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**An investigation into the proficiency of
successful late learners of French**

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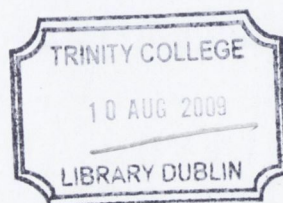
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I dedicate this thesis to my wonderful parents, Donal and Joan Kinsella.

Summary

The introduction to this thesis provides a background for the study as well as the reasons behind the choice of subject.

In the second chapter of the thesis there is a review of the literature on the Critical Period Hypothesis and first and second language acquisition. The literature is examined and some shortfalls are pointed out. Studies conducted on near-native speakers are detailed and analysed as well as providing a context for this present study.

In Chapter Three the three hypotheses of the thesis are laid out. The various research instruments are presented, they include a written test of French, a regional accent recognition test, a linguistic background questionnaire and an interview. Also included is an explanation for the choice of question in the linguistic background questionnaire. A short introduction of each of the twenty participants follows as well as a summary of the biological variables of the sample.

The results of the two tests are presented in Chapter Four and compared to those of a French native control group. Each hypothesis is tested using statistical analysis of the test results and data collected via the linguistic background questionnaire. Finally, the most successful participants are scrutinised in more detail in order to provide information which might explain their exceptional levels of L2 attainment

In Chapter Five a brief conclusion gives an overview of the Critical Period Hypothesis as well as a short discussion on the results of the study. In conclusion, there are some suggestions for future research.

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1.1 Introduction

This thesis focuses on Anglophone late learners of French who have become near-native speakers of that language. It was inspired by the work of many studies in this area including those of Moyer, Birdsong, Piller as well as Ioup *et al.* Twenty late learners of French with L1 English and resident in France took part in the study: all these participants claimed to pass regularly for native French speakers. Data were collected through a number of instruments, among them a questionnaire on their linguistic history, their attitudes toward their second language (L2) and French culture, and their motivation to speak French. Questions were devised to establish their experience in a number of different domains. These included interaction with native French speakers and instruction in the French language. Tests were also deployed to gauge their approximation to native levels of proficiency in different aspects of French. None of the participants had begun learning French formally before the age of 11, and in all cases, the first instance of significant exposure to French was after the age of 20.

A widely debated topic in second language acquisition research is that of the Critical Period Hypothesis. Its popularity probably derives from the fact that most people can relate to it, either on a professional or a personal level. The popular consensus has it that adult learners of a second language (L2) are not as successful as child learners. The suggestion is that adult learners do not all reach the same level of L2 attainment and many plateau in their L2 learning at intermediate stages.

The subject matter of this particular thesis has arisen from the debate on whether the Critical Period Hypothesis (CPH) and its multiple interpretations are in fact valid perspectives on the acquisition of an L2. Lenneberg believed that after lateralisation, the process during which the two hemispheres of the brain develop specialised functions, the

brain loses plasticity. Lateralisation of the language functions, according to Lenneberg, is complete by puberty, making post-adolescent acquisition of a language difficult.

There have been a number of interpretations of the hypothesis (CPH). Bialystok & Hakuta note that the many uses of the term *critical period* have a number of assumptions in common,

First, learning during a critical period is assured, similar across individual, normatively described, and probably governed primarily by endogenous factors...[S]econd, learning outside of the critical period is different in both form and success, especially in that it would be less certain and more erratic in its outcomes. (Bialystok & Hakuta, 1999:164)

The traditional or strong interpretation of the CPH is that it is essential to acquire a language (first or second) between the age of two (approximately) and the onset of puberty, because native-like acquisition is not possible after this stage. This interpretation was supported for the acquisition of a L1 (first language) by studies in a number of domains including feral children, children with Down syndrome and the late acquisition of sign language by deaf children.

In the field of second language acquisition (SLA), much of the early research was confined to the study of critical period effects on pronunciation, (Asher & Garcia 1969, Fathman 1975, Oyama 1976, Seliger, Krashen and Ladefoged 1975, Tahta, Wood and Lowenthal 1981). Results of some of these studies were interpreted as proof that no language learned after puberty could be performed with native-like pronunciation. However, in more recent studies (e.g. Ioup, *et al.* 1994, Bongaerts *et al.* 1995, Bongaerts 1999, Moyer 1999, Bongaerts, Mennen and van der Slik 2000) results have shown that native-like pronunciation is not an impossible goal for late learners.

Similarly, in studies of critical period effects on syntax and morphology, (Patkowski 1980, Johnson & Newport 1989) results were originally construed as providing evidence for the CPH. The findings of Johnson and Newport's 1989 study in particular were widely accepted and promoted in this vein (Gass & Selinker 1994, Towell & Hawkins, 1994). The traditional view of critical period effects in language learning has been that there is maturational change in a specific language acquisition device (Lenneberg, 1967; Chomsky 1981).

Such a view, with some modifications to incorporate the detailed point of maturational change, is consistent with our results.

(Johnson & Newport, 1989:97)

This view, that maturational change is responsible for limits on L2 attainment has been expounded in a number of further studies, (Eubank & Gregg 1999, Weber-Fox & Neville 1999). However, other studies have yielded results that do not support the maturational view and have discovered post-maturational age effects (e.g. Bialystok & Hakuta 1994). In order to falsify the CPH, Long (1990) contends that:

A single learner who began learning after the [critical period] closed and yet whose underlying linguistic knowledge...was shown to be indistinguishable from that of a monolingual native speaker would serve to refute the [CPH/L2A] (Long 1990:255)

In this study I have found a number of learners who appear to refute the CPH for second language acquisition.

Studies in this area are becoming steadily more popular today and in 1987 Coppetiers was among the first to compare near-native proficiency with that of native speakers. Birdsong (1992) followed in his wake with his own study of near-native

speakers who performed a grammaticality judgement task. Birdsong interpreted his results (notably the fact that 15 of his participants scored within native speaker ranges) as counterevidence to the CPH. A number of studies have since been conducted on near-native speakers who have achieved native-like proficiency across multiple domains of proficiency (Ioup et al. 1994, Marinova-Todd 2003, Moyer 1999, 2004)

In her 2004 publication, *Age, Accent and Experience in Second Language Acquisition* Moyer states:

The situation for most late language learning today begs for closer examination of the learning environment, the learner's cumulative experience, and the learner's developing sense of self as a speaker of the target language. (Moyer, 2004:148)

The choice of topic for this thesis was decided upon in October 2004 in a direct response to Moyer's call for more research into the area of late learners and their learning experience. At the time there were few studies in this area. The three-part test was inspired by Moyer's methodology in her 2004 study where she studied a number of immigrant L2 learners of German with various L1 backgrounds. In her study, Moyer used a variety of different research instruments including a questionnaire on the participants' backgrounds, a controlled production task and a semi-structured interview. The research instruments used in this thesis were chosen partly because this study is similar to that of Moyer (2004). Also, one aspect of the present study; the accent recognition task, (ART) was devised to echo the rigorous methodology of the 1995 study by Ioup *et al* on highly proficient near-native speakers of Egyptian Arabic

1.2 Why France?

The aim of the thesis was to identify near-native speakers of French, all resident in France at the time of study and to determine the factors that contributed to their extremely high proficiency levels. There were a number of reasons for choosing France as the country of residence rather than Ireland. France is easily accessible from Ireland, with regular and reasonably priced flights. There are also a large number of French students on Erasmus programmes in TCD, which meant that putting together a control group for research purposes was not difficult. I myself had lived in France for five years, which meant that I was familiar with the language and the culture, and had first-hand experience of being a late learner in a foreign country. The participants in this experiment are different from those in Moyer's 2004 study in that they all have English as their first language. None of the participants are early bilinguals and none of them commenced learning French formally before secondary or high school. Very few among them emigrated to France for economic reasons. In fact, the majority among them came to France attracted by some romantic ideal. In the linguistic background questionnaire, participants were asked the question "What was your impression of France before you arrived? Describe some of your preconceptions."

Some of the answers were as follows:

All the clichés, and more: romantic men, world of literature and culture; privacy; great food; passion. I imagined deep philosophical conversations in bars; a certain level of seriousness and arty fartiness.
(Tabitha, 2007)

I was dying to see Paris....and actually had tears in my eyes the first time I saw the place! I pictured a nation of baguette-carrying arrogant people with beautiful-looking, high cheek-boned, dark -

haired women, a fabulous-sounding language, great food and wine....a nice relaxed way of life (in terms of eating, i.e. socialising) (Sinead, 2007)

Fell in love with Paris on a school trip so very positive impression of France – knew I wanted to live there. (Keelin, 2007)

For many of the participants, their preconceptions of France and its culture came from French cinema and music. For some, the French music they encountered in their youth left an indelible impression and gave them an enthusiasm for learning the language, which they might not have otherwise had. In general, amongst the sample there was a great affection for France, its people and culture and even for some, a strong yearning to be as French as possible. Some immigrants in this study were happy to strip themselves of parts of their L1 identity in order to appear more French. For example, two subjects changed their names from difficult to pronounce Irish names to more manageable French versions. (One participant was, on the other hand, critical of two Irish friends who changed the spelling of their Irish names from Síobhán and Dearbhla to Chevonne and Dervla to make it easier for French speakers to pronounce.) Others still, have taken stronger measures to be more French. Marianne for example, prefers never to speak English if she can help it and rarely reveals her British identity. Tabitha is looking forward to becoming a French citizen and feels more “European” than British. These immigrants encountered very little negative attitude among the native French population towards English speakers. Thanks partly to the efforts of Jane Birkin, a British actress resident in France who exploited her own Englishness unashamedly, the English accent is a desirable foreign accent, considered “sexy” by many French people.

With the exception of one subject (Henry), a considerable degree of Francophilia prevailed across the sample. There was very little sense of loss among the subjects who admitted that their English has atrophied as their French improved. However, for many immigrants this loss of one's identity and language is a more complex problem.

Pavlenko & Lantolf (2000) have identified two disparate phases in the assimilation into a new culture and language for near-native learners. The first phase is one of loss of self and voice, whereas the second is one of recovery and the emergence of a new voice.

The initial phase of loss can be segmented into five stages:

- (1) loss of one's linguistic identity
- (2) loss of all subjectivities
- (3) loss of the frame of reference and the link between the signifier and the signified
- (4) loss of the inner voice
- (5) first language attrition

The phase of recovery and (re)construction encompasses four critical stages:

- (1) appropriation of others' voices
- (2) emergence of one's own new voice, often in writing first
- (3) translation therapy: reconstruction of one's past
- (4) continuous growth into new positions and subjectivities.

(Pavlenko & Lantolf, 2000:163)

In this thesis, none of the participants indicated a sense of loss, as many of them have purposefully left their old identity behind, happy to embrace a new one.

1.3 The Importance of Passing for a Native Speaker

One of the requirements of taking part in this experiment was the ability to pass for a native French speaker. Although it would have been preferable to have had a panel of native speakers who could judge whether the participants had native-like competence, financial and logistical factors constrained me to adopt an approach whereby each participant was asked to decide their level of fluency for themselves.

Pavlenko and Lantolf conclude that

[i]n the human sciences first-person accounts in the form of personal narratives provide a much richer source of data than do third-person distal observations. (Pavlenko and Lantolf, 2000:157)

Each of the participants in this study claimed to pass for a native speaker on a regular basis. As all the participants were interviewed in public places such as restaurants and cafés throughout Paris, (all prospective participants were offered a free lunch), a certain amount of spoken communication in French was necessary. In this way, it was possible to ascertain which participants were more native-like than others. Olwen, for example, spoke excellent French with a distinct English accent. Our waiter recognised this immediately and attempted to speak to her in English but Olwen repeatedly answered in French and eventually the waiter yielded. As already mentioned, some of the participants pass regularly for native French speakers and prefer to be thought of as French nationals (Marianne and Tabitha). For them it is the apogée of linguistic performance. For others, passing for a native speaker was a phase they went through in the early stages of their French experience (Keelin and Siobhan) before they were confident enough to consider that their L1 background might constitute an advantage rather than a disadvantage. It was something

that could be exploited in certain social situations. In answer to the question “Do you pass regularly for a native speaker?” Siobhan gave the following answer,

“Only when I’m taking the mick...in an Irish wine bar, it’s soo easy and soo tempting.... Otherwise, on the phone (in French) but not for very long....I told you already, I wouldn’t lose my accent....the French love it and I get away with murder!!” (Siobhan, 2007)

Kenneth, too, was happy to be an “English gentleman” abroad and was careful to reveal his background to interlocutors as early as possible in social encounters.

1.4 Envoi

Birdsong (2005) has argued that it is unfair to expect a near-native speaker’s entire L2 repertoire to be comparable to that of a native speaker. However, for the moment, there exist no other comprehensive controls against which near-native speaker competence might be compared. Birdsong argues for a variety of elicitation procedures.

More studies should look at individual L2 learners’ end-state attainment across a range of linguistic behaviors, to determine if nativelikeness, when observed, is in fact, limited to narrow domains of performance. (Birdsong, 2005:11)

In keeping with this perspective, by testing participants in this study on different tasks, my intention was to explore whether the competence of near-native speakers could in fact –at least in the areas tested- match that of native speakers.

Chapter Two

Literature Review

2.1 The Origins of the Critical Period Hypothesis

Do children make better language learners than adults? In language learning does the early bird get the worm? Is there an optimal age to learn a foreign language? These are among the questions that linguists have been trying to answer since the early part of the twentieth century and continue to be a source of much debate both in the public domain and in linguistic theory. One response is that those who start learning a language at a young age have a better chance of success than adult learners. In fact, the general consensus holds that children, as a rule, make better language learners than adults. Canadian neurosurgeons, Penfield and Roberts, were the first to connect “the earlier, the better” belief to the plasticity of a child’s developing brain. This plasticity, also known as neuroplasticity, refers to the brain’s ability to reorganise itself by forming new neural connections. It was not believed to last beyond the end of childhood at the time.

Lenneberg, in his book *Biological Foundations of Language*, (1967) postulated that there was a critical period for the acquisition of language between the age of 2 and the onset of puberty. The end of this critical period was seen by Lenneberg as confluent with the cortical lateralisation of function, thus supposedly making the transfer of function, linguistic, or otherwise, impossible.

In the case of language, the limiting factors postulated are cerebral immaturity on the one end with lateralization of function at the other end of the critical period. (Lenneberg, 1967:176)

Lenneberg offered evidence from three different sources to support his Critical Period Hypothesis (CPH), the first was from studies on aphasia. According to a wide consensus there are two areas of the cerebral cortex that are responsible for the comprehension and production of speech; Broca's area and Wernicke's area. From the study of traumatic aphasia, (that is total or partial loss of the ability to use or understand language, usually caused by stroke, brain disease or injury) we know that lesions involving Broca's area lead to difficulties in producing speech whilst leaving relatively intact the understanding of words and sentences. Lesions to Wernicke's area entail a loss of comprehension whilst sparing the ability to speak, although the speech of such patients is often difficult to understand. During the first decade of life, the human brain is growing and developing continuously. Linguistic functions have not yet been localized to specific areas of the brain and this allows for a certain degree of "plasticity" of the maturing brain. When a child's brain encounters traumatic injury it does not undergo the same extent of loss of function as an adult brain because it is still maturing and the neuronal networks have not yet been established. According to Scovel,

Research into aphasia, and studies of hemispherectomy and split-brain patients, has given rise to two superficially contradictory claims about the manner in which the brain processes language. On the one hand, there is irrefutable evidence that for the vast majority of adults, the production and comprehension of speech is located in two closely situated but clearly distinct areas of the left hemisphere, Broca's and Wernicke's, and this localization of function is not fully completed until about ten years old. (Scovel, 1997:79)

Lenneberg noted that children affected by aphasia (before they reached the onset of puberty, i.e., his postulated end of the critical period) had a good chance of recovering the language function; this chance appeared to diminish with age:

In patients between four and ten years of age, the symptoms are similar to adult symptomatology but there is an extraordinary difference in the prognosis in two ways: the overwhelming majority of these children recover fully and have no aphasic residue in later life: and the period during which recovery from aphasia takes place may last much longer than in the adult. Instead of the adult trend toward a five months period of improvement, children may show steady improvement over a period of several years, but usually not after puberty. (Lenneberg, 1967:146)

He maintained that due to the plasticity of brain functions before puberty, the right hemisphere could take over the functions of the left, where normally, language functions are carried out.

At the beginning of language development both hemispheres seem to be equally involved; the dominance phenomenon seems to come about through a progressive decrease in involvement of the right hemisphere. If, however, the left hemisphere is not functioning properly the physiological activities of the right hemisphere persist in their earlier function. (Lenneberg, 1967:151)

Evidence for the CPH was also taken from a number of studies conducted on the language development of children affected with Down syndrome. Lenneberg reported a markedly

diminished ability in these children to learn a language once they reached puberty. In a three-year observational study of 54 individuals with Down syndrome (Lenneberg, Nichols and Rosenberger, 1964), progress in language development was apparent only in children under the age of 14.

Progress in language development was only recorded in children younger than fourteen. Cases in their later teens were the same in terms of their language development at the beginning as at the end of the study. (Lenneberg, 1967:155)

Lenneberg took this as further evidence that once puberty is reached, the neurological flexibility of the brain is lost and the critical period for language ends.

There has been much support for Lenneberg's CPH. Chomsky's theory of Universal Grammar, for example, has been strongly associated with the CPH. Universal Grammar Theory holds that the speaker tacitly knows a set of principles that apply to all languages, and parameters that vary within clearly defined limits from one language to another. Acquiring a language from this view means discovering how these principles apply to a particular language and which value is appropriate to each parameter. To start with, a child's mind is open to any human language; it ends by acquiring a particular language. Universal Grammar Theory is interpreted by some as in keeping with the CPH, insofar as one school of thought believe UG to be no longer accessible after the onset of puberty. Cook summarises this viewpoint as follows:

UG is no longer available after a particular point in maturation; just as the milk teeth drop out, so UG becomes defunct. (Cook, 1988:185)

A number of studies were conducted in the field of first language acquisition, the results of which were considered as providing evidence Lenneberg's CPH.

2.2 The CPH and First Language Acquisition

Providing evidence for the CPH and the acquisition of an L1, as has already been noted, is extremely difficult. To find children who receive radically reduced or irregular L1 input is an almost impossible task. There is one particular community, however, that might provide evidence for the CPH, that of deaf children learning sign language. Many hearing parents of deaf children prefer not to teach their children to sign as they feel this will isolate them from the hearing community; instead deaf children are taught to speak or to lip-read, coming to sign language later in life. In fact, only 10% of the American deaf community are native signers, i.e. deaf children of deaf parents exposed to American Sign Language (ASL) from birth

It is important to note that ASL is a syntactically and morphologically complex language like any other. Newport and Supalla (1987) studied a number of congenitally deaf subjects with different ages of onset for initial exposure to their first language (ASL). Subjects were divided into three groups: native learners who had learned ASL from birth from their deaf parents: early learners who were first exposed to ASL between the ages of 4 and 6: and late learners, who did not learn ASL until age 12 or later. All three groups were tested on the production and comprehension of ASL morphology. Results of the tests displayed a clear linear decline with increasing age of exposure on almost all morphemes tested. Native learners scored higher than the two other groups and the early learners scored better than the late learners on both production and comprehension. This study has provided many with a strong argument in favour of the CPH for first language acquisition. However, as Johnson and Newport (1989) report, the results of the study also demonstrate that Lenneberg's version of the CPH is not entirely correct, as there was no sudden drop-off in ability at puberty for these subjects. Also, although the late learners did not attain the

same levels of proficiency as the other groups, they did manage to learn the language, which rules out the more extreme interpretations of the hypothesis.

According to Singleton and Newport:

Native signers acquire ASL in a normal fashion, parallel to hearing children learning spoken language, and by middle childhood attain native fluency in the language. In contrast, late learners of ASL lack much of the syntactic and morphological complexity used by native signers, and are inconsistent in their linguistic performance overall (Singleton & Newport, 2004:7)

2.2.1 Feral Children

It is as already noted, difficult to find corroborative evidence for the Critical Period Hypothesis in FLA. Children deprived of all linguistic input are automatically deprived on a number of other levels, cognitive, perceptual and social levels among them. Certain studies have been cited in order to provide evidence for the CPH and FLA, notably the cases of Victor, Genie, Chelsea and other feral children, as they are known. These studies involve children who, because of neglect, or ostracisation from their community, had little or no verbal contact in their formative years. In 1970, a wild child was found in California: a girl of 13 who had been isolated in a small room and had not been spoken to by her parents since infancy. "Genie," as she was later dubbed to protect her privacy by the psycholinguists who tested her, could not stand erect. At the time, she was unable to speak; she could only whimper. She never succeeded in mastering English morphosyntax in spite of a number of years of intensive language coaching. Even after eight years of living within a "normal" environment she never managed to fully master the grammatical structures of English. Psychological tests showed that Genie's cognitive abilities were within a normal

range. Her lexical development was good but her speech consisted mainly of groups of bare lexical elements. Unlike normal children, however, Genie never asked questions, despite many efforts to train her to do so, and her speech development was slow. A few weeks after normal children reach the two-word stage, their speech generally develops so rapidly that it is difficult to keep track of or describe. No such explosion occurred for Genie. Four years after she began to put words together, her speech remained, for the most part, like a somewhat garbled telegram. Furthermore, Genie failed to acquire certain grammatical principles. For example, she could not grasp the difference between various pronouns, or between active and passive verbs, (Curtiss, 1977). In that respect, she appeared to suffer from having passed the critical period. This was a sinister way to provide evidence for the critical period, but Genie's case seems to both corroborate and refute Lenneberg's claims regarding a critical period for FLA because, according to Curtiss: "...in the most fundamental and critical respects, Genie has language."(Curtiss, 1977:204)

Genie's case was, nonetheless a very important case and seemed to indicate in particular that language-learning ability is not necessarily a function of intellectual capacity. It is also understandable on general grounds perhaps, that Genie never did master the English language; it is difficult to imagine the trauma of the first fourteen years of her life from which she clearly never recovered. Although her cognitive abilities tested within the normal range, psychological damage means that her case cannot be counted as solid evidence or counterevidence for Lenneberg's CPH as this was not intended to be based on subjects who had suffered during their formative years.

It is impossible to say why some children are capable of overcoming the insults inflicted upon their early health, whereas others succumb to them. The degree and duration of neglect, the initial state of health, the care provided for them after discovery,

and many other factors are bound to influence the outcome; in the absence of information on these points, virtually no generalizations may be made with regard to human development.

(Lenneberg, 1967:142)

The discovery of Genie came shortly after the release of a French film, “L’enfant sauvage” based on the life of another feral child, Victor, discovered in the forest of Aveyron in 18th-century France. The government ordered him brought to Paris to be examined by doctors in an institution for deaf-mutes, where he came under the care of the physician Jean Itard, who also acted as the boy’s tutor. Itard gave Victor his name, as he seemed to respond best to the sound “o”. He also appointed a local woman, Mme. Guérain, as foster-mother for Victor. For five years Itard attempted to train Victor to speak, to no avail. Victor, thanks to Itard’s training, managed to communicate his requirements using simple written expressions but never succeeded in producing oral language. Some have suggested that Victor may have suffered from a psychiatric disorder (Lane, 1976, Shattuck, 1980) . There have also been criticisms of Itard’s method in that he attached a disproportionate importance to oral speech and neglected to build upon what Victor had already achieved in his attempts to communicate. (Lane, 1976:169)

There were other cases such as that of Chelsea, (Curtiss 1988), a hearing-impaired woman mistakenly diagnosed as being mentally handicapped. Upon diagnosis it was discovered that her hearing problem could be rectified through surgery, which was subsequently carried out. Chelsea’s language progress was like that of Genie: considerable vocabulary development but no real capacity to acquire syntactic structures.

2.3 CPH and Second Language Acquisition (SLA)

Lenneberg's critical period hypothesis was mainly concerned with first language acquisition. However he did address the question of second language acquisition:

Our ability to learn foreign languages tends to confuse the picture. Most individuals of average intelligence are able to learn a second language after the beginning of their second decade, although the incidence of "language learning blocks" rapidly increases after puberty. Moreover, a person can learn to communicate in a foreign language at the age of forty. This does not trouble our basic hypothesis on age limitations because we may assume that the cerebral organization for language learning as such has taken place during childhood, and since natural languages tend to resemble one another in many fundamental aspects, the matrix for language skills is present. (Lenneberg, 1967 176)

Empirical studies on the CPH in relation to SLA can be broadly divided into two types, those addressing foreign language learning, which are usually conducted in a classroom setting (henceforth referred to as classroom studies) and those addressing second language acquisition (SLA), generally involving immigrants to a new country where they must learn the language. The studies are diverse, using a variety of methodologies and subject groups, and yielding, predictably, quite heterogeneous results. For Muñoz (2008) it is important to distinguish between SLA and classroom studies as, studies in the respective areas yield significant findings for second language acquisition studies in general.

