman and Weerman 1997). However it may be that the cluster of properties associated with the verb movement parameter results in a set of structures that have different processing loads. These differences in processing demands may explain why the L2 acquisition of a set of structures deriving from the same parameter is not simultaneous in real time (Klein and Martohardjono 1999). In the tables below all of the properties associated with the verb movement parameter are presented for each of the groups to see if we can ascertain any evidence of clustering.

Table 5: Results of all verb movement tests combined for each group

Structure	Year 7			Year 9			Lower VI			Undergraduate 1		
	total no. tokens	total ✓	%	total no. tokens	total ✓	%	total no. tokens	total ✓	%	total no. tokens	total ✓	%
Questions	195 (13)*	138	70.8	195 (15)	120	61.5	210 (14)	145	69.0	182 (14)	122	67.3
Negatives	180 (12)	67	37.2	169 (13)	76	44.9	240 (16)	141	58.7	286 (22)	183	64.0
Adverbs	150 (10)	13	8.7	143 (11)	35	24.5	255 (17)	125	49.0	325 (25)	200	61.5

- **No. of items in brackets in first column for each group.**

As we can see from Table 5, all the groups show highest accuracy with question items and seem to accept lexical inversion of verbs in questions. For the first two groups the second most accurate structure is the negative, and there is a large difference between the scores for question items and negatives. The high accuracy in questions can be

accounted for by the use of chunks in these tests and the frequent occurrence of questions in the input. There is again an enormous disparity between negatives and adverbs. This disparity decreases in the lower VI group and then decreases still further in the undergraduate group, where there is no noticeable difference between adverb placement and negative placement.

The difference in accuracy between the negatives and the adverbs in the first two groups could be caused by a number of factors. The first is the predominant role that chunks play in the early stages of classroom L2 learning; we know that these learners had learned some negative phrases as chunks. Second is the likelihood that for development to take place in second language acquisition it needs to be error driven, and frequency and quality of input play a crucial role in this. The learners in the first two groups never hear adverbs and probably do not hear, and produce enough negatives for restructuring to have begun. They are better at negatives than adverbs because of the presence of chunks in the tests for negative items, and because they are heard more frequently in the input. Whether chunks of unanalysed language feed into the learner's competence and aid in grammar development is a debatable issue depending on how one views the modules of the mind and the interfaces between them (see section 4.7). So the negatives learned as chunks by the first two groups may not be a sufficient trigger for grammar building.

The reason why the gap closes between negatives and adverbs in the lower VI group and still further in the undergraduate group could be attributed to explicit teaching. This position however can not be confirmed or rejected because of insufficient observational data. (Although I observed no focussed instruction on the placement of adverbs during the observation period, this does not mean that they haven't received it in previous years of learning.) Nonetheless what is evident is that the learners do not rely on explicit teaching to make their judgements all of the time because their judgement are not correct all of the time (Robertson and Sorace 1999). The problem then is to explain the optionality or variability in the learner's intuitions at these later stages.

If we look at the results for the undergraduate 1 and the undergraduate 4 grammaticality judgement test presented in Table 6, the results for both groups follow the same pattern.

Table 6: Results for grammaticality judgement test undergraduate 1 and undergraduate 4

Structure	Undergraduate 1			Undergraduate 4		
	Total No. of tokens	Total correct	%	Total No. of tokens	Total correct	%
Questions	117 (9)	98	83.76%	153 (9)	125	81.70%
Negatives	195 (15)	120	61.5%	255 (15)	190	74.51%
Adverbs	221 (17)	135	61.1%	289 (17)	202	69.89%

Recall that these two groups were given the same grammaticality judgement test. Although we can see an improvement in accuracy of judgements for negatives and adverbs in the undergraduate 4 group compared to the undergraduate 1 group, the improvement is not substantial. There is no difference between negative and adverb results for the undergraduate 1 group, and only a small difference between the negatives and adverbs exists in the undergraduate 4 group. It seems that there is some evidence of developmental clustering although the learners do not exhibit native speaker accuracy with either property.

6.2.5 Discussion of results for properties that fall out of the verb movement parameter

The tests given to these four groups have provided a rich, detailed and complex set of data. Although in this study we are attempting to investigate what is happening in the learner's mentally represented grammar we cannot ignore the other variables which

affect the performance data of these learners. The linguistic environment for these learners is distinctive and undeniably different to that of learners in a naturalistic environment. Their performance data is potentially affected by encounters with unanalysed chunks of language and explicit teaching. Additionally, the amount of input is extremely limited and in terms of restructuring grammar it may not be of the right quality[12]. As with all L2 learners their performance may be negatively affected by underdeveloped processing routines and problematic lexical items. Attempts were made to reduce the effect of these variables by piloting the tests with parallel groups of learners, and also the period of observation was used to aid test development. However it seems that some or all of these variables may still have had a positive or negative effect on these learners' performance data.

The first group of learners (the year 7 group) almost always placed both negative particles before the finite verb unless the item was an unanalysed chunk. These results contrast with other reported studies of learners at early stages; however, these other studies are with learners in naturalistic environments or taught learners at a later stage than our first groups (Hawkins, in press, Herschensohn 1998). The learners only place ***'pas'*** after the finite verb in items that we can reasonably assume from the observation period to have been learned as a chunk, e.g. items like ***je n'aime pas.*** These learners also categorically place phrase medial adverbs before the finite verb. The placement of negatives and adverbs for these learners indicates a lack of verb raising. The contrasting fact that in some cases the learners allow inversion of lexical verbs with subjects in question items can be explained by the predominance of chunks for these items in the tests.

More of the year 9 learners place ***'pas'*** after the finite verb, but when they do so some of them also place ***ne*** after it too. Also the learners are not so accurate in recognising the ungrammaticality of ***'pas'*** before the verb. This apparent variability in the learners' judgement needs to be explained. However we need to ascertain what is the source of the apparent variability: Is the variability at the level of competence, is it variability at the level of performance or is the variability due to experimental error? It may be that the items in the test cause excessive parsing demands and thus affect the performance

[12] This is not in anyway a comment on the teaching I observed but refers to what triggers restructuring in second language development.

of these learners, for parsing is a performance domain. However based on the pilot studies and observation period the items in the test were selected with the specific aim in mind of reducing the processing demands. This acceptance of the ungrammatical items may be a reflection of the learners' current grammar, in which case for this group restructuring has begun to take place but it is not complete. Some of the learners have also begun to place adverbs after the finite verb. The fact that in this group some of the learners place ***'pas'*** and phrase medial adverbs after the finite verb cannot be attributed to explicit teaching. These learners receive no grammatically focussed instruction in their classroom input (from observation and informal interview with teacher).

In the next two groups all the learners place ***'pas'*** after the finite verb. However this is not the case for ***'jamais'*** which some of the learners place before the finite verb even at undergraduate level. Nonetheless the placement of ***'jamais'*** does show a marked improvement from the year 9 group. It may be that the items with ***'jamais'*** in them exert a different processing load, which causes variability in performance. Also the learners who place ***'jamais'*** before the finite verb could be treating it like other frequency adverbs and if they incorrectly place frequency adverbs before the finite verb then they will do so with ***'jamais'***. There is additional evidence from the year 9 and lower VI groups that some learners do treat ***'jamais'*** like the other frequency adverbs because they incorrectly place it at the end of the phrase, in a phrase external position. However this position is also incorrect for English.

The learners in the lower VI and undergraduate groups show much greater accuracy in the placement of adverbs in phrase medial position after the finite verb. Although these results could be attributed to explicit teaching, if explicit teaching is playing a role in the judgements of these learners, why does it not play a role consistently? They do not make correct judgements all of the time.

It is often very difficult from the evidence provided to distinguish between the hypotheses outlined in section 3.6 on the L2 initial state and subsequent development. Each of the positions makes overlapping predictions and sometimes the data is not sufficient to decide between them. In this study we are in the situation where the L1, English, is a non verb-raising language and the L2, French is a verb-raising language. The theories of Schwartz and Sprouse (1996), Vainikka and Young-Scholten

1994/1996), Eubank (1993/94) and Hawkins (in press) make the following predictions about the L2 initial state.

a. Schwartz and Sprouse (Full Transfer/Full Access) – initial state – no verb raising
b. Vainikka and Young-Scholten (Minimal Trees) – initial state – no verb raising
c. Eubank/Beck (Valueless Features) – initial state – optional verb raising.
d. Hawkins (Modulated Structure Building) – initial state – no verb raising but restructuring based on the L2 input may be so rapid that a no verb raising stage is not perceivable.

So a difficulty with the data collected in this study is that it could be accommodated by three of the four theories on the initial state. For example, if we look at the data for the learners at the early stages, the learners seem not to raise verbs, as both ***'pas'*** and phrase medial adverbs occur before the finite verb. Verb raising does not appear to be optional for these learners, so regarding this data, Eubank's valueless features hypothesis makes the wrong predictions. However both the Minimal Trees and Full Transfer/Full Access theories can account for the fact that the learners do not raise verbs. According to Minimal Trees theory no verb raising takes place during the VP stage because there is no functional head to which the verb can raise. Full Transfer also predicts that at the initial stage verb raising will not take place for English speaking learners of L2 French because the weak value of Agr has been transferred from L1. Recall that weak Agr entails covert verb raising.

However Minimal Trees does not explain data collected in earlier studies of French L1 learners of L2 English (White 1992). In these studies it was shown that French learners of L2 English in the early stages accept and produce phrases in English with the adverb after the finite verb, i.e. SVAO order, *Mary takes often the subway. This indicates that the learners are still continuing to raise the verb as in their L1. Minimal Trees cannot account for this data because there is no functional category for the verb to raise to in the initial state and the adverb can only precede the verb, in SAVO order (Schwartz and Sprouse 1996:50). So although Minimal Trees can explain the English – French interlanguage data it has difficulty in explaining the French – English interlanguage

data. It would seem that Full Transfer is a more robust approach to explaining the L2 initial state.

When we look at the development across the stages, the data can also be interpreted in a variety of ways. As development progresses the learners begin to place ***'pas'*** after the finite verbs in simple tenses. The study by Hawkins, Towell and Bazergui 1993 (discussed in section 3.8.4) showed that English L1 learners of L2 French placed negatives correctly but not adverbs and quantifiers. Based on the data from this study Hawkins claims that the placement of ***'pas'*** is acquired early on not because of the strength of inflections in I but because L2 learners are sensitive to the complement selectional properties of heads (Hawkins, in press, 157). He maintains that the learner, after encountering examples in the input like ***je n'aime pas le film*** (I ne like not the film - I don't like the film), will recognise from early on that in French Neg does not select a VP with a filled head * [$_{NegP}$ pas [$_{VP}$ aime le film]. So the learners will move the lexical verb to the left of NegP not because of the strength of inflections but because they know that Neg selects a VP with an empty head. At early stages according to Hawkins the learners treat Neg not as a functional category but as a lexical category. Hawkins maintains that L2 learners will not change their feature values and if the L2 interlanguages resemble the target language this is not a result of parameter resetting. The learners draw on other processes within UG to construct their grammars to fit the input data. If we accept that for these early learners Neg is a lexical category, then as a corollary we also accept the position that learners in the initial state project only lexical categories, as predicted by Minimal Trees theory and Hawkins' modulated structure building hypothesis.

However the placement of ***'pas'*** after the finite lexical verb and the fact that adverbs are beginning to appear after the finite verb is also consistent with learners starting to raise the finite verb due to a change in feature values and restructuring based on the L2 input. This is predicted by the theories of Vainikka and Young-Scholten (1996) and Schwartz and Sprouse (1996), as they are both Full Access theories. The apparent variability could be variability in performance caused by processing demands or experimental variability caused by test design. However Schwartz and Sprouse (1996) do seem to concur with Hawkins in some respects in their caveat that just because 'a particular phenomenon of interlanguage superficially appears to match a target

language phenomenon does not entail that one and the same analysis underlies the two' (Schwartz and Sprouse 1996:42). Apparent optionality in verb raising for French learners of English can be accounted for in this way. In White's studies (1991/92) the subjects exhibited both SVAO order and SAVO order for phrase medial adverbs. Schwartz and Sprouse (1996) maintain that this is not due to an optionality in verb raising but a misanalysis of where adverbs are base generated in English either adjoined to VP or TP. If the adverb is analysed as adjoined to TP then the verb comes after it, SAVO if the adverb is analysed as adjoined to VP then the order is SVAO. So it is not the verb movement that is optional but where the adverb is base generated[13].

Minimal Trees theory does allow for optionality in verb raising in an intermediate stage because when functional categories are first projected in the L2 learners they are unspecified, what Vainikka and Young-Scholten refer to as **FP**. Nevertheless as outlined above Minimal Trees does not adequately explain all types of data relating to the L2 initial state.

We can maintain that full transfer occurs and that some kind of restructuring takes place across the groups, in their development of negative placement and phrase medial adverb placement. However there are a number of problems that still need to be explained. If full transfer occurs, it is difficult to explain why the lower VI learners have such problems with the negated infinitive because in non-finite contexts in both English and French, lexical verbs do not raise past 'not' or ***'pas'***, because Agr is always weak in non-finite contexts. Additionally, why do the learners, even some in the undergraduate 4 group, accept '***pas***' after the past participle and dislike placing the adverb between the finite auxiliary and the past participle? This preference for placing the adverb and ***'pas'*** after the nonfinite verb indicates some kind of nontarget like developmental cluster, perhaps as a result of an insufficiently mature grammar. These word order positions do not occur in either the L1 grammar or the target L2 grammar, so could be claimed to be a 'developmental poverty of stimulus problem' (Schwartz and Sprouse 2000).

[13] This analysis works if movement is only as far as T (see diagram one in theory section 3.8)

With regard to the data on negated infinitives, in their study Hawkins, Towell and Bazergui also found that their intermediate learners (undergraduate year 1) incorrectly accepted ***ne Verb Pas*** in 39.3% of cases in nonfinite contexts. Hawkins uses these results to corroborate his hypothesis (outlined above) saying that the learners are initially guided by the head selectional requirement of Neg (Hawkins in press: 159). Perhaps this hypothesis can also be used to explain the low score for the lower VI group for negatives in non-finite contexts in the present study.

Additionally, it may explain why learners in this study also accept and place ***'pas'*** after the past participle in ungrammatical passé composé items. If they are expecting Neg to select a VP with an empty head, that is why they place ***'pas'*** after the past participle. The problem remains as to why this analysis appears to vary between grammatical and ungrammatical items. It does however also occur in the lower VI and undergraduate results for the sentence manipulation test.

Although in this study we are primarily interested in the learner's mentally represented grammar, we cannot ignore the developmental question: how the grammar is acquired, how the learner moves from one knowledge state to another. How does UG knowledge interact with the corollary cognitive processes and the input (Klein and Martohardjono 1999)? A cause in delay in restructuring the grammar may actually lie outside the grammar; the problems may be in pragmatics, computational complexity or inadequate input (Neeleman 1997).

Restructuring of grammar is driven by input and restructuring only takes place if the input is not compatible with the grammar that is available: it is failure driven. There are a number of reasons why the input for these learners can cause problems. Firstly input in L2 acquisition is not processed in exactly the same way as in L1 acquisition. For restructuring to take place the input has to be transformed into a trigger. These learners already have a grammar, so input in the L2 may therefore be detected and analysed on the basis of the L1 grammar (Carroll 1999). Recent research suggests that processing strategies are actually parameterised and the L2 learners transfer processing strategies that are better suited for dealing with L1 input (Fernandez 1999). These non–native parsing routines may in fact impede development (Fernandez 1999, Klein 1999).

Additionally, much of English and French phrase structure is very similar; complements usually follow heads, subjects precede heads and so on. Most of the time the L1 grammar can accommodate the L2 input. Restructuring will not be necessary, so this may impede any obligatory restructuring where there is a parametric difference. The lack of robust evidence in the input for these learners to act as triggers will delay resetting of parameters and non-target optional variants will not be expunged. In the early groups, although they use unanalysed chunks of language correctly, the learners do not seem to be using them productively and the structures used in these chunks do not feed into their mentally represented grammars at this stage. Problems could also be caused by lack of production, for it may be that output processing rather than parsing of structures actually leads to restructuring.

Clear evidence of the similarity of phrase structure preventing restructuring is seen in the placement of adverbs. Both French and English allow phrase initial and phrase final adverbs, so the English learners of L2 French opt for these positions in their grammars even at the later stages in this study. However the preferences for placing adverbs in phrase final position in the elicited adverb production test and sentence manipulation tasks could be a performance phenomenon which does not necessarily indicate lack of grammatical knowledge.

The remaining non-target optionality could be explained by computational complexity. We see evidence of computational complexity causing performance problems in the grammaticality judgement test where there are two clause items, which could be attributed to lack of attention and the added problem of reading quickly. Also the inverted negative questions in all test types, for example, ***ne regardes-tu pas la télévision,*** cause processing problems for all groups of learners from year 9 to undergraduate. Such items are rarely heard in native speaker spoken French and it seems the learners exhibit preferences with these types of items based on their input. Problematic lexical items should not have been a problem in these tests because familiar lexical items for the learners were identified based on the observation period and pilot studies. From the results in this study it is difficult to account for all non-convergence on the target grammar by alluding to processing problems.

6.2.6 Conclusion

If the learners in the early stages of this study are in the initial state, then there appears to be transfer of L1 functional categories and their feature values. The grammars of the learners in the early stages do not incorporate verb raising. The data for the observed subsequent development is a great deal more ambiguous and does not really allow us to decide between the various hypotheses. Restructuring based on changing the feature values of functional categories could be taking place, but at a delayed rate, and with a few characteristics in the interlanguage that still need to be explained. The restructuring is hindered by the similarity of English and French phrase structure, the extremely limited amount and type of input, and processing problems. French and English phrase structure in many respects is very similar and the L1 grammar can accommodate the L2 input in most circumstances. So in the case where there is a parametric difference between the two languages the motivation for change is hindered.

From a contrastive perspective, it could be that the learners use other processes within UG to develop grammars that resemble the target language, as Hawkins suggests, which would also explain the deviations from the target language e.g. the non-target like raising of non-finite verbs. Sorace (2000) concurs with this position that the adult learner will resort to different analyses entertained in L1 acquisition and uses a myriad of UG mechanisms that are not necessarily needed by the L1 acquirer. So although the learners begin to raise verbs, parameter resetting does not take place because the learners cannot change from their L1 feature values. The learners in this study reach a stage where they do not exhibit optionality in raising finite lexical verbs but exhibit what seems to be non-target optionality in raising non-finite verbs, for example, alternating between ***'pas'*** after the finite auxiliary and ***'pas'*** after the non-finite past participle in passé composé constructions, ***je n'ai pas compris***, (I ne have not understood), and **** je n'ai compris pas*** (I ne have understood not - I have not understood). This non-convergence highlights a common occurrence in studies that use grammaticality judgement tests; the increased accuracy in judgements for grammatical items in contrast to ungrammatical items. The learners accepted both grammatical and ungrammatical items in the passé composé, reflecting an insufficiently mature grammar. The results from the grammaticality judgement test are corroborated by results from the sentence manipulation test, which indicates that the grammar is

constant. It seems that this optionality is internal to the grammar; neither does it depend on test type nor does it seem to be affected by processing demands. The fact that the learners also show a tendency to avoid placing adverbs between finite auxiliaries and non-finite verbs could be linked to this non-convergence of negative placement. The learners appear to be exhibiting some kind of developmental non-target cluster at this stage in their interlanguage development. The limited data from the undergraduate 4 group indicated a decline in this tendency but not complete convergence on the target grammar.

6.3 Results for object pronoun placement

6.3.0 Introduction

This section focuses on the results for the object pronouns in the tests given to all the groups. Recall from section 3.9, that in French, object pronouns are syntactic clitics that occur to the left of the verb to which they are related. In underlying structure they occur in the post –verbal position for complements, but as a result of the syntactic operation of movement they move to higher preverbal structural positions. There is a relation to verb movement in that the object pronouns attach themselves to the verb and move to the head of Agr to which the verb has also moved.

In this study the investigation into object clitic pronoun placement in the interlanguages of the learners was carried out for a number of reasons. Recall from section 3.9 that English does not have clitic projections so we can look at learners' knowledge of object clitic pronouns in terms of the hypotheses on the availability of functional categories in L2 development, i.e. whether potential functional categories made available by Universal Grammar but not instantiated in the L1 can be triggered on the basis of L2 input (White 1996). We can investigate whether learners correctly analyse French weak pronouns as clitics, and whether they have the associated functional projections in their interlanguage grammars. Additionally, as English also does not exhibit syntactic verb movement we can see how object pronoun placement relates to the learners' developmental knowledge of verb movement. Finally, depending on the learners' analyses of object pronoun placement we may gain further insight into the L2 initial state and can look at what the results mean in terms of the various hypotheses on the L2 initial state reviewed in section 3.6.

The results are presented in tables below. First, the pooled results are given for all the tests for each group and then they are presented for each test across the groups.

6.3.1 Results for all tests

Table 7a: Object pronoun results for all tests

	Year 7			Year 9		
	Total no. of tokens	Total correct	%	Total no. of tokens	Total correct	%
Simple present	135 (9)*	17	12.59	65 (5)	34	52.31
Aux and inf	15 (1)	2	13.33	52 (4)	29	55.77
Passé composé				13 (1)	7	53.85
All constructions	**150 (10)**	**19**	**12.67**	**130 (10)**	**70**	**53.85**

*** no. of items in brackets**

	Lower VI**			Undergraduate 1**		
	Total No.	Total ✓	%	Total No.	Total ✓	%
Simple present	75 (5)*	47	62.67	143 (11)	124	86.71
Aux and inf	135 (9)	64	47.41	130 (10)	85	65.38
Passé composé	90 (6)	39	43.33	104 (8)	63	60.58
All constructions	**300(20)**	**150**	**50.00**	**377 (29)**	**279**	**74.01**

*** no. of items in brackets**

**** the results for the lower VI and undergraduate groups include results from the elicited object pronoun placement test.**

Table 7a shows the results over all the tests for all groups. In all cases a response is judged correct if the respondent placed the object pronoun correctly before the verb. Object pronouns were included in the grammaticality judgement test, the preference test and the sentence manipulation test for all groups, and the lower VI and undergraduate groups also had an elicited object pronoun placement test. If we look at the results for all the tests the learners in the year 7 group show almost no knowledge that object pronouns occur before the tensed or infinitive verb in French. There were only 19 correct tokens out of a total of 150 object pronoun tokens. Across all the tests there were 9 items in the simple present tense and 1 item that involved an auxiliary and infinitive. The subjects almost always placed the object pronoun after the verb, in the position of object pronouns for English. The year 7 grammaticality judgement test contained the correct item ***je t'aime,*** which scored 12/15, so 12 out of the 19 correct

responses were for this one item. The score is probably so high because the learners treat this item as an unanalysed chunk; without this item the total score for year 7 is 7 correct responses out of 135 (5.82%). This lower score is perhaps a more accurate reflection of the respondents' knowledge of the placement of object pronouns.

There is striking improvement in the accuracy of object pronoun placement from year 7 to year 9. Some of the year 9 respondents have begun to realise that object pronouns occur before finite and nonfinite verbs. This increase in accuracy occurs across all tests. As in the year 7 grammaticality judgement test, the year 9 grammaticality judgement test included the item ***je t'aime***, which scored 12/13.

There is no substantial difference between the overall results in object pronouns for year 9 and lower VI. However this could be explained by the presence of chunks in the year 9 tests, for example the item, ***je t'aime*** in the grammaticality judgement test. Without this item the simple present results for year 9 across all tests is 22/52 (42.31%) and the total for all tense types is 58/117 (49.57%). Additionally, the inclusion of the elicited object pronoun placement test for the lower VI pulled their overall group score down. In this test 5 subjects scored ø which obviously had a negative effect on the correct score across all tests.

There is striking improvement between the lower VI group and the undergraduate group. There is an approximately 20% increase in accuracy for all constructions. The accuracy for simple tense constructions is very high with learners in nearly all cases placing the object pronoun before the verb.

6.3.2 Results for grammaticality judgement tests

Table 7b: Object pronoun results for grammaticality judgement test

	Year 7			Year 9			Lower VI		
	Total No.	Total ✓	%	Total No.	Total ✓	%	Total No.	Total ✓	%
Simple present	45(3)	13	28.89	13 (1)	12	92.31			
Aux and inf	15(1)	2	13.33	13 (1)	7	53.87	30 (2)	21	70.00
Passé composé				13 (1)	7	53.87	30 (2)	15	50.00
All constructions	**60**	**15**	**25.00**	**39**	**26**	**66.67**	**60**	**36**	**60.00**

	Undergraduate 1				Undergraduate 4			
	No. of items	Total no. of tokens	Total correct	%	No. of items	Total no. of tokens	Total correct	%
Simple present	7	91	76	83.52	7	119	104	87.39
Aux and inf	3	39	30	76.92	3	51	44	86.27
Passé composé	4	52	32	61.54	4	68	51	75.00
All Constructions	**14**	**182**	**138**	**75.82**	**14**	**238**	**199**	**80.67**

As mentioned above the simple present item ***'je t'aime'*** affects the results for object pronouns in the above test for the year 7 and the year 9 groups: This item has probably been learned as an analysed chunk. Interestingly in the year 7 grammaticality judgement test two subjects correctly judge, ****je peux fermer la*** as incorrect and move ***'la'*** before the infinitive verb, the correct position. This is a surprising result. It is not clear whether the learners realise that object pronouns occur in a different position in French, or if they have not understood the sentence, analysed the object pronoun as a definite determiner and put it before what they believe is a noun. Rizzi (1993) points out that the similarity of object clitic pronouns to definite determiners is not random and the masculine and feminine determiners have the same form as the masculine and feminine object clitic pronouns (Rizzi 1993 in Laezlinger 1998). However the pictures that accompany the items in the year 7 grammaticality judgement test should make the meaning of the item clear and the item occurs in a pair of utterances: ***Peux-tu fermer la***

porte ? *oui je peux fermer la . So it should be difficult to misanalyse the object pronoun as a determiner, though this may not be impossible.

The year 9 score is higher than lower VI and this could be because of the inclusion of the item ***je t'aime*** in the year 9 test. Without this item the score for year 9 in the grammaticality judgement test is 14/26 (53.85%). The year 9 respondents who responded correctly to the incorrect auxiliary and infinitive item ****je peux fermer la,*** all correctly moved the object pronoun in front of the infinitive verb. With the passé composé item, of the 7 respondents who correctly rejected ****j'ai fait les,*** 6 moved the object pronoun to before the past participle ****j'ai les fait.*** There were no simple present object pronoun items in the lower VI grammaticality judgement test. In the lower VI group the tendency to place the object pronoun between the auxiliary and the past participle in passé composé items continued. Additionally, in the lower VI group there were some examples of the object pronoun being incorrectly placed before the auxiliary in auxiliary and infinitive constructions, e.g. ****il te pourra voir demain***, ****il me vient voir*** .

The undergraduate 1 group showed a high accuracy rate for simple tense constructions in this test. They also showed an increase in accuracy for auxiliary and infinitive items and passé composé items when compared with the lower VI group. For the undergraduate group the respondents again accepted the placement of the object pronoun between the auxiliary and the past participle in ungrammatical passé composé items, e.g. ****j'ai lui presenté mes premiers amis parisiens.*** In these passé composé constructions in the grammaticality judgement test the learners accept the grammatical order with the object pronoun before the auxiliary but fail to reject the ungrammatical order with the object pronoun between the auxiliary and the past participle: Grammatical as Grammatical 100%, 26/26 Ungrammatical as Ungrammatical 23.08% 6/26, two items for each. For the undergraduate group there was still some acceptance of object pronouns in English word order positions. There were 4 ungrammatical items in the grammaticality judgement test with object pronouns in English word order positions, and there were 10/52 responses that accepted these items as correct.

The undergraduate 4 group again showed most accuracy with simple tense items (87.39%) but for this group there really is no difference between simple tense items and

auxiliary and infinitive items (86.27%). The results for both auxiliary and infinitive constructions and passé composé constructions were substantially higher for the undergraduate 4 group than the undergraduate 1 group. . The undergraduate 4 group for this test showed better accuracy in judging the ungrammatical items in passé composé constructions. They judged grammatical as grammatical 32/34 (94.12%) and ungrammatical as ungrammatical 19/34 (55.89%). Although this does show improvement when compared to the undergraduate 1 group, there is still a big difference between judging grammatical and ungrammatical items.

6.3.3 Results for object pronouns in the preference test

Table 7c: Object pronoun results for the preference test*

	Year 7			Year 9			Lower VI		
	Total No. tokens	Total ✓	%	Total No. tokens	Total ✓	%	Total No. tokens	Total ✓	%
Simple Present	60(4)	4	6.67	26(2)	10	38.46	15(1)	13	86.67
Aux & inf				26(2)	18	69.23	45(3)	32	71.11
Passé Composé							15(1)	4	26.67
All constructions	**60**	**4**	**6.67**	**52**	**28**	**53.85**	**75**	**49**	**65.33**

*** there was no preference test for the undergraduate group**

In the preference test the year 7 group show scant knowledge of the placement of object pronouns and accept them in the English word order positions; their total score was 6.67%. The year 9 group show better knowledge particularly with the auxiliary and infinitive items. For the lower VI group the knowledge of simple present object pronoun placement is strikingly more accurate than the year 9 group. The respondents show less accuracy with the other constructions, particularly with the passé composé item (26.67%). In the passé composé construction, 5 of the respondents accepted the object pronoun between the auxiliary and the past participle ****le professeur avait l'encouragé à participer***. In one of the auxiliary and infinitive construction four respondents accepted ****je ne les vais pas acheter.***

6.3.4 Results for object pronoun in the sentence manipulation test

Table 7d: Object pronouns in the sentence manipulation test

	Year 7			Year 9		
	Total No. tokens	Total ✓	%	Total No. tokens	Total ✓	%
Simple present	30 (2)	0	0	26 (2)	12	46.15
Aux & inf				13 (1)	4	30.77
Passé composé						
All constructions	**30**	**0**	**0**	**39**	**16**	**41.03**

	Lower VI			Undergraduate 1		
	Total No. tokens	Total ✓	%	Total No. tokens	Total ✓	%
Simple present	15 (1)	11	73.33	13 (1)	13	100
Aux and inf				26 (2)	18	69.23
Passé composé				26 (2)	22	84.62
All constructions	**15**	**11**	**73.33**	**65**	**53**	**81.54**

In the sentence manipulation test for year 7 all respondents placed the object pronoun after the verb, i.e. English word order for all the items. For the year 9 group almost all incorrect answers were placed in English word order, apart from 2 incorrect responses with the item ****je te peux voir,*** where the object pronoun is placed before the auxiliary and not the infinitive. The year 9 respondents did not show as much accuracy in this test with object pronouns as they did in other tests.