On the basis of the differences observed, it is argued that the amount and quality of the input have a significant bearing on the effects that age of initial learning has on second language

learning. It is also claimed that age-related studies in foreign language learning settings have yielded significant findings that contribute to the development of an integrated explanation of age effects on second language acquisition. (Muñoz, 2008:1)

Krashen, Long & Scarcella (1979) reviewed a number of studies on SLA and drew the following conclusions:

- (1) Adults proceed through early stages of syntactic and morphological development faster than children (where time and exposure are held constant)
- (2) Older children acquire faster than younger children (again, in early stages of morphological and syntactic development where time and exposure are held constant).
- (3) Acquirers who begin natural exposure to second languages during childhood generally achieve higher second language proficiency than those beginning as adults. (Krashen, Long & Scarcella, 1979:573)

These authors were among the first to make a clear distinction between studies that investigated eventual (or ultimate) attainment and those that concentrated upon the rate of acquisition. Naturalistic studies have yielded evidence on ultimate attainment in an L2 whereas classroom studies are by their nature, generally confined to studying the rate of acquisition.

2.3.1 Classroom Studies

Certain educational authorities were influenced by Penfield's theory that "...the human brain becomes progressively stiff and rigid after the age of nine." (Penfield & Roberts, 1959:236) and experiments were carried out in order to determine whether it was a valuable exercise to introduce second languages into the primary school and not wait until pupils entered the secondary system, as had previously been the case. A number of those studies are discussed in the next section. Unfortunately, in a number of the earlier studies (Brega & Newell 1967, Oller & Nagato, 1974), the methodology was flawed, as it was not rigorous enough. The findings, as a result, are ambivalent.

In 1967 Brega and Newell reported in their US study, that students who had taken part in a FLES (Foreign Language in the Elementary School) programme performed significantly better on testing than those students who had had no exposure to a second language, in this case, French. Two groups of students were compared, a FLES group and a non FLES group. The FLES group consisted of 76 students who had been enrolled in the FLES programme since third grade, (age 9 approximately) and the non FLES group who had been learning French since seventh grade, (age 13 approximately) consisted of approximately 54 students. Pupils in the FLES programme had 80 minutes of French instruction a week in the elementary grades. All pupils were tested using the Modern Language Association Test of French at the end of eleventh grade (age 17 approximately) and results indicate that the FLES group performed significantly better on all four tests. The authors stated that they believed that one of the reasons for the success of the programme was that French was taught to the FLES classes by a specialist who visited the classroom on a regular basis and not their normal class teacher. No information is given in the study as to what type of instruction was offered at the later grades. However, it is difficult to declare unreservedly that the FLES programme is a success in this case, as, since

not only was the age of onset different for the two groups but also the length of instruction. The extra four years of French instruction would have conferred a considerable advantage upon the FLES group.

In 1980 Stankowski-Gratton carried out a study on the introduction of German as a foreign language to first (average age 6 years) and third grade (average age 8 years) students in Italy. There were 11 children in each class and German lessons were given three times a week in the afternoons through the intermediary of the Associazione Culturale Italo-Tedesca. (Germano-Italian Cultural Association). The same method was used for both classes, a traditional method using pictures and dialogues. The children, when tested at the end of the school year performed well on a modified version of the Modern Language Aptitude Test as well as a test on linguistic acquiresments. The children also completed a questionnaire to determine their level of motivation. The third-grade children outperformed the younger group by more than 17%. However, Stankowski- Gratton admitted that the methodology might have been more suitable for the older group of children. She also expressed concerns that the class might have been too long for the younger children, as they were unused to having academic classes in the afternoons. She concluded however, that as the younger children had managed to complete almost 80% of the German course without any obvious difficulty, with a modified curriculum and coursework aimed at younger children, the introduction of a second language from the first grade could be accounted a success.

Oller and Nagato carried out a study in 1974 on Japanese schoolchildren studying English as a foreign language. At the time of the study, the school system in Japan provided a six-year programme of FLES as well as six years of EFL (English as a Foreign Language) in high school. However, there had been scarcely any research to determine the long-term effects of FLES in Japanese schools. Pupils in the FLES programmes had an

initial 120 minutes of EFL a week in the first four grades (3*40 minutes), dropping to 80 minutes a week in the last two grades of elementary school. Once the pupils entered high school they were divided into two ability levels according to their level of proficiency in English. New students entering the school with no previous instruction in English were placed in beginner EFL classes. However, from eighth grade (age 14 approximately) pupils were mixed indiscriminately, although from three to five ability levels were distinguished. In this study, cloze tests were devised to test the ability of the subjects at three different levels of ability. Tests were administered to grades 7, 9 and 11. Results showed a highly significant difference in results between FLES and non-FLES students at grade 7, with FLES students scoring significantly higher on all tests than the non-FLES students. This difference was less significant in grade 9 and had virtually disappeared by grade 11. Oller and Nagato concluded that the FLES programme did not have a lasting positive effect in this instance. They suggested that this might have been due to the fact that both sets of students were integrated and the FLES students had to “mark time while the non-FLES students caught up,” Oller and Nagato, p.18). They concluded however, that there was no firm evidence that students who had participated in FLES programmes would progress more rapidly than those that did not.

Another study carried out around this time was that of Burstall (1975) on the NFER (National Foundation for Educational Research) French Project in England and Wales. French was introduced into the primary school curriculum on an experimental basis from September 1964 and pupils were to be taught French by their class teacher from the age of eight. The overall sample consisted of approximately 5,300 pupils, all aged between 8 years and 8 years 11 months at the beginning of the project. There were a number of unforeseen difficulties at the beginning of the project. Some teachers were absent for a whole term, as they were attending an intensive French course in France; in

other schools no trained staff were available to teach French during the first term of the experiment, with the result that the first group (or cohort) started learning French a whole term later than their peers in the project. The time-span of the experiment did not allow all participants to be studied for an equal amount of time. The first and third cohorts had five years of study, three at primary level and two at secondary, whereas the second “cohort” had six years of French study with three years at primary level and three at secondary. The findings were very similar to those of Oller and Nagato:

Other things being equal, the older children tended to learn French more efficiently than the younger ones did. Pupils taught French from the age of eight did not show any substantial gains in achievement, compared with those who had been taught French from the age of eleven. By the age of 16, the only area in which the pupils taught French from the age of eight showed any superiority was that of listening comprehension. Even there, the differences between the various groups of pupils, although statistically significant, were hardly of a substantial nature, being of the order of two to four point difference on a 28-item test- a fairly minimal return for the extra years spent learning French in the primary school. (Burstall, 1975:195)

One of the most successful second language experiments in history is that of Canada’s French immersion project which has been closely observed by many linguists, among them, Swain, Lapkin, Genessee, Cummins and Harley. For Nikolov & Djigunovic (2006), the distinction between traditional classroom settings and immersion programmes is very important.

While in immersion programs teachers are proficient users of both languages and the curriculum requires a primary focus on meaning, in FL contexts teachers' proficiency and age-appropriate methodology vary to a great extent. A further difference concerns achievement targets: FL learners are not expected to achieve native L2 level in school; in fact achievement targets tend to be modest and different levels may be required in the four skills. Finally in FL contexts L2 is considered – and often assessed – as a subject in the curriculum in its own right and learners do not necessarily associate it with something more useful than math or science. (Nikolov & Djigunovic, 2006:241)

In a 1989 article on this project, Swain and Lapkin made some interesting observations, supported by evidence from the immersion project. The French immersion project exists in a variety of forms but the programme which has received the most attention, is that of early immersion, which begins at the beginning of elementary school, that is to say that all instruction for the first few years of schooling is in French. The majority of children enrolled in this programme are monolingual English speakers. As schooling progresses more English is gradually introduced into the curriculum with teaching being split more or less equally between English and French by the end of elementary school. The second type of programme is called late immersion, with students entering the programme around the age of eleven or twelve. Prior to entering the programme, children take daily lessons in French as a second language for one year. Once enrolment in the immersion programme begins, all classes may be in French or as little as fifty percent. Four comparative studies between early and late immersion were carried out between 1975 and 1978 (Archibald *et*

al., 2006). Late immersion students were rated consistently higher in all aspects of linguistic performance. Swain and Lapkin noted in 1982 that “[w]e are least likely to find differences between the early and late immersion students in literacy-related skills.” (Swain and Lapkin, 1989:152)

However, they also noted that early immersion students

[t]end to perform better than late ones on listening and speaking tests. Early immersion students also tend to be more confident about their language skills and to report lower anxiety levels when using French. (Swain & Lapkin 1989:151) I

It was noted that the late immersion learners relied more upon analytical language ability than early learners did, thus supporting Bley –Vroman’s “Fundamental Difference Hypothesis” (1988):

The Fundamental Difference Hypothesis predicts that those adults who appear to be successful at learning a second language will necessarily have a high level of verbal ability. In other words, if the Critical Period Hypothesis is interpreted as applying only to implicit language acquisition, no exceptions should be found-that is, no adults should be found who are successful in acquiring a second language without having a high level of verbal analytical ability, which allows for explicit learning. (DeKeyser, 2000:501)

Swain (2000), however, is adamant that earlier is not necessarily better. Referring to the 1989 study by Harley and Hart she states,

[a]s the L2 proficiency results of the younger and older learners were not substantially different, the results support other

evidence that older learners are more efficient learners than younger learners and do not support the contention (e.g., Felix 1985) that analytic, problem-solving abilities of older learners will interfere with their L2 success. (Swain, 2000:206)

More recent studies of immersion programmes have focussed on whether different components of language aptitude were positively associated with L2 outcomes. In a comparative analysis by Harley and Hart (1997), 65 eleventh-grade students from four different classes and schools were studied. Two of the four classes were continuing an early partial French immersion programme in which 50% of their schooling had taken place in French since first grade. Students in the other two classes were continuing a partial immersion programme that had begun in grade 7. All students were still receiving 50% of their daily instruction through French (the other 50% was in English, the students' native language). Testing for proficiency was done through a vocabulary recognition task, a listening comprehension test, a cloze test including a written production task and an individual oral test. Participants were also tested on their memory and analytical ability using an associative memory test, where participants were asked to match 24 Kurdish word pairs from memory with the correct English translation. For the second memory test students had to reproduce two short narrative texts after listening only once to the same texts, which had been pre-recorded. The third task was the language analysis subtest from the PLAB IV, (Pimsleur Language Aptitude Battery) designed to assess the ability to analyse language structure.

On examination of the results it emerged that two different components of language aptitude were positively associated with language outcomes. For the early immersion students, memory for text was the main predictor for proficiency on three of the tasks: listening comprehension, cloze text and vocabulary recognition. Language analysis was

also a significant predictor for these tasks. However, none of the aptitude measures were predictive of scores on either written production or oral tasks. For the late immersion students, only language analysis emerged as predictive of vocabulary recognition and written tasks. No aptitude measure correlated with the listening comprehension or oral tasks. Overall the early immersion students performed better on listening comprehension, sentence repetition and vocabulary recognition but the late immersion students scored significantly better on the written tasks.

Although the next study is not strictly a classroom study, it is however, a follow-up study conducted by Harley and Hart in 2002. For this reason, it has been included in this section. This subsequent study was designed to explore the relationship between age, aptitude and other variables amongst students on a bilingual exchange programme. There were 26 participants in all, in tenth and eleventh grade in Canadian high school, all of whom had been enrolled in core French programmes since grade 4 or earlier. Students were staying with a French-speaking family in Quebec for a period of 3 months. The same methodology was used as in the 1997 study and students also completed a questionnaire on their experiences in the host environment. Once again, analytical ability did influence learning success but less consistently than in the 1997 study. Also, memory for text was less relevant for this group than for the early immersion students in the previous study. Nikolov & Djigunovic (2006) query the authors' assumption that age of initial exposure is qualitatively different from age of initial intensive exposure as the criteria for this distinction is unclear.

A further question may be how early exposure to an L2 will influence learners' L2 learning orientations, and how it may impact on learning L3 or further languages. (Nikolov & Djigunovic, 2006:242)

2.3.2 More Recent Classroom Studies

In Spain, in recent years two well-documented longitudinal projects have been carried out. Both projects explore early versus late introduction of English as a Foreign Language to bilingual students. Muñoz (2006) in conjunction with the Barcelona Age Factor Project (BAF) commenced her study in 1995, a study, which involved 1,928 participants. The project began at a time when a new curriculum was being introduced into Spanish state schools. English as a Foreign Language was being introduced at age 8 instead of age 11 as had been the case before 1995. The introduction of the new curriculum took eight years during which it was possible to find students who had commenced learning English at the age of 8 and others who did not start studying the language until the age of 11 under the old regime. Data collection commenced in 1996, at which point it was possible to find students who had been learning English for the same amount of time but who had different ages of exposure. Data were collected at 200, 416 and 726 hours of exposure from five groups of students; two central groups who commenced learning at age 8 and 11 respectively and three other groups. The three other groups were (1) a group of 17 very young learners with age of onset between 2 and 6, (2) a group of 51 pupils with an AO of 14 and (3) a group of 135 adults who commenced learning English at age 18 or older. The aims of the project were to determine if age has an effect on the rate of foreign language learning, to see if younger learners would surpass older learners, and to see how age affects different language domains during foreign language learning. The participants were tested on speaking, listening, writing and reading in EFL (English as a Foreign Language) as well as on comprehension in their L1 (Spanish and Catalan). They also completed a questionnaire in Catalan, which contained questions on the pupils' English language history as well as on their attitudes towards the study of English.

The results confirmed that there was an age-related difference in the rate of foreign language learning, as the older learners did progress faster than the younger learners. Muñoz found that the adults and adolescents displayed a very rapid rate of learning for the first 200 hours. The learners who commenced EFL at age 11 made the most progress in the second third of the overall period (between 200 and 416 hours), whereas the younger learners (who commenced EFL at age 8 made the most progress during the final period (between 416 and 726 hours). For both of these groups the rapid increase in learning rate coincided with the age of 12. As for the second research question, this study found that younger learners did not surpass the older learners. Muñoz concluded that in the classroom language learning context, younger learners may need more time to catch up with older learners than in the second language learning (naturalistic) context. Also, the language-learning domain most affected by age was that controlled by implicit language learning mechanisms (e.g., listening comprehension)

After nine years of formal learning of English, the younger learners in this study reduced the distance with respect to older learners on tests with a greater involvement of implicit learning mechanisms. However, from there it does not follow that younger learners will necessarily outperform older learners in the longer term. On the contrary, if the older learners' advantage is mainly due to their superior cognitive development, no differences in proficiency are to be expected when differences in cognitive development disappear with age. (Muñoz, 2006:34)

The fact that the BAF project allowed for a much longer time-frame than previous studies in this area means that the results of the study must have far-reaching implications for the introduction of foreign languages into the school curriculum.

The other Spanish study is that on Basque-Spanish speakers learning EFL who were studied after having completed 600 hours of EFL. (Cenoz, 2003). Instruction, however, had started at different ages: in kindergarten (age 4), in grade 3 (age 8), and in grade 6 (age 11). The data for the study were collected in 1998 and 1999. The study instruments included a background questionnaire: a narrative activity with the aid of pictures (Frog, Where Are You? Mayer 1969), a second activity-related narration, a listening comprehension test, a cloze test and a reading comprehension test. The students were also required to write a composition about themselves as well as filling in a questionnaire designed to measure their attitudes towards English. Six hundred hours of instruction meant that the at the time of data collection, students were in fifth year of primary school, second year and fifth year of secondary school respectively. Results showed that the older learners (fifth year of secondary school) were more proficient on all aspects of oral proficiency apart from pronunciation. They also scored higher in all other areas of the test.

Interestingly, the youngest group had the most positive attitude towards learning English of the three groups. Cenoz also noted that the younger group transferred the least number of terms and expressions from their own language (or languages). Cenoz comments:

In sum, this study provides more evidence to confirm that older learners learn more quickly than younger learners but it also proves that younger learners present more positive attitudes and are more motivated and that they do not mix languages more than older learners. (Cenoz, 2003:91)

Although, as was previously mentioned, some of the earlier classroom studies drew their erroneous conclusions on the basis of unsound methodologies, the overall results of these studies yield very similar results. These results are in keeping with the second affirmation

by Krashen, Long and Scarcella (1979) that older children acquire faster than younger children. The results of Muñoz and Cenoz support this affirmation as well as some of the earlier studies (Stankowski-Gratton 1980, Burstall 1975).

According to the third affirmation by Krashen *et al.* the younger learner has an eventual acquisitional advantage over older learners. The evidence for this is clear and to be found in many studies on ultimate attainment. However, in the case of classroom language learning, the younger learners do not overtake the older learners. It has been suggested that the reason for this that there is not enough exposure to the L2 in a normal classroom setting (Ellis, 1994:152). In Muñoz (2006), the advantage that older learners have over younger learners (in tests involving implicit learning) is seen to diminish after a long period of instruction (over 700 hours) but the advantage remains nonetheless. Muñoz notes:

[t]here is still a lack of empirical evidence to date confirming that, after the initial stages of foreign language learning, younger starters overtake older starters in school settings.

(Muñoz, 2008:5)

It is important here to distinguish between FLL (Foreign Language Learning) or classroom studies and immersion studies. The intensity and length of exposure to the L2 is considerably greater in immersion programmes compared to early FLL programmes. In immersion studies, it has been demonstrated in long-term studies (Harley & Hart 1997, 2002), that older learners have a long-term advantage over younger learners on oral-based tasks. This advantage is, according to Muñoz because “[t]he massive amount of exposure provided by school immersion has had a significant influence on the results.” (Muñoz, 2008:5)

2.3.3 *Naturalistic Studies*

In the previous section on classroom studies, the main focus was on foreign language learning. In this section, however, the focus is firmly on second language acquisition, which differs from foreign language learning in that it is, for many immigrants, the primary basis for integration into the adopted culture. According to Lamendella

In a manner similar to primary language acquisition, second language acquisition infrasystems operate as the means for the assimilation of the learner into a network of social relations with native speakers of the target language and also serve a group identification system. (Lamendella, 1977:186)

In the field of SLA research, many proponents of the CPH argue that children have an advantage over adults in acquiring a second language because of their innate biological endowment. This endowment, which is, according to such researchers only accessible within the critical period, means that those who commence acquisition outside of that period cannot *successfully* achieve second language acquisition.

Studies carried out in the 1970s and 1980s concentrated, in the very large majority on two aspects of language; one was the phonological aspect, which relates to accent and pronunciation, the other was the morphosyntactic aspect, relating to the grammatical structure of the language. Some studies conducted at this time examined the relationship between age and SLA and concluded that there was reasonable evidence to support the CPH in the area of phonology, i.e. pronunciation and accent. (Seliger 1975, Oyama 1976). Opponents of the CPH prefer to think more in terms of a gradual decline in degrees of SLA success throughout the life-span. (Bialystok, Hakuta & Wiley, 2003).

Lenneberg's CPH theory was not restricted to phonology but, as far as Scovel (1988) was concerned, pronunciation is the one area that is subject to the critical period

because it is “the only aspect of language that has a neuromuscular basis” (Scovel 1988:101). He maintained that learners who start learning an L2 after the age of 12 would never be able “to pass themselves off as native speakers” (p.185). As already stated however, Scovel also admitted that there were late L2 learners who were capable of achieving native-like pronunciation; the “superexceptional learners” already discussed. Not everybody agrees with Scovel’s conclusions. Among the dissenters is Flege, (1999) for whom the CPH is too glib a way to explain why L2 adult learners retain traces of their native accent.

As I see it, the most serious problem is that, because of its widespread appeal, the CPH dampens researchers’ enthusiasm for seeking and testing other potential explanations for the ubiquitous presence of foreign accents (as well as age-related declines in other aspects of L2 performance). (Flege 1999: 105)

2.3.4 Studies Evidencing a Younger = Better Effect

Early studies in SLA concentrated for the most part on the correlation between age and proficiency achieved or ultimate attainment, rather than rate of acquisition. Numerous attainment studies were of immigrants who had acquired their second language in a “natural” rather than a formal environment. Many of these studies yielded results that were taken as evidence of the CPH, in that they appeared to demonstrate that there was a negative relationship between age of arrival (AoA) and ultimate attainment. One of the first of these studies on ultimate attainment among immigrants was that by Asher and Garcia

(1969) who studied 71 Cuban immigrants to California. The age- range of subjects was between 7 and 19 years and average length of residence in the US was five years. A panel of judges was provided by 19 American high-school children (all native speakers of American English), who scored recorded utterances of the Cuban subjects intermingled with recordings of 30 American-born children uttering the same set of English sentences. There were four points of reference on the marking scheme going from “definite foreign accent” to “native speaker”. Not one of the Cuban subjects was judged as being a native speaker, although some scored in the near-native speaker range. This could be due to a sub-cultural norm amongst some Latin American and other minority groups in the USA. In other words, it may have been regarded as preferable for members of these groups to retain traces of their native language as a clear badge of their ethnic authenticity. The majority of near-native speakers occurred in the group of immigrants who had arrived in the US between the age of 1 and 6 and who had been resident for 5-6 years. The younger the child had been on arrival in the States, the higher the chances were that he would score in the near-native range, and this probability increased with a longer length of residence.

A similar result was found by Tahta, Wood and Loewenthal (1981) in their short-term study on 109 subjects with various native languages (L1) living in the UK. Age of arrival varied from 6 to 15+. Their study revealed that if a subject arrived at age 6 or 7, there was no accent transfer. Age of arrival, once again, was hugely important, accounting for 43.1% of variance in accent. Perception of accent increased dramatically in subjects over the age of 11. However the age range of 7-11 proved to be an interesting one where there might or might not be transfer of the native accent. The authors indicated that there was evidence that psychological factors might play a role in the mastery of an accent-free L2. For young men in particular there was kudos in belonging to a particular cultural sub-group and therefore no motivation for them to acquire a native-like accent. The authors

maintained that it might be necessary to identify with the new language and its culture before being capable of proficiency: “a shift of identification partly or wholly from the L1 culture to the L2 culture, evidenced by the use of L2 in the home, may be very important” (p. 272).

In 1974 Ramsey and Wright carried out a study of over 1200 immigrant children to Canada who were learning English as a second language in the Toronto school system. The language tests administered by the Toronto Board of Education (TBE), which consisted of a Picture Vocabulary Test (PVT) and a six-part English skills test, were developed by the TBE. The authors reported that students who had a younger age of arrival:

[s]uffered no academic handicap on measures of English skills in relation to grade norms for the Toronto system, but for those who arrived at older ages there was a clear negative relationship between AoA and performance. (Ramsey & Wright, 1974:119).

However on re-examination of the data, Cummins (1980) suggested that Length of Residence could account for this negative relationship, a variable that Ramsey and Wright had not taken into account in their original study. Cummins also argued that older learners have to learn more than younger learners in order to reach grade norms, and so in fact this meant that the results of this study indicate an advantage for older learners.

It is difficult to test the proficiency of second-language learners because there is a wide range of linguistic components involved; pronunciation, accent, sociolinguistic competence, syntactic and lexical competence amongst others, and some recent tests have even asked learners to assess their own competence (Piller, 2002). This has, in fact, proved to be quite an efficient way of gathering data and has been in existence since as early as 1975, when an experiment was conducted by Seliger *et al* on the English and Hebrew proficiency of immigrants to the United States and Israel respectively. Subjects were asked

to assess their own competence. 394 adults were interviewed in total, who had immigrated at different ages and from different countries. Interviews revealed that the majority of subjects who had immigrated before the age of nine believed themselves to be native speakers. Those who had immigrated after the age of 16 felt they had a foreign accent for the most part, and the group who had immigrated between the ages of 10 and 15 were more or less split equally between being mistaken for a native speaker and having a foreign accent. Length of residence seemed not to be a deciding factor in their competence. Although many would wonder at this very non-objective way of testing, it has a decided advantage because it eliminates any potential interference caused by nerves or a desire to impress or please the interviewer. Oyama (1976), looked at the pronunciation ability of 60 Italian immigrants to the USA, all with different ages of arrival (6-20) and who had been resident for different periods of time (5-18 years). In her study, Oyama decided to include only male subjects in her study because she felt that due to cultural pressures, female subjects would not have the same opportunities for contact with the native population and therefore would have restricted linguistic input:

That this decision was justified for the younger as well the older groups is indicated by one college-age subject's assertion that he spoke English with his brothers and Italian with his sisters.

Several of the teenage subjects confirmed that the social freedom of their female peers was often severely restricted, and that the girls' speech sometimes reflected this fact. (Oyama, 1976:263)

Subjects were recorded reading a paragraph and they were also asked to recount a frightening episode in their lives in order to elicit casual speech. Two American-born graduate students then judged a 45-second sample taken from each recording. The judges then rated each sample on a scale of 1-5, 1 signifying no foreign accent to 5, signifying a

heavy foreign accent. Oyama discovered on analysis of the results, that AoA had the strongest positive effect on proficiency; those arriving in the US as children performed in the same range as native speakers whereas those arriving later did not. Length of residence in the new country did not seem to be a contributing factor to L2 proficiency once the subjects arrived after the onset of puberty. Unusually, the casual speech samples showed less accent than the formal paragraph reading. This result was particularly interesting for Oyama, as her study was based on Labov's 1966 study of variability in New York speech. The expectation in this perspective would have been that casual speech would be further from the norm than formal speech. Oyama, however, concluded that:

These results are perhaps not so surprising after all. For immigrants, who are often painfully aware of their accents, the reading aloud of printed material may well be a more stressful task than the informal recounting of an anecdote. (Oyama, 1976:283)

In 1980 one of the first studies to investigate the existence of a critical period for the acquisition of syntax was carried out by Mark Patkowski on a group of 67 immigrants living in the United States. Subjects were from various language backgrounds had started to learn English at various ages and had resided in the US for different lengths of time. Only subjects who were deemed to have had learned their English under optimal sociolinguistic conditions were chosen. All subjects were highly educated or held professional positions. The control group consisted of 15 native-born Americans of similar background. Each participant was interviewed and the interview recorded. A five -minute sample from each transcript was selected and evaluated by the judges, two ESL teachers with master's degrees in TESOL, (Teaching English as a Second Language) with 5 years' experience. Rating of each recording or transcript was done on a scale from 1 to 5 with a

possible + value for each level apart from 5, giving a total of 11 possible scores. A number of variables were employed in the research, such as AoA (age of arrival), length of residence and formal instruction in English. Thirty-three participants had come to the US before the age of 15, the mean age of arrival for this group was 8.6. The second group who had arrived after the age of 15 had a mean AoA of 27.1 years.