There is only one item with an object pronoun in the lower VI sentence manipulation test in a simple present construction. 4 respondents scored incorrectly with this item; all four placed the object pronoun after the verb, i.e. in English word order. The identical item was in the undergraduate test and all respondents in this group placed the object pronoun correctly before the finite verb. In the auxiliary and infinitive items for the

undergraduate test, the 8 incorrect responses out of a total of 26 had all placed the object pronoun before the auxiliary verb ***il me vient voir*** (correct answer- ***il vient me voir)*** and ****j'ai parfois le voulu faire*** (correct answer – ***j'ai parfois voulu le faire***).

In the undergraduate sentence manipulation test one item in the passé composé scored 100% and the other scored 9/13 (69.23%); this item, ***il leur a raconté beacoup d'histoires passionantes,*** reflected processing difficulties for 3 learners who thought that ***'leur'*** was a possessive pronoun and not an indirect object pronoun. The difficulty with the lexical item entailed an inability to parse the sentence. The other incorrect response placed the object pronoun between the auxiliary and the past participle.

6.3.5 Results for the elicited object pronoun placement test

Table 7e: Results for object pronoun placement test

	Lower VI			Undergraduate 1		
	Total no. tokens	**Total ✓**	**%**	**Total no. tokens**	**Total ✓**	**%**
Simple present	45 (3)	23	51.11	39 (3)	35	89.74
Aux and infinitive	60 (4)	21	35.00	65 (5)	37	56.92
Passé composé	45 (3)	21	46.67	26 (2)	16	61.54
All Constructions	**150**	**68**	**45.33**	**130**	**86**	**67.69**

In the lower VI group there were 5 students who scored 0 correct responses in the object pronoun test. This obviously pulled down the group result and the group results mask differences in individual results. The respondents who scored zero all placed the object pronouns in English word order positions, after the verb, even in simple present items. In contrast there were only 3 incorrect responses that used English word order for the undergraduate group. In the undergraduate test no student scored 0, but 3 students scored 0 in auxiliary and infinitive constructions and 2 scored 0 in passé composé constructions.

The test was administered slightly differently to the undergraduate group. They had to listen to rather than read the sentence, thus the task demands were greater. There is an extensive load placed on the short-term memory, if we adopt the position that the

foreign language processing system is not encapsulated in a separate language module. (see section 5.4.1). Although the task was more difficult, the undergraduate group shows increased knowledge of object pronoun placement for all constructions and for each construction. The accuracy for the undergraduate group for simple present constructions is significantly higher than the lower VI group. Both groups show least accuracy with auxiliary and infinitive constructions. For both groups in the auxiliary and infinitive constructions there was a tendency to place the object pronoun before the auxiliary as seen in the sentence manipulation test, for example ***je l'espère voir demain.*** 19 out of 39 incorrect responses for lower VI group were of this nature, and 20 out of 28 incorrect responses were of this type for the undergraduate group. With the passé composé constructions there was a tendency to place the object pronoun between the auxiliary and the past participle ***tu as le vu?*** For the lower VI group 8 out of 24 incorrect responses were of this type and for the undergraduate group 7 out of 10 incorrect responses were of this type e.g. ***nous avons leur demandé de faire quelque chose.*** Additionally both groups had an example of a respondent placing the object pronoun both before and after the verb, Lower VI ***j'espère le voir le*** and the undergraduate group ***je les trouve les sensationnels.***

6.3.6 Summary

The learners move through stages in their development of the placement of object pronouns but these stages are not clearly demarcated by the groups. There are learners at different stages within the groups.

Year 7 group

In the first stage, the year 7 group, the subjects almost always placed the object pronoun after the verb, in the position of object pronouns in English. This position that the learners use for object pronouns is however also the position of non-pronominal object complements in English and French. So the results can be interpreted in two ways: that the learners are transferring the word order for object pronouns from English, or that the learners are unable to distinguish between non-pronominal NP complements and pronominal complements. The similarity of English and French canonical word order is causing problems for the learners and the L1 actually acts as a

filter for the L2 input. The closeness of the grammars causes the learners to use the L1 grammar to accommodate the L2 input, and change is not immediately motivated (White 2000:145). Both languages are SVO languages so the learners assume postverbal positions for object pronouns in their L2 French, either by transfer or misanalysis of object pronouns as non-pronominal NPs. As there was no production test the data did not reveal evidence of the type of error where an utterance lacks an object altogether, as has been recorded in other studies (Selinker et al 1975, White 1996).

Year 9 group

The learners in the year 9 group exhibit better knowledge of pre-verbal placement of object pronouns in their interlanguage grammars. For this group it cannot be the case that these learners are confusing the object pronouns with definite determiners as suggested for the correct responses for year 7 (see grammaticality judgement results). The learners in the year 9 group not only sometimes place object pronouns like ***'le'*** and ***'la'*** correctly but also ***'me'*** and ***'te'***, words which bear no similarity to definite determiners.

In some contexts the year 9 learners correctly reject ungrammatical items where the object pronoun is placed after the finite or nonfinite verb. However in their corrections they place the object pronoun in non target like positions. In one passé composé item 7 learners correctly rejected ****j'ai fait les,*** but six of these placed the object pronoun between the auxiliary and the past participle, ****j'ai les fait***. This attachment of the object pronoun to the past participle has been attested in other studies (Hulk 2000, Herschensohn 1999). It appears that, although the learners' grammar correctly moves the object pronoun out of the post verbal complement position, the interlanguage grammar is not sufficiently developed to raise the object pronoun with the tense-marked auxiliary to Agr S. The object clitic appears to remain in Agr OP but the auxiliary moves to Agr S (see diagram 4, section 3.9). This analysis assumes that functional categories are projected. If the L2 learner at this stage only projects lexical categories it is hard to give an analysis to this structure, because it contains an auxiliary verb and an object pronoun. We may be dealing with some kind of complex

VP projection but it is difficult to see where the object complement of the verb has been moved to.

In the year 9 results for the sentence manipulation test there are also two examples of, ***je te peux voir*** , where an object pronoun is placed before the auxiliary rather than the infinitive. This word order is grammatical in Spanish **lo quiero comprar** – (it (1p-sing) want to buy -I want to buy it). In Spanish clitic climbing occurs and the object clitic raises from the lower verb phrase to a functional projection of the finite verb; this however is not possible in French (except in causative constructions) (Duffield et al 1997). The learners may be allowing clitics to climb, or misanalysing the event with which the object pronoun is associated. Recall that in the auxiliary and infinitive constructions there are two events, for example, ***je peux te voir***, (I can see you) one of 'being able to' and one of 'seeing'.

The other question is whether the learners really analyse the object pronouns as clitics. We can look at evidence from an item in the sentence manipulation test in an attempt to answer this. The item ***je ne te regarde pas*** scored 9 correct responses in placing the object pronoun before the verb. However 2 of these responses allowed something to occur between the clitic and the verb: ****je te ne regarde pas, *je ne te pas regarde. 'Ne'*** is a clitic itself and can only be separated form the verb by another clitic, but when there is an object pronoun it is this clitic that has to be directly attached to the verb. The learners break the strict adjacency rule for the position of clitic object pronouns in relation to the verb. It seems that the learners posit structural positions between the clitic and the verb. The second example gives conflicting evidence about object pronouns; it looks as though the object pronoun has moved without the verb. Recall that the pronoun adjoins the verb and then the verb and object clitic move together to a verb related head. In this example it appears that the verb has not moved past the negative specifier ***'pas'***. There were 6 examples of ****je ne pas te regarde,*** which suggests that the object pronoun may have cliticised to the verb but the verb and the clitic have not moved to AGR S and so have not moved to the left of ***'pas'***. The one remaining response was the target language ***je ne te regarde pas***. From these examples there is evidence that the learners are aware of clitic object pronouns, but most of the learners are possibly not raising the verb. Perhaps both verb and clitic remain in Agr OP (see diagram in section 3.9.2).

Some of the learners in the year 9 group are at the same stage as the learners in year 7 and consistently place the object pronoun after the finite and infinitive verbs. So the learners are not uniform, although they are in the same teaching group and have had the same exposure to French. The learners in the year 9 group have not yet received explicit instruction on the placement of object pronouns, but have heard them incidentally in their input and have seen them in written texts in their textbook. The results for this group are also positively affected by the presence of two phrases ***je t'aime*** and ***il faut le chercher dans le vocabulaire*** which could be processed as unanalysed chunks by the learners as they are familiar phrases to the learners in this group.

Lower VI group

This group shows a definite improvement in accuracy in placing object pronouns in simple tenses. However there are still some learners who place all object pronouns in English word order positions, after either finite or non-finite verbs in all tests. The knowledge of placing object pronouns in compound tenses is less determinate. Accuracy in passé composé and auxiliary and infinitive items is less certain. In passé composé constructions the tendency for learners to attach the object pronoun to the past participle continues, for example, ****Marie a lui donné le livre***. In the grammaticality judgement test these learners mostly do not accept the grammatical order and fail to reject the ungrammatical order or they reject the ungrammatical order if the object pronoun is placed after the past participle but then place the object pronoun between the auxiliary and the past participle. In auxiliary and infinitive constructions some learners place the clitic before the tensed auxiliary after correctly rejecting the object pronoun after the infinitive verb. The item ****il vient voir me*** was rejected correctly by 10 respondents but 4 of these placed '***me***' before the finite modal auxiliary ****il me vient voir***. The correct item ***il pourra te voir demain*** was incorrectly altered by 2 respondents to * ***il te pourra voir demain.*** As mentioned above this placement of the object pronoun before the auxiliary is correct in Spanish but not in French.

This lack of determinate knowledge could be explained by the fact that the interlanguage grammars are not yet fully mature, so that in the case of passé composé constructions, movement of the object pronoun to Agr S does not occur. It may be processing deficiencies in the auxiliary and infinitive constructions that cause the problem; a failure to determine what event to associate the object pronoun with. There are some responses which show evidence that learners may not necessarily be treating the object pronouns as clitics. In the sentence manipulation test 4 subjects placed the negative adverb ***jamais*** and the object pronoun before the verb ****tu ne me jamais laisses tranquille***. In the object pronoun placement test one respondent produced ****on peut lui toujours téléphoner***. So the strict adjacency rule for object pronouns is not being adhered to.

The lower VI group had received explicit input on the placement of object pronouns and the teacher uses them all the time in her classroom language in all tense construction types (see section 6.1.3). Again there are learners at different stages within the group; those who still categorically place object pronouns in English word order, those who exhibit knowledge of object pronoun placement in simple tenses and one learner who is accurate in all contexts.

Undergraduate 1

The undergraduate group exhibits high accuracy levels with simple constructions across all tests. However the other tense types do not show quite the same level of accuracy. There is still a tendency to place the object pronoun before the auxiliary in auxiliary and infinitive constructions; this occurred in the sentence manipulation test and the object pronoun placement test. In the sentence manipulation test 8 out of 26 responses placed the object pronoun before the auxiliary in the items ****il me vient voir*** (correct answer - ***il vient me voir)*** and ****J'ai parfois le voulu faire*** (correct answer ***-j'ai parfois voulu le faire***). The second item is structurally quite complicated because it involves a passé composé tense and the infinitive and also an adverb. The students seem unable to work out which verb the object pronoun belongs to. This happens even more frequently in the object pronoun placement test, and of the 28 incorrect responses for auxiliary and infinitive items, 20 were of this type, ****je l'espère voir demain.*** For this group this non-target like placement could be attributed to French causative

constructions, e.g. ***Marie le fait manger***, where the clitic does climb to precede the auxiliary verb, although it is associated underlyingly with the infinitive. This does not however explain why this type of error begins in year 9, as these learners have not encountered causative constructions with object pronouns. The undergraduate learners were observed in a grammar lesson where causative constructions were alluded to. This included instruction on where the object pronoun is positioned in these constructions; however this was only five minutes in one lesson and it was not returned to again. It is doubtful that we can suggest that causative constructions cause this misanalysis of the target grammar, because the instruction is minimal and causative phrases do not occur more frequently in the input than auxiliary and infinitive phrases. To suggest that the explicit instruction caused the misanalysis would entail that this five minutes of instruction was more pertinent to the learners than any instruction they may have received on object pronoun placement in auxiliary and infinitive constructions.

The learners also demonstrated some indeterminacy with passé composé items. In the grammaticality judgement test the learners failed to reject items that had the object pronoun between the auxiliary and the past participle, e.g. ****j'ai lui presenté mes premiers amis parisiens.*** The same type of mistake was seen in the object pronoun placement test, where 8 out of 10 incorrect responses in the passé composé items were of this type, e.g. ****nous avons leur demandé de faire quelque chose.***

At this stage the mistakes made do not seem to be a result of L1 influence. There was a very small percentage of tokens that showed acceptance of English word order positions, primarily in two clause sentences or in inverted negative questions in the grammaticality judgement test, two types of item which invoke heavy processing demands. These type of mistakes only seem to occur when processing demands become too great, for example, in the elicited object pronoun placement test in the inverted negative question item, ***ne l'achète-t-il pas au supermarché,*** where two respondents placed the object pronoun after the verb. Also in the same test the item ***elle nous a invité à passer quelque jours chez elle,*** caused one respondent to place the object pronoun after the past participle. This item placed a considerable load on the sort term memory, as it is longer than the supposed limit on the short-term memory (7 units +/- 2). Additionally, if the language processing module is not encapsulated in foreign

language learning, then trying to recall long utterances will exert excessive processing demands.

It appears by this stage that the learners have moved away from the L1 grammar, and there is evidence of restructuring based on the L2 input. For simple tenses the respondents almost always accept and place the object pronoun before the finite verb. In negative constructions the learners generally do not place the negative particles before the verb, so we do not have the negative particle '***pas***' and the object pronoun before the verb. However in the sentence manipulation test two respondents do place ***jamais*** before the verb, so the verb is separated from the clitic: ****tu ne me jamais laisses tranquille.*** This separation of the clitic from the verb also appears twice in the elicited object pronoun placement test, in the item ****on peut lui toujours téléphoner***.

In other tense constructions we see evidence that development is occurring that is unrelated to what the learners hear in their input. For auxiliary and infinitive constructions the mistakes made do not reflect English word order. The learners place the object pronoun before the auxiliary verb, which is correct word order in other natural languages e.g. Spanish. This incorrect placement could be a result of processing difficulties in deciding what event to associate the object pronoun with or could be based on causative constructions in French. In passé composé constructions the incorrect responses place the object pronoun between the auxiliary and the past participle, a word order which is not correct in English or French. However this attachment of the object pronoun to the past participle does occur in Brazilian Portuguese (Laenzlinger 1998: 139), so it is not a word order that indicates a rogue grammar disallowed by UG.

6.3.7 Discussion

During the initial stages of learning the respondents in this study placed nearly all object pronouns after the finite or non-finite verb. This can be attributed either to transfer of English word order patterns or misanalysis of object pronouns as nonpronominal NPs. It could be the case that at this stage only lexical Verb Phrases are transferred in examples like: ****Je regarde le***, where the subject remains in SpecVP and the object pronoun remains after the verb in its canonical position. We cannot in this

case use the fact that the verb has tense and agreement as an argument for the functional projection IP, because the learners have been presented with the verb in this form. In the target language the object pronoun cliticises to the verb and then both move to AgrS.

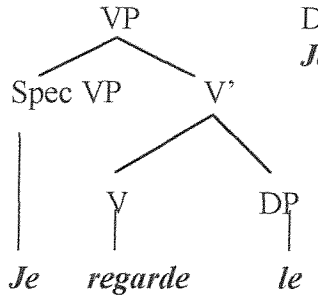


Diagram 7: possible analysis of ***Je regarde le*** as a lexical verb phrase.

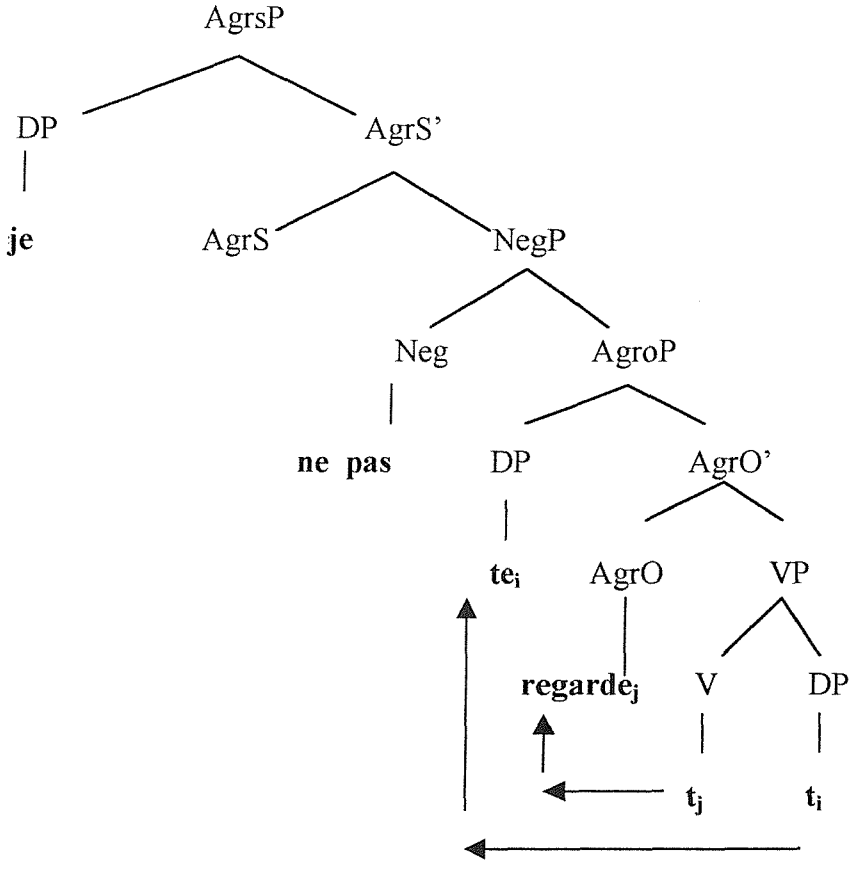
In sentences with an auxiliary modal this simple structure is problematic, e.g. ****je peux fermer la***: the structure projects an IP because the auxiliary is its head. However the learners have not produced this structure; they are merely judging its acceptability. Nonetheless because English has the functional projection IP it could have been transferred from English. It could alternatively be argued that ***je peux fermer*** is a complex VP.

Other studies have recorded errors made by early learners where the object is missing altogether (Selinker et al 1975, Adiv 1984). Unfortunately this type of error cannot be attested for in this study because we do not have relevant production data.

In the next stage some learners place the object pronoun before the verb on some occasions. It seems they are able to project a functional category for the object pronoun to move to. This functional category was not instantiated in their L1 English, so provides us with evidence that L2 learners can make use of functional categories that are not available in their L1. Universally specific factors in the L2 input may enable them to establish functional projections from very early on (Hawkins, in press). Utterances like ****j'ai les fait*** also indicate that there are functional categories present because there is an auxiliary in the structure which would entail an IP and there is also an object pronoun. English also posits an IP so the IP could have been transferred from the L1.

The evidence that all the learners, once they place the object pronoun before the verb, are treating the object pronoun as a clitic is not categorical. Some learners allow elements to occur between the clitic and the verb ***je te ne regarde pas.*** The relationship with negative placement and verb raising is also unclear. The majority of year 9 learners who placed the object pronoun before the verb in a negative construction also placed the ***'ne'*** and ***'pas'*** before the verb 6/8 (75%) ****je ne pas te regarde.*** (Six respondents also accepted the ungrammatical ***je ne pas te regarde*** in the preference test for the year 9 group.) It appears the verb and the object pronoun (clitic?) have both moved to AgrOP but have not moved any higher to AgrS (see diagram below based on Laenzlinger 1998). In this analysis I assume that ***'ne'*** and ***'pas'*** are both in the head position of NegP, though it could be that they are both in the specifier position of NegP. We could suggest for these analyses that there is a problem with verb raising rather than cliticisation of the object pronoun. But this does not explain the response from the learner who raises the verb past ***'pas'*** but has the object pronoun separated from the verb by the clitic ***'ne'; *je te ne regarde pas.*** For this analysis we would have to suggest that there are structural positions between the verb and the clitic (Kayne 1991).

Diagram 8: possible analysis of ****je ne pas te regarde***



From year 9 onwards we see evidence of learners placing object pronouns in positions that are not correct word order for French or English. We have pointed out that these positions occur in other natural languages, so they are not 'wild grammars' i.e. grammars not constrained by UG. These word orders have also been reported in studies on child bilingual acquisition. In Hulk's study of a child Dutch/French bilingual learner she recorded the examples, ***tu le vas fermer*** and ****pourquoi t'as me réveillé?*** (Hulk, 2000). It is not clear why the learners opt for these positions but it does give us evidence of development occurring in the learners' interlanguages irrespective of input. It is also a non-target like phenomenon that continues for a long time, from year 9 to undergraduate year 1. Schwartz and Sprouse (2000) discuss developmental poverty of stimulus effects. They suggest that it is misguided to use the target language as the unique benchmark of the poverty of stimulus argument (Schwartz and Sprouse 2000:168). Sometimes in first language acquisition 'children create intermediate grammars that rule out what their input tells them is possible.' So that 'L1 children pass through stages that exhibit syntactic and semantic phenomena that are not solely input driven' (Schwartz and Sprouse 2000:168).

These developmental poverty of stimulus effects can also be observed in L2 acquisition. In Schwartz and Sprouse's longitudinal study of a Turkish learner of L2 German, at one stage their subject produces utterances with verb inversion to C with pronominal subjects but with no inversion with non-pronominal subjects. This does not occur in Turkish, the L1 nor in German, the L2; it does however occur in French, in question inversion. So the grammar is constrained by UG and it is rather implausible that general problem solving based on the input would lead the subject to this distinction in his interlanguage (Schwartz and Sprouse 2000:175). We have evidence of a poverty of stimulus problem in the sense that neither the L1 grammar nor the L2 surface patterns can account for a property of this interlanguage system. According to the analyses given for object pronoun positions by the learners in this study in passé composé constructions and auxiliary and infinitive constructions, we are also dealing with a poverty of stimulus problem. In their interlanguage grammars the learners exhibit properties that cannot be accounted for by the L1 nor the L2 surface patterns, but can be attested for in other natural languages.

In the elicited object pronoun test an interesting response is recorded for one learner in both the lower VI group and undergraduate 1 group. The two learners produced utterances with the object pronoun repeated before and after the verb, e.g. ***j'espère le voir le*** and ***je les trouve les sensationnels.*** These utterances could be given an analysis based on the following analysis of L1 acquisition data for the development of questions. Two-year old children often produce auxiliary copying structures in their development of yes/no questions, e.g. *did* the kitchen light *did* flash?, *can* its wheels *can* spin? (data from Sam 2.9, in Radford et al 1999: 324). It is assumed that when the children invert the relevant auxiliary and move it from **I** to **C**, an overt trace is left behind in **I** rather than a covert trace as in adult grammars. The auxiliary appears in both **I** and **C**. From the utterances produced by the two learners in this study we can assume that the learners move the object pronoun to AgrOP to check case (see section 3.9.2), so the object pronoun appears before the verb. However an overt trace of the object pronoun is left behind in the base position in the DP phrase, which is the complement to the verb.

The learners in this study initially categorically place object pronouns after finite and non-finite verbs. This data suggests that the learners start L2 acquisition using their L1 syntax. It is not entirely clear from this particular part of the study just how much of the L1 syntax is transferred; only lexical projections as predicted by Minimal Trees theory and Modulated Structure building, or both lexical and functional projections as predicted by Full Transfer/Full Access (see section 3.6). This categorical placement of object pronouns after finite and nonfinite verbs only occurs for a short period. From very early on, without explicit instruction, the learners start placing the object pronoun before the finite verb in simple tense items. This would indicate early projection of functional categories based on the L2 input that were not instantiated in the L1 grammar[14]. The L2 input forces a restructuring of the interlanguage grammar, although this does not happen immediately. The results for object pronoun placement in compound tenses are less clear and the learners use word orders that do not occur in the target language or L1, thus indicating a developmental poverty of stimulus effect.

[14] Although Schwartz 1999 would disagree with this (see section 3.9). However in this study I adopt the position that English does not instantiate object clitic functional projections (Duffield et al 1997).

We only see evidence of unanalysed chunks having an effect on the data in a small number of cases in these object pronoun tests; the item ***je t'aime*** in the year 7 and year 9 grammaticality judgement test, and in the year 9 preference test ***il faut le chercher dans le vocabulaire.*** Additionally, at the second stage the learners begin to move away from English word order positions without explicit teaching. Year 9 learners begin to place object pronouns in preverbal positions and they have not yet received formal instruction on object pronoun placement in French. They appear to be restructuring their grammars on the basis of L2 input. By the lower VI stage and undergraduate stage the learners have received explicit instruction on the placement of object pronouns. However their responses indicate that they do not rely on this explicit teaching all of the time. Their responses are not always correct and they accept and produce phrases with object pronouns in positions that are incorrect for the L1 and the target language.

The final chapter provides a synthesis of the results for properties that fall out of both parameters, a recapitulation of what questions the study aimed to investigate, and a final analysis as to whether we have been able to answer any of these questions.

7 Conclusion

7.0 Overview of the study

This study intended to investigate French second language learners' interlanguages within the framework of recent developments in linguistic theory and second language acquisition theory. The study was cross-sectional with the aim of carrying out a precise analysis of interlanguage grammars at various points of acquisition. The investigation centred on the subjects' knowledge of negation, placement of phrase medial adverbs, lexical verb inversion in interrogatives and the placement of object pronouns.

The objective was to study the availability and development of functional categories and their features from the initial state through subsequent stages of development, in particular those implicated in the verb movement parameter and the object clitic placement parameter. Recent investigations on the L2 initial state have provided L2 acquisition researchers with a number of hypotheses to guide their analyses of collected data. Within the boundaries of the verb movement parameter and the object clitic pronoun placement parameter we were looking for evidence of transfer of functional categories and their feature values. Additionally, the correct placement of object clitic pronouns by the learners could provide evidence for functional categories that are not instantiated in the English L1. We looked at the development of the learners' interlanguages by comparing the data from the different levels. In current linguistic theory, parameters are related to feature strength on functional heads, so the possibility of resetting parameters becomes a question of resetting feature values from the L1 feature values to the L2 feature values. We can look at the acquisition data to see if feature values change as the learner moves from one knowledge state to another. Crucial verification of a change in feature values would be evidence of a clustering of the properties that fall out of the verb movement parameter.

A battery of tests was designed and given to the learners at the different stages to gain insight into the learners' mentally represented grammars at each of the different stages. A complicating factor in analysing acquisition data is the effect of processing difficulties on the learners' representations, and how these processing difficulties may delay a restructuring of the grammar. The tests were piloted in order to reduce any excessive processing demands. Additionally, when checking the scoring methods, we

looked for evidence of processing difficulties and these have been referred to in the relevant results sections.

The learners in this study were instructed learners; they acquire their second language in a distinctive linguistic environment. A third question in the investigation involved the nature and influence of classroom input; how input affects underlying competence and how environmental factors influence development. The input the learners receive in the classroom is of many different types; as well as primary linguistic data, it includes explicit teaching, negative evidence, and training in formulaic chunks. It was important to establish a link between this input and the acquisition data. A period of observation was carried out in an attempt to try and establish this link.

7.1 A synthesis of the results

The learners in the first and second stage of this study are at a much earlier stage than other studies that have looked at English/French interlanguages, particularly those that have investigated the properties that fall out of the verb movement parameter. This has both advantages and disadvantages, advantages because they really are at the initial state, disadvantages because it is especially difficult to gain insight into their competence. The early learners in this study evince transfer of English word order both for the properties that fall out of the verb movement parameter and for object pronoun placement. This is illustrated by the fact that they categorically place '***ne***' and '***pas***' and phrase medial adverbs before the verb, and object pronouns after the verb. It seems that these learners have transferred their functional categories and weak feature values from English for both Agr and the functional head AgrOP: the head associated with checking object pronouns. So in their early L2 grammars, verb raising is covert and object pronouns are not produced as syntactic clitics.

Despite the limited available input the learners' interlanguages do show evidence of development, although a great deal of optionality remains in their representations. Learners begin to place ***'pas'*** and phrase medial adverbs after the verb, as if they are raising the verb. What is not clear is, whether the change in the learners' representations is due to a resetting of the feature values to strong, or due to implementation of other UG processes. If the feature value in Agr has been changed to

strong, then there should be no difference between the results for adverbs and negatives in the test, and the learners should show accuracy with all the properties that fall out of the verb movement parameter. In the data collected for the undergraduate 1 group and the undergraduate 4 group there is very little difference between the scores for negatives and adverbs, although both groups do not achieve target–like accuracy. It therefore appears that there is some kind of developmental clustering of the properties.