Patkowski's results, when analysed, displayed a strong negative correlation between age of arrival and syntactic rating. Moreover, the distribution of ratings for the participants who had arrived before age 15 were almost all in the upper end of the scale, with 32 out of 33 of these participants scoring between 4+ and 5. The second group's scores were more evenly distributed, with scores ranging from 2+ and 5 and peaking at 3+. The only other variable that correlated significantly with the syntactic ratings was the amount of informal exposure, ($r = .22$, $p = .03$) but this relationship disappeared when the effect of age at arrival was eliminated. Patkowski also asked judges to rate a 30-second taped passage from all 82 interviews on a 0-5 point scale for phonological assessment (in order to replicate Oyama's 1976 study). The results once again showed a strong negative relationship between AoA and accent ratings and no other variable had a significant effect.

Patkowski re-examined the results of this study in 1990 and performed a regression analysis on the pronunciation data. His interpretation of the "new" results was that there was different distribution of accentedness in the two groups. This suggested to him that there was a discontinuation in the ability to acquire an L2 accent occurring at about age 15. However there have been a number of detractors of Patkowski's claim; Harley and Wang (1997) and Birdsong (2002) have objected to Patkowski's 1990 conclusion, saying that his evidence is ambiguous, as there appears to be a distinct age-related decline in phonological ability in the group with the later (post-puberty) AoA, i.e. those who arrived after age 15 also.

According to Birdsong (1999:10), “no single study has contributed more to the case for critical period effects than that of Johnson and Newport (1989) and Johnson (1992)”. This study has been regarded as a landmark study by many, as it was originally believed to yield the most clear-cut evidence for the CPH. It has, more than any other study, attracted much criticism and has been replicated a number of times, the most recent replication being that of Seol, 2005 which will be discussed later in the paper.

Johnson and Newport’s main evidence comes from a study of 46 Korean and Chinese learners of English, all of whom had resided in the United States for five years or more but whose ages of arrival were different. Length of residence varied from 3 to 26 years. The participants were divided into two groups: early and late arrivals. Early arrivals, 12 males and 11 females, had all arrived in the US before the age of 15. The later arrivals, of whom there were also 23, comprised 17 males and 6 females. The average number of years in the US for early and late arrivals was 9.8 and 9.9 respectively. The sample also included a control group of native speakers of English. Subjects were asked to judge the grammaticality of 276 English sentences. The sentences were presented orally and subjects had to answer either yes or no to indicate whether they thought a given sentence was correct or not. The stimuli were chosen on the basis of containing a wide variety of the most basic aspects of English sentence structure, for example, regular verb morphology (*Every Friday our neighbour washes her car; Every Friday our neighbour wash her car**) or irregular noun morphology (*Two mice ran into the house this morning; Two mouses ran into our house this morning**)

The most striking result of this study is the age of arrival effect. Results display a linear relation between age of arrival in the US and proficiency in English syntax for those participants who had arrived in the United States before the age of 7. For those immigrants who had arrived in the US between the ages of 7 and 15 there seems to be a linear decline

between performance and AoA. For those who had arrived after the age of 17, AoA no longer seems to be a determinant in performance as distribution of performance appears to be random.

For participants arriving in the United States prior to the presumed closure of an age-related window of opportunity, there was a linear decline in performance that began after AOA of approximately 7 years. However, after the window of opportunity closed, at AOA of about 17 years, the distribution of performance was essentially random. This outcome suggests that postmaturational AOA is not predictive of ultimate attainment; in other words, the L2 asymptote is determined not by a general age effect, but by one that operates within a defined developmental span. (Birdsong 1999:10)

Johnson and Newport (1991) conducted another study, similar to this one in an attempt to see if their 1989 study could be replicated with respect to the properties of language relating to Universal Grammar. Participants were 21 native Chinese speakers of English who had arrived in the USA between the ages of 4 and 38. A negative correlation was found for AoA and performance for the whole group. There was a steady decline in performance according to the AoA but a sharp drop in capacity at ages 14 to 16. Beyond age 16, performance became random. This pattern of performance was considered to be in keeping with the results of the 1989 study. In 1992, Johnson conducted a closer replication of the 1989 study using the same participants and the same procedures and materials. This time, however, a *written* version of the grammaticality judgement test was used, in order to compare results with those of the oral test administered in the original study. On

examination of the results, Johnson found a negative correlation between AoA and performance ($r = -.54$) even though the correlation was weaker than that of the original study ($r = -.77$).

In 2000 DeKeyser replicated Johnson and Newport's 1989 study with 57 Hungarian-speaking immigrants in the USA and a modified version of the grammaticality test (200 versus 278 sentences). He also chose a non-Indo-European background language to prevent cross-linguistic influence as much as possible. The original questionnaire used by Johnson and Newport was used with some slight variation, and subjects were asked to take the Modern Language Aptitude Test, generally considered the best test of verbal aptitude at the time, as well as a corresponding test in Hungarian: the Hungarian Language Aptitude Test. The findings of this study were similar to those of the original 1989 study, with a negative correlation being found between AoA and performance. Moreover, the language acquisition of the early arrivals was found to be consistent with native-like competence, whereas that of the later arrivals was marked by a random distribution of scores. DeKeyser, however, did not find a decline in performance as the participants approached age 15 as had been noted in the original study. He suggested that a prematurational decline might not be a feature of the CP as claimed by Johnson and Newport.

DeKeyser sought to replicate the study not only in order to assess the effect of age on ultimate attainment in L2 morphosyntax but also to consider the role of verbal analytical ability in L2 acquisition. He also wanted to test the "Fundamental Difference Hypothesis", originally put forward by Bley-Vroman (1988), which states that, because adults no longer have access to the Language Acquisition Device, they must rely on other factors such as verbal analytical ability in order to acquire an L2. DeKeyser predicted a strong positive correlation between verbal aptitude and performance on the test; this was further confirmed by the results, as only one subject who had learned English as an adult performed poorly on

the verbal aptitude test but had a high score on the grammaticality test. For all other adult learners of English, only those with a high level of verbal analytical ability performed well in the grammaticality test.

For DeKeyser, this study provided empirical evidence for the CPH:

This study suggests that there really is a critical, not just a sensitive or optimal, period for language acquisition, provided that the Critical Period Hypothesis is understood narrowly enough, that is, applying only to implicit learning of abstract structures.

(DeKeyser, 2000:519).

More recently, Paradis, (2004) stated that the critical period hypothesis applies to implicit language learning and adults must rely on explicit learning mechanisms in order to acquire an L2. With age, he says, there is a gradual loss in plasticity of the “procedural memory for language” (Paradis,2004:59) and we become more reliant on declarative memory for learning. For Paradis, the critical period for implicit language learning is between the age of 2 and 5 approximately, and it is essential that individuals be exposed to language during this period in order for implicit learning to occur. Certain elements of language are more reliant on implicit language learning than others, vocabulary, for example, is not reliant on any aspect of implicit memory, Paradis claims, whereas, prosody and phonology are intrinsically linked to implicit memory and late learners must rely on compensatory mechanisms (such as conscious learning) to acquire these aspects of the L2. It is for this reason that Paradis makes the distinction between knowledge of language and linguistic competence, as, in his opinion, late learners can never achieve true nativelike competence in an L2.

The results of the Johnson & Newport's 1989 study and its replications seemed to provide many pro CPH linguists with a solid empirical basis for their argument. However, there have also been a number of criticisms, notably by Kellerman, (1995) Bialystok (1997) and Marinova-Todd et al (2000). Kellerman, (1995) objected to Johnson and Newport's 1989 and Johnson's subsequent 1992 study on a number of grounds. One objection was to the methodology used. He argued that the method of presenting pairs of sentences, (one correct, the other incorrect), and asking the participant to circle the incorrect one was not an infallible way of determining how native-like the participant was. He claimed that one could not presume that the participant was rejecting the sentence for the same reason that a native speaker would reject it.

One way of finding out if subjects tend to judge stimuli as the researchers required would be to examine the patterns of acceptance and rejection across both grammatical and ungrammatical sentences. If learners were sometimes making judgements on faulty apprehensions of what was or was not English (as learners often do), then we should see substantial numbers of rejections of grammatical sentences as well.

(Kellerman, 1995:221)

Kellerman also criticised the authors' failure to take cross-linguistic influence into account. He observed that when the L1 was Dutch and the L2 English, differences between native speakers and learners who commenced learning after age 12, virtually disappear, as these two languages are very close typologically.

Bialystok (1997) had a number of criticisms. She felt that the test was too long and participants would have required high degrees of mental stamina to complete it. She also suggested that the LOR was not long enough for some of the participants to have achieved

what would be considered “ultimate attainment”. DeKeyser (2000:503) suggests, for example, that a ten-year length of residence is necessary for learners to achieve ultimate attainment levels. Bialystok also claims that, for many of the younger participants in the Johnson and Newport study, English might not have been strictly a second language, that children under the age of 7 performed like native speakers because they effectively *were* native speakers.

It is conceivable that English was the dominant language for those immigrant children who arrived before the age of 7 years and for whom English was the only language of schooling. It is unsurprising that they would perform like native speakers. Confirmation of this hypothesis would require evidence for the proficiency that these children maintained in Chinese or Korean; specifically, that it was weak and not native-like. (Bialystok, 1997:123)

The Johnson and Newport (1989) study was re-examined by Bialystok and Hakuta in 1994 and the re-analysis yielded findings that were notably different from those of the authors’ original account. Bialystok and Hakuta found age effects only for certain structures. When there were age effects it was only for structures that were very different in English and Chinese/Korean. In the re-analysis the correlation between age of arrival and scores on the grammaticality judgement test were re-calculated and the results were very different from those reported in the original study. The new analyses showed deterioration in participants’ proficiency only in cases of an AoA after age 20.

In 1999 a study by Bialystok and Miller replicated that of Johnson and Newport but studying native speakers of Spanish and Chinese who began learning English as a second language at different ages. The grammatical features studied were similar to

those of the original study but new sentences were created to take into account grammatical similarity between the two languages. The test was presented in both an oral and written version as per Johnson and Newport (1989) and Johnson (1992). It was designed in answer to Bialystok's 1997 criticisms that some of the younger participants may not have had an in-depth knowledge of their first language and also took into account Kellerman's concerns about cross-linguistic influences.

Three groups of participants took part in the study; the first was composed of 33 native Mandarin speakers whose mean age was 24. This group was divided into two, depending on AoA, with the first subgroup arriving in Canada before age 15 and the second after the age of 15. The second group consisted of 28 adult Spanish L1 speakers with a mean age of 25, with 15 younger learners and 13 older learners. Finally, there was a control group of 38 native English speakers. The first two groups sat a first-language proficiency test in comprehension-translation and writing. All three groups completed a grammaticality judgement task in English, where they were presented with 160 sentences and asked to determine if each sentence was grammatical or not. The results were surprising. There were large differences between the two language groups in their responses to the test items. However, there were few differences between the older and the younger learners. For the Spanish learners AoA was significant in determining proficiency outcomes, but for the Chinese learners, it was not. For both groups, learners arriving before the age of 8 performed like native speakers. Bialystok and Miller felt, however, that this was not surprising as children who receive almost all their formal education in English do not have the same experience in learning the language as other learners who arrive later in life having already commenced their formal education in their first language.

We found that language proficiency was governed by such factors as the relation between the two languages, the syntactic

structure being tested, and the modality in which it was presented. These factors point to a view of language learning that is based on central cognitive learning mechanisms and is sensitive to experiential contingencies. (Bialystok & Miller, 1999:144)

The most recent replication of this study was conducted by Seol in 2005, using the same modified grammatical judgement test used by DeKeyser. (It was originally shortened to avoid fatigue effects). Thirty-four native Korean speakers resident in the USA took part in the study. Seol deliberately chose monolingual participants in order to better examine L1 effects. The group of participants were divided up into two groups, one with an AoA of 15 or under and the second with an AoA of 16 or over. The mean LOR for the early arrival group is 17.6 years and 8.9 years for the older arrivals. Although Seol's results showed a negative correlation between AoA and performance ($r = -.848$), her results differed from those of the Johnson and Newport 1989 study in a number of ways. In the original study the ceiling effect for participants who arrived between the ages of 3 and 8 and had achieved native-like attainment stretched to age 10 in Seol's study. Unlike the 1989 study, the results of Seol's study did not display a prematurational decline, i.e. there was no statistically significant decline in performance prior to puberty. These results would be very much in keeping with Lenneberg's original Critical Period Hypothesis where the heightened sensitivity is seen as dropping off abruptly around puberty. This notion of the critical period being rigid and finishing abruptly has fallen out of favour however, with some researchers in SLA, who prefer to think of a gradual decline in maturational sensitivity.

This question, whether there is an abrupt cut-off point at the end of the critical period or whether there is a steady lifelong decline in sensitivity because of maturation is

central to the CPH debate. Bialystok, Hakuta and Wiley (2003) tested the CPH on data from the 1990 US Census using self- assessments on age of arrival, length of exposure, and language development from 2.3 million immigrants with Chinese and Spanish L1. The results showed linear effects for level of education and for age of arrival. The authors concluded:

We tested the critical-period hypothesis, an in particular searched for evidence of discontinuity in the level of English proficiency attained across a large sample of participants. Using both 15 years and 20 years as hypothesized cutoff points for the end of the critical period, we found no evidence of such a discontinuity in language-learning potential. Instead, the most compelling finding was the degree of success in second-language acquisition steadily declines throughout the life span. (Bialystok, Hakuta & Wiley, 2003:37)

A similar study by Chiswick, Lee and Miller, conducted on immigrants to Australia (2004) also found a pattern of continuous decline in maturational sensitivity.

One possible explanation for this absence of a sharp decline in language learning ability and age-related effects has been explained by MacWhinney (2005) through his Unified Competition Model: repeated use of the L1 leads to increasing entrenchment which operates differentially across linguistic areas. To overcome this entrenchment learners rely on resonant processes that allow the L2 to blossom while resisting the influence of the L1.

For languages with familiar orthographies, resonance connections can be formed among writing, sound, meaning, and phrasal units. For languages with unfamiliar orthographies, the domain of resonant connections will be more constrained. This

problem has a severe impact on older learners because they have become increasingly reliant on resonant connections between sound and orthography. Because learning through resonant connections is highly strategic, L2 learners will vary markedly in the constructions they can control or that are missing or incorrectly transferred. In addition to the basic forces of entrenchment, transfer, and strategic resonant learning, older learners will be affected by problems with restricted social contacts, commitments to ongoing L1 interactions, and declining cognitive abilities. None of these changes predict a sharp drop at a certain age in L2 learning abilities. Instead, they predict a gradual decline across the life span.” (MacWhinney, 2005, p.64)

2.3.5 Studies Evidencing an Older = Better Effect

Unlike the 1970s studies already mentioned, some linguists felt that the results of their research provided confirmation that traditional interpretations of the CPH were invalid. Snow and Hoefnagel Höhle’s 1977 study, for example, found few age effects on pronunciation in 136 English speakers resident in Holland. Subjects were tested in both a formal environment (a language laboratory) and in a natural setting. In the laboratory subjects were divided into eleven age groups (range 5-31) and asked to repeat five Dutch words as heard from a stimulus tape. The conclusion drawn from these results was that “youth confers no immediate advantage in learning to pronounce foreign words” (p. 363), as the older learners seemed to have an initial advantage over the younger ones. One of the

reasons proffered by the authors for the failure of the younger learners is that they are at an earlier stage of acquisition and are initially weaker than older subjects. In a naturalistic study forty-seven English speakers aging from 3 to 60 who had learned Dutch in a natural setting either at school or at work were followed during their first year of second language acquisition. Results showed that the younger learners soon outstripped the adults, as they “seemed to continue their period of acquisition longer so they eventually surpassed the older subjects who levelled off at a lower point”. (Snow and Hoefnagel Höhle, 1978:1127) They also provided an interesting explanation for the younger learners’ success; they proposed that younger learners had a greater need to achieve nativelike skill. They believed that the success of younger learners was due to a number of motivational factors and could not be sufficiently explained by Lenneberg’s CPH.

Snow and Hoefnagel Höhle conducted a further experiment in 1978, which, in their opinion, completely discredited the CPH. Fifty-one English-speaking learners of Dutch were tested over a period of eighteen months at four to five-monthly intervals. Two groups were studied, the first a group of monolingual English speakers who had just arrived in Holland and the second, the advanced group, a group of English speakers who had been living in Holland and speaking Dutch for at least eighteen months. The latter group were tested only once on a variety of tasks, i.e. sentence translation, sentence repetition, storytelling, story comprehension and pronunciation amongst others. Snow and Hoefnagel Höhle felt that the results of their experiment provided distinct evidence against the CPH:

The results of this study fail to support the CPH. The fastest second language acquisition occurred in subjects aged 12-15 years, and the slowest occurred in subjects aged 3-5 years. Furthermore, subjects of all ages were very similar in the aspects of Dutch they found difficult and those they found easy.

At least as far as the second language acquisition is concerned, then, the conclusion must be drawn that a critical period extending from age 2 to age 12 does not exist. (Snow and Hoefnagel Höhle, 1978:1125)

Critics of the experiment might insist that it would be very difficult to devise a test, which would be suitable for 3-5 year olds as well as 12-15 year olds. However, in this experiment tests were designed with the younger subjects in mind. The result was that the test material might have been a bit childish for the older subjects and therefore not challenging enough to test the ultimate attainment of the older learners. The results of this experiment were surprising at the time of the study, perhaps because subjects were tested on a variety of skills and not just pronunciation. Within the phonological task category there were various tasks, each testing a different component of phonological proficiency; pronunciation, auditory discrimination and sentence repetition.

Olsen and Samuels (1973) conducted a short-term study of elementary, junior high and college students, all with English L1, who were randomly selected to be tested on their capacity for native-like pronunciation in German. Each group participated in 10 sessions of intense phonemic drilling over 3 weeks, repeating German phonemes as they heard them on pre-recorded cassettes. On analysis of the results, there was a significant age group effect on accuracy of pronunciation in that the two older groups outperformed the younger group. There was no significant difference between the two older groups in pronunciation accuracy. The authors suggested that the CPH might be applicable to first language acquisition only.

Winitz (1981) discovered that adults had an initial advantage over young learners in a short-term phonological study. He found that English-speaking 8 year-olds were not able to discriminate Chinese tones and consonants as well as their adult counterparts. It is

important to note, however, that this study was extremely rigid and artificial, examining a very narrow segment of the overall phonological ability of the subjects.

Neufeld in his 1977 study maintained that there was no sensitive period for SLA. In his study 20 native speakers of English underwent 18 hours of intensive instruction in Japanese and Chinese phonology. Subjects were then recorded uttering ten phrases of four to eight syllables in each language, after practising each phrase five times. Subjects did not understand the said phrases but this was irrelevant as the objective of the experiment was to parrot the Chinese and Japanese natives recorded to provide material for imitation. Neufeld maintained that his experiment provided counterevidence for the CPH as some of the subjects were judged as being native speakers. However, the mean score for the subjects in the experiment as given by the native-speaker judges was 3.3, which equated to “Near-native with frequent English-like sounds”, with a perfect score being 5 (Neufeld, 1977:52). Scovel (1988) criticised this experiment on a number of grounds but most notably concerning the instructions Neufeld gave to his judges. The judges were told that the subjects were native speakers of Japanese and Chinese but that there might be some linguistic contamination in their speech as a result of learning English as a second language.

As Neufeld readily acknowledges, the judges “expressed surprise and disbelief” when told after the experiment that all the subjects were non-native speakers of the two languages (Neufeld 1977:54). Since the Japanese and Chinese judges were literally set up to hear native speakers of their mother tongues, it does not amaze me that 3 of the 20 subjects were rated as “native speakers”. Indeed it is astounding that, given the instructions to the judges, so few 5s were recorded, and this detailed study ends

up simply underscoring the saliency of foreign accents. (Scovel 1988:159)

As in the study by Winitz, the methodology used by Neufeld is flawed and the linguistic conditions extremely artificial, it cannot give a true representation of the phonological competence of the subjects and may even underestimate adults' abilities. For these reasons, this study does not provide persuasive empirical evidence against the CPH.

2.3.6 The Multiple Critical Periods Perspective

In 1976 Seliger, in an address to the Fourth International Congress of Applied Linguistics, disputed the classic terms of the CPH suggesting that knowledge of a language system was not sufficient to be able to function in that language and it was necessary to take into account the other factors, which contribute to a competence in a second language when testing learners of that language.

This is revealed by our constant search for language tests that give us a measure of someone's ability to function with the language and not just his familiarity with certain discrete facts about the language. (Seliger, 1976:265)

Two experiments were described; the first was to test the language user's ability to comprehend a language presented with background noise. The second was designed to test whether or not an L2 learner could distinguish a native speaker from a non-native speaker of the L2. Seliger concluded that the two abilities tested had a direct correlation with general language learning ability.

What this and other studies suggest is that the linguistic definition of competence is inadequate and must be expanded to

include those non-linguistic abilities necessary to function and
acquire natural languages in natural contexts. (Seliger, 1976:271)

This experiment was to provide the basis for Scovel's test in 1981, in which he tested the ability to recognise a spoken or written foreign accent. There were four groups of judges; 31 adult native speakers of American English, 146 child native speakers of different ages, 92 adult near-native speakers and 23 adult aphasics. Judges had to evaluate 20 speech samples of a group of native and near-native speakers of English. Adult judges were given an additional written paragraph made up by the subjects. Scovel was careful to ensure that the near-native speakers in the sample were extremely proficient. He had this group screened by 3 EFL (English as a foreign language) teachers to eliminate any subjects whose pronunciation was not excellent. The child judges' ability to correctly identify the native speakers increased steadily from age 5 (73%) to 97% accuracy at age 9/10. Adult native-speakers achieved 95% accuracy, which dwindled to 47% with the written samples. Of course, the written passages represented the subjects' best level of production and also allowed them to avoid any problematic areas of syntax, which might have revealed their non-native status to the judges. In the near-native speaker group of judges, Scovel found that ability to correctly identify native speakers of the L2 had a positive correlation with proficiency in that L2. Even among the advanced near-native speakers, accuracy was only as high as 77%, similar to the five-year old native speakers' performance and considerably lower than the aphasic group (accuracy 85%). Once again, this is a study, which seems to provide evidence for the CPH, this time, though, from an unusual perspective. Rather than testing near-native speakers' ability to pass as native speakers, Scovel wanted to see if they were able to distinguish non-native speakers from a group of native speakers. He was one of the first to explore the possibility that there were some language learners who were naturally gifted and capable of achieving very high levels of proficiency in an L2: "...there

may be some superexceptional learners, about 1 in 1,000 in any population of late learners who are not bound by critical period constraints.” (Scovel, 1988:181). What, however, could provide an explanation for this rare ability? Seliger in his 1981 article “Exceptions to critical period predictions: A sinister plot” maintains that up to 36% of the human population have the “potential for hemispheric plasticity beyond puberty.”(Seliger, 1981:55)

Seliger (1981:51) proposed a “universal hierarchy of acquisition”. He suggested that there were multiple critical periods for second language acquisition, which would last throughout the life of an adult. The various abilities to learn a second language would not all be lost at once but would shut down one by one. Lenneberg had originally postulated a link between brain lateralisation and the ending of a critical period after which a foreign accent would emerge in the second language. Seliger felt it was necessary to carry out studies in other areas of language such as syntax, semantics and the lexicon, areas somewhat neglected at that time in order to provide a complete picture of SLA proficiency.

2.4 CPH Sceptics

Many studies in the area of second language acquisition have produced results that have provided evidential support for a partial or diluted version of the CPH. However, there are certain linguists who have been branded “CPH skeptics” (Scovel, 2000: 216) such as Bongaerts Flege, Bialystok, and Neufeld, because of their refusal to accept that there is a CPH for SLA..