The data from object pronouns provides evidence of transfer from L1 at the earliest stage, but restructuring of the grammar begins very soon after which cannot be attributed to explicit teaching. It appears that the learners can project functional categories not instantiated in the L1 with minimal exposure to the L2 input. Alternatively, we can adopt the minimalist analysis of object pronouns that the learners realise that AgrO and AgrS has strong features and that French has syntactic clitics, and these move overtly to AgrOP to check their case features, then move with the inflected verb to AgrS. Either analysis entails a very early restructuring of the grammar based on L2 input. This unmistakable difference in English and French word order generates an early change in the learners' interlanguage grammars.

A problem with assuming that learners have transferred functional categories and their feature values from the English L1 is found in the inaccuracy of the lower VI learners with negatives in nonfinite contexts. In English and French, Agr is weak in non-finite contexts, so lexical verbs do not raise overtly past ***'pas'*** or 'not'. However the majority of the lower VI group do raise lexical verbs past ***'pas'*** in these non-finite contexts **** il prend un taxi pour ne rater pas son train.*** If the learners had transferred weak features for Agr then they should not raise the verb. However it could be in this case that explicit teaching is blocking the development of the grammar; if the learners had been explicitly taught to place the negative particles around the verb, then they may do so in all contexts.

Optionality is a prevalent feature of these learners' interlanguages, and so we need to establish the source of this apparent variability; whether this optionality is internal to the grammar or caused by factors external to the grammar (environmental or processing factors). Optionality is seen at all levels in the grammaticality judgement tests, particularly from year 9 onwards. Scores for grammatical items are higher than for

ungrammatical items. This tendency is not unique to this study, but has also been reported in other investigations that have used grammaticality judgements (Hawkins et al 1993). In the year 9 grammaticality judgement test we see acceptance of correct negative placement but also incorrect placement of ***'pas'*** before the lexical verb. At the later stages the problems occur in compound tenses, for example the acceptance of ***'pas'*** and phrase medial adverbs after the non-finite past participle in passé composé items, even though correct items have been accepted. Additionally, for items with object pronouns in the passé composé, there is a tendency to accept both the grammatical items and the incorrect items; where the object pronoun is placed between the finite auxiliary and past participle. So is this variability caused by the nature of the test? Is it experimental error? In this study this appears not to be the case because the same errors occurred in the other tests: the sentence manipulation test and the object pronoun placement test. The results from the different tests do evince correlation. These errors were also heard in the learners' limited oral productions in the classroom. There were two occurrences of ***'pas'*** placed before the finite verb in year 9 classes, and a number of examples of ***'pas'*** placed after the past participle in oral productions in the lower VI classroom (see section 6.1). However the productions of the undergraduate learners do not evince errors of this type. It would seem from the results of the tests and the limited observation data that the acceptance of the ungrammatical items is a reflection of the learners' current grammar, in which case restructuring has begun but it is not yet complete.

If we examine the observation data then we can try and ascertain links between the learners' acquisition data and input. In the early stages, year 7 and year 9, there is definitely a positive effect on the test results caused by unanalysed chunks of language. These chunks however do not seem to feed into the language module at this stage; although ***je n'aime pas*** is judged to be correct and ****je ne pas aime*** as incorrect, the learners do not extend this to other linguistic contexts e.g. ***je ne pas regarde la télé***. Additionally we see evidence of development between year 7 and year 9 that cannot be attributed to explicit teaching of grammatical forms, based on the observation period. There is an improvement in accuracy for all properties when the two group scores are compared.

With the later groups it is harder to dismiss the effects of explicit teaching because all their years of learning before this study have not been observed. What we can establish though is that any knowledge gained from explicit teaching is not being used all the time. If the learners were only relying on explicit teaching then the learners' responses would not exhibit so much variability in identical contexts: their responses would be accurate all of the time.

We also see the effects of frequency and type of input in the classroom for this study. The modern language classroom in English comprehensive schools can hardly be described as an input rich environment. As mentioned before the use of chunks dominates the foreign language classroom and primary linguistic data is limited. This could contribute to the delay in development and restructuring of the grammar. This predominance of the use of chunks in the classroom encourages learners to rely on their memories; to rely on the central processes in the mind, rather than the language module.

There is also almost zero use of adverbs across all the groups in the classroom, and additionally, the learners experience difficulties with the more peripheral negative particles e.g. ***'jamais'*** and ***'rien'***. The infrequency of these items in the input could be another factor hindering interlanguage development in these learners. There is also a delay reported in placing phrase medial adverbs in L1 acquisition studies of the verb movement parameter, but this is attributed to pragmatic limitations due to the age of learners. In L2 acquisition we cannot draw on the same pragmatic deficiencies to explain the delay in the use of phrase medial adverbs because they already use them in their L1. Finally, the lack of output may also be a contributing factor to slow development. Oral production by the learners in the observed classes was minimal, even at undergraduate level. Language is an output system in addition to being an input system in the modules of the brain, and this lack of output may in some way delay the restructuring of the grammar.

What is illustrated in the data from this study is evidence that the learners exhibit linguistic knowledge that comes neither from the L1 grammar or the L2 input; a poverty of stimulus problem. "The identification of poverty of stimulus problems would provide the most compelling evidence that adult language acquisition is

constrained by innate mechanisms" (Sprouse 1996:742). In this data the learners evince a mismatch between evidence and knowledge in their placement of negatives between the auxiliary and the past participle in passé composé items. This mismatch of evidence and knowledge is also evident in their placement of object pronouns between the auxiliary and the past participle, and before the auxiliary in auxiliary and infinitive items. These developments cannot be attributed to the L1 grammar, the L2 input, or explicit teaching and have also been attested in naturalistic studies involving L2 learners.

Finally, with regard to input it is important to investigate the relationship between parsing the input and the development of the L2 grammar. It is posited that L1 parsing strategies are used to parse the L2 input, and we can see evidence of this in our data at all levels. The fact that the early learners place '***ne***' and '***pas***' as 'do not' indicates a use of the L1 grammar to parse the L2 input. Additionally, how the learners at later stages analyse ***'jamais'*** and ***'rien'*** would again point to the L2 input being analysed on the basis of the L1 grammar. We can also see evidence of computational complexity causing processing problems for these learners in their inability to parse inverted negative questions. Inverted negative questions were either rejected as ungrammatical or caused problems in areas of the grammar, even at undergraduate 4 level. There were also individual items that caused processing problems in the tests, and these have been mentioned in the relevant result sections.

Although a battery of various tests was used in this study and the results illustrate evidence of corroboration, it remains very difficult to separate a learner's competence from the effects of performance. The period of observation was set up to attempt to look at the link between input and the acquisition data, but this period of observation was itself limited. The residual problem remains in identifying the role of explicit teaching and how it contributes to or hinders the development of a learner's grammar.

If the learners in the early stages of this study are in the initial state then there appears to be transfer of L1 functional categories and their feature values. The grammars of the learners in the early stages do not incorporate overt verb raising or syntactic object clitics. Based on the evidence from this study and in line with Schwartz and Sprouse (1996) it feels counter-intuitive to divide the cognitive map and claim that only lexical

categories are transferred. If NegP, IP, CP etc. are all instantiated in the L1, why would the L2 learners not use these functional categories to analyse the L2 input?

The data for the observed subsequent development is a great deal more ambiguous. Restructuring based on changing the feature values of functional categories could be taking place but at a delayed rate and with a few characteristics in the interlanguage that still need to be explained. The restructuring is hindered by the similarity of English and French phrase structure, the extremely limited amount and type of input, transfer of L1 processing procedures, and computational complexity. Additionally, French and English phrase structure in many respects is very similar and the L1 grammar can accommodate the L2 input in most circumstances. So in the case where there is a parametric difference between the two languages the motivation for change is hindered. Thus while a change in feature values has not been ruled out, this study does not really allow us to decide between the various hypotheses.

7.2 Methodological issues and implications for future research

Part of the problem may be that the tests used in this study are not optimal to provide us with insight into the learners' linguistic competence at such an early stage. The requirements of the tests may cause the respondents to use other non-linguistic cognitive strategies to judge and manipulate the phrases. So incorrect examples like ****je ne pas regarde la télévision*** (I ne not watch the television), produced in the sentence manipulation test and apparently mimicking 'I do not watch television', are linear surface strings and can not be used as evidence of transfer of functional categories and their feature values. If this is the case we are still left with the problem of how we can best gain access to competence. It seems that the results from this study need to be combined with some kind of production data. In the study the language produced by the learners during the observation period was very limited in amount and type. Particularly in the early stages there were very few examples of negatives[15] or adverbs produced. Needless to say a great deal more production data would be needed to reject any notion that results presented here are an artefact of the tests.

[15] I am referring to phrases that were not used as unanalysed 'chunks' of language.

So a further study would benefit from examples of production data, either from the learners' classroom production or in the form of elicited production tests. These tests would have to be carefully designed to avoid excessive processing demands, both in terms of perception and production. This would enable us to ascertain more certainly whether learners project functional categories at the initial state, for example IP, because they would have to produce inflected verb forms themselves. It would also provide corroboration of results from the data already collected from the tests in the study. This production data would shed further light on the hypotheses being investigated in this study.

Additionally production data would enable us to investigate the hypothesis that agreement morphology paradigms and the strength of features are linked. In the current study in most tests the learners do not have to produce inflected verb forms, so it is impossible to confirm or reject the notion that learners must learn morphological paradigms before realising the strength of feature values for abstract features. The only test where the learners have to produce verbs in inflected forms is in the elicited adverb production test. Not surprisingly, in this test, the undergraduate group shows greatest accuracy with placing the adverb phrase medially after the finite verb, and greatest accuracy in their verbal agreement. However this observation of a small amount of data is neither sufficient nor robust enough to make any claims about linking morphology to abstract strength features. Thus the addition of production data would have a two-fold purpose; to further enlighten us regarding the hypotheses examined in the present study, and to enable us to investigate the link between morphological paradigms and establishing feature values on functional categories.

Appendix One: Sample lesson from field-work diary

Year 7: 03-11-98
29 Students in class, one hour lesson 11:30 – 12:30
(T) – teacher (St) – student
students enter class teacher says ***'bonjour'*** and ***'ça va?'*** as they enter.
Start of class

Qu'est-ce-que c'est les mois? (T)

Teacher asking for the names of the months in French; going round the class.
Encore, Paul, tu commence (T)
Months repeated for a second time by students.

Les jours de la semaine? (T) (asking for days of the week)
Pupils all very keen with their hands up, as they call out the days of the week.

Qui peut écrire les jours sur le tableau? (T)
Il faut écrire correctement (T)
(pupils write days of the week on the board)

Qui encore? (T)
C'est parfait (T) (10 minutes spent on above activity)

Change of language focus, mini question and answer dialogues based around the language form ***as-tu…?*** teacher asks question to individual students.

As-tu un crayon? (T)
Oui j'ai un crayon rouge (St)

As-tu un cahier de français? (T)
Oui (St)

As-tu un bic? (T)
Oui j'ai un bic rouge (St)

As-tu un stilo? (T)
J'ai un stilo rouge et noir (St)

Il a un stilo rouge et noir (T) (teacher introduces 3 person/singular form to refer to student who has just answered.)

As-tu un sac? (T)
J'ai un sac (St)
C'est quelle couleur? (T)
No answer from student

As-tu une trousse? (T)
Oui j'ai une trousse bleu (St)
As-tu une gomme? (T)

J'ai une gomme *vert (St) – teacher corrected to ***'verte'***, emphasis on /t/
As-tu une gomme? (T)
****Je n'ai pas une gomme*** (St)
J'ai une gomme *blanc (St) (teacher corrected to ***'blanche'***)

As-tu une pomme? (T)
Je n'ai pas de pomme (St)

C'est quelle couleur ta pomme? (T)
****vert*** (St) teacher corrected to ***'verte'*** (10 minutes on above activity)

Est-ce-que vous avez la feuille – les devoirs? (T)
Class now going through homework given out at previous lesson.
Exercise A – students had to answer negatively to the question ***as-tu....?*** for example, ***As-tu un crayon? Je n'ai pas de crayon.***

Teacher checked the students understood the meaning of ***Je n'ai pas de*****.....**, and ***as-tu.....?*** Also checking of gender of items, e.g. ***une trousse, un stilo etc.***.

Exercise B: A gap filling exercise using ***ai, as, a*** (different forms of ***'avoir'*** to have, some students have no difficulty at all with this, although they have not been explicitly taught the different inflected forms of the verb.
(15 minutes on going through homework)

Students now instructed to turn to new page in textbook, ***Avantage 1***: page 24

Ça c'est au collège, le collège français (T)
Students looking at a school timetable in the text-book, teacher explains that **h** stands for ***heure***, e.g. ***seize heures*** = four o'clock
En bleu, il y a les leçons, mais à douze heures – c'est le repas (T)
Students understand that this is lunch.
En rouge, c'est le salle de classe (T)

Question: ***lundi à 9 heures – c'est quelle leçon***? (T) Answer: ***Anglais*** (Sts)
Teacher says day and time and students must say what lesson. Then the teacher asks for English translations of all subjects
Then she reverses the process, says the day and lesson and asks what time it is
Question: ***Lundi, Anglais, c'est à quelle heure?*** (T) Answer: ***Neuf heures*** (Sts)
(This activity took 10 minutes)

Tu peux faire ça avec un partenaire? (T) Teacher asks if students are able to do this activity in pairs. (Then the students work in pairs for 5 minutes asking and answering questions in the same way about the school timetable.)

Then she tells the class –***je ne peux pas dessiner*** (T), ***pour moi le dessin c'est nul*** (uses a downward thumb gesture to show she does not think much of art classses)
Écrivez trois leçons et trois opinions (T)
Students have to write down 3 lessons and what they think of them: from ***c'est super***! ***C'est pas mal***! and ***c'est nul***! These opinions are written on page 25 in the book.
Students worked on this until the end of the lesson.

Appendix Two: Battery of tests used in the study.

Year 7:	Test 7a	grammaticality judgement test
	Test 7b	preference test
	Test 7c	sentence manipulation test
Year 9:	Test 9a	grammaticality judgement test
	Test 9b	preference test
	Test 9c	sentence manipulation test
	Test 9d	elicited adverb placement test
Lower VI	Test LVIa	grammaticality judgement test
	Test LVIb	preference test
	Test LVIc	sentence manipulation test
	Test LVId	elicited adverb placement test
	Test LVIf	elicited object pronoun placement test
Undergraduate 1	Test ugrad;a	grammaticality judgement test
	Test ugrad:c	sentence manipulation test
	Test ugrad:d	elicited adverb placement test
	Test ugrad:f	elicited object pronoun placement test.

(All tests are included in the following pages)

ref: 7a.