Claims concerning an absolute biological barrier to the attainment of a native-like accent in a foreign language are too strong. (Bongaerts 1999:154)

By demonstrating that it is possible to gain a native-like accent in an L2 if the said language is acquired before the onset of puberty, certain studies have appeared to provide empirical evidence for the hypothesis, (Oyama 1977, Seliger 1975) but few have set out to study the subjects who do not manage to acquire a native-like accent in spite of learning it during the critical period. Flege and Fletcher (1992) provided indirect evidence that foreign accents were evident in the speech of adults who had learned their L2 as early as 7 years of age. In a 1995 experiment Flege, Munro and Mackay propose that there may be other reasons for the existence of foreign accent than age-related factors. This study was designed in order to answer 3 questions:

- (1) What is the earliest AOL at which persistent foreign accents become common?
- (2) What is the earliest AOL at which accent-free pronunciation of an L2 remains possible?
- (3) Does the critical period for speech learning affect *all* individuals? (Flege *et al* 1995:3125)

Note: AOL = age of learning

The study assessed the relation between non-native subjects' age of learning and the degree of foreign accent perceived in the subjects' speech. The 240 non-native participants were all born in Italy and resident in Canada; they had a mean age of arrival of 13. In order to ascertain whether reasons other than age could be responsible for a perceived foreign accent in their speech, subjects were asked to fill out a questionnaire about their language background. Subjects answered questions on the amount of formal instruction they had had in the L2, on their motivation, on their concern for correct pronunciation amongst others. Each non-native participant was recorded individually; five sentences had to be read aloud. The sentences were not considered particularly difficult for Italian speakers of English. A control group of 24 native English speakers resident in Canada were also recorded reading

the five sentences. Ten native speakers of Canadian English then judged the utterances of both groups.

The Italian subjects were divided into subgroups, the first having a mean age of arrival of 3.1 years and therefore arriving well within the critical age bracket but a foreign accent was perceived within the group by some of the judges; other judges did not perceive a foreign accent until the average age of learning of the subgroup was 7.4 years. Practically no Italian subjects who began learning English after the age of 15 obtained scores within the native range. Flege *et al* also found that other factors had an influence on accent, notably, gender, length of residence in Canada and the relative frequency of use of Italian and English. The last factor, in particular appeared to be an important factor, particularly as participants noted in their self-estimates that they seemed to be inversely related, i.e., those who said they pronounced English well also said they pronounced Italian poorly and vice-versa.

A later study by Flege, Yeni-Komshian and Liu (1999) set out to evaluate the critical period hypothesis for L2 acquisition. 240 native speakers of Korean took part in the study, which evaluated their pronunciation of English as well as their knowledge of English morphosyntax. Traditional interpretations of the CPH would lead to the expectation that there would be a correlation between age of arrival (AoA) and L2 performance for those individuals who acquired their L2 before the age of 12. However in this study the AoA foreign accent correlations as well as the morphosyntax correlations were relevant for Koreans with an AoA of 2-12 years and those with an AOA of 13-23 years. Flege *et al.* eliminated the possible effect on results caused by factors often confounded with age of arrival (such as length of residence, use of English and Korean or how much education subjects had received in the United States) by forming subgroups where the participants differed in their AOA but not in these other variables. Later arriving Koreans had

significantly stronger accents than did those who arrived earlier in the United States. The 240 subjects were divided into 10 subgroups of 24 each; tests revealed that even in the subgroup whose participants had arrived in the United States as young children, there were significantly lower scores than those achieved by the native English control group (24 native American English speakers). So, as far as accent is concerned, the results are very similar to the previous study. As previously mentioned, some theorists might maintain that this is because L2 phonology learning is constrained by a critical period. Oyama, (1973, 1979) hypothesised that there is a sensitive period for L2 phonology learning stemming from brain maturation. Flege *et al*, however do not agree and propose a different reason for the negative correlation between L2 phonology acquisition and age:

There is an alternative interpretation that we prefer, however. It is that age-related decline in L2 pronunciation accuracy derives from the fact that, as AOA increases, the state of development of the L1 phonetic system also increases, thereby changing the way in which the L1 and L2 phonological systems interact. More specifically, age-related changes in the pronunciation of an L2 may derive from differences in how, or if, L2 learners perceptually relate L2 sounds to the sounds making up the L1 phonetic inventory. This, in turn, may lead to age-related differences in whether new phonetic categories are or are not established for sounds in the L2. (Flege, Yeni-Komshian and Liu, 1999:99)

This is a most interesting study. Although there are noticeable differences in the L2 pronunciation ability of the early and late arrivals, the results of the study do not support Lenneberg's CPH because even the Korean subjects who arrived in the US at a very young

age did not manage to attain a native-like command of English phonology. For these subjects it would appear that there are age-related factors influencing their L2 phonology ability as there is a steady decline in their L2 pronunciation as their AOA increases but no critical period as such; it is just that the later they arrive, the harder it is to achieve native-like L2 pronunciation.

Flege, (1999) suggests that non-nativelike accents are not a direct result of the loss of pronunciation ability due to maturation but because the phonological system of the L1 is completely in place: "L2 pronunciation accuracy may decline, not because one has lost the ability to learn to pronounce, but because one has learned to pronounce the L1 so well." (Flege, 1999:125)

Bialystok (1997), reported on two further studies, which, she felt, offered empirical evidence against the CPH. The first study (Marinova-Todd 1994) was focused on a group of university students who were native speakers of English or German and who had started learning French as an L2 either before or after early adolescence. Subjects participated in three tasks involving gender classification for French nouns. Results showed no differences between the two groups in their ability to determine the gender of an unfamiliar French word. There was, however, a significant difference in accuracy as a function of age of learning. Those who began learning after adolescence obtained higher scores on the translation task in the study than those who began as young children. Bialystok noted that on the third task (where participants had to determine the gender of a word in spite of there being a picture present which conflicted with the phonological cue in the word), the German-speaking participants employed the same methods as mature French native speakers to determine the gender of the word. This, Bialystok maintained, was because in German, nouns are marked for gender and this may have conferred an advantage on the German speakers.

The second study was carried out on a group of native speakers of Chinese who had immigrated to Canada and learned L2 English at various ages (Yew, 1995). One of the tasks in this experiment was a grammaticality judgement task based on six structures, three of which were similar in both Mandarin and English and three of which were unique to English. Results showed that scores were consistently higher for those structures that were the same in both languages. Although there was no significant correlation between the test scores and AoA in Canada, there was a significant correlation between performance and length of residence. From the results of these two studies, Bialystok concludes, firstly, that those structures in the L2 that are different from the L1 are more difficult to master and, secondly, that this difficulty exists for all learners of a second language, irrespective of their age of acquisition.

Although not strictly considered a CPH sceptic, Major (2007) nonetheless provided strong counter-evidence for the CPH in his study of phonological perception among native and non-native listeners of Brazilian Portuguese. Three sets of judges made up of native speakers of Brazilian Portuguese (BP), native speakers of English with some familiarity with BP and native speakers of English with no experience of BP were asked to judge a series of speech samples from a mixed group of native speakers and near-native speakers of BP. The results across the three groups of judges were remarkably similar. Major argued that the ability to rate foreign accents involved salient universal factors. He thus concluded that perceptual competence is available to learners well beyond the age traditionally considered as the end of the critical period.

2.5 Studies of Near-Native Speakers

later AoA determines that one will not become native[like] or near-native[like] in a language (Johnson & Newport, 1989:255)

..late L2A results in ineluctable failure to attain nativelylike competence. (Bley-Vroman, 1989:44)

A single learner who began learning after the [critical period] closed and yet whose underlying linguistic knowledge...was shown to be indistinguishable from that of a monolingual native speaker would serve to refute the CPH/L2A. (Long 1990:255)

If we look at “overall L2 proficiency” we will find that “perfect proficiency” and “absolute nativelylike command of an L2 may in fact never be possible for any late L2 learner” (Hyltenstam & Abrahamsson 2003:575)

Statements such as those made above that have helped to inspire the increasing number of second language acquisition studies among near-native speakers or very advanced L2 learners.

Near-native speakers were classified by Coppieters as:

People for whom an L2 has become the functional equivalent of a mother tongue- people who, except possibly for their accent, can no longer be reliably distinguished from native speakers by the “mistakes” they make, or by the inappropriateness of their language. (Coppieters, 1987:552)

A number of late learners have been discovered who have achieved nativelike proficiency. Although these exceptional late learners are not common, they are not rare. According to Birdsong,

In 20+ studies over 13 years [1992-2005], between 3 and 45% of subjects perform like native controls (median > 11%).

(Birdsong, 2005:9)

Moreover, the competence of these L2 learners is not confined to one single linguistic domain as is demonstrated in a number of near-native speaker studies (Ioup et al. 1994, Birdsong 2003, Marinova-Todd 2003, Moyer 2004, Muñoz & Singleton 2007). However, many of the near-native speaker studies concentrated on one particular domain of proficiency. For example, Coppieters 1987, Birdsong 1992 and White and Genessee 1996, were concerned with the availability of UG to near-native speakers. Bongaerts *et al.* 1995, 1997, 2000, Moyer, 1999 and Major 2006, studied the phonological competence of the near-native speakers. Ioup *et al.* were the first to study multiple competences in the near-native speaker. The multiple task method examines near-native speakers' language performance on a variety of tasks and Birdsong 2003, Marinova-Todd 2003, and Muñoz & Singleton have all conducted studies in this domain. The results of several among these studies have been interpreted as providing resounding counterevidence for the CPH. The literature in this area is particularly pertinent to the current thesis as much of the methodology in the present study was inspired by these near-native speaker studies, which shall be discussed in this section.

Many studies were focussed on adult learners because "the CPH would be falsified if nativelike proficiency were found in learners who started acquiring a language outside a certain age limit (i.e., puberty in Lenneberg's specific formulation) and who have acquired the language naturalistically without tutoring" (Hyltenstam and Abrahamsson 2003; 540).

Many linguists are now interested in discovering just who can become native-like in a second language. If individuals can be found who are able to perform within the range of native speakers then it is possible that factors other than maturation are responsible for late learners' common failure to acquire a second language to nativelike standards.

2.5.1 CPH Studies Referring to Universal Grammar

Coppetiers led the way for Universal Grammar (UG) studies on near-native speakers in 1987 when he carried out a study on the underlying grammar of nativelike non-native speakers. He wished to identify whether the underlying grammar of these speakers was identical to that of native speakers, in other words, does a language impose a grammar on its speakers?

In the 1987 experiment, Coppetiers brought together 21 near-native speakers of French all of whom had learned French as adults (after age 18) and who came from a variety of language backgrounds. The participants were professors of French language and literature, linguists working on French, and graduate students and professors of other academic disciplines studying and teaching in a French university. All participants satisfied the criterion of language use and proficiency, as evaluated impressionistically first and later corroborated by their superior performance on the ACTFL (America Council on the Teaching of Foreign Languages) oral interviews. Length of residence varied from 5.5 to 37 years. There was also a control group of 20 native French speakers from France and Belgium.

107 sentences formed the basis of the experiment, chosen specifically to illustrate a variety of aspects of the French language. Among these structures were five

sentences testing the contrast between the *imparfait* and the *passé composé*. These two examples, (Sentences 29 and 30) from Coppieters 1987, p.559)

(29) Est-ce que tu {as su/savais} conduire dans la neige?

“Did you manage/know how to drive in the snow?”

(30) {J’ai très souvent mangé/ Je mangeais très souvent} de la racine d’arnica après cette histoire.

“I often ate arnica root after that event”

Participants were asked if the *imparfait* and *passé composé* were acceptable to them, and if so, whether there was a difference in meaning between the two forms.

Each subject was interviewed separately and was encouraged to discuss their feelings and intuitions on the sentences presented. The results showed that the performance of the near-native speakers differed significantly from the native speakers. No near-native speakers performed within native speaker ranges. Moreover, the differences in performance were not uniform across the structures studied. Birdsong (1992) noted that the structures that yielded the least divergence in results were those normally covered by the term “Universal Grammar” (UG). Nowak et al. give the following definition of UG:

Language consists of words and rules. The finite ensemble of memorized words is called the mental lexicon, whereas the set of rules is called the mental grammar of a person. Grammar is the computational system that is essential for creating the infinite expressibility of human language. Children acquire their mental grammar spontaneously and without formal training. Children of the same speech community reliably learn the same grammar. Exactly how the mental grammar comes into a child’s head is a puzzle. Children have to deduce the rules of their native language from sample sentences they receive from their parents and others. This information is insufficient for uniquely determining the underlying

grammatical principles. The proposed solution is universal grammar.

Universal Grammar consists of a mechanism to generate a search space for all candidate mental grammars and a learning procedure that specifies how to evaluate the sample sentences. Universal grammar is not learned but is required for language learning. It is innate. (Nowak, Komarova and Niyogi, 2001:114)

In Coppieters' study not one of the near-native speakers performed within the native speaker range, he took this as indicative that a new language does not impose a specific underlying grammar on its speakers because the near-native speakers and the native speakers had clearly developed significantly different grammars.

There were a number of criticisms levelled at this experiment, notably at the varying levels of education among the native speaker group. All of the near-native speakers were highly educated people and included 19 professors or researchers; in contrast, the 20 native speakers had "some education". Long (1990) suggested that "failure to control for background differences between the near-native speakers and the native speakers increases the chances that the two groups will not coincide on judgements for subtle areas of the grammar" (p.281). Birdsong based an experiment on that of Coppieters comparing the grammatical competence of 2 groups of speakers, one group of 20 native French speakers, and a group of 20 near-native speakers. Efforts were made to keep the 2 groups as homogenous as possible, with variables such as linguistic background, education and social background being kept as uniform as possible.

In Birdsong's 1992 study, subjects were asked to judge the grammaticality or the "correctness" of 76 grammatical and non-grammatical sentences. The sentences included various elements of French morphosyntax. The results were very different from those of Coppieters, despite the fact that there was considerable divergence in the overall

results of the two groups, there was a considerable overlap when results were examined individually; 15 of the near-native speakers scored within the native-speaker range. The divergences between the two groups did not fall into a specific pattern; those structures examined, which came under the universal grammar umbrella, did not predict the distribution of the differences between the two groups. Birdsong concluded that, “ the present results suggest that UG is not accessed fully by all learners in the sample, and are consistent with other evidence and arguments against the uncompromised availability of UG in L2A” (p.740). Nonetheless he took the fact that 15 of his near-native subjects scored within the native range as counterevidence for the CPH. Interestingly, Birdsong also noted that age of arrival was a predictor of performance on the various tasks, even though all of the near-native speakers had arrived in France as adults. These findings indicate that age effects continue to influence performance even though acquisition in this case commenced well after the end of the critical period.

Birdsong was not without his critics: De Keyser, (2000:504), mentions the deviation from the norm in the native speaker groups in both studies. In Coppieters, the variation from the norm amongst the native French speakers stood at 5-15% whereas in Birdsong’s experiment interindividual variability varied from 16.7-31.6%. For De Keyser:

The numerous small differences in methodology, structures tested, and subject populations make it difficult to point out the reason(s) for the difference between the Birdsong and the Coppieters findings with any degree of certainty. (DeKeyser, 2000:505)

White and Genesee (1996) tested 19 native, 44 near-native and 45 non-native speakers of English on their knowledge of Universal Grammar structures. The majority of the near-native group were native Francophone learners of English. They

compared the performance of the three groups on two tasks designed to test aspects of UG, which had been claimed to be subject to critical period effects. White and Genesee found no significant differences between the near-native group and native speakers on either task. The authors of the study took this as proof that these grammatical structures were not subject to critical-period effects. They concluded that native-like competence in an L2 is achievable, even by older L2 learners.

2.5.2 Phonological Attainment and Near-Native Speakers

Studies

According to Scovel, pronunciation was the one area that was subject to the critical period because it is “the only aspect of language that has a neuromuscular basis” (Scovel 1988:101).

One of the most often quoted series of studies of near-native speakers and SLA is that of Bongaerts *et al.* (1995). These studies (of which there are four) were conducted in response to a statement by Long:

The ability to attain native-like phonological abilities in an SL begins to decline by age 6 in many individuals and to be beyond anyone beginning later than age 12, no matter how motivated they might be or how much opportunity they might have.

(Long, 1990:281)

The first study by Bongaerts, Planken and Schils (1995) was of ten highly proficient Dutch late (after the age of 12) learners of English. This was the key group of the study; a second group was composed of twelve late learners of English at various levels of proficiency and

a third group with 5 native speakers of British English. Four native speakers of British English judged the utterances on a scale of 1 (very strong accent) to 5 (no accent at all). The judges were unable to distinguish between the very proficient speakers and the control group. Incredibly, some of the native speakers actually scored lower than the key group. There was speculation nonetheless, that these unusual results were due to the fact that there were some regional variations in accent. Both the control group and the judges' speech contained a certain amount of regional variation. The key group had all been intensively trained in RP (Received Pronunciation). The authors felt that there may have been a tendency on the part of the judges to favour the "supraregional" variety of English rather than that spoken with a regional accent. For this reason a second study was carried out by the same authors.

The main aim of this second study was to determine whether there existed some speakers whose scores would be comparable to those of native speakers. Once again, there were three groups of participants, group one consisted of 10 native speakers of British English with a neutral accent, this being the medium of instruction in most Dutch schools; the second group was composed of 11 Dutch learners of English, nine of whom had taken part in the first experiment. Their university-based EFL experts had singled out these learners as having an exceptionally good command of English. The third group was composed of 20 Dutch learners of English at various levels of proficiency. Participants were asked to read six sentences aloud; these sentences had been carefully chosen to include sounds (phones) both similar and very different from Dutch. The panel of judges were also carefully selected, none of them had a regional accent and they all had a level of education similar to that of the Dutch participants. Once again, judges were asked to assign each utterance a score between 1 and 5 using the same criteria as before. Once again, the results were very interesting: results for the

native speakers ranged from 4.67 to 4.94 whereas results for the near-native group ranged from 4.18 to 4.93

In the third study, Palmen, Bongaerts and Schils (1997) decided to pair together an L1 and an L2 that were less similar, Dutch and French. French being a Romance language is different structurally from Dutch and learners would have very little exposure to French via the Dutch media whereas undubbed English or American programmes are commonplace in the Netherlands. The group set-up was the same; the first consisted of 9 native speakers of French who spoke without a regional accent, the second group was composed of 9 exceptional Dutch learners of French and the third consisted of 18 native speakers of Dutch at various levels of proficiency in French. Ten native speakers of French made up the judges' panel; five of the judges had no formal training in French, (the inexperienced judges) and five were either university lecturers or advanced students of French or linguistics (the experienced judges). Once again the scores of the native speakers and the near-native speakers were very close, with a mean score of 4.66 for the native speakers and 4.18 for the second group. Within the group of very advanced learners four of the participants had native-like scores. None of the advanced learners in any of the studies had learned their L2 before the age of 12. Nonetheless, several among them were capable of achieving scores within the native speaker range. Palmen *et al.* felt that the results of the third study provided empirical counter-evidence against the CPH.

We argue that such results may be interpreted as evidence suggesting that claims concerning an absolute biological barrier to the attainment of a native-like accent in a foreign language are too strong. (Bongaerts 1999:154)

In the fourth study, Bongaerts, Mennen and van der Slik (2000) investigated the pronunciation of Dutch L2 among a group of 30 advanced late-learners with varying L1

backgrounds. The range of AoA was 11-34 years and the mean AoA was 21. Participants were asked to read aloud ten sentences in Dutch and their degree of accent was judged by two sets of judges all Ness of Dutch. Unlike previous studies by Bongaerts *et al.* there was no special instruction in pronunciation for the participants. Eleven judges were experienced teachers of Dutch as an L2 and the remaining 10 judges had had no formal training in phonetics. These were referred to as the inexperienced judges. Ten native speakers of Dutch provided a control group.

On analysis of the results, four near-native speakers emerged whose accent was judged as nativelike by the experienced judges. Two of these four near-native speakers also passed the test of nativelikeness with the inexperienced judged. Of the four successful participants, three of them had L1 German and one, L1 English. Bongaerts *et al.* suggested that the typological proximity between German, English and Dutch could partly account for the success of the two exceptional near-native speakers. They also suggested, that large amounts of L2 input contributed to nativelike proficiency in that both participants had learned Dutch in an immersion setting, both were married to Dutch women, and the only language spoken at home was Dutch. Both subjects had a strong professional and personal interest in achieving good pronunciation in Dutch. The authors, however, noted that the more successful participants in previous studies had attained scores within the upper range of the NS controls whereas in this study, the exceptional near-native speakers had achieved scores in the lower range of the NS control. Bongaerts *et al.* concluded that training in the production and perception of an L2, were essential to nativelike pronunciation. This was similar to one of the conclusions drawn by Moyer (1999) in her study of ultimate attainment in pronunciation of an L2.

Moyer (1999) sought to identify some of the factors that contributed to L2 phonological proficiency in her study of 24 graduate students of L2 German. The mean

length of residence in Germany for the group was 2.7 years and all were highly motivated late learners. Subjects were asked to read a list of 24 words, a list of 8 sentences as well as a paragraph of text. They were also required to choose one of 5 topics on which to speak aloud for several minutes. Participants also completed a questionnaire on biological factors, their motivation for learning German and on their experience living in Germany. Four native speakers of German participated as controls. On interpretation of the results, Moyer noted that those participants who scored closest to the native range had had some phonological instruction. Of the 24 participants, only one passed for a native German speaker. He was a highly motivated learner of German who was mainly self-taught. This participant had a strong interest in all things German and had a particular desire to sound German. Moyer concludes that future studies should examine groups of highly motivated learners in order to obtain “[c]learer evidence of maturational effects.”(Moyer, 1999:99)

In a later study, Birdsong in 2003 carried out a study on Anglophone late learners of French. In this study, Birdsong wanted to determine if Anglophones could achieve the natively like proficiency in French in the same way as Bongaerts demonstrated for Dutch learners in his 1999 study and in the Bongaerts *et al.* study (2000). Flege’s Speech Learning Model (1992) provided another framework for this study. According to this model, foreign accent is due to the learner’s habit of classifying a new L2 sound within a pre-existent phonic category. 22 Anglophone near-native French speakers took part in the experiment as well as a control group of 17 native French speakers. Both groups were asked to enunciate a group of 43 words as well as to read three passages from Paul Valéry’s *Variété*. Of the 22 subjects tested, two non-native participants performed within the native speaker range. Like Bongaerts and Moyer before him, Birdsong sought to discover what made these two subjects exceptional. All late learner participants in the study were asked to fill out a questionnaire on their personal experience with regard to language learning. For

both subjects authenticity of pronunciation was extremely important and they were both highly motivated learners of French. Birdsong concluded that, with 10% of participants in this study performing within near-native ranges, the results of the study placed the strong version of the CPH in reasonable doubt.

2.5.3 Studies on a multi-factor explanatory model for near-native speaker competence

There have been a number of calls for studies on the multiple factors that contribute to native-like proficiency in late L2 learners (Birdsong 2005, Munro & Mann 2005). As Moyer noted, age of exposure is only one determining factor in L2 proficiency and other variables (alone, and in combination with each other) exert a powerful influence on L2 attainment.

The impact of age should be understood as indirect as well as possibly direct. This requires that we somehow account for other significant factors in the learner's cumulative L2 experience.

(Moyer, 2004:140)

More studies should look at individual learners' end-state attainment across a range of linguistic behaviours, to determine if nativelikeness, when observed, is in fact, limited to narrow domains of performance. (Birdsong, 2005:12)

Selinker (1972) estimated that exceptionally good language learners make up approximately 5% of the population. Within a group of language learners given

the same amount of input, some of those learners will stand out as particularly good (or bad). Obler (1989) set out to provide neuropsychological explanations for exceptional talent in language learning. She reports on the work of Norman Geschwind who theorised that talent for language is biologically or genetically based.

Geschwind observed that certain phenomena – including talents and a set relating more obviously to brain lateralisation, such as handedness and dyslexia – cluster in certain families. He theorised that foetal hormonal environment accounts for the unusual development of cortical connections in individuals in these families. (Obler, 1989:145)

In her 1989 paper Obler comments upon a previous study (Novoa *et al.*, 1988) of an exceptionally gifted language learner; CJ. CJ was a 29-year-old graduate student in education who had succeeded in acquiring a number of languages post-pubertally, quickly and to native-like proficiency. Native speakers of French, Italian, Spanish, German and Moroccan Arabic acted as judges and reported on CJ's lack of foreign accent as well as his nativelike ability. Obler et al attempted to determine if factors relating to “anomalous language dominance” (Obler 1989:154) were present in their subject. Some of these factors, such as mixed handedness, allergies and twinning are part of what is referred to as the Geschwind – Galaburda cluster. CJ exhibited virtually all of the characteristics associated with an abnormal talent for languages.

A number of neuropsychological tests were administered to assess his general intellectual functioning and also to examine the specific cognitive function that might be expected to be associated with exceptional language aptitude. Results of these tests demonstrate that superior cognitive ability is not a pre-requisite for outstanding language acquisition as CJ tested within the average range for IQ, musical ability and visual memory.

He had exceptional verbal memory, however, as well as inferior visual-spatial skills. The author infers from this that CJ may have had bilateral organisation.

As with females, who may generally show such a pattern (Oblor & Novoa, 1988), verbal skill appear to benefit from bilateral organisation, while for the same individuals visual-spatial abilities seem to suffer. (Oblor, 1989:154)

Ioup *et al.*'s 1994 study of exceptional language learners took into account the characteristics considered as belonging to the Geschwind- Galaburda cluster. Their study was on the ultimate attainment of two near-native speakers of Arabic. The subjects were two female native English speakers, one tutored in Arabic, the other self-taught. The first subject in the study was Julie, who had never received any formal instruction in Arabic, but had nonetheless achieved an extremely high level of proficiency. Julie married an Egyptian when she was 21 and moved to Cairo. After only nine days, her new husband was called to military service and Julie was left alone with her non-English speaking family-in-law for over six weeks. In an attempt to learn the language, she started a language journal where she initially noted her guesses at the language but later was able to group words into grammatical categories. She also noted her mistakes and the subsequent corrections. Eventually her husband returned and Julie received more Egyptian Arabic (EA) input every day. Within a year she started working as an English teacher at a local school where she conversed frequently with her colleagues in EA. Within two and a half years, Julie was able to pass for a native speaker.

Laura was the second subject who had received extensive formal instruction in standard Arabic before she commenced the study of EA. She interrupted her PhD in standard Arabic in order to study the EA dialect at the University of Cairo. She met her husband there and decided to remain in Cairo. Once her doctoral programme was

completed, she became a teacher of standard Arabic. At the time of this study she was teaching modern standard Arabic at university level and had been resident in Cairo for ten years. Her communicative style is different from Julie's in that she is a careful speaker. Her many years of exposure to Arabic in the classroom meant that Laura is very aware of the formal properties of the language, frequently noticing errors in native-speaker speech.

In order to determine whether the two subjects had achieved similar levels of proficiency, three separate procedures were used to elicit performance data, a speech production task, an accent identification task and a translation task. For the first task, the participants were asked to record themselves detailing their favourite recipe on tape. Five native speakers of EA did the same. The judges were 13 teachers of Arabic as a foreign language. Julie and Laura were rated as native speakers by 8 of these judges. The second part of the test involved the two subjects being able to identify regional accents of EA. In this task, Julie outperformed Laura; as her scores were closer to the native responses. Eleven judges from the previous task served as a control group. The third task assessed the subjects' ability to translate selected constructs into Arabic. Once again, eleven judges served as judges but none of these had been involved with the first two tasks. In this task the two subjects' performance was very accurate

Results revealed very little divergence in the performance of the two subjects, and both were relatively close to native norms on a variety of tests. The authors of the study attributed Julie's remarkable success to her high levels of motivation and to the fact that from her first encounter with Arabic she "consciously manipulated the grammatical structure of the language." (Ioup *et al.*, 1994:93). They also attributed her success to a talent for learning languages. Ioup *et al.* did not try and account for Laura's success since they felt that

[e]xceptional tutored learners like Laura have already been discussed extensively in the literature (cf. Birdsong, 1992; Coppieters, 1987; Novoa, Fein, & Obler, 1988; Schneidermann & Desmarais, 1988; Sorace, 1993). This is not to say that talented L2 learning with instruction is a well-understood phenomenon; it is just that our data offer no new insights to augment the discussions already provided.

(Ioup *et al.*, 1994:95)

According to Obler (1989) there are certain traits that are associated with exceptional language learners.

Language learning talent is considered to be an innate, inherited trait, associated with inherited characteristics belonging to the Geschwind cluster such as left-handedness, twinning, and allergies, among others.

(Obler, 1989:154)

Julie reported that all of these traits are present in her family. Her paternal grandmother was a twin, left-handedness ran in her father's family (she, herself is left-handed), and she had very sensitive skin and skin allergies. Furthermore, talent in one area is usually coupled with a corresponding weakness in another cognitive area. Julie reported that her performance in maths or anything that involved manipulating numbers was dismal.

She fits very well the neuropsychological profile associated with unusual cognitive ability." (Ioup *et al.*, 1994:92)

Many recent studies have attempted to determine which factors, or combination thereof, contribute to native-like competency in an L2. Among them is Moyer's 2004 publication, *Age, Accent and Experience in Second Language Acquisition*.

According to Moyer, it is imperative to study age effects in tandem with other variables such as intensity of motivation, intention to reside, satisfaction, length of residence, etc.

General constructs such as AO and LOR provide little explanation for outcomes on their own in the sense that they provide indirect measures of L2 experience. What can we glean from them other than duration of exposure in isolation from contextual realities? Their impact can be understood only in the context of specific information on quality of access to L2. Through investigations of how they impact the development of experience over time, we may understand their unique contributions to attainment. (Moyer, 2004; 144)

Moyer (2004) studied the language proficiency of 25 successful late L2 learners who were immigrants to Germany. She also explored how L2 attainment was affected by a number of other factors including the participants' intentions and opportunities, thus integrating quantitative and qualitative data. Three sets of instruments were used for the collection of data; (1) a questionnaire surveying biological-experiential, social-psychological, instructional-cognitive and experiential-social factors, (2) a number of controlled and semi-controlled production tasks and (3) a semi-structured interview. Three speakers of L1 German acted as judges for the speech samples, which were judged on a 1-6 scale. As in previous similar studies (Marinova-Todd 2003, Bongaerts et al, 1995, 1997) the spontaneous speech task was the one, which proved to be the most reliable filter for nativelike proficiency. Age of arrival (AoA) and length of residence (LoR) had a similar influence on ultimate attainment whereas psychological factors such as satisfaction with attainment and personal motivation to acquire fluency in German accounted for 76% of the variance in attainment.

The combination of duration of L2 experience/exposure and the psychological perception of being satisfied with one's attainment provides a strong indication of long-term acquisition success – or lack thereof. (Moyer, 2004:80)

In 2003, Marinova- Todd conducted a study on 30 post-puberty learners of English from 25 countries and speaking 18 languages. A control group of 30 native speakers of English with similar academic backgrounds also participated in the study. Data were collected through a number of formal tests as well as a narrative task. The non-native group performed at a significantly lower level on several tests focussing, among other domains, on grammatical knowledge, vocabulary size, and spontaneous speech. However, no significant differences emerged between the performance of the groups on the semantic comprehension and discourse completion tasks. Two participants were judged to have indistinguishable accent from native speakers in spontaneous speech and a further six performed within native speaker ranges. Marinova-Todd noted that three main profiles emerged for highly proficient late learners: (1) three women, married to native speakers of English, attained native levels on all tasks, (2) two participants (also married to native English speakers) scored within native levels on all measures except for receptive vocabulary. (3) three other participants achieved high scores on all tests except for pronunciation tasks. None of this final group lived with a native speaker of English.

Marinova-Todd's study is particularly pertinent to this thesis. The results of her 2003 study mirror the results of this thesis in that the most proficient participants co-habited with native L2 speakers. It would appear that an immersion-like experience in L2 is a crucial key to success in the ultimate attainment of late learners.

The most recent study of the factors, which contribute to L2 ultimate attainment, is that of Muñoz and Singleton (2007) on a group of late learners of English with L1 Spanish.

The authors sought to determine the effect of both age of significant exposure to the L2 and the relative amount of use of L1 on L2 ultimate attainment. The participants were 12 female near-native speakers of L2 English with an average AOL of 22.5 (AOL meaning age of significant exposure or age of learning). All had L1 Spanish or Catalan and were near-native speakers of at least one other language. Four native speakers of English acted as judges and a further five native English speakers acted as controls. Participants were recorded retelling the story of a film they had watched; these recordings along with the control recordings were then examined for evidence of foreign accent by the four judges. All L2 participants were interviewed regarding their use of language in different contexts, their knowledge of English and their L1 as well as their educational background. Two participants emerged who had scored within native speaker ranges. Although the two individuals had very different profiles, they did have a number of things in common, in that they both spoke English in the home and were both highly motivated learners of English. They differed in that one had received intensive linguistic training whereas the other had arrived at a near-native speaker state through a multilingual upbringing.

2.5.4 A Study on the Ability of Near-native Speakers to Pass for Native

Speakers

Certain theorists are concerned with defining exactly what a near-native speaker is. Birdsong, (1992) describes near-native speakers as “those exceptional learners who appear to perform like natives.” (Birdsong, 1992:707) However, Piller, (2002) argues that it is unfair to use native competence as a measure of L2 proficiency because an expert L2 user is multilingual and their competence must differ from that of a monolingual L1 user, i.e., their knowledge of the L2 must differ from the native speaker of that L2 and their knowledge of their own L1 must also differ from that of monolinguals. Her arguments are supported by Cook, (1992), Kramersch, (1997) and Pavlenko and Lantolf (2000). In fact Cook states “[a]sserting that adults usually fail to become native speakers... is like saying that ducks fail to become swans.” It would seem that future research must take this into account when testing L2 competence. (Cook, 1999:187)

Piller studied the linguistic practices of a number of bilingual couples (German/English) over a two-year period, from 1997 to 1999. As part of her research, she asked participants to record themselves having a conversation at home and suggested a number of topics they could talk about. During these recorded conversations, 27 out of the 73 individuals interviewed claimed to have achieved native-like proficiency in their second language and to occasionally pass for a native speaker. These were not among the topics that Piller had suggested and had arisen naturally during the conversations. Of the 17 couples that broached this topic, ten claimed that both partners could pass for a native speaker on occasion and 7 maintained that only one partner had achieved native-like proficiency. Piller noted that her interlocutors exhibited high levels of awareness of regional and social variation within a language, in order to pass for a native speaker. Some of her subjects did not set out to pass for native speakers, rather, they just did not want to be

perceived as members of a particular national group straight away, i.e. they did not want to be perceived stereotypically. Other subjects preferred to make it clear early in an interaction that they were not natives as they did not want to appear stupid if they failed to understand a common cultural reference. For many highly motivated L2 learners this is the ultimate goal, to pass for a native speaker and according to Piller this happens more regularly than one might have believed.

Piller, (2002) like Birdsong, (2005) called for more detailed descriptions of high-level L2 ability as well as a better understanding of what high-level L2 proficiency is. She feels this is essential in particular for those learning a second language to have more realistic goals rather than aspiring to sound like native speakers, which, in Piller's opinion, is a very difficult objective for learners of a second language. Moyer (2004) believes it is important to distinguish between nativeness and fluency because "nativeness is an essentially social construct" (Moyer 2004:46). If this is the case and near-nativeness is not a realistic goal for L2 learners, then more realistic linguistic targets need to be set.

It would help to support SLL by presenting students with realistic models of successful L2 users rather than the monolingual native speakers they can never be (Piller, 2002:201).

The current study attempts to identify those factors, which contribute towards nativelike proficiency in an L2. It follows in the footsteps of Moyer 2004, Muñoz & Singleton 2007 and Marinova-Todd 2003 in that it endeavours to establish a multi-factor explanation for L2 proficiency as well as a description of that proficiency.

Chapter Three

Participants and Methodology

Introduction

Research Hypotheses

- (1) Age of Onset will determine level of L2 attainment: late age of onset of SLA will preclude native levels of L2 attainment.
- (2) Certain experiential or biological factors such as age at testing, intention to reside or other languages known, will correlate positively with levels of L2 attainment.
- (3) Factors relating to experience will correlate positively with each other. For example, level of French on arrival will correlate positively with primary contacts in France, as well as interrelating with other experiential factors such as frequency and quality of contact with native French speakers.

The objective of this thesis is to test the three hypotheses above. Length of residence is often used in studies of second language acquisition as the only measure of experience. In this study, however, various aspects of experience were explored in order to see which aspects, if any, played a significant role in native-like L2 attainment in a second language.

The subjects recruited for this study were all Anglophone near-native users of French who fell into the category of “late-learners”. They were late learners in two senses

- (i) those who had taken French at school had not begun this experience until after age 11;
- (ii) in all cases the first experience of “significant exposure” to French had been past 20.

Recruiting participants to take part in this study was not a straightforward task, as one of the basic requirements was for participants to pass for a native French speaker occasionally. On meeting the subjects who took part, the researcher sometimes found that their French was not fluent enough and that it might have been an exaggeration on their part to claim to pass as a native French speaker. In addition, a number of people answered the call for participants who had been raised bilingually and so made unsuitable candidates. It was necessary to recruit participants who had commenced learning French beyond the age traditionally posited as marking the end of the critical period. Participants were recruited through advertisements in bilingual magazines and websites (France-USA Contacts and Franglo.com) or through personal contacts with the University of London in Paris. Participants were interviewed individually in Paris over the course of two visits; one in May 2006 and the second in March 2007. Two participants were unable to come to interview in Paris and participated online (using a web camera) instead.

Of the twenty participants who took part, the mean age of arrival of the sample was 28.6 years, (Range 39) and the mean age of the sample at the time of testing was 41.1 years, (Range 35). None of the group had commenced learning French before the age of 11. Among the participants, six scored within native ranges when tested.

3.1 Introduction to Methodology

Testing was composed of three separate elements; an accent recognition task, (ART), where students listened to recordings of 3 French regional accents and attempted to identify them, a controlled production task composed of a written test in French, concentrating principally on lexical and morphosyntactical abilities, followed by a semi-structured interview in person, where possible, and online, where a meeting was not an option. All three parts of the test were taken by a control group of 20 native French speakers.

Accent Identification

Three regional French accents were chosen for the test, the first two being among the most well-known and easily identifiable of all the regional accents. These were the Provence accent and the Alsace accent, among the few to survive the cultural and educational homogenization imposed by French government over the centuries. In the Provence region, a century ago, the majority of people spoke Provençal. When the inhabitants learned French, it was as a foreign language and they imported the pronunciation of the original Provençal into their French. The same occurred in the region of Alsace where inhabitants imported the voiceless consonants of the Alsatian German dialect into their French. The third regional accent was taken from the Touraine region, which is less well-known than the first two and less easily identified.

3.2 Accent Recognition Task (ART)

The first part of the test, then, was an accent recognition test, which required the identification of three regional French accents. The recordings were downloaded from a website called *Les Accents des Français*. This website is based on the publication “Les Accents des Français”, a book on French regional accents by Carton, Rossi, Autesserre & Léon (1983)

All participants easily identified the first accent, a Southern French accent. The second accent from the Alsace region of France was also identified with ease. However, the third, from the Touraine region, was more difficult, being more obscure. A number of the Anglophone subjects were unable to identify it. It is important to mention here that a number of native French speakers from the control group were also unable to identify this accent. The three accents involved in the ART are described below.

The Provençal Accent

The region of Provence is to be found in what is known as Occitania, an area which stretches across the south of France. Successively occupied by Ligurians, Celts and Greek settlers on the coast, in the first century B.C., Provence was colonised by the Romans. These four cultures lived together in relative harmony and gave the region its specificity and personality. It was completely occupied by France by 1860. In spite of annexation by France, the region of Provence had retained to this day, its culture and language. Provençal was widely spoken until the second world war and has been taught in schools since the 1970s

Provençals have generally accepted their attachment to France, but they have never renounced their differences and are proud of their customs and language. To them, Provence is more than a climate, a cuisine or an accent. It is a way of life and thinking deeply rooted in Roman culture, which, over two thousand years, has perpetuated itself with a constant flow of Italian immigrants. (D. Vitaglione, 2000:2)

There are a number of phonetic features of the Provençal accent, which make it distinctive from standardised French.

Phonetic Characteristics of the Provençal Accent

Vowels

Phonetic Features	Standard French	Regional Variation	Examples
E in final position	sometimes open	E always closed	avais [ave]
A in final position	sometimes posterior	always anterior	pas [pa]
O before articulated consonants	generally open except final +z	generalisation to [ɔ]	gauche [' ɡɔʃə]
Nasal vowels	nasal vowels	nasalised vowels +nasal consonantal element (N) ε̃N, ɔ̃N, ãN [ãpəlãN]	instinct [ε̃Nstε̃N] fenestron [fənεstrɔ̃N] appelants
	before a consonant	aucun bruit [okæœmbɾɥi]	

Provençal Phonetic Features

Consonants

Phonetic Feature	Standard French	Regional Variation	Examples
Nasal Consonants		consonantal changes	saison de [sezɔ̃ndə]
In same place of articulation as following consonant	unpronounced	pronounced	tombe [tɔ̃mbə]
Simplification of Consontal groups	No	Yes	exemple [ezãplə]
R	[R] dorsal	[R] dorsal [r] rolled [R̥] in final position	mere [ˈmɛRə] mer [mɛR̥]

(Source: Carton, Rossi, Autesserre & Léon (1983))

The Alsatian Accent

Alsace, between the Vosges Mountains and the Black Forest has a turbulent past and has changed hands between the French and German governments many times. The language spoken in the region is now French but this has not always been the case. Alsace was, in fact, a German dialect-speaking region for most of its history. France regained control of Alsace in 1944 and promoted the French language heavily. However in 1951, public opinion demanded that children should be taught German at school and this continues to the present day with approximately 7,000 Alsatian children attending French/German bilingual primary schools. (Source; Conseil general du haut-Rhin, 2008)

This situation is paradoxical because standard oral German is seldom spoken in Alsace, so that the great majority of children enrolled in bilingual programmes never did hear German at home, and even fewer hear or speak the Alsatian

dialect, which has an extremely low rate of transmission.

(Hélot, 2008:208)

Phonetic Characteristics of the Alsatian Accent

Vowels

Phonetic Elements	Standard French	Regional French	Examples
I,Y,U non accentuated	closed [i, y, u]	closed [i, y,u]	il faut [ɪ]
O long or accentuated	open	closed	voyageur [ó]
A long or accentuated	anterior	posterior	coup <u>a</u> ge [ɑ]
Nasality	strong	sometimes weak	on a [ò]
Final Vowels	silent	sometimes pronounced	coup <u>a</u> ge [ɑ ˈzə]
Middle closed vowel Of trisyllabic word	pronounced	weakened or silent	naturellement [na ˈtrɛlmã]
Consonants			
Occlusive	Voiceless	Aspirated voiceless	qualité [kʰɑ]
Occlusive	Voiced	“Soft” voiceless	cl <u>ie</u> nt [g]
Fricative (f,s)	Voiceless	Voiced	français [ˈvrã ˈzɛ]
Fricative (z)	Voiced	“Soft” Voiceless	âge [ˈɑ ˈʒ]
Consonantal Clusters	Maintained	Simplified	quelquech <u>o</u> se [kɛk]
Final Position –tre,-fle,-ble	Maintained	Inverted	mè <u>tr</u> e [tər]
Initial h	Unpronounced	Pronounced	hache [ˈhaʃ]

(Source: Carton, Rossi, Autesserre & Léon (1983)

The Touraine Accent (also known as “Tourangeau”)

This is the most obscure of the three accents and unlike the first two regional accents is not influenced by a second language. In the mid-fifteenth century Louis XI brought his court to Tours where he built a château as well as in Amboise. The population of Tours increased to 20,000 thus assuring the prosperity of the city. There was a certain level of snobbery attached to the French spoken in the region at the time as it was the variety spoken at court. However, the French court moved back to Paris with the marriage of Catherine de Medici and Henri, Duke of Orléans, the future Henri II of France. The French at the Parisian court evolved and yet the French spoken in the Touraine remained the same, its inhabitants unaware of the changes taking place. (Source: Coursault.,1980:7)

Phonetic Characteristics of Tourangeau

Phonetic Feature	Standard French	Regional Variation	Examples
Vowels			
E	opposition e/ɛ	alternative distribution	avait [e] bonnet [ɛ] fait [ø]
[A]	tendency toward fronted [a]	different distribution	deviation [ɑ·] à [æ]
diphthongization of accentuated [e,o]	absence	some	chaud [ʃo _u]
oi group	[wa]	[we]	autrefois [ot´fwɛ]
Initial vowels	maintained	sometimes dropped	un espèce [œ´spɛs] était [´te]

Consonants

R	dorsal	apical or disappears in final position	encore [ãko·]
Group of consonants	sometimes simplified	always simplified	notre [nɔt] plus [py]

(Source: Carton, Rossi, Autesserre & Léon (1983))

3.3 The Written Test

The written test was devised to examine those grammatical and lexical elements that are traditionally difficult for native English speakers. Parts 1 and 2 of the test concentrated on idiomatic difficulties, requiring candidates to complete well-known proverbs and accepted *as...as...* comparative forms. The original intention when this test was designed was to ask participants to translate proverbs from English into French. However, it was essential to the overall study that this test be taken by a control group of native French speakers, who did not necessarily speak English. Therefore, this form of question, (complete the proverb), was more suitable for all participants.

Parts 3, 4 and 5 of the written test examined the participants' competence in French grammar. These questions in particular were chosen as they cover areas of traditional difficulty for English speakers, such as the choice between the *passé composé* or the *imparfait* or the use of the *futur simple* after adverbial markers. Participants were also asked to choose between *c'est* and *Il est*, another difficult construction to master for English speakers, given that they can both be translated into *It is* in English.

In general, participants did well on the grammatical areas of the test but performed less well on questions 1 and 2. Some candidates questioned the inclusion of proverbs in the test, feeling that they did not use them in their native language and so never attempted to learn them in French. However, they were all familiar with the English equivalent of the proverbs tested. In order to see if their standard of French was on a lexical par with that of their native English it was felt that the completion of the proverbs provided a useful exercise. The full text is set out below:

Lexico-Grammatical Test for Participants

1. Compléter les expressions comparatives suivantes.

- a) être malin comme
- b) être sage comme
- c) être rouge comme
- d) être vieux comme
- e) être laid comme

2. Compléter les proverbes suivants

- a) Qui aime bien,.....
- b) On ne peut pas avoir le beurre et
- c) C'est en forgeant qu'.....
- d) Il ne faut vendre la peau de l'ours
- e) Qui se ressemble

3. Corriger les phrases suivantes si nécessaire.

- a) Je veux la réponse qui soit claire.
- b) Il part pouvoir s'acheter des cigarettes.
- c) Craquer est plein pour ce tiroir.
- d) C'est habitué pour Pierre de nager.
- e) Je la connais hostile au projet.

4. Remplacer l'infinitif par le temps convenable.

L'été dernier, je (aller) en France avec ma famille. Tout le monde (être) très excité quand nous (arriver) à l'aéroport. Ma petite soeur (se sauver) pendant que ma mère (contrôler) les bagages. Mes parents (essayer) de l'attraper mais elle (se cacher). Finalement je la (trouver), elle (pleurer) car elle ne (vouloir) pas quitter son chien pendant quinze jours.

Demain quand mon père (aller) à Paris, il me (acheter) des livres. Il (aller) à sa librairie préférée dès qu'il (arriver). Une fois qu'il (être) installé à son hôtel, il (aller) directement chez Gilbert Jeune où il (trouver) sans doute des livres intéressants. Quand il (rentrer) à la maison je le (remercier) de son cadeau et je (commencer) à lire tout de suite !

5. Compléter la phrase en utilisant **C'est/Il est**

- a) Voulez-vous du Bordeaux ? ----- très bon pour les malades.
- b) J'ai vu votre chat. ----- très gros.
- c) La mayonnaise ? ----- facile à faire.
- d) ----- facile de faire la mayonnaise.
- e) Je ne comprends pas ce qui est écrit : ----- en russe.

6. Compléter la phrase en utilisant la préposition **à** ou **de**

- a) Je me suis décidé ---- apprendre l'espagnol
- b) Aujourd'hui j'ai acheté un cadeau ---- ma nièce.
- c) Sara tend ---- éviter les problèmes si possible.
- d) Je me suis résolue ---- changer d'emploi.
- e) Pierre est très timide et il doit travailler ---- se faire aimer.

3.4 Support for the Choice of Question in the Linguistic Background Questionnaire from SLA

Literature

The initial aim of the questionnaire was to ensure that candidates are suitable for the study, i.e. that they have been resident in France for a sufficient length of time in order to ascertain whether there is a correlation between experience and proficiency in French. It is also important to ensure that no candidate acquired French before the onset of puberty in order to eliminate any possible basis for traditional interpretations of the CPH

There is a subgroup of five questions, which relate to the initial learning experience of the candidate. Some of these questions were decided upon on the basis of a study carried out by Nikolov (2001) on unsuccessful learners of a foreign language (English, German and Russian) in Hungary. This study of 94 low achieving adult learners sought to discover to what extent attitudes, motivation and language as well as teachers' methodology, intensity and continuity of language teaching programmes influenced long-term language outcomes. The conclusions of the study were clear. It emerged that negative classroom experiences strongly influenced interviewees' motivation and that positive language learning experiences in later years did little to dispel the lack of enthusiasm and self-confidence instilled by poor teachers and outdated pedagogical techniques in early years. Participants found that oral and written assessment practises with an insistence on accuracy and memorisation were "threatening" and a focus on grammar drills and rote learning "boring and useless". Nikolov discovered that "most teachers follow a hidden structural syllabus" which did little to inspire, motivate or instil enthusiasm in their pupils, qualities which participants themselves attributed to successful language learners.

The next four questions were designed simply to discover candidates' motivation on coming to France in the first place, and also to determine their fluency before arrival. In Piller's study of near-native speakers, she makes the distinction between the age when the subjects of her research (near-native speakers of English and German) were first exposed to a second language in a formal setting and the age at which they encountered it naturally. She noted that, "many participants distinguish between a time when they started to learn the language, and a time when they "really" began to learn the language" (Piller 2002: 191). It is important to determine whether or not candidates had a positive attitude towards the French language before arrival in France. According to Moyer (2004; 127) "[i]f attitudes are negative, especially between the host language community and the immigrant community, attainment will predictably suffer."

Section 2 was devised with a dual purpose; the first to determine if knowledge of the L1 plays a significant role in SLA. It is difficult to quantify cross-linguistic influence because different individuals may pursue different options. However, an awareness of the structure of one's L1 could enable acquisition of an L2 in the early stages of learning, when for many learners L2 is available mainly in terms of their L1. According to Cook:

The L2 users' understanding of L1 words is affected by their knowledge of the meanings and forms of the second language; a French person who knows English has the English meaning of the word coin (money) activated even when reading coin (corner) in French (Beauvillain & Grainger, 1987); loan words have different meanings for people who know the second language from which they are derived. (Cook: 2002:6)

The second purpose of these questions is to establish whether the L1 of the candidates is subject to attrition speakers, because of increasing fluency and use of the L2.