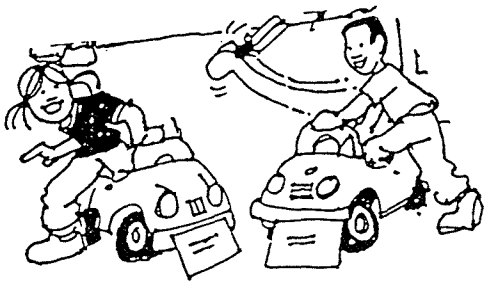
Appendix Two.

Year 7: **Name**_____ **Date:**_____

Here are some pictures and sentences that go with them. In some of the sentences there is a word or words in the wrong place. Look at the sentences and decide if the sentence is correct ✓ or incorrect ✖ or if you are not sure choose **?**. Put a circle around the one you have chosen. If you have chosen ✖ then move the word in the wrong place to the right place: draw a circle round it and use an arrow. Some of the sentences are questions, remember to look for a question mark.

Have a look at the examples: the first ones are in English.

Example A:



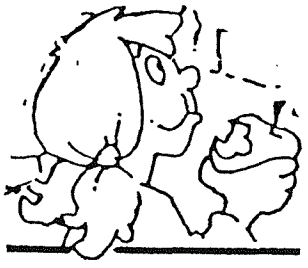
They are playing in the cars ✓ ✗ ?

Example B

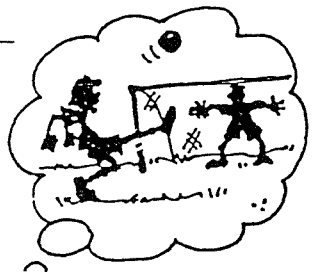
have you a hammer got? ✓ ✗ ?

The next example is in French. From now on all sentences will be in French.

Example C



elle une pomme mange ✓ ✗ ?

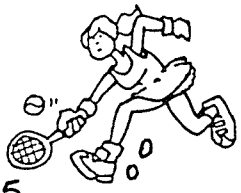


1.

2.

1. aimes tu le football? ✓ x ?

2. Non, je pas n'aime le football. ✓ x ?



5.

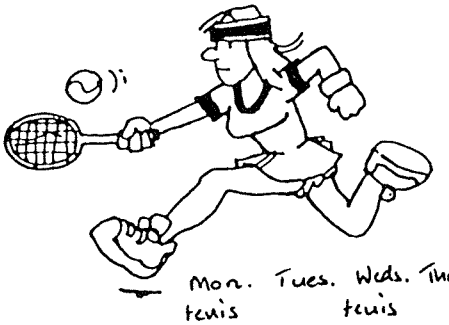
6.

(veux means want) (jouer means play)

5. Veux jouer tu au tennis? ✓ x ?

6 oui, s'il plait vous. ✓ x ?

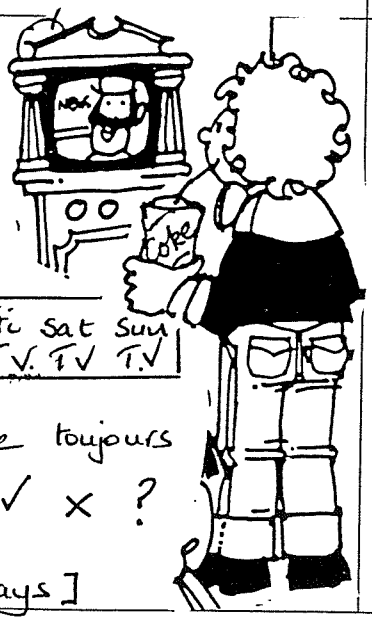
3. tu un baton de colle as ? ✓ x ?



Mon. Tues. Weds. Thurs Fri. Sat Sun.
tenis tenis tenis

7. elle souvent joue au tennis ✓ x ?

[souvent – means often]



Mon Tues Wed Thur Fri Sat Sun
T.V T.V T.V T.V T.V T.V T.V

. Richard regarde toujours la télévision ✓ x ?

ujours means always]

8

9.

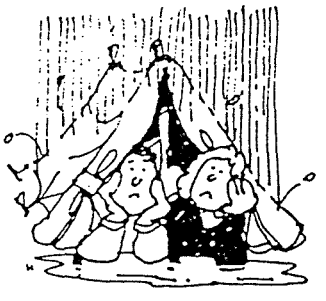
(te means you)

8 Lucie, je t'aime ✓ x ?

9. Je ne pas suis Lucie ✓ x ?

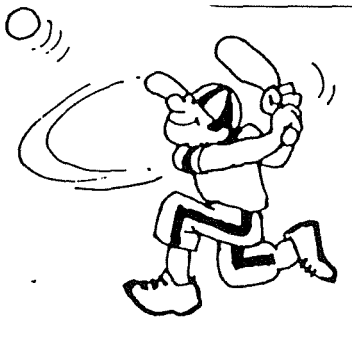
10. aimes tu le coca-cola ?
✓ x ?

11. oui, j'aime le ✓ x ?
(le means it)



12. Tom et Mary pas n'aiment la pluie
✓ x ?

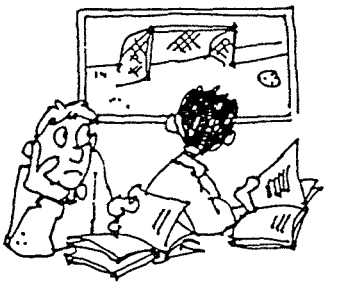
(la pluie means the rain)



Mon. Tues. Weds. Thurs. Fri. Sat. Sun.
B.ball B.ball B.ball B.ball B.ball B.ball B.ball

1. Peter toujours joue au baseball.
✓ x ?

(toujours means always)

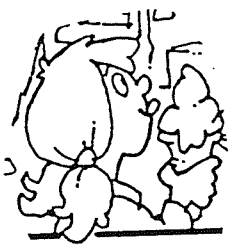


14. John et Steve ne jouent pas au football.
✓ x ?

15. il joue au baseball
✓ x ?

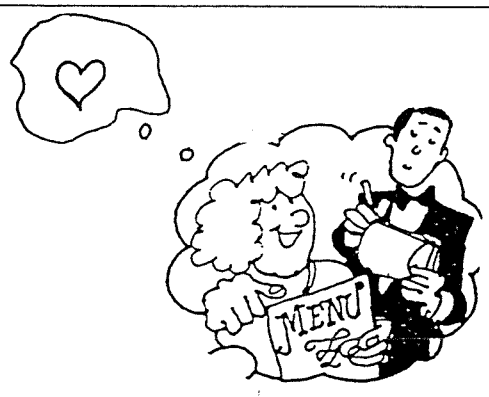
16. Joe et Sue jouent parfois dans la piscine
✓ x ?

(parfois means sometimes)



17. Nathalie une mange glace

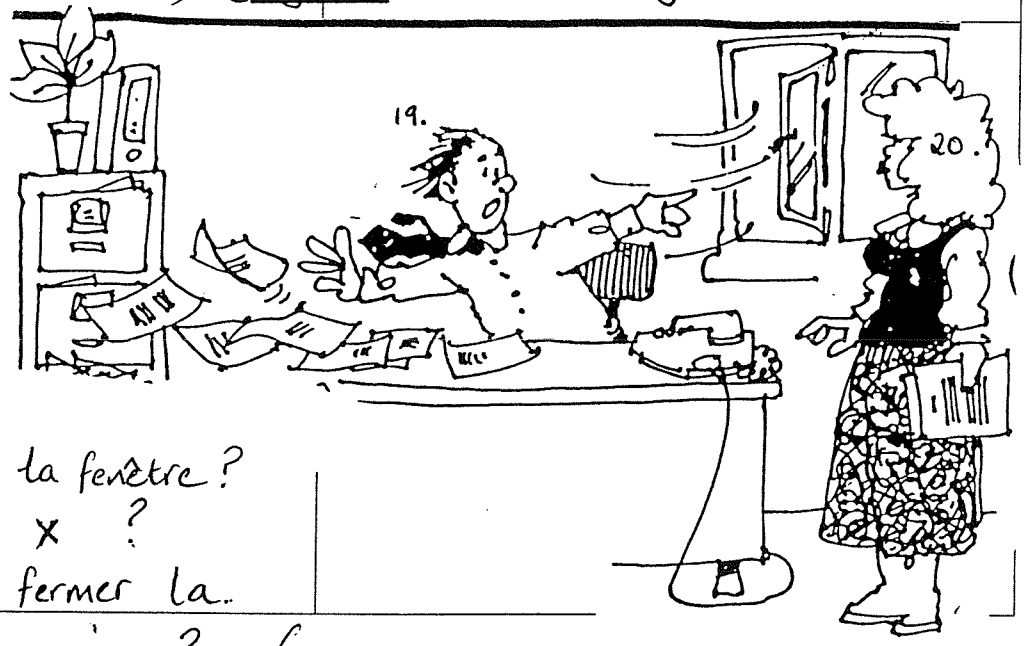
✓ x ?



18. Superbe, le garçon regarde me

✓ x ?

(le garçon means waiter) ('regarde' means "is looking at')



19. peux tu fermer la fenêtre?

✓ x ?

20 oui je peux fermer la..

✓ x ? (peux means can.)

(la means it.)

ref : 7b

Year 7: **Name:**_____ **Date:**_____

Here are some pairs of sentences. In some sentences some of the words are in the wrong place. Look at each pair of sentences and circle the answer that you think is best.

Be careful because some of the sentences are **questions,** so check to see if there is a question mark (?) before you make a decision. When you have decided on your answer, please do not go back and change it, I am interested in your first answer.

Here are some examples, the first examples are in English so you can get used to the activity.

Example 1

A. The boys go to the cinema
B. The boys to the cinema go

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure.

Example 2

A. Where you do live?
B. Where do you live?

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure.

The next two examples are in French and from now on all the sentences will be in French.

Example 3

A. Tom habite dans une maison (une maison - )
B. Tom dans une maison habite

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure.

Example 4

A. Le chien grand est (le chien - )
B Le chien est grand

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure.

The examples are finished: Now it is time for you to have a go: ⏩

1. A. aimes tu la pizza?
   B. aimes la pizza tu?

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure.

2. A. la classe me dit la lettre (***dit means tells***)
   B. la classe dit me la lettre

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

ref : 7b.

3. A. dans sac mon il y a un crayon bleu
B. dans mon sac il y a un crayon bleu

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

4. A. comment dit-on 'small' en français?
B. comment on dit 'small' en français?

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

5. A. je ne pas fais mes devoirs
B. je ne fais pas mes devoirs (***'je fais mes devoirs' means I do my homework***)

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

6. A. je mange parfois les oranges
B. parfois je mange les oranges (***parfois means sometimes***)

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

7. A. tu à Southampton habites
B. tu habites à Southampton

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

8. A. que fais tu?
B. que tu fais? (***fais means do***)

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

9. ***A.*** je pas ne joue au football (***joue*** means play)
B. je ne joue pas au football

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

10. A. je regarde souvent la télévision (***regarde means watch***) (***souvent means often***)
B. je souvent regarde la télévision

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

11. A. je suis petite
B. je petite suis

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

12. A. je ne peux jouer pas au tennis
B. je ne peux pas jouer au tennis (***peux means can***)

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

13. A. jean le regarde
B. jean regarde le (***le means him***)

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

14. A. on ne pas va écouter la cassette (***on va ecouter means we're going to listen***)
B. on ne va pas écouter la cassette

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

15. A. Richard habite à la campagne 
B. Richard à la campagne habite

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

16. A. j'aime toujours le chocolat
B. j'aime le chocolat toujours (***toujours means always***)

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

17. A. où habites tu?
B. où tu habites?

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

18. A. Ah, football j'aime le
B. Ah, football je l'aime (***le means it***)

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

19. A. il souvent joue au football
B. il joue souvent au football (***souvent means often***)

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

20. A. Nathalie me voit
B. Nathalie voit me (***voit means sees***)

Only A is correct. Only B is correct. A and B are correct. A and B are both incorrect. not sure

The End

ref: 7c

Year 7: Sentence manipulation: with pupil individually.

The pupil is given a phrase or sentence cut up into separate bits of paper to arrange in the order or orders they think are correct. There are two versions of the test, so each pupil will try to manipulate 12 sentences(either A or B). The researcher will read out the completed order each time to be recorded on to the cassette. Then the pupil will be asked if they think there are any alternative orders before moving on to the next one.

Practice sentences

In English: Where is the small old man?

In French: Richard habite dans une maison.

Version A.

1 Je ne suis pas petit
2 Je ne sais pas la date
3 Je ne comprends pas le français
4 La classe me dit la lettre
5 Pierre me regarde
6 Comment t'appelles tu?
7 As tu des soeurs et des frères?
8 Où habites tu?
9 Manges tu les pommes?
10 Je mange toujours la pizza
11 Je joue souvent au football
12 Je n'aime pas le football

Version B

1 Je ne suis pas grand
2 Je ne sais pas le numéro
3 Je ne regarde pas la télévision
4 La classe me dit le numéro
5 Jean me regarde
6 Comment t'appelles tu?
7 As tu les yeux bleus?
8 Où habites tu?
9 Manges tu les escargots?
10 Je regarde souvent la télévision
11 Je joue toujours au tennis
12 Je n'aime pas le football

ref: 9a.

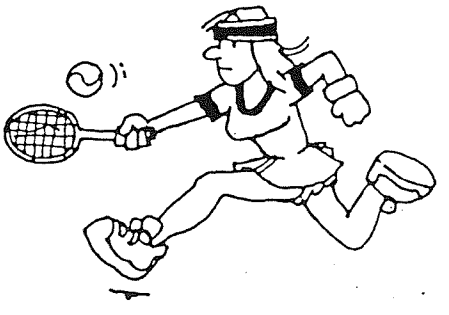
Year 9 Name_____ Date_____

Here are some pictures and some sentences about the pictures. In some of the sentences there is a word in the wrong place. Decide if the sentences are correct or incorrect: **circle the ✓ if you think it is correct** or the **✗ if you think it is incorrect. If you are not sure, circle ?.** If you have chosen ✗ then move the word you think is in the wrong place: draw a circle round it and use an arrow to put it in the right place. Remember to look out for questions. I am interested in your first answer so please do not go back and change your answers

Have a look at the examples, the first one is in English

The children are playing in the cars	(✓)	✗	?

The next example and all the other sentences will be in French.



Elle au tennis (joue)	✓	(✗)	?

1. il fait le ménage quelquefois.

✓ x ?

[quelquefois means sometimes]

2. aimes jouer tu au football? ✓ x ?

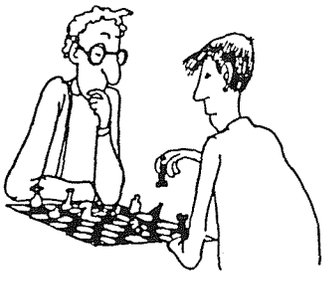
3. Oui, j'aime jouer au football ✓ x ?

4. ils n'aiment pas la pluie.

✓ x ?

5. Pourquoi est-ce-que tu me regardes comme ça ?

✓ x ?