According to DeBot & Hulsen:

Languages are never lost in isolation, and L1 attrition typically comes as a by-product of language contact, particularly in migrant settings. (De Bot & Hulsen, 2002).

Many studies in the domain of language attrition have shown that neither L1 nor L2 are immune to loss. The first sign of language attrition is the slowing-down of the retrieval of lexical items. However, mainstream psychological research (Loftus & Loftus, 1976) suggests that this slowing-down may just be a question of temporary unavailability rather than permanent lexical loss. L1 attrition can be a subjective issue, some individuals may attempt to keep their L1 at all costs by using it whenever possible whereas others may be entirely indifferent to their L1 and try and avoid using it whenever possible.

Scarcity of input might be considered the crucial factor leading to failure in second language learning in a classroom setting. In Doughty's 1991 study of 20 international students studying English in Philadelphia, instruction (both meaning and rule oriented) had a strong positive effect on students' linguistic outcome. Formal instruction is an area deemed relevant by Bongaerts et al's 1997 report on three studies of very advanced learners of an L2. Two studies were on Dutch learners of English and one on Dutch learners of French. The combined result of the three studies is that "the pronunciation of some of these learners was consistently judged to be native-like, or authentic, by listeners who were native speakers of the language". (Bongaerts et al, 1997:154). One of the principal contributing factors to these learners' success is, according to the authors, "input enhancement through instruction", a term borrowed from Ioup *et al.* (1995). Ioup *et al.* maintain that:

A need for conscious awareness of form suggests that some type of input enhancement is necessary for adult language learning.

(Ioup *et al.*, 1995: 98)

There are several different forms of input enhancement. Positive input enhancement is often evident in a classroom environment where a teacher may highlight particular difficulties of a language in order to make them more noticeable to students. To determine whether or not input enhancement plays a role in this study, it is necessary to establish what kind of input enhancement is involved, positive input enhancement in a formal setting, negative input enhancement in the form of error correction by native speakers or internal input enhancement, where a learner makes a conscious attempt to be aware of particular constructions in the input. Whether or not the latter type of input enhancement plays a role in the fluency of the subject might also become apparent in the answers to the following section (Section 4) on learning strategies.

This section was inspired by Ioup *et al.*'s 1995 study of successful adult second language acquisition in a naturalistic environment i.e. a learning context lacking in any formal instruction. The subject of the study, Julie, appeared to have acquired nativelike proficiency in Egyptian Arabic and performed within the native range in all tests except that of discourse semantics. Ioup *et al.* attributed Julie's success to a number of factors, among them the fact that Julie took charge of her learning and employed a number of learning strategies,

First, Julie, from the very beginning, consciously manipulated the grammatical structure of the language. She paid attention to morphological variation because she saw it as necessary for successful communication. Entries in her copybook

were reviewed on a regular basis. When she received error feedback, she made mental note of the information it provided. Certainly, she was not consciously aware of every aspect of grammar that she internalized; however, she did notice redundant morphological structure. Her attitude toward grammar was that it needed to be mastered correctly. (Ioup *et al.*, 1995:92)

Section 5 on linguistic contact is necessary in order to establish the quantity of input available to the subjects in question. Moyer states, “Based on the available evidence, personal contact with native speakers appears to exert profound influence on attainment.” (Moyer, 2004:125). Interaction with native speakers has long been deemed imperative to success in SLA. Various factors appear to limit opportunities for contact, however, age, low social status and race among them. Heller (1999) emphasises that most of the time the factors mediating access to linguistic resources act in combination. Her own ethnographic study of a French–language school in Ontario demonstrates that the most underprivileged students are older female immigrants who have the most difficulty gaining access to English. In Section 5 of the questionnaire, questions are designed in order to determine if subjects have regular contact with French native speakers and whether they employ strategies to avoid contact with non-French speakers, a strategy employed by subjects participating in Moyer’s 2004 study on advanced adult learners of German:

For each immigrant, the balance between mother tongue and target language shifts as the function of each language changes. A daily reliance on L2 necessarily leads to a loss in the communicative function of L1. These shifts, in turn, impact on

linguistic identity. Several participants commented on their efforts to either avoid mother tongue speakers, or to initiate conversations with them in German. They see this as important for maintaining consistency in their linguistic input and practice. Undoubtedly, their willingness to consciously (even doggedly) pursue interaction in German, and even to ask for overt feedback, has had a measurable impact on their fluency as well as on their linguistic identity over the long-term. (Moyer, 2004:102)

Does longer length of residence offer greater opportunities for linguistic contact with native French speakers and therefore provide conditions for success in SLA? In the case of this study it will be interesting to see what, if any correlation there might be between these three factors.

Schumann (1986) suggests that the degree to which the learner (particularly the adult immigrant) acculturates to the target language (TL) group controls the degree to which the learner acquires the TL. This theory was based on Tajfel's theory of social identity (1981) wherein, if an individual is unhappy with their present social identity they may attempt to change their group membership so as to be able to regard themselves more positively. Giles & Byrne, (1982) and Giles & Johnson, (1987) developed a theory of ethnolinguistic identity based on Tajfel's work. This theory considered language to be a salient marker of ethnic identity and social group membership.

[m]embers of groups where the in-group identification is weak, in-group vitality low, in-group boundaries open and identification with other groups strong, may assimilate and learn the L2 rapidly. In contrast, members of groups whose ethnolinguistic vitality is high (for instance, strong in-group identification, hard

in-group boundaries, etc.) may fear assimilation and achieve a low level of proficiency in the L2, which is seen by them as a threat to their ethnic identity.” (Pavlenko, 2002:279)

However, this claim has been rejected by a number of critics, among them Husband & Saifullah-Khan, (1982), Norton Peirce, (1995) and Burnett & Syed (1999), whose objections were numerous. Among the objections were the following

- (a) Sociopsychological approaches do not take into account that L2 users may be members of several linguistic, ethnic, social and cultural communities.
- (b) Many L2 users do not aspire to join a particular TL group and learn a L2 without even considering who the TL group might be.
- (c) This approach does not take into account how cultures and sub-cultures constantly influence each other through the media and the internet.

More recent theorists prefer a poststructuralist approach to L2 learning, (Miller, 1999, 2000; Moore, 1999; Norton Peirce, 1995). This approach confirms the importance of interaction but criticises SLA research in this area, as it has tended to concentrate on interaction in artificial environments such as language classrooms rather than on natural observations in real settings. The poststructuralist approach also highlights the fact that access to a L2 may be dictated by a number of factors including gender, ethnic background, age, social status etc. Section 5 of the linguistic background questionnaire is designed to determine how the subjects interact with the TL community, if they have sufficient opportunities for contact and whether they have been subjected to “gate-keeping” where TL

speakers will employ a number of strategies to prevent L2 users from understanding and even interacting in the L2.

Section 6 is an attempt to discover how the candidates view themselves and their future in terms of the TL community. Moyer, 2004, noted that intention to reside in the TL country had significant impact on language attainment. In her study of near-native speakers learning and residing in Germany, she noted a positive correlation between intention to reside and language attainment outcomes:

[i]ntention to reside may reflect a psychological investment of sorts, perhaps an underlying goal-driven, or reward-driven motivation.” (Moyer, 2004:133)

How the candidate perceives their own identity is also important, it is also more fluid than *intention* and changes from L2 user to user. If L2 users view themselves as belonging to the TL community rather than their L1 community then it would follow that they are strongly motivated learners which in turn would contribute positively to their L2 attainment. A question on passing for native speakers is also included in this section as it has been associated with high-level proficiency in an L2; some L2 users choose to pass in order to disguise their L1 origins,

“...these people are very aware that they will be perceived stereotypically if they are identified with a particular national group while overseas. So, they prefer not to be reduced to their original national identity. At the same time, they do not necessarily want to be perceived as native speakers, either, because that would negate their achievement in learning an L2 to a very high level and being interesting as a person from somewhere else.” (Piller, 2002:194)

Whether or not passing for a native speaker is important to the participants in this study may contribute to a more cohesive understanding on our part to their sense of identity.

The final section of the questionnaire is on motivation and SLA: an area, which has attracted a large body of research. Indeed, Piller states; “Personal motivation, choice and agency seem to be the most crucial factors in ultimate attainment.” (2002; 201) For many L2 users the motivation to improve their L2 fluency may be closely linked with how useful or relevant that L2 is perceived to be, both personally and professionally. Motivation is a difficult factor to measure as it differs from individual to individual and may also be linked to other factors such as sense of identity, attitude toward the TL community, input etc.

According to Moyer:

Motivation, especially as it is linked to specific behaviors or learning strategies, likely contributes in fundamental ways to ultimate attainment, but its influence may be accurately appreciated only in connection with other social and cognitive considerations. (Moyer, 2004:40)

3.5 Linguistic Background Questionnaire

1. Personal Details

1. What is your date of birth?
2. When did you arrive in France?
3. Are you male or female?
4. How long have you been living in France?
5. What age were you when you started learning French at school?
6. For how many years did you study French at school? After school?
7. What was your impression of France before you arrived?
- 7b. Describe some of your preconceptions.
8. What made you decide to come to France?
9. How would you describe your level of French upon arrival? (1(weak) →10 (fluent))

2. Educational Experience

1. Did you enjoy learning French at school? (1 (not at all)→5 (thoroughly))
2. Did you find it difficult or easy? (1(not at all)→5 (very difficult))
3. Do you think you had good teachers? (1(not at all)→5 (excellent))
4. What aspect of learning did you particularly enjoy/dread?
5. What sort of pedagogical materials were used?

3. Linguistic Awareness

1. Did you study English grammar at school?

2. Are you aware of the structure of the English language?
3. If so, has your knowledge of English enabled you to learn French more easily?
4. Do you feel that your standard of English has deteriorated since you moved to France?
(1(not at all)→5 (very much))
5. Do you often search for words in English? (1 (never)→ 5 (often))

4. Formal Instruction upon arrival

1. Did you attend French classes upon arrival in France?
2. If so, did you feel they helped improve your level of French?
3. How many hours per week?
4. How did they differ from the formal instruction you received before your arrival?

5. Learning Strategies

1. Are you aware of employing specific strategies to improve your French?
2. Do you seek to imitate French speakers whose style you admire?
3. Do you keep or have you ever kept a language journal?
4. Do you try and insert new or unfamiliar words into your vocabulary?
5. Do you ask French speakers why/how they might use an unfamiliar or new structure?
6. Do you correct your own errors as you make them?
7. Do you take risks with the French language, using, for example new or unfamiliar structures?
8. Do you mind being laughed at when you make a mistake

6. Linguistic Contact

1. Did you have immediate contact with French speakers?
2. And now, do you have regular contact with native French speakers?
3. On a day-to-day basis do you speak more French or English?
4. Which language do you use at home?
5. Do you encounter a variety of registers?
6. Do you socialise more with French or English speakers?
7. Do French speakers correct your mistakes?
8. Do you or have you ever tried to avoid contact with non-native French speakers?
9. Do you ever wish you could interact more with French speakers rather than English speakers?
10. Have you ever felt frustrated because of a French speaker's refusal to speak to you in French?

7. Identity/ Sense of Belonging

1. Do you feel at home in France?
2. Do you plan on living in France permanently?
3. Do you identify yourself primarily as French or XX or both?
4. Are there any particular situations where you do not identify yourself as XX?
5. Can you imagine a situation where you would identify yourself as French?
6. Do you return to XX often?
7. Do you have frequent contact with XX?
8. How important to you is your XX identity?

9. Do you often pass for a native French speaker?
10. How good is your spoken French? (1 (poor) → 5 (fluent))

8. Motivation

1. Is it important to you to speak French well? (1 (not important)→ 5 (essential))
2. Do you need to speak French fluently for your job? (1 (rarely)→ 5 (frequently))
3. How important is to you to “pass” for a native speaker?
(1 irrelevant→5 very important)
4. Do you consciously try to improve your French?
5. Is your standard of French connected to your self-esteem?

9. Other languages

1. Do you speak any languages other than French?
If yes
2. Which did you learn first?
3. Has your knowledge of other languages helped you to learn French?
4. Do you get confused

3.6 Participant Recruitment

As indicated earlier, the subjects needed for this study were excellent non-native speakers of French and who had started to learn French rather late in life. All participants had to have arrived in France beyond the age commonly posited as marking the offset of the critical period. In this study all participants had started to learn French at secondary or high school but had had their first significant exposure to French after the age of 20. Of these non-native speakers, 13 are women and 7 are men. They are all resident in France and were all raised monolingually. There were also 20 native speakers of French who participated as controls in the accent identification task and the lexico-grammatical test. The average age of arrival of the sample was 28.6 years, (Range 39) and the average age of the sample at the time of testing was 41.1 years, (Range 35).

In order to take part in this study it was necessary for participants to have acquired French to a very high degree, i.e. to be a near-native speaker. It was essential that participants pass occasionally for a native speaker of French. Each participant who took part in the study claimed to pass for a native speaker on a regular basis. As already stated the study relied upon the personal testimony of the participants in order to determine whether they passed for native speakers or not. For one participant in particular, Henry, it emerged that his understanding of the term passing for a native speaker was somewhat flawed as his interlocutors mistook him for a native French speaker not because of his high level of French, but because of the fact that he was in the company of native French speakers. It was felt that the inclusion of Henry as a participant would be useful in that it highlighted the importance of certain factors such as intention to reside in France and opportunities for consistent contact with native French speakers in L2 attainment. Henry was looking forward to leaving France at the time of interview and had little contact with native French speakers.

The majority of participants completed the initial test online and then took part in an interview during one of two separate visits to Paris. The first visit took place in May 2006, the second in March 2007

Prior to the first visit, some suitable subjects were identified through contact with the University of London in Paris. The initial intention was to ask students enrolled in the highly competitive French/English Diploma in Translation to participate in the study. However, having seen the test, the course convenor suggested that it might be too difficult for students and that it would be more appropriate to ask lecturers to participate. Two members of staff from the university were willing to take part in the study and a further three participants were found through an advertisement in a French/English magazine (FUSAC, France-USA Contacts). All five participants had been resident in France for a minimum of 5 years and were interviewed in May 2006 over a period of three days. Each interview lasted approximately one hour. In March 2007, a further fifteen participants were recruited by means of an advertisement placed in an online magazine aimed at expatriate English speakers now resident in France. Again, all participants completed the online test before being interviewed in Paris over a five-day period. In order to entice people to take part in this study, a free lunch was offered after the interview.

3.6.1 Participants: Group One

Olwen:

The first candidate was Olwen, a tutor in ULIP who arrived in France in 1974 with her French husband, with little or no French. At that time, she spoke English with her French husband, who is a fluent English speaker. She had studied French up until GCSE level in England but had not enjoyed it and found it particularly boring, as the course was very much grammatically based with very little emphasis on spoken French or listening comprehension. France was not her first place of residence on leaving England; she spent a year in Turkey after she got married, where she acquired basic Turkish. On arriving in France she immediately registered in the third year of a CAPES (Certificat d'Aptitude au Professorat de l'Enseignement du Second Degré) course in Créteil, thinking that, as she had qualified as a teacher in the UK, this would provide her with the necessary qualification to teach English in France. However, the course content had little English in it and was extremely difficult, which proved discouraging for Olwen and she dropped out after only 6 months. This experience was a blow to her confidence as a French speaker; from which she never really seemed to recover. She lacked confidence in certain areas of French morphosyntax, notably the subjunctive mode. She was also aware of her English accent; this means that she rarely passed for a native speaker, even in relaxed situations. She had an excellent receptive knowledge of French, and had little difficulty identifying French regional accents

This candidate reported employing few language learning strategies throughout her residence in France. She did not keep a language journal and she was uncertain of some of the more difficult elements of French grammatical structure. She did, however, attempt to use new constructions and vocabulary as she heard them and did not mind being ridiculed in the process.

Olwen had a lot of contact with native French speakers. Both her grown-up children were bilingual and their household was a bilingual one. She spoke French daily and encountered a variety of registers. However, because she worked in the British Institute and taught in English every day, she still considered English her stronger language and when she spoke French her English accent was quite pronounced. She had noticed a considerable deterioration in her English vocabulary. This did not affect her work as such, but she found that, for everyday objects, the French word came more quickly. Although she did not mind being identified as an English speaker, she felt it was important not to be mistaken for a tourist. She planned to retire in 2008 to the South-West of France where she had bought a cottage with a large garden. As Olwen had lived in France far longer than in the UK, she felt very at home there and planned to stay for good

Kenneth:

The second subject Kenneth, a lecturer in the university, had been resident in France for 40 years and came to France from Britain in the late sixties after a year living in Moscow. Russian was Kenneth's third language and he still took an interest in Russia, particularly Russian politics. He started learning French from the age of 13. A young enthusiastic teacher at his public school had a very positive influence on him, especially as the teacher felt it was important to educate the pupils in all aspects of popular French culture and in particular French pop music. Kenneth stated in his interview that this teacher made the French language come alive to the class and thus triggered his long interest in the language. He went on to study for a B.A. in French and Russian and, having spent the year following his degree in Russia, he arrived in France aged 23 and has remained ever since.

Kenneth studied both English grammar and Latin at secondary school, both of which, he maintained, contributed to a general linguistic awareness. He enjoyed using some of the more arcane French grammatical structures such as the past subjunctive and passed for a native speaker frequently. He took pride in speaking French as well as he spoke English, i.e. with very few hesitations and virtually no conversation markers. This was deliberate on his part; he felt that to speak well in French it was necessary to eliminate “signs of linguistic weakness”. He read only non-fiction in both English and French. He felt that this was an important help to him to avoid “dithering” and to remain in the same quite formal register in both languages at all times. He admitted that he was more expansive in French and more gestural, but his identity as an Englishman remained very important to him.

Kenneth made a conscious effort to retain his English vocabulary and regular contact with native English speakers was made possible through his job at ULIP (he returned only once a year to England). He estimated that he had roughly equal amounts of contact with French and English speakers. He was married to a French woman and had one son; the language spoken at home was French. He enjoyed taking the written test and in particular the completion of the proverbs.

This candidate admitted that he was happy to be “an Englishman abroad” but passing for a native French speaker provided a source of much personal satisfaction. He admitted that his standard of French was intrinsically connected to his self-esteem, (particularly as a lecturer in French). Kenneth felt that there was only one area in which he would rather not be identified as English and that was politics. He did not support Tony Blair (at the time) and like many French people was opposed to the war in Iraq. In this regard, he preferred to be identified as French.

Marianne:

Marianne, the third candidate was a final year PhD student in comparative early French and German literature (she is now a lecturer in La Sorbonne, Paris). She had been resident in France for 9 years at the time of interview and had arrived in France at the age of 22, shortly after graduating with a B.A. in French and German. Like Kenneth, the second participant, she had an excellent French teacher at secondary school that she found very inspiring. She mentioned that this teacher used somewhat unconventional methods to motivate and capture the imagination of his pupils, such as translating strange sentences from one language to another. This obviously left a strong impression on Marianne as she could still remember quite a few of the sentences in question. She attended no French classes on arrival in France. She did not feel the need as at that stage she had met her current (French) partner and was speaking in French almost all of the time.

She employed a number of linguistic strategies such as taking risks by regularly inserting new words into her vocabulary and by using unfamiliar idiomatic structures. She corrected any (infrequent) mistakes that she made and, although she once minded being laughed at when she made a mistake, she felt at the time of interview that it was no longer an issue. Unlike the previously discussed participants, Marianne had little opportunity to speak English and felt her native language had atrophied as a result. She felt that French had become her stronger language.

Unlike the previously discussed candidates, Marianne passed for a native speaker most of the time and if she revealed her British identity her interlocutor was invariably surprised that she was not French. I say *if* rather than *when* here, as Marianne admitted that she rarely bothered to reveal her nationality and preferred to be mistaken for a French national more often than not. She felt more French than English and admitted that she had no roots to speak of in the UK and returned rarely. Of all the candidates, Marianne had the

least affinity with her native country. She led her life, (unlike the ULIP subjects) almost entirely through French. She lamented the fact that she was unable to vote in France, as she had strong views on French politics and was very scornful of British participation in the war in Iraq. In situations such as this, she was quite happy to be mistaken for a French national.

Unlike Maurice and Olwen, passing for a native speaker was very important to Marianne. She gave this question a 5, implying that it was extremely important to her to pass for a native speaker. Her French was at such a high level (she had written her PhD thesis in French) that she did not feel it was necessary to improve it constantly and this high level was intrinsically connected to her self-esteem. She planned to remain in France and did not envisage ever returning for good to the UK.

Maurice:

The fourth candidate was Maurice, who, like the previously described subjects had been resident in France longer than in the UK. He arrived in France in 1979, after spending 3 years in Japan. His experience in Japan was very successful and he learned the Japanese language quickly. His Japanese became very fluent and he found a good job as a translator. He decided to move to France, but his linguistic experience in France was not as positive. He arrived with a smattering of French and he enrolled in a number of French classes with varying degrees of success. He felt that the classes were too concentrated on grammar and not enough on oral production, although they provided him with enough French to get by. Maurice, like Olwen, was a qualified English teacher. He was teaching in a well-known private language school in Paris at the time of interview. He was very linguistically aware, however, he spoke more English than French on a day - to - day basis and spoke Japanese at home with his wife.

Unlike the previous three candidates, he was not married to a French national. He employed no linguistic strategies whatsoever; he did not try to imitate speakers he admired, he did not attempt to insert new structures into his everyday speech and did not seem to be too concerned about the small but important grammatical errors that peppered his French. He maintained, however, that he disliked to be ridiculed when he made a mistake in French. In spite of 27 years in France, he still made frequent mistakes in French and in particular in his choice of gender. He admitted to passing as a native speaker rarely and this was due not to his English accent but to the small grammatical errors, he made while speaking. Judging from his test results, however, these errors did not interfere with his receptive knowledge of French.

This participant was settled in France and planned to live the rest of his life there. He thought of himself as neither French nor British and returned rarely to Great Britain. Unlike Kenneth, his British identity was unimportant to him. Speaking French well was important to him both personally and professionally. Maurice made an effort to expand his French vocabulary by listening to French radio and reading books in French. Although he only occasionally passed for a native speaker, passing for a native speaker was, nonetheless, of some importance to him and connected to his self-esteem.

Freya:

The fifth and final candidate in this group was Freya; she had been resident in France for 5 years. Unlike the previous candidate, she was not involved in academia in any way and was a housewife married to an American businessman in Paris. She had studied French at secondary school and it was for her, a positive experience. Her teacher was a native French speaker and placed much emphasis on speaking in the classroom and pronunciation. Freya went on to train as a bilingual secretary and did a work placement in

Paris where she met her husband. They did not remain in France for very long and Freya spent the next 20 years living in the USA. In 2001, her husband was transferred to Paris and they have been living there ever since.

She studied English grammar at school and she felt this made her more aware of the underlying structure of French but she was not sure if it actually facilitated her acquisition of the language. She had regular contact with English speakers and felt that her standard of English had remained the same, although she sometimes searched for words in English.

Upon arrival in France, Freya enrolled at the Alliance Française, where she studied French for two hours twice a week for two years. She felt this was enormously helpful and did much to improve her standard of French. At this time she was much more aware of employing language learning strategies, such as inserting new vocabulary into her everyday speech, correcting her own errors or imitating French speakers she admired, (her teachers at the Alliance). She felt that she was a risk taker and even at the time of interview felt that she was constantly attempting to improve her standard of French.

For Freya, English was the predominant language of her life; English was the language spoken in the home and many of her friends were Americans living in Paris. When she arrived in Paris in 2001, it was difficult to find the opportunity to speak French other than in casual encounters with shopkeepers, hairdressers etc. Through the American church in Paris she gradually made a number of French friends and today estimates that she speaks about 40% French and 60% English. She admitted to passing for a native French speaker only occasionally and only when in the company of her French friends. She had never managed to pass as a native French speaker when in the company of her husband, who had a pronounced American accent and spoke just enough French to get by. Being corrected by French speakers was not a problem for Freya although it happened rarely.

Unlike the other participants, Freya did not intend to settle down permanently in France. Although she had travelled extensively with her husband, she felt English and when speaking in English had a pronounced regional accent (she was from Leeds originally). Other candidates, when speaking in English had no regional accent to speak of. She could not think of a single situation where she would be happy to identify herself as French and returned to visit her family regularly.

As she worked part-time as an English teacher in a local bilingual primary school, speaking French was not necessary to Freya for professional reasons. Her desire to pass for a native French speaker was for personal reasons. For Freya, it was the ultimate achievement in language learning. Although she ranked passing as a native speaker with a 5 (very important), she did not feel it was strongly connected to her self-esteem and certainly did not take it as seriously as the previous participant, Marianne. Freya also speaks Italian, a language she started learning three years ago, encouraged by her progress in French. She found it quite easy to learn, there being many similarities between the two languages.

Below is a summary of the principle biological/experiential variables of the participants in Group 1

Table 3.1 Participants (Group 1)

Summary of biological/experiential variables

Name	Age at Testing	Age of Onset	French Partner	Other
Lang.				
Olwen	60	26	Yes	Turkish
Kenneth	63	23	Yes	Russian
Marianne	31	22	Yes	German
Maurice	53	25	No	Japanese
Freya	51	45	No	Italian

3.6.2 Participants (Group 2)

The next group of participants responded to an advertisement placed in an Internet magazine called Franglo.com specifically aimed at English speakers resident in France. The advertisement ran for three months, which meant that fifteen participants were found, the largest group so far in the study. The advertisement called for native English speakers, resident in France who could, on occasion pass for a native French speaker. Approximately fifty people responded to the advertisement and out of those fifty, fifteen participants were recruited. The remaining thirty-five applicants did not make suitable participants for a number of reasons. Some lost interest in the study and made no further contact after the initial response. Others found the test too difficult and did not attempt it. Still others were unsuitable because they had commenced learning before the age of 11, which was the cut-off point for the study. The final fifteen made for good participants in that they fitted the

necessary requirements for the study. Each one was willing to give up free time to be interviewed for the purpose of the study.

Morgan:

The first participant was Morgan, an Irish national who had been resident in France for six years. Morgan was the youngest participant at age 28. He had started learning French at the age of 15 and only studied it for three years at school. He liked French and was good at it, leaving school with a grade C1 in Higher Level French. He felt he was lucky at school as there was one teacher in particular who encouraged his class to speak in French as much as possible, sparking in Morgan a curiosity and interest in the language. He became involved in the European Experience programme on leaving school. This programme encourages young school leavers to learn a foreign language by offering them an immersion programme in the European country of their choice. Morgan chose France and spent 5 months in Lyon living with a French family and going to intensive French lessons every day for 25 hours each week. He subsequently returned to Ireland and used his knowledge of French to get a job in a call centre in Ireland before returning to France in 2001 to work on the launch of the French edition of a martial arts magazine.

Like most Irish people, Morgan learned Irish at school and he felt that this was very helpful in learning French. He said that learning Irish made him aware of the fact that there were different ways of communicating, and because he found it quite easy; it gave him confidence to learn other languages such as French and German. He learned German first from age 12 to 15 but abandoned it completely once he started learning French. He still spoke some German and did not find that it interfered with French or vice-versa.

Morgan said that he could go days without speaking any English at all and relied on emails and other correspondence to practise his English. He spoke French at home and most of his friends were French speaking. He passed regularly for a native French speaker,

which he said, was unimportant to him. He maintained that his standard of French was connected to his self-esteem and he made a constant effort to improve his French particularly through reading French literature. He claimed that he did not find the written test very difficult but did not complete the proverbs. However, he made no mistakes on the grammar sections. In spite of being very involved in French life, being Irish was very important to him and he could think of absolutely no situation where he would deny his Irish identity. He was very proud of being Irish and socialised with a number of Irish friends living in Paris. Morgan, however, had just been promoted in his job and had been asked to move to San Francisco in 2008 to be editor of an American martial arts magazine. He did not think he would be returning to France in the near future.

Jane:

The next successful candidate was Jane. She arrived in France in the seventies and had been resident there for 28 years. She came to France because her British husband was offered an exciting job opportunity in Paris and she was offered the job of Public Relations Officer with Laura Ashley France at the same time. Her husband's company offered the couple intensive French lessons of 5 hours a day, 5 days a week for 4 weeks prior to their departure as well as 3 hours of French lessons per week once they arrived. Jane felt these were absolutely essential, particularly as neither she nor her husband had had good experiences of French lessons at school and as a result had forgotten practically everything they had been taught.

Jane had been on holiday many times to France with her family as a child and had some idea of what to expect on arrival. A boyfriend had kindled her interest in France and French culture by lending her a record by Serge Reggiani; a popular Franco-Italian musician who had put the poetry of Boris Vian to song. She said that at the time this music completely transported her and that she had a very romantic ideal of French life.

Jane passed regularly for a native speaker. The classes she attended at Berlitz were concentrated on oral production, so, although she was confident about her spoken French, she was less sure of her standard of written French. She worked part-time for a public relations firm and was often required to write press releases in French. She regularly asked a French colleague to check her work for mistakes. She started working part-time when her two daughters were born and got involved with a group known as the Mothers' Support Group (or Message) in Paris. This was the main way that Jane made contact with people; prior to that, the majority of her contacts were casual encounters in shops etc. It was only when her two daughters began to attend the local primary school that Jane became more involved in the local French community. She lived in Saint Germain-en-Laye, a suburb to the west of Paris. At the time of interview she socialised with a variety of nationalities. She admitted however, that she had no close French female friends and was relieved to discover that this was the case for all of the women interviewed.

Although English was the language spoken at home, Jane's two daughters grew up bilingually as they attended local French primary and secondary schools. In spite of this, however, the two girls decided to go to university in the U.K. As a result, Jane was unable to say if she would continue to reside in France, as she would like to be close to her daughters. She was proud of being British and passing for a native speaker was not very important to her. However, Jane said that she loved to be mistaken for a French woman because of how she dressed. She loved French fashion and was delighted to be mistaken for a French woman when she returned to the U.K. Jane did quite well on the written test but found the idiomatic section at the beginning very difficult.

Cassie:

Cassie was the next participant, an American by birth; she has been resident in France for 33 years. Her mother and aunt were keen French learners and were great

aficionados of the French cinema; they inspired Cassie with an interest in French from a young age. Although she had learned French at school in California, she did not enjoy it and found it quite boring. One teacher sparked her interest in French; unfortunately, he left her school after only one year but Cassie was left with a lasting curiosity for the French language and culture. When she arrived in France in 1974, she quickly realised that her high school French was not sufficient. It was impossible to get by in Paris without speaking French and she attended intensive classes at the Alliance Française for one month, which provided her with enough of the French language to communicate on a daily basis.

Cassie was determined to embrace French life and she tried to speak as much French as possible, avoiding English speakers where possible. Initially, she found it difficult to interact with French speakers but as her French improved, she made some friends and soon met her husband, a Frenchman. For Cassie, being in Paris was a huge culture shock, but she liked many things about the French way of life and was determined to blend in. Her husband's career meant that they moved house seventeen times in thirty years. As a result, she did not raise their three children bilingually, she felt that it was difficult enough for them to blend in with the constant upheavals and felt that it would be easier for them if they were monolingual (French only)

At the time of interview, Cassie was a fluent French speaker and was regularly mistaken for a native French speaker. Although her American identity was important to her, she rarely returned to the USA and had little contact with her family there. She felt at home in France and spoke much more French than English. She no longer felt the need to avoid fellow Americans (as she had done on arriving in Paris) and was involved in many Franco/American societies around Paris. In fact, she attended a philosophy café regularly where she confidently took the microphone and gave her point of view in French. She was rarely identified as an American.

Cassie attempted to learn a number of languages other than French but was never successful. She put this failure down to the fact that these languages were never essential to her and she only attempted to learn them for fun. Cassie believed she was proficient in French because she embraced French life so completely and left her American life behind to a large degree. She enjoyed taking the written test and in particular the idiomatic sections.

Siobhan:

Siobhan was the second Irish national living in France to take part in the study. She lived in Normandy and was married to a veterinary surgeon. They had two bilingual daughters; Ellen and Kate, who were very proud to be half Irish. Siobhan arrived in France in 1993 and had secondary school level French; she gave herself a 4/10 (1-weak, 10-fluent) for her standard of French on arrival. She met her Belgian husband in Ireland and as he spoke good English, she did not need to learn to speak French well until they moved to France. She attended only three French classes in Normandy, (which she did not find helpful at all), and then relied on family and friends to improve her standard of French.

Siobhan did not particularly enjoy learning French at school, although there was one teacher, who inspired her with a love of French food and music in her second year. As a teenager, she babysat for a local French couple and they gave Siobhan a taste for the French way of life from a young age.

People who've had a major impact on my life loved France and French and I really don't believe that it's a coincidence that I arrived here...(Siobhan, 2007)

At school, Siobhan enjoyed learning Irish and she believes that this might have been of some benefit to her when learning French. At the time of interview, she felt completely at home in France and intended to live there for the rest of her life. She still had strong connections with Ireland and maintained contact with her large family, although she did not return as often as she would have liked.

Three years ago, Siobhan set up a cookery school on the family farm and classes were aimed principally at visiting English, Irish and American tourists. All classes were given through English and this proved to be a challenge as her standard of English had deteriorated over the years. She admitted that there were some French words that she was unable to translate into English. She also passed for a native French speaker frequently. She preferred, however, not to let the pretence last for very long because she liked to make it clear early in the conversation that she was Irish. Siobhan enjoyed taking the written test and did not find it difficult.

Keelin:

Another Irish candidate was Keelin, an Irish national resident in Paris for the last 20 years. Like Siobhan, she could pass for a native French speaker unless she specifically referred to her Irish origins. When she travelled outside of Paris, she passed for a Parisian as she had a Parisian French accent. However, although Keelin enjoyed passing for a native speaker, she had no desire to be integrated completely into French society. She chose instead to keep a very slight accent, as she did not feel any need to be thought of as French. This had not always been the case. When she was younger, passing for a native speaker was very important to Keelin and strongly connected to her self-esteem. At the time of interview, she preferred to make it clear that she was Irish at an early stage in all social exchanges.

In the early days, passing as French mattered and made me feel like I'd succeeded and fit in. Now it doesn't matter- I'm Parisian, like the hundreds of thousands of other non-French Parisians who call this home. There are accents everywhere, in differing degrees. (Keelin 2007)

Keelin worked as a journalist for a large American television network and spoke only English at work. On leaving school and wanting to work as a foreign correspondent, Keelin enrolled at the Alliance Francaise in Dublin and later in Paris. She attended part-time French language courses for four years. She regularly employed a number of strategies to continually improve her French such as asking French speakers why they might use a particular grammatical structure as well as correcting her own mistakes. She considered herself a risk-taker and did not mind when others corrected or mocked her (infrequent) mistakes. Keelin also had a working knowledge of a number of other languages such as Spanish, Italian and German and Irish.

Keelin did not have a particular attachment to France; however, it provided a good mix of professional and personal opportunities. She maintained that should the "right" situation present itself, she would be happy to leave and settle elsewhere.

Clara:

Clara was the fourth Irish candidate to respond to the advertisement. A resident of Paris since 1991, she came to France on graduating from University College Dublin with a B.A. in French and Italian and was awarded second-class honours. She asserts that she never intended to remain in France for very long but she met her husband, a Frenchman, shortly after she arrived and they reside in Bourg La Reine, a suburb south of Paris. They had a three-year old daughter who was being raised bilingually using the traditional method of one parent, one language. The language spoken in the home was French.

Clara was a very enthusiastic learner of French at the beginning. She made a conscious effort to improve her French from the start and attempted to incorporate new vocabulary into her spoken French. She read books and magazines in French and listened carefully to the way people spoke around her.

I noticed that certain people sounded a lot better when they spoke French than I did. I remember one guy in particular, in my first job and I thought he had brilliant French and I started to imitate his style. He used a lot of adverbs like *carrément* or *évidemment*, and I started using those words too. (Clara 2007)

However, in spite of having a degree in French, Clara felt that her spoken French was poor when she arrived in France and only gave herself a 4/10 for fluency. She felt shy and spent most of the first three months of her stay listening rather than speaking.

It was only when I met Gilles that I started to really talk in French. He spoke really clearly and I found it very easy to talk to him. It made me realise that my French wasn't as bad as I thought. (Clara, 2007)

Clara enrolled at the Sorbonne University five years ago, where she obtained the CAPES, the degree necessary to become a secondary school teacher in France. She was working at the time of interview as an English teacher in a private school in the seventeenth arrondissement of Paris. She felt that her French would be better if she did not use so much English at her work. Although she spoke French with her colleagues and her family-in-law, she socialised mainly with other English speakers. As a result, her accent was recognisably English. Clara admitted that passing for a native speaker was unimportant to her and was definitely not connected to her self-esteem. She was happy for French people to know she was

Irish and usually made it clear from the outset that she was not French when she met someone for the first time. If she passed for a native speaker, it was with shopkeepers or other people working in the service industry, and then, only during brief exchanges.

This participant was unable to say if she would settle down for good in Paris. She thought life was stressful in Paris and would ideally have liked to move home to County Meath in Ireland but realised that her husband, a marketing professional, would not be able to find as good a job there as the one he had in France. Clara returned home to her large Irish family frequently (up to six times a year) and had strong links to Ireland still. Like other Irish participants, Clara had learned Irish at school but she did not feel it really helped her learn French. She did not enjoy learning Irish and did not feel she was particularly good at it. She also spoke Italian, however, she was inclined to confuse vocabulary from French when she spoke Italian as French was her stronger language.

Orla:

Orla, the fifth Irish participant came to the study through Clara, a friend, with whom she went to university. Orla studied French and English literature at university in Dublin and met her current partner (an Englishman); during an Erasmus year, which she spent working as a language assistant at the University of Rouen. He too, was working in the English department as a language assistant. Unlike Clara, she felt very much at home in France and returned only once a year to Ireland. She had two daughters aged six and four who are bilingual although English is the language spoken in the home. The girls attended a local French primary school.

Orla enjoyed French at school and found it quite easy. She had a good ear for the language because of spending a number of summers in Cassis where her older sister worked for five years. These holidays, together with her Erasmus year in Rouen, meant that Orla had a good idea of what to expect before arriving in France. Unlike many of the other participants, she had no romantic ideals of France or its inhabitants before arrival. That is not to say, however, that she does not have a good deal of affection for France. She felt settled there and planned to spend the foreseeable future in Paris.

Orla was determined “to fit in” as she puts it from her arrival in France in 2001. She attended private one-to-one French lessons (four hours a week) for one year and she made a consistent effort to mimic the pronunciation of her French peers. She was working at the time of interview as a bilingual personal assistant for a large pharmaceutical company outside Paris. She spoke mostly French at work and prided herself on rarely being identified as a non-native French speaker. She liked to use constructions which she felt are “very French” such as, “Ça se voit”, (It’s obvious). Unlike many of her college peers who arrived in France at the same time as Orla, she made a conscious effort not to use French slang words.

I suppose I just wanted to sound sophisticated, I didn’t want to sound like a French teenager, I wanted to sound older. Don’t get me wrong, I understand most French slang words, I need to, to understand my kids. I just prefer not to use them. I hate hearing French people using slang or swear words when they speak in English, I think it sounds awful. I definitely don’t want to sound like that! (Orla , 2007)

For Orla, passing as a native speaker was very important. Her partner, a translator, was bilingual and as a couple, they regularly passed for native speakers. Unlike Clara, she

was less inclined to reveal her Irish identity as she enjoyed being mistaken for a French woman. She had a large group of friends with whom she spoke mostly in French. Having two daughters and living in a suburb of Paris (St. Germain-en-Laye) meant that Orla felt she belonged to a proper community and knew many of her neighbours because of having children at a local school. Although this area is popular among English ex-patriots, the majority of Orla's friends were French.

Orla felt that her standard of French was definitely linked to her self-esteem. It was important to her on both a personal and professional level. She still wanted to improve her standard of French and admitted that passing for a native speaker was important to her. She gave this question a 5/5. (1-irrelevant→5-extremely important).

Henry:

The next participant was Henry, an English national living in France for 18 months. Henry was headhunted by a French software development company and thus came to Paris for professional reasons. He studied French to GCSE level but abandoned it at the age of 16 in favour of mathematical subjects. He admits that he was occasionally mistaken for a native French speaker more because he was in the company of French speakers than for his native-like grasp of the language.

Henry lived, like Orla, in Saint-Germain-en-Laye, a suburb to the west of Paris with his Australian wife, Kate. Kate arrived in France with no French at all. She relied on Henry to translate and communicate for the most part. She was unhappy there and was looking forward to the day that Henry's contract finished, (January 2009). The fact that his wife was unhappy meant that Henry's experience in France was not as positive as it might have been. He rarely socialised with his colleagues, preferring to go home directly after work and so had little opportunity to improve his French. In his company, the spoken language was English, as there were a number of different nationalities working there.

Henry tried to improve his French through reading and read an article from the newspaper “Le Figaro” every day. If he was at lunch with some French colleagues, he listened carefully to the way they spoke and tried to remember some of the expressions they used. One of his favourite French expressions at the time of interview was *Ça y est*, (That’s all). He was aware that he was probably a little bit lazy when it came to learning French, as he knew he was in France for a fixed period of time only. He planned to move to Western Australia once his contract terminated in 2009. For Henry passing for a native speaker was not important, (he gave it a 1/5- irrelevant) and his standard of French was not connected to his self-esteem.

Kylie:

Kylie was the next participant; a South-African woman aged 34, resident in Paris since 2001. Kylie arrived in Paris after meeting and marrying her French husband in Cape Town. She had never been to France before and had not learned French at school. She spoke only English to her husband and had never heard him speak French until they arrived in Paris six months after their wedding. They went on to have a daughter together but unfortunately, the marriage did not last and they were divorced within a year of moving to Paris.

Kylie decided not to return to South Africa as she did not want to deprive her husband’s family of their only grandchild and she also felt she could offer her daughter a better life in France. Kylie had also taken French citizenship. At the time of interview she was making a consistent effort to improve her French. She was keeping a language journal and was trying to learn at least three new words every day. She felt it was essential to learn the language well so that she could understand her daughter, who, at the age of five, was not bilingual, despite Kylie’s best efforts. Her daughter preferred to speak the language her

friends spoke, which was French and so her French was much stronger than her English and she enjoyed correcting her mother's French mistakes.

Kylie worked in Eurodisney where she she spoke more English than French. She socialised rarely, as she preferred to spend her free time with her daughter or her ex-husband's family, with whom she had a good relationship. If she was mistaken for a native French speaker, it was usually by tourists at her work and rarely by French people. She planned to remain in France for the near future. She had only returned once to South Africa since her arrival in France and did not plan a return trip for some time. She did not have strong links to her home country and felt very at home in France. Her accent, however, when she spoke in English was definitely South-African and there was a strong trace of this same accent when she spoke French. She got little opportunity to speak in French; her main contact was her family whom she visited twice a week. She felt this was not enough and hoped to attend French classes at some stage in the future. Although Kylie says that her standard of French was connected to her self-esteem, passing for a native speaker was not important.

Don:

Don was the next participant, a lively sexagenarian from New York; he had been living in Paris for the two years. Don was the oldest subject, retired and keen to improve his standard of French. He was married to a French woman whom he met on a Caribbean cruise twenty-five years before and they had always spoken in English. Since arriving in Paris, Don had made a concerted effort to get to know French people. He was well known in the bars and cafes of the sixth arrondissement of Paris, where he lived with his wife. He insisted on always speaking in French even though his interlocutor may have attempted to speak to him in English. Don had an excellent command of French but he did not look French. He was extremely tall, well-built and looked "American". He was a member of a

number of clubs and societies including “Message”, (Mothers’ Support Group), like a previous participant, Jane.

Although Don learned French at school, he did not excel in it and preferred mathematical subjects. On graduating from school, he joined his father in the family textile firm and began to travel extensively around the world selling fabrics. It was on one business trip to Europe that Don visited France for the first time and quickly developed an affection for French culture and lifestyle. He stayed with the company’s French sales manager and so Don was able to experience French family life firsthand.

Don kept a language journal where he noted down unusual expressions in French and their translation in English. He listened to French radio and found television useful for improving his language skills. He particularly appreciated any programmes or films with sub-titles. He spoke only in English with his wife but they socialised mostly with French people. His wife also had family in Paris with whom they spoke in French. As his wife still worked, Don spent much of the day practising his French with local shopkeepers or waiters. His ambition was to pass for a native French speaker at all times and for no one to suspect that he was American. He was an avowed Francophile and was quite happy to relinquish his American heritage in favour of French citizenship. He loved the French way of life and did not see himself returning to the United States in the future.

Joanne:

Joanne was the only Scottish participant in the study. She had been resident in France for three years at the time of the study and lived alone. She had studied marketing in the University of Strathclyde and had taken French as an extra subject. Although the French she learned at college was very specialised, she nonetheless enjoyed it and did well in her final exams (overall first class honours). She applied for a number of jobs on leaving

college and was offered a position with an American sports equipment firm. She worked in America for a number of years before being transferred to Paris in 2004.

Joanne decided to have private French tuition once she settled down in Paris. She needed to speak French fluently for her job and had a one-hour French lesson every day at work. She continued these lessons for six months, at which point, her French was strong enough for her to carry out all her duties confidently. Some of her duties included writing press releases and launching products on the French market, for which a high standard of French was necessary.

This participant did not keep a language journal. She gave herself a 2 (1 (weak) -5 (fluent)) to describe her level of French on arrival and would now award herself a 4. She corrected any errors that she made and did not mind taking risks with the language in an informal setting. It was important to her to speak good French in the workplace and so she rarely practised a new expression or structure at work. She consciously attempted to improve her French and it was strongly linked with her self-esteem.

Joanne needed to socialise frequently because of her work and the language spoken at all times was French. She found this quite stressful at the beginning when her French was weak and had difficulty following conversations. At the time of interview, her improved standard of French meant that she enjoyed these professional gatherings and liked to impress people with her knowledge of the language. Unlike many of the other participants, she lived alone and so relied on television or radio to practise French at home. She did not speak any language other than French and English but reported being very aware of the structure of the English language.

There was one particular primary school teacher we had and looking back, she seemed to have no interest in teaching at all and would give us long pages of English grammatical exercises

to do in class. These would sometimes last half the day. We finished six whole books of “Composition and Grammar” that year. It seemed like a waste of time then but I’m grateful now!

(Joanne, 2007)

Joanne was happy in France but she did not see herself settling down there. With her job, she was expected to be highly mobile and could be transferred to another country with little notice. As a result, she was reluctant to become too attached to any one place. She returned to her family in Helensburgh outside Glasgow approximately twice a year.

Ivan:

Ivan was the sixth Irish participant in the study. He arrived in France in 2003 for no particular reason other than that he had always wanted to live in Paris. He studied French at school and did quite well in his Leaving Certificate, (Grade B at Honours Level). Like Joanne, he went on to do a degree in Marketing in Dublin Institute of Technology where he obtained an honours degree (2:1). He also studied French for Business at college. He worked for many years for an auto-parts firm in Dublin but when he was made redundant in 2003, he decided to fulfil his lifelong ambition by going to live in Paris.

Ivan was an unusual participant in that despite having difficulties completing the written test, he passed for a native speaker on a regular basis. He was one of the few subjects who appreciated the importance of conversation markers such as “*Ben, Bof, Bref,*” etc and punctuated his conversation with typically French body language. For him this was a “cheat’s” way of passing for a native speaker. He was capable of using more difficult French structures such as the Subjunctive Mood but did not really understand them well. He used expressions like *Il faut que je m’en aille*, (I have to go) and was able to incorporate the French indirect object pronoun “y” in expressions such as *J’y vais* (I’ll go) or *J’y arrive pas*, (I can’t do it). He made good use of the subject pronoun *on*, and used it

in place of the more formal *nous*. He admitted that he just imitated French people and for the most part, he was accepted as a Frenchman. Needless to say, the deception did not last long as the gaps in Ivan's grammar soon became obvious as he spoke. He enjoyed being mistaken for a French native speaker and did not reveal his identity unless asked.

This subject says he found it quite difficult to meet French people at the beginning. Initially the majority of his social group were English speakers, but early in 2005 he joined an indoor soccer club in the North of Paris and gradually made French friends by going to the local bar with his team after practise. He pointed out that very few of his team-mates were of Parisian origin.

The lads were really friendly from the start. It took me a while to realise that they weren't from Paris, that they were culchies.

(Ivan, 2007)

Ivan worked for a well-known private language school but he was not ambitious and was content to earn enough money to get by. He had a large group of friends of mixed nationality, including French speakers. English was the language spoken at home, as his partner was Irish. They had no children. Ivan was not afraid of taking risks and he was not afraid of being ridiculed if he made a mistake. His standard of French was not connected to his self-esteem and he spoke no foreign language other than French. Like many Irish nationals, Ivan learned Irish at primary school but although he was Irish, he was born in England and was exempt from studying Irish for the Leaving Certificate. He says it was a relief to be able to abandon Irish, as he did not enjoy learning the language at school. Although he was happy in Paris, he did not imagine he would settle down for good in Paris. He envisaged returning to Ireland at some point in the future.

Polly:

Polly was the last Irish participant to take part in the study. She came to Paris in 2001 with her partner shortly after graduating with a degree in Commerce from University College Cork. Her partner returned home after three years but Polly remained in Paris as she had a good job and felt at home there. Polly learned French at secondary school and enjoyed it. She did well in her Leaving Certificate, (Grade B2) but she only gave herself a 1/5 for fluency on arrival. She struggled with the language at the beginning and found everyday encounters in the shops stressful. She also studied Irish at primary and secondary school in Ireland but did not enjoy it at all and felt she was not good at it.

Approximately six months after she arrived Polly decided to enrol at the Alliance Française and attended classes there for two hours twice a week for the next two years. She found these classes very helpful and it was refreshing for her to be in a class where everybody genuinely wanted to learn. French lessons provided Polly with sufficient confidence to communicate and eventually get a good job with Irish Distillers in Paris. Polly travelled home to Ireland frequently for her job. At the time of interview, she felt confident enough to give herself a 4/5 for fluency. She had to socialise frequently with work colleagues, where the language spoken was French. Her accent was quite obviously English but her French was good enough that people did not automatically answer her back in English, which was the case when she first arrived. Socialising with French speakers provided her with a good opportunity to speak in French as she spoke in English throughout much of her working day.