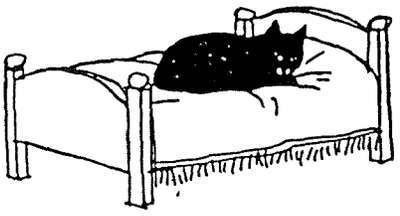
6. ils toujours jouent aux échecs.

✓ x ?

[toujours means always]

7. as tu de la peinture ?

✓ x ?



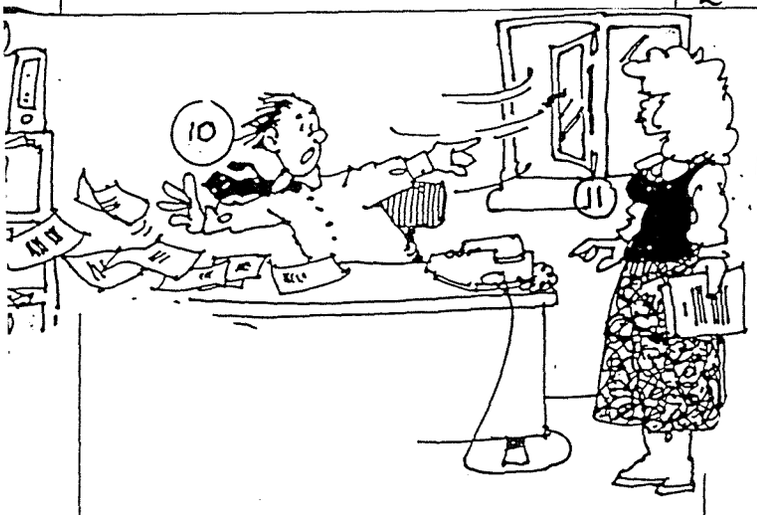
8. le chat sur le lit est.

✓ x ?

9. elle écoute souvent de la musique.

✓ x ?

[souvent means often]

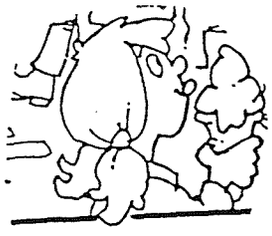


10. pouvez vous fermer la fenêtre?

✓ x ?

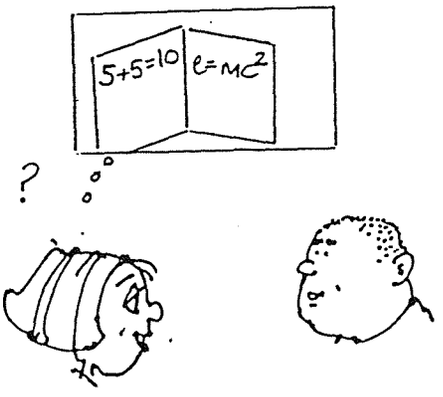
11. Oui, je peux fermer la.

✓ x ?



12. elle mange une glace

✓ x ?



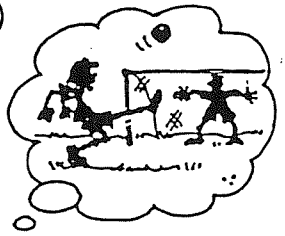
13. as fait tu tes devoirs de Maths?

✓ x ?

14. Oui, j'ai fait les.

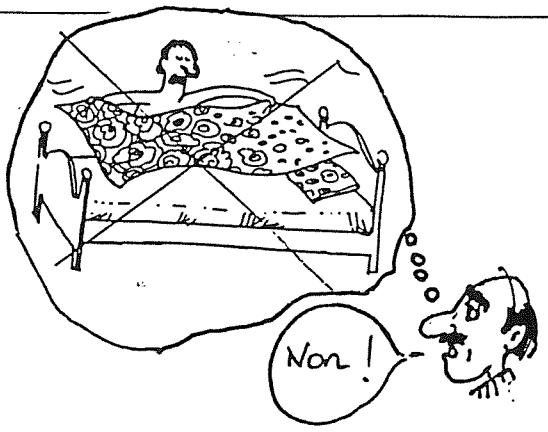
✓ x ?

ou



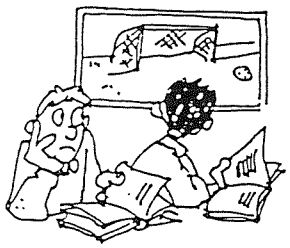
15. préférez vous aller à la piscine ou jouer au football?

✓ x ?



16. il ne veut faire pas le lit.

✓ x ?



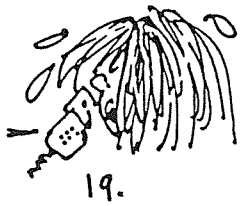
lundi 2 Nov.

17. ils ne jamais jouent au football le lundi

✓ x ?

[ne jamais means never]

18.

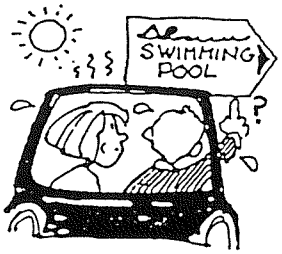


19.

18. Lucie, je t'aime. ✓ x ?

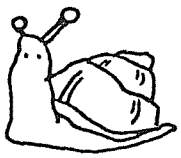
19. je suis Nathalie !

✓ x ?



20. pourquoi n'allons-nous pas à la piscine ?

✓ x ?



21. ?

22

21. manges tu les escargots?

✓ x ?

22 Non, je ne pas mange les escargots

✓ x ?

ref: 9b .

Year 9: Name:_____ Date:_____

Below are some pair of sentences in French. In some of the sentences some of the words are placed incorrectly. Look at each pair of sentences and circle the answer that you think is best.

Be careful because some of the sentences are **questions,** so check to see if there is a question mark before you make your decision. I am interested in your first answer: so once you have decided please do not go back and change your answer.

Here are some examples for you to practise:
The first one is in English.

Example 1:
A. what did you do last Friday?
B. what you do did last Friday?

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

The next examples are in French and all the rest of the sentences will be in French
Example 2:
A. il aime jouer au football.
B. il aime au football jouer.

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

Example 3
A. il dans habite un petit village.
B. il habite dans un petit village.

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

Now try these ⏩

1. A. il joue quelquefois au football. [***quelquefois means sometimes***]
   B. il quelquefois joue au football.

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

2. A. où préfères passer-tu tes vacances?
   B. où préfères-tu passer tes vacances?

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

3. A. elle ne pas va en ville le samedi
   B. elle ne va pas en ville le samedi

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

4. A. il va au cinéma souvent [***souvent means often***]
   B. il va souvent au cinéma.

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

ref: 9b .

5. A. je suis rentré chez moi à 18:45.
   B. je suis chez moi rentré à 1845.

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

6. A. je montre te où est ton lit. [***montre means show***]
   B. je te montre où est ton lit

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

7. A. comment voyagent-ils aux Etats-Unis?
   B. comment ils voyagent aux Etats-Unis?

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

8. A. ça m'intéresse beaucoup.
   B ça intéresse me beaucoup.

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

9. A. je ne veux aller pas en ville.
   B. je ne veux pas aller en ville.

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

10. A. je voudrais passer mes vacances dans un camping
    B. je passer voudrais mes vacances dans un camping.

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

11. A. il toujours parle dans la classe. [***toujours means always***]
    B. il parle toujours dans la classe.

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

12. A. est-ce-que je peux enlever ma veste?
    B. est-ce-que peux je enlever ma veste?

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

13 A. il faut le chercher dans le vocabulaire. [***chercher means to look for***]
   B. il faut chercher le dans le vocabulaire.

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

14. A. je ne te regarde pas.
    B. je ne pas te regarde.

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

ref: 96.

15. A. j'ai d'une gomme besoin.
    B. j'ai besoin d'une gomme.

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

16. A. aimes tu aller à la piscine?
    B. aimes aller tu à la piscine?

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

17. A. il veut parler me.
    B. il veut me parler.

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

18. A. elle a mangé du poulet et des frites.
    B. elle a mangé des frites et du poulet.

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

19. A. Il n' écoute jamais la musique classique.
    B. Il ne jamais écoute la musique classique. [***ne jamais means never***]

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

20. A. Je ne sais nager pas.
    B. Je ne sais pas nager.

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

21 A. Pouquoi ne vas-tu pas jouer dans ta chambre?
    B. Pourquoi ne pas vas-tu jouer dans ta chambre?

1. only A is correct 2. only B is correct 3. A and B are correct 4. A and B are incorrect 5. don't know

The End 

ref: 9c

Year 9: Sentence Manipulation: With pupil individually.

Pupils given slips of papers with words on to arrange in the order or orders they think are correct; with questions and adverbs there may be more than one correct order. There are two versions of the test each containing three tokens of each type of item, there are four examples of questions. Each pupil will try and manipulate 12 sentences. The researcher will read out the sentences each time the pupil has finished, to be recorded on to a cassette. They will also be asked if there is an alternative order.

Practice Sentences:

English: I went to the cinema yesterday. (more than one correct order)

French: Il aime regarder la television.

Version A:

1. Quelles sortes de films préfères-tu?
2. Aimes tu jouer aux échecs?
3. Où se trouve la boulangerie?
4. avez vous des frères ou des soeurs?
5. Je peux vous aider.
6. Je ne te vois pas .
7. Pierre me voit
8. Il ne veut pas jouer au football.
9 je ne fais pas mes devoirs.
10. Pourquoi ne vas tu pas jouer dans le jardin?
11 Il travaille souvent le samedi.
12. Elle regarde toujours la télévision.
13 je ne fais jamais le ménage.

Version B.

1. Quelle sorte de musique aimes-tu?
2. Aimes- tu aller au cinéma?
3. Où se trouve le sahara?
4 As-tu une gomme et une regle?
5 Pierre me regarde
6. Je ne te regarde pas.
7. Je peux te voir.
8 Elle ne veut pas aller à l'école.
9. Je ne vais pas au cinéma.
10. Pourquoi ne vas-tu pas jouer dans ta chambre?
11. Elle joue souvent aux échecs.
12. Nous écoutons toujours de la musique pop.
13 Il ne fait jamais la vaisselle.

Year 9.

ref: 9d.

Describe what the people do in each picture and how often they do it. Use a sentence or phrase containing the word underneath the picture.

You will then be asked if there are any other ways you can say the same sentence.

toujours

souvent

au restaurant

quelquefois

le ménage

ne jamais

tout le temps

ref: LVIa

Lower VI **Name**_____ **Date**_____

In some of the sentences below there is a word in the wrong place. Look at the sentences and decide if the sentence is correct ✓ or incorrect ✖ or if you are not sure put **?**. If you choose incorrect then put a circle around the word that you think is in the wrong place and use an arrow to indicate where it should go. Remember to watch out for questions. I am interested in your first response so when you have decided on an answer please do not change it.

Have a look at the examples first.

Example A.

Demain il fera beau autour de Dijon. ✓ ✖ **?**

Example B

L'année dernière je allée suis aux Etats-Unis. ✓ ✖ **?**

The task begins here:

1. Marie toujours aime regarder la télévision. ✓ ✖ **?**
2. Marie lui a donné le livre. ✓ ✖ **?**
3. qu'est- ce que penses tu du collège? ✓ ✖ **?**
4. il prend un taxi pour ne rater pas son train. ✓ ✖ **?**
5. j' ai persuadés les de venir. ✓ ✖ **?**
6. mes parents tout le temps vont au restaurant. ✓ ✖ **?**
7. que pensent les jeunes de leur avenir professionel? ✓ ✖ **?**

ref : LVIa

8. je ne veux aller pas en ville. ✓ ✖ ?

9. achète t –il du lait au supermarché? ✓ ✖ ?

10. il faut bien connaitre la nature. ✓ ✖ ?

11. il vient voir me toutes les semaines ✓ ✖ ?

12. il a promis de ne jamais en parler ✓ ✖ ?

13. il pourra te voir demain ✓ ✖ ?

14. on parfois ramène des souvenirs ✓ ✖ ?

15. est- ce- que tu as quelque chose à dire? ✓ ✖ ?

16 pourquoi ne vas tu jouer pas dans ta chambre? ✓ ✖ ?

17. je n'aime pas le sport trop ✓ ✖ ?

18. je toujours ne l'ai pas compris ✓ ✖ ?

19. je preferais ne pas y aller ✓ ✖ ?

20. comment voyagent- t-ils aux Etats Unis? ✓ ✖ ?

ref: LVIb.

Lower VI Name_____ Date_____

Below are some pairs of sentences in French. In some of the sentences there are words placed incorrectly. Look at the sentences and circle the answer that you think is best. Remember to check if the sentence is a question.

Look at the examples below, then do the activity. I am interested in your immediate response so please do not go back and change your answers once you have done them.

Example 1

A. Je voudrais parler avec le professeur.
B. Je voudrais avec le professeur parler.

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

Example 2

A. Maintenant je vais aller au cinéma.
B. Je vais aller au cinéma maintenant.

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

Now the activity begins

1. A. Je ne pas dors chez moi ce soir.
   B. Je ne dors pas chez moi ce soir.

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

2. A. Pourquoi est ce que tu n'aimes pas jouer au football?
   B. Pourquoi est ce que n'aimes pas tu jouer au football?

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

3. A. Tom a souvent passé le weekend a Londres
   B. Tom a passé le weekend a Londres souvent.

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

4. A. J'aimerais avoir un show aux Etats-Unis sur une chaine de télé.
   B. J'aimerais un show avoir aux Etats-Unis sur une chaine de télé.

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

5. A. Je vais acheter le
   B. Je vais l'acheter

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

6. A. Que fait–il le soir?
   B Qu' il fait le soir?

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

ref : LVI 6

7. A. Tu me donnes une idée.
B. Tu donnes me une idée.

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

8. A. Je fais toujours un peu de planche à voile
B. je toujours fais un peu de planche à voile

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

9. A. Il y a des avantages à ne se marier pas
B. Il y a des avantages à ne pas se marier

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

10. A. Les repas étaient délicieux et chauds.
B. Les repas étaient chauds et délicieux.

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

11. A. Pourquoi ne pas vas-tu dans le jardin?
B. Pourquoi ne vas-tu pas dans le jardin?

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

12 A. J'aime toujours regarder la télévision.
B. J'aime regarder toujours la télévision.

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

13. A. On peut téléphoner lui.
B. On peut lui téléphoner.

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

14. A. Quel emploi veut-elle choisir?
B. Quel emploi elle veut choisir?

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

15. A. On a peur de sortir de son appartement pour des courses faire.
B. On a peur de sortir de son appartement pour faire des courses.

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

ref: WJL6.

16. A. es allée tu déjà en France?
B. es tu déjà allée en France?

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

17. A. Il n'a envoyé pas la lettre.
B. Il n'a pas envoyé la lettre.

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

18. A. Je ne les vais pas acheter
B. Je ne vais pas les acheter

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

19. A. Ils ont discuté beaucoup pendant le weekend
B. Ils ont beaucoup discuté pendant le weekend

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

20 A. Ils ont acheté six croissants pour notre dejeuner petit
B. Ils ont acheté six croissants pour notre petit dejeuner.

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

21. A. Le professeur avait l'encouragé à participer.
B. Le professeur l'avait encouragé à participer

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

22 A. Je n'ai pas pu lutter contre elles
B. Je n'ai pu pas lutter contre elles

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

23 A. Ne regardes tu pas la television?
B. Ne tu pas regardes la television?

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

24. A. J'ai voulu souvent faire du ski.
B. J'ai souvent voulu faire du ski.

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

25. A. Je ne joue souvent pas au football
B. Je ne joue pas souvent au football

Only A is correct only B is correct A and B are correct A and B are incorrect not sure

ref : LVIc

Lower VI: Sentence manipulation

Students are given slips of papers with words on to arrange in the order or orders they think are correct; with questions and adverbs there may be more than one correct order. The researcher will read out each completed order.

Que pensent les jeunes de leur avenir professional?

A quelle heure part le prochain train?

Quel emploi veut elle choisir?

Est ce que je peux emprunter votre voiture?

Comment vont-ils faire le voyage?

Ne manges tu rien le matin?

Adverbs

Je ne réussirai jamais à mes examens

Je veux souvent faire du cyclisme

Negatives

Je n'ai pas pu lutter contre elles

Tu ne me laisses jamais tranquille

Je ne travaille pas le samedi

Il prend un taxi pour ne pas rater son train.

Je n'ai jamais vu la mer

Je ne joue pas souvent au football.

& Lower VI ref: LVId

Describe what the people do in each picture and how often they do it. Use a sentence or phrase containing the word underneath the picture. You will then be asked if there are any other ways you can say the same sentence.	 toujours
 souvent	le restaurant  quelquefois
 ne jamais	 tout le temps

ref: WIf

Lower VI : Pronouns Sentences: replace the underlined word or words with an object pronoun: choose from: le, la, nous, les, lui

Je vois **le tour Eiffel**

J'ai voulu faire **du ski**

Je trouve **les groupes anglais** sensationnels

J'ai déjà visité **la Louvre**

Est ce que tu as vu **mon portefeuille**?

J'espère voir **le Sacre Coeur** demain

N'achète –t –il pas **du lait** au supermarché

Elle a invité **mon frère et moi** à passer quelque jours chez elle?

On peut toujours téléphoner à **Richard**

Je n'ose pas parler à **Sophie**

ref : Undergrad : a

Undergraduate 1: Name_____ : Date:_____

Look at the sentences below and decide whether they are acceptable in French or not. If you think they are acceptable circle ✓ and if you think they are unacceptable circle ✗ . Then on a different scale you are asked to assess how confident you are in your decision. The scale is from - 3 to + 3. – 3 indicates that you believe the sentence is definitely incorrect and + 3 indicates that the sentence is definitely correct. 0 indicates that you are unsure about your answer. **You are also asked to underline which part of the sentence you think is unacceptable.**

I am interested in your first response, so work through the activity as quickly as possible and please do not go back and change any of your answers.

Look at the example and make sure you know what you are doing:

Example: **scale of confidence**

J'ai allée à Londres pendant le weekend ✓ ✗ **-3 –2 –1 0 + 1 +2 +3**

100% certain incorrect — 100% certain correct

The activity starts now ▶▶

je veux faire souvent du cyclisme ✓ ✗ **-3 –2 –1 0 + 1 +2 +3**

on ne lui avait rien appris ✓ ✗ **-3 –2 –1 0 + 1 +2 +3**

ne regardes-tu pas la télévision pendant le weekend? ✓ ✗ **-3 –2 –1 0 + 1 +2 +3**

ne voir pas mon ami est une tragédie pour moi ✓ ✗ **-3 –2 –1 0 + 1 +2 +3**

elle aime regarder toujours la télévision ✓ ✗ **-3 –2 –1 0 + 1 +2 +3**

quel emploi veut-elle choisir? ✓ ✗ **-3 –2 –1 0 + 1 +2 +3**

je ne vais pas acheter les ✓ ✗ **-3 –2 –1 0 + 1 +2 +3**

Nathalie a passé souvent le weekend chez ses grandparents ✓ ✗ **-3 –2 –1 0 + 1 +2 +3**

est-ce que peux-tu mettre les photos au mur? ✓ ✗ **-3 –2 –1 0 + 1 +2 +3**

ref : undergrad:a

ne donne –t –il – souvent pas de l'argent aux oeuvres charitables?

✓ ✗ -3 –2 –1 0 + 1 +2 +3

les invités sont tous arrivés maintenant ✓ ✗ -3 –2 –1 0 + 1 +2 +3

que le supermarché ferme tous les jours de midi à 15 heures souvent irrite les clients

✓ ✗ -3 –2 –1 0 + 1 +2 +3

Marie n'a regardé pas la télévision hier ✓ ✗ -3 –2 –1 0 + 1 +2 +3

puisque le disque lui plaisait, Georges a l'emprunté à son ami

✓ ✗ -3 –2 –1 0 + 1 +2 +3

il ne savait visiblement pas que faire de son grand corps

✓ ✗ -3 –2 –1 0 + 1 +2 +3

il veut souvent faire du patinage ✓ ✗ -3 –2 –1 0 + 1 +2 +3

ils tous veulent prendre un train à grande vitesse

✓ ✗ -3 –2 –1 0 + 1 +2 +3

ne manges rien tu le matin avant de quitter la maison? ✓ ✗ -3 –2 –1 0 + 1 +2 +3

elles refusent toujours de me parler ✓ ✗ -3 –2 –1 0 + 1 +2 +3

que tu fais le soir? ✓ ✗ -3 –2 –1 0 + 1 +2 +3

il téléphone vous pour demander votre aide ✓ ✗ -3 –2 –1 0 + 1 +2 +3

ils ont discuté beaucoup pendant le weekend ✓ ✗ -3 –2 –1 0 + 1 +2 +3

comment vont-ils faire le voyage? ✓ ✗ -3 –2 –1 0 + 1 +2 +3

ce reporter a souvent écrit des articles pour notre magazine

✓ ✗ -3 –2 –1 0 + 1 +2 +3

mes parents sont très stricts et me laissent peu de liberté

✓ ✗ -3 –2 –1 0 + 1 +2 +3

Pierre ne prend pas souvent ce train ✓ ✗ -3 –2 –1 0 + 1 +2 +3

n'-a-t-il rien mangé quand il était au restaurant? ✓ ✗ -3 –2 –1 0 + 1 +2 +3

heureux de n'avoir pas perdu la partie de tennis, Henri a felicité son adversaire
✓ ✗ -3 –2 –1 0 + 1 +2 +3

est-ce que tu as quelque chose à dire? ✓ ✗ -3 –2 –1 0 + 1 +2 +3

ne regardes-tu pas souvent la télévision pendant le weekend?
✓ ✗ -3 –2 –1 0 + 1 +2 +3

j'ai souvent voulu le faire ✓ ✗ -3 –2 –1 0 + 1 +2 +3

pour moi, être jeune, ça veut dire n'avoir pas d'obligations
✓ ✗ -3 –2 –1 0 + 1 +2 +3

puisqu' elle a beaucoup de travail en ce moment Julie ne pas prend de vacances
✓ ✗ -3 –2 –1 0 + 1 +2 +3

j'ai commencé ma vie comme je la finirai sans doute: au milieu des livres
✓ ✗ -3 –2 –1 0 + 1 +2 +3

pourquoi il ne veut pas sortir? ✓ ✗ -3 –2 –1 0 + 1 +2 +3

puisqu'il ne travaille pas en ce moment David lit souvent des romans
✓ ✗ -3 –2 –1 0 + 1 +2 +3

ne rien dire à la police quand on a été témoin d'un accident n'est pas l'acte d'un bon citoyen
✓ ✗ -3 –2 –1 0 + 1 +2 +3

un dimanche sur deux on nous donnait quartier libre ✓ ✗ -3 –2 –1 0 + 1 +2 +3

je ne joue souvent pas au football ✓ ✗ -3 –2 –1 0 + 1 +2 +3

Patrick a acheté une nouvelle télévision
ne la regarde-t-il pas tout le temps? ✓ ✗ -3 –2 –1 0 + 1 +2 +3

je n'ose pas lui parler ✓ ✗ -3 –2 –1 0 + 1 +2 +3

il n'a pas envoyé la lettre ✓ ✗ -3 –2 –1 0 + 1 +2 +3

parce qu'elle voulait faire des économies Juliette n'a pas acheté de nouvelle voiture

✓ ✗ -3 –2 –1 0 + 1 +2 +3

j'ai lui presenté mes premiers amis parisiens ✓ ✗ -3 –2 –1 0 + 1 +2 +3

j'étais certain de ne pas avoir laissé mon parapluie
✓ ✗ -3 –2 –1 0 + 1 +2 +3

je ne pouvais rien faire ✓ ✗ -3 –2 –1 0 + 1 +2 +3

ensemble nous avons consulté les horaires du train qui ramènerait me le weekend
✓ ✗ -3 –2 –1 0 + 1 +2 +3

puisqu'elle ne marche pas Joe n'écoute pas la radio ✓ ✗ -3 –2 –1 0 + 1 +2 +3

n'–a-t-il souvent pas envoyé de lettres en Australie? ✓ ✗ -3 –2 –1 0 + 1 +2 +3

Carole reçoit chaque jour un tas de lettres, avant de lire les elle prépare ses leçons
✓ ✗ -3 –2 –1 0 + 1 +2 +3

il y a des avantages à ne pas se marier ✓ ✗ -3 –2 –1 0 + 1 +2 +3

il ne voulait faire rien ✓ ✗ -3 –2 –1 0 + 1 +2 +3

il leur a raconté beaucoup d'histoires passionnantes ✓ ✗ -3 –2 –1 0 + 1 +2 +3

parce qu'il voulait aller en vacances Antony n'est sorti pas pendant le weekend
✓ ✗ -3 –2 –1 0 + 1 +2 +3

Shelley a acheté une nouvelle voiture
Ne conduit-elle pas la tout le temps? ✓ ✗ -3 –2 –1 0 + 1 +2 +3

il ne va régulièrement pas au dentiste ✓ ✗ -3 –2 –1 0 + 1 +2 +3

ref: undergrad : C

Undergraduate year 1 Sentence Manipulation

Students are given slips of paper, which are cut up sentences, and they are asked to arrange them in the order or orders which they think are correct: with questions and adverbs there may be more than one correct order. The researcher or student will read out each completed order. Examples of sentences to be used.

Tu ne me laisses jamais tranquille

Il vient me voir toutes les semaines

On ne lui avait rien appris

Il leur a raconté beaucoup d'histoires passionnantes

Il prend un taxi pour ne pas rater son train

Il a envie de ne rien faire

Je ne pouvais rien faire

Je ne suis jamais allée à la plage/ il n'a jamais rien écrit

Puisqu'elle a beaucoup de travail Julie ne prend pas de vacances

Je ne l'ai toujours pas compris

J'ai parfois voulu le faire

Je veux souvent faire du cyclisme

Les garçons regardent régulièrement la television

Il faut bien connaître la nature

Ils veulent tous prendre un train à grande vitesse

Que pensent les jeunes de leur avenir professionel?

Achètes-tu du lait au supermarché?

Pourquoi ne vas-tu pas jouer dans le jardin?

Ne donnes-tu pas souvent de l'argent à tes amis?

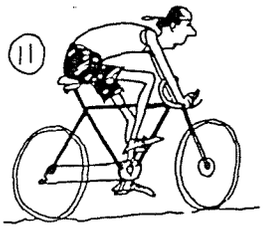
N'as-tu jamais vu la mer?

ref: ungrad:d .

Describe what the people do in each picture. Say how often they do it by using a sentence or phrase containing the word underneath the picture.

You will then be asked, if there are any other ways you could say the same sentence.

toujours



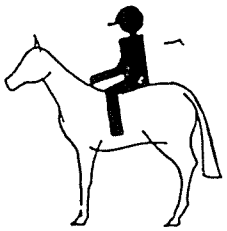
souvent

quelquefois

ne jamais

tout le temps

ref : undergrad : d.



Régulièrement

ref: undergrad: f.

Undergraduate year 1 Object Pronoun Placement

The researcher reads a sentence twice and then the student is asked to replace the object noun phrase from the sentence with a pronoun; they have the noun phrase in front of them in written form.

Il vaut mieux ignorer ces garçons

Je téléphone souvent à mes copains

J'espère voir le Sacré Coeur demain

N'achète –t-il pas du lait au supermarché ?

Elle a invité mon frère et moi à passer quelques jours chez elle

Je n'ose pas parler à Sophie

Je trouve les groupes anglais sensationnels

J'aimerais bien inviter cette fille à danser

On peut toujours téléphoner à Richard

Nous avons demandé aux autorités de faire quelque chose

ref : undergrad : f .

Undergraduate 1 **Pronouns**

The researcher will read out a sentence twice and the subject is asked to replace the words given below for each sentence with an object pronoun.

1. ces garçons

2. à mes copains

3. le Sacré Coeur

4 du lait

5. mon frère et moi

6. à Sophie

7. les groupes anglais

8. cette fille

9. à Richard

10. aux autorités

Appendix 3

Coda: Implications of the Research for French Language Teaching

Empirical studies in Second Language Acquisition deepen our understanding of the nature of L2 syntactic knowledge. We still only have a basic understanding of the facts of L2 Acquisition and controversies remain. The preceding study attempts to gain further insight into second language acquisition and more specifically the development of L2 learners mentally represented grammars. If we can improve our understanding of L2 acquisition then this is of course of interest to classroom practitioners. Furthermore as the study is one of a minority that concentrates on the acquisition of L2 French syntax this again can have implications for French language teaching.

From the results of this study we see further evidence of learners building mentally represented grammars not closely related to the type of input they receive. They do not produce only what they have been explicitly taught. Additionally, the learners in this study show parallel developmental patterns to learners from naturalistic environments, particularly in their acquisition of object clitic pronouns. There is evidence for poverty of stimulus arguments in their acquisition data, similar data is again found in other groups of learners. From this we can see that learners benefit from a rich input and do not only rely on learned grammar rules and recall of memorised chunks.

Two further conclusions drawn from this study are that difficulties in L2 processing and lack of opportunities for L2 production may cause a delay in the restructuring of the grammar. The difficulties in parsing are particularly prevalent among the learners at the early levels in this study, as they appear to parse the L2 input with their L1 grammars. However the problems with parsing decrease as L2 grammatical knowledge develops. These difficulties in processing may in fact be linked to lack of output. It could be suggested that if learners increase their own production, the auditory signals in the L2 become more salient, the learner is then more able to process L2 input, and this in turn will accelerate restructuring of the grammar. If grammatical development is delayed by processing problems, and processing in turn relies on picking up auditory signals then this has implications for language teaching i.e. that regular opportunities for L2 production can be expected to promote both L2 processing and grammatical development. Further experimental studies of output-oriented pedagogy would be needed to investigate this claim.

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