The majority of Polly's friends were Irish and in order to make contact with French speakers outside of work, she joined a ladies' hockey club in the west of Paris. She practised several times a week and players were of various nationalities so the language spoken was French. Polly tried to speak French as often as possible but it was not always

easy. She, like other women in this study, had found it difficult to form lasting relationships with French women. As she lived alone, she was reliant on French television and radio for contact with the French language in the home. Her standard of French was connected to her self-esteem and she rated the importance of passing for a native speaker with a 3/5.

Victor:

The penultimate participant in the study was Victor, an American stationed in Belgium. Victor was born in France to a French mother and an American father but because his father was a colonel in the United States Army, the family moved to America shortly after Victor was born. His mother did not raise him bilingually and his first encounter with French was when he went to France on holiday at the age of 10. He had only heard his mother speak in French on the telephone to her family until that trip and one of the strangest things for him was to realise his mother spoke a language that he did not understand. He started learning French formally at the age of 12 and asked his mother to speak with him in French to help him get better grades at school.

Victor enlisted in the United States Army on leaving college, (where he studied engineering). He was posted all over Europe until 2002 when he got his final posting for Belgium. He was stationed there at the time of interview, but expected to move to Paris early in 2008 when he would retire from military life. His wife was American, so the language spoken at home was English. Victor was required to speak in French occasionally throughout the day in his role as community liaison officer with the U.S. army. However, he had set up a conversation exchange with several Belgian employees on the base in order that he and several other French-speaking colleagues could speak some French on a daily basis. He found the Belgian accent and turn of phrase quite different from that of his Parisian mother but he had become accustomed to this and gave himself a 7/10 for fluency.

This participant found the initial test quite difficult because his French production skills were stronger than his receptive knowledge. He had particular difficulty with the completion of the proverbs. His level of French was not connected to his self-esteem and he maintained that passing for a native speaker was irrelevant to him. For Victor, speaking French had been only a hobby, but he was increasingly aware that, with a move to Paris planned for the near future, he would need to take it more seriously.

Tabitha:

Tabitha was the final participant: an English woman living in Paris for two years at the time of testing. She was married to a French man whom she met in 2001 and with whom she spoke only French. Tabitha loved French at school where she also studied Latin (which she found helped her learn French) and went on to do a B.A. in French language and literature at Oxford University, where she was awarded first class honours.

She spoke only in French with her husband although she made an effort to speak in English with her two-year old triplets. Although she needed to speak English for her work, she also needed to speak French. Outside of her professional environment, Tabitha spoke mainly in French. She had a large group of friends and family with whom she spoke only in French. She asserted that she rarely made mistakes and passed regularly for a native French speaker.

Unlike the previous two participants, Tabitha was happy to relinquish her English background.

I think there has been part of me that wanted to ignore my
English identity to be more French (Tabitha 2007)

Although she returned to the United Kingdom very regularly, it was for professional reasons. She did not have strong links to her family there, She identified herself as European rather than English necessarily and even after lengthy conversations with a

French speaker, she was invariably asked where in France she was from. In other words, she had no discernable English accent.

Tabitha used no particular strategies to improve her French. She admitted to finding writing letters using a formal French register quite a challenge and copied native French speakers in this regard. In her written correspondence, she liked to take risks with new structures and changes in register. Her standard of French was strongly linked to her self-esteem and she hated making mistakes or being laughed at if she were mistaken in her choice of vocabulary. One area where Tabitha felt very English was in the professional arena. Although she was accepted as a Frenchwoman from a linguistic standpoint, she felt that her approach to business was very different from that of the French.

Actually it's becoming more important. The more I live in France and understand it the more I appreciate and define certain other elements. E.g. the French approach to business which is utterly protocol driven, conservative etc made me realise the extent to which I am more open, driven and free and informal actually in the business context.

(Tabitha, 2007)

In spite of the fact that Tabitha moved to France in 2005 and had only been resident in France for two years at the time of interview, she had been communicating with her husband since 2001 in French. For this reason, length of residence was initially measured as two years but the statistical analysis was also carried out on a LOR of 6 years in order to determine if LOR on the whole would be a stronger factor in predicting L2 attainment.

Table 3.2 Participants Group 2

Summary of Biological/Experiential Factors

Name	Gender	Age at Testing	Age of Arrival	French Partner	Other Languages
Morgan	Male	28	22	Yes	German/Irish
Jane	Female	51	23	No	None
Kylie	Female	34	27	No	Afrikaans
Henry	Male	29	27	No	None
Tabitha	Female	33	33	Yes	German
Siobhan	Female	39	26	Yes	Irish
Cassie	Female	58	25	Yes	None
Orla	Female	38	22	No	None
Clara	Female	37	21	Yes	Italian
Don	Male	62	60	Yes	None
Ivan	Male	35	31	No	None
Joanne	Female	39	36	No	None
Keelin	Female	44	24	Yes	Various
Victor	Male	38	33	No	None
Polly	Female	27	21	No	None

Table 3.3 Summary of Biological/Experiential factors of 2 participant groups combined

(*n* = 20)

Gender	Other Languages	Age of Arrival	Age at Testing	Length of Residence	Level of Education
Male 7	Irish 3	Mean 28.6	Mean 41.1	14.2	B.A. 13
Female 13	German 3				
	Italian 3				Leaving
Cert.	Russian 1				or equiv. 7
	Japanese 1				
	Turkish 1				
	Afrikaans 1				
	Spanish 1				

Chapter Four

Results of the Study: Analysis and Discussion

4.1 Presentation of the Results

It was the goal of this study to explore the socio-cultural and psychological factors, which affect the acquisition of a second language. By incorporating various data on contact with native speakers and opportunities to build on existing L2 knowledge as well as taking into account neuro-biological and cognitive factors, it was hoped to better understand how second language acquisition takes place amongst late learners.

Another goal of the study was to identify near-native speakers, those late second language learners who challenge received wisdom regarding age effects in that they have attained nativelylike proficiency in spite of later exposure, as well as to identify the factors that contribute to their success. Below are the three hypotheses of the study as originally laid out in Chapter Three: *Participants and Methodology*. It is important to note that in hypothesis one, age of onset corresponds to age of arrival in France

Research Hypotheses

- (1) Age of Onset will determine level of L2 attainment: late age of onset of SLA will preclude native levels of L2 attainment.
- (2) Certain experiential or biological factors such as age at testing, intention to reside or other languages known, will correlate significantly with levels of attainment.
- (3) Factors relating to experience will correlate positively with each other. For example, level of French on arrival will correlate positively with primary contacts in France, as well as

interrelating with other experiential factors such as frequency and quality of contact with native French speakers

As already stated in Chapter Three: *Participants and Methodology*, data for this thesis were gathered via three main instruments. The first was an Accent Recognition Task, henceforth referred to as the ART; the second was a written test, and the third was a semi-structured interview, which surveyed biological-experiential, social-psychological and instructional data.

Accent Identification Task Results

As will be clear from the tables below, and as previously reported, of the three accents in the test, two were easily identified by the majority of the sample, the Provençal accent and the Alsatian accent. The third accent from the Touraine region in the west of France (the Tourangeau accent) was correctly identified by only four of the sample and eight of the control group. As has already been mentioned in the previous chapter on methodology, twenty native French speakers participated in the testing process in order to provide a control group against which to compare the test results of the twenty near native speakers. The group was composed of 7 men and 13 women, exactly the same gender distribution as the test sample. Also, the age range was comparable to the non-native speaker group, with the age ranging from 23 to 65.

Table 4.1 English L1 Participants' Identification of Regional Accents

Subject	Accent 1 Provençal	Accent 2 Alsatian	Accent 3 Tourangeau
Olwen	Yes	Yes	Yes
Kenneth	Yes	Yes	No
Maurice	Yes	Yes	Yes
Freya	Yes	Yes	No
Marianne	Yes	Yes	No
Morgan	Yes	Yes	No
Jane	Yes	Yes	No
Kylie	No	Yes	No
Henry	No	No	No
Tabitha	Yes	Yes	No
Siobhan	Yes	Yes	Yes
Cassie	Yes	Yes	Yes
Orla	Yes	No	No
Clara	Yes	Yes	No
Don	Yes	No	No
Ivan	Yes	No	No
Joanne	Yes	Yes	No
Keelin	Yes	Yes	No
Victor	Yes	Yes	No
Polly	No	Yes	No

Table 4.2 Native Speakers' Identification of Regional Accents

	Accent 1 Provençal	Accent 2 Alsatian	Accent 3 Tourangeau
NS			
Manon	Yes	Yes	Yes
Marie	Yes	Yes	Yes
Marine	Yes	Yes	No
Anais	Yes	Yes	Yes
Aurelie	Yes	Yes	No
Camille	Yes	Yes	No
Caroline	Yes	Yes	No
Johan	Yes	Yes	No
Lea	Yes	Yes	No
Stefan	Yes	Yes	Yes
Adelaide	Yes	Yes	Yes
Delphine	Yes	Yes	No
Florent	Yes	Yes	No
Gilles	Yes	Yes	No
Dimitri	Yes	Yes	Yes
Jessica	Yes	Yes	No
Julie	Yes	Yes	No
Maud	Yes	Yes	Yes
Yann	Yes	Yes	Yes
Pierre	Yes	Yes	No

Correct Accent Identification (Non-Native Speakers)

Accent 1	85%
Accent 2	80%
Accent 3	20%

Correct Accent Identification (Native Speaker Control Group)

Accent 1	100%
Accent 2	100%
Accent 3	40%

It is clear from these results that the third accent was more obscure compared to the first two well-known French regional accents. The fact that only 40% of the control group were able to correctly identify it would indicate that it is a little-known regional accent even among French native speakers. The mean length of residence for the overall non-native speaker sample is 14.2 years, whereas the four non-native subjects who recognised the accent have been resident in France for an average of 28.5 years. They are among the longest residents in France in the sample. All four intend to reside in France for the rest of their lives and feel very much at home. They return rarely to their country of origin. All four have travelled extensively throughout France. Biological and experiential factors, which correlate positively with the Accent Recognition Task results, are discussed later in the chapter

Written Test: Native Speaker Control Group Results

As discussed in the previous chapter, the initial written test was developed to examine both the lexical and grammatical competence of the participants. In order to have a clear representation of participants' linguistic competence it is necessary to analyse the written test results separately from the ART results as there is a distinct disparity between the two sets of results.

Table 4.3 Control Group Written Test Results

Participant	Score	Percentage
Stephane	44/45	97.68%
Julie	42/45	93.24%
Dimitri	42/45	93.24%
Lea	44/45	97.68%
Maude	43/45	95.46%
Caroline	45/45	100%
Michel	45/45	100%
Gilles	43/45	95.46%
Johan	44/45	97.68%
Aurelie	45/45	100%
Florent	43/45	95.46%
Anais	44/45	97.68%
Jessica	42/45	93.24%
Marie	45/45	100%
Camille	44/45	97.68%
Marine	45/45	100%
Adelaide	43/45	95.46%
Caroline	45/45	100%
Yann	42/45	93.24%
Delphine	43/45	95.46%

Table 4.4 Non-Native Sample Written Test Results

Participant	Grade	Percentage
Olwen	36/45	79.92%
Kenneth	43/45	94.60%
Maurice	37/45	81.40%
Freya	37/45	81.40%
Marianne	44/45	97.68%
Morgan	40/45	88.80%
Jane	38/45	84.36%
Kylie	35/45	77.70%
Henry	19/45	42.18%
Tabitha	44/45	97.68%
Siobhan	43/45	94.60%
Cassie	43/45	94.60%
Orla	38/45	84.36%
Clara	39/45	86.58%
Don	35/45	77.70%
Ivan	34/45	75.45%
Joanne	35/45	77.70%
Keelin	43/45	94.60%
Victor	32/45	71.04%
Polly	36/45	79.92%

Table 4.5
Summary of Results in Tables 4.3 and 4.4

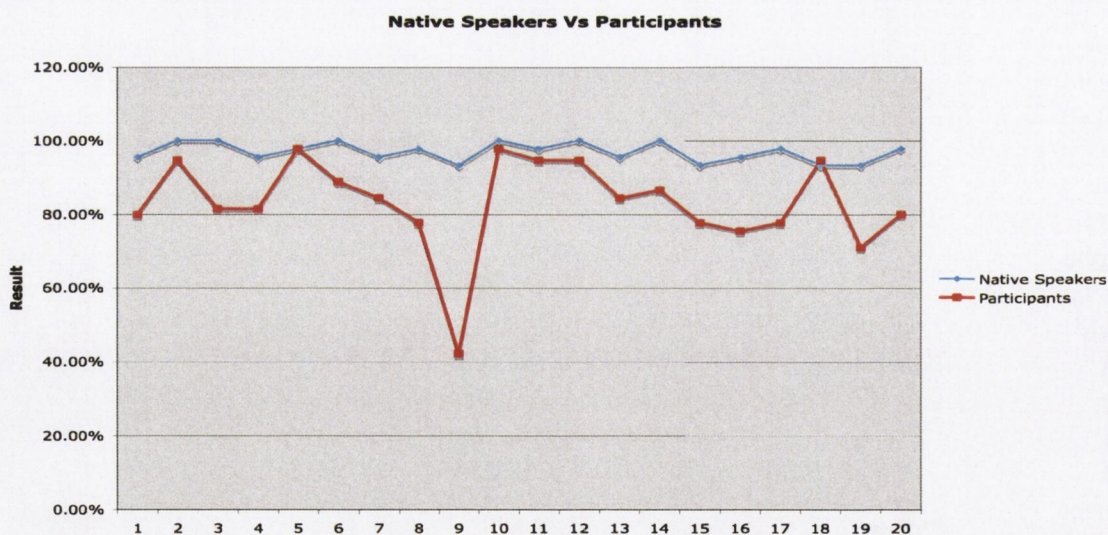
Control Group Results

6/20 participants	100%
5/20 participants	97.68%
5/20 participants	95.46%
4/20 participants	93.24%

NEAR-NATIVE SPEAKERS Group Results

2/20 participants	97.68%
4/20 participants	95.40%
1/20 participants	88.8%
1/20 participants	86.58%
2/20 participants	84.36%
2/20 participants	82.14%
2/20 participants	79.92%
3/20 participants	77.70%
1/20 participants	75.45%
1/20 participants	71.04%
1/20 participants	42.18%

Figure 4.1 Comparison of the written test results of the participants and the control group in graph form



It is clear that, native speakers scored within the range of 93.24% - 100%. The mean score of the control sample was 96.93%. The range of scores from the non-native sample was

more varied, with only six participants scoring within the native speaker range. The mean score in this case was 83.11% and the range of results from 42.18% - 97.68%. As explained earlier, there were 45 questions on the written test; 10 examined the lexical competence of the participants; the remaining 35 questions were grammatical in nature and were confined to traditionally difficult structures for native English speakers. Overall results of the test are displayed in Table 4.5

4.2 Questionnaire Variables Explained:

Below is a list of factors studied during the semi-structured interview.

Biological/Experiential Factors

1. Gender
2. Age
3. Age of Arrival in France
4. Length of Residence in France
5. Level of Education
6. Other languages known

Social/Psychological Factors

7. Intensity of motivation to learn French
8. Necessity of French for career
9. Self-rating of spoken French
10. Importance of passing for native speaker
11. Intention to Reside in France
12. Primary contacts
13. Identification with French language and community

Instructional/Cognitive Factors

14. Instructional years in French before and after arrival
15. Strategies to improve standard of French
16. Amount of informal feedback from native speakers.
17. Linguistic awareness in both English and French
18. Willingness to take risks with the French language.

Experiential/Interactive factors

19. Consistency of contact with native speakers.
20. Frequency of spoken interaction with French speakers

Table 4.6
Biological/Experiential Factors

Participant	Gender	Age at Testing	Age of Onset	French Partner	Other Languages
Olwen	Female	60	26	Yes	Turkish
Kenneth	Male	63	23	Yes	Russian
Maurice	Male	53	25	No	Japanese
Marianne	Female	31	22	Yes	German
Freya	Female	51	45	No	Italian Irish & Ger.
Morgan	Male	28	22	Yes	No
Jane	Female	51	23	No	Afrikaans
Kylie	Female	34	27	No	No
Henry	Male	29	27	No	German
Tabitha	Female	33	31	Yes	Irish
Siobhan	Female	39	26	Yes	No
Cassie	Female	58	25	Yes	No
Orla	Female	38	22	No	No
Clara	Female	37	21	Yes	Italian
Don	Male	62	60	Yes	No
Ivan	Male	35	31	No	No
Joanne	Female	29	36	No	No Irish, Ital Sp.
Keelin	Female	44	24	Yes	No
Victor	Male	38	33	No	No
Polly	Female	27	21	No	No

Summary of Biological/Experiential Factors

Gender	Other Languages	Age of Onset	Age at Testing	LOR	Education
Male 7	Irish 3 German 4 Italian 3	Mean 28.6	Mean 41.1	Mean 14.2	B.A. 13
Female 13	Russian 1 Japanese 1 Turkish 1 Afrikaans 1 Spanish				Leaving Cert or equiv.

The mean AO (age of onset) for this group is 28.6, well past most of the ages proposed as offset points for the “critical period” for language acquisition. All participants had a monolingual childhood and all commenced learning French at secondary school at age 11 or 12, however, the majority of subjects attest to really only learning French properly once

they arrived in France. Mean length of residence is 14.2 years with a wide range of 38 years, the minimum being 2 years and the maximum 40. The sample is well educated in general with 65% having a primary degree and 30 % having a post-graduate qualification.

Social/Psychological Factors

This is a highly motivated sample in general with only one subject neutral in respect of interest in the language. The majority of participants were keen to improve their French and took a strong interest in the language. The only subject who expressed a low level of motivation (2/5) was also the one who scored lowest on the linguistic task. 70% of the overall sample expressed a strong or very strong interest in the language (4 or 5/5). No clear gender differences in motivation were apparent, although none of the men interviewed had attended French classes on arrival and relied on day-to-day contact with French people to improve their language. 11/20 of the participants plan to spend the foreseeable future in France and have no plans to move elsewhere.

The majority of the sample expressed a need to speak good French for professional purposes, and for some participants the workplace was the main source of contact with native speakers. Passing for a native speaker was very important for some subjects, 6/20 felt it was extremely important. However, a further 6/20 also felt that it was unimportant to be able to pass for a native speaker. Interestingly, 3 of those 6 that gave this question a score of 1/5 (irrelevant) were among the most proficient of the candidates. Keelin, Siobhan and Cassie all admitted that when they were younger and first arrived in France, they thought that to pass for a native speaker was the ultimate goal. However, after some years of being able to pass for a native speaker with ease, these participants decided instead to reveal their non-native identity as they began to see it as an advantage to be an excellent French speaker with an identifiable foreign accent.

One participant, Siobhan, said that her Irish accent allows her “to get away with murder!” By this she meant that she could talk about taboo topics or generally say things, which others might not dare say. This was accepted in her social circle because she was Irish.

The majority of the sample were happy to reveal their non-native speaker status immediately and were proud of their origins. Two participants disliked admitting they were not French and preferred not to disclose their British nationality. Marianne, in particular claimed that she never needed to reveal her English origins and preferred to be thought of as French. Tabitha too felt it was more glamorous to be French than British and had applied for French citizenship at the time of interview. She intended to identify herself as French once it was granted.

A number of participants expressed frustration at the deterioration of their English and admitted that they often searched for words in their native language. Siobhan, in particular, admitted that speaking English to pupils at her cookery school was difficult after a summer of speaking in French with her family.

Instructional/Cognitive Factors

All but one of the sample (Kylie) had completed a minimum of 5 years of French instruction at secondary school or high school. A number of subjects particularly enjoyed French at school, (Kenneth, Marianne, Siobhan, Keelin and Tabitha) and did not find it difficult. Five of the participants went on to study French at university as well as three others who studied French as an extra subject with their degree. 7 among the participants

attended French classes on arrival and all but one of them found them helpful in improving their French.

As far as learning strategies are concerned, this group of subjects confined themselves to traditional methods such as repetition of new or unfamiliar structures or vocabulary, autocorrection, etc. Only two of the sample kept a language journal, (Kenneth and Don), and few were willing to consult native speakers on the use of a new structure and preferred just to listen and imitate. Although many of the participants professed to taking risks with the language, they nonetheless dreaded ridicule if they made a mistake. Moreover, many of the sample would have preferred more feedback from native speakers in the early stages of acquisition. Some expressed frustration at French politeness which meant that they were never corrected. This was particularly true of the American participants.

A number of subjects work as English teachers in France and are therefore aware of the structures of both languages. Tabitha and Kenneth both studied Latin at secondary school, which they said helped them in their acquisition of French and also made them very aware of the structure of the language. Morgan and Siobhan maintained that learning Irish from the age of 5 was helpful in their acquisition of French, although other Irish nationals; Orla, Clara and Keelin felt that it made no difference.

Experiential/Interractive Factors

The majority of the sample encountered French for the first time in a formal setting, i.e, at school. Only two of the sample had their first experience of the language on meeting their partner, (Kylie and Don).

Some participants had made their primary contact with a French native speaker before arriving in France. Marianne, Siobhan, Olwen, Ron, Tabitha and Kylie all met French partners abroad and came to France with their partners. For these participants

making contact with native French speakers was not difficult. However, for others it was several years before they felt they had enough daily contact with French speakers, these include Jane, Joanne and Frances. These subjects spent the first years of residence socialising with the English-speaking community in Paris and their French did not advance beyond occasional interactions with shop-assistants, waiters, etc. Jane, for example, still feels that she would like to interact more with French native speakers but finds it difficult to form personal friendships with French women. A long length of residence would normally offer increased opportunities for contact with native speakers. It is important, however, to take the age of participants at the time of testing into account. It has been argued that, for older learners, there are fewer opportunities for contact with native speakers than for younger learners

Some participants have found it quite easy to form friendships with French NS and socialise with both French and English speaking individuals. Keelin, Morgan, Maurice and Orla have all developed strong relationships with French native speakers (in spite of speaking English at home), and have nonetheless maintained friendships within the expatriate community. They feel they can move comfortably between the two linguistic groups.

Below is a summary of three of the four main factor groups, which, have been discussed above and may possibly affect the acquisition of a second language among late learners. Each participant answered a total of 60 questions in the semi-structured interview, and, for the purpose of this study, the information gathered through these questions has been condensed into sixteen variables. Only questions, which featured a 1-5 type answer, were included in the summary, as these were possible to quantify. Each group of variable corresponds to a group of questions in the interview.

Table 4.8 Summary of Findings Relating to Social/Psychological Factors

Intensity of motivation to learn French	Very Strong 40%	Strong 30%	Average 25%	Weak 5%
Necessity of French for career	Very Important 55%	Important 15%	Rarely need 15%	Unnecessary 15%
Self-rating of spoken French	Excellent 35%	Good 10%	Passable 35%	Weak 20%
Importance of Passing	Very Important 40%		Important 35%	Irrelevant 25%
Intention to Reside in France	Definite Plans 35%		Unsure 50%	Definitely not 15%
Primary Social Contacts	Mainly French 30%	Mainly English 25%		Mixed Nationalities 45%
Affinity with French Community	Strong Affinity 45%		Mild Affinity 40%	None 15%

Table 4.9 Summary of Findings Relating to Instructional / Cognitive Factors

French Instruction before and after arrival	Mean 5.95 years	Range 10 years	Min 0 years	Max 10 years	SD 3
Employment of strategies to improve French	Imitating NS 85%		Keeping Journal 25%		None 10%
Amount of informal feedback from native speakers	Frequent 25%	Occasional 35%	Rare 30%	Never 10%	
General linguistic awareness	Very aware 30%	45%	Aware 25%		
Willingness to take risks with the language	Very Willing 35%		Occasionally Willing 50%	Unwilling 15%	

Table 4.10
Summary of Findings Relating to Experiential/Interactive Factors

Context for initial exposure to French native speakers	Home/Family 30%	School 10%	University 40%	Other 20%
Primary Contacts	French Native Community 40%	Expatriate Community 30%	Mixed Communities 30%	
Consistency of contact with native French speakers	Very Consistent 60%	Consistent 15%	Occasional 25%	Sporadic 0%
Frequency of Spoken Interaction w/French natives	Very Frequent 50%	Frequent 25%	Occasional 25%	Rare 0

The above figures broadly represent the data gathered during the semi-structured interview. Later in this thesis, we shall see how, if at all, these various factors impact on each other as well as on L2 attainment. In the following sections the findings of the study are set against the three research hypotheses

4.3 Hypothesis One

The first hypothesis of this study is that age of onset will determine L2 attainment: late age of onset of SLA will preclude native levels of L2 attainment. In order to test this hypothesis the correlations between age of onset and a number of other variables has been analysed. Analysis of the correlation between two sets of figures is carried out in order to determine the strength of a relationship between 2 variables and to what extent can one be predicted from the linear function of the other. All correlation coefficients (or r) can range from +1 to -1. No other value is possible. A value of 0 indicates that the variables are not related. Values close to -1 or +1 indicate strong predictive relationships. However, to determine the correlation between two variables it is necessary to obtain the p-value of each correlation. The p-value gives us the decreasing index of the reliability of a result. A p-

value of 0.5 for example indicates that there is a 5% chance that the relationship between variables is unreliable. It is generally accepted in statistical analysis that a p-value of .05 is an acceptable significance level.

Figure 4.2 Age of Onset versus Written Test Results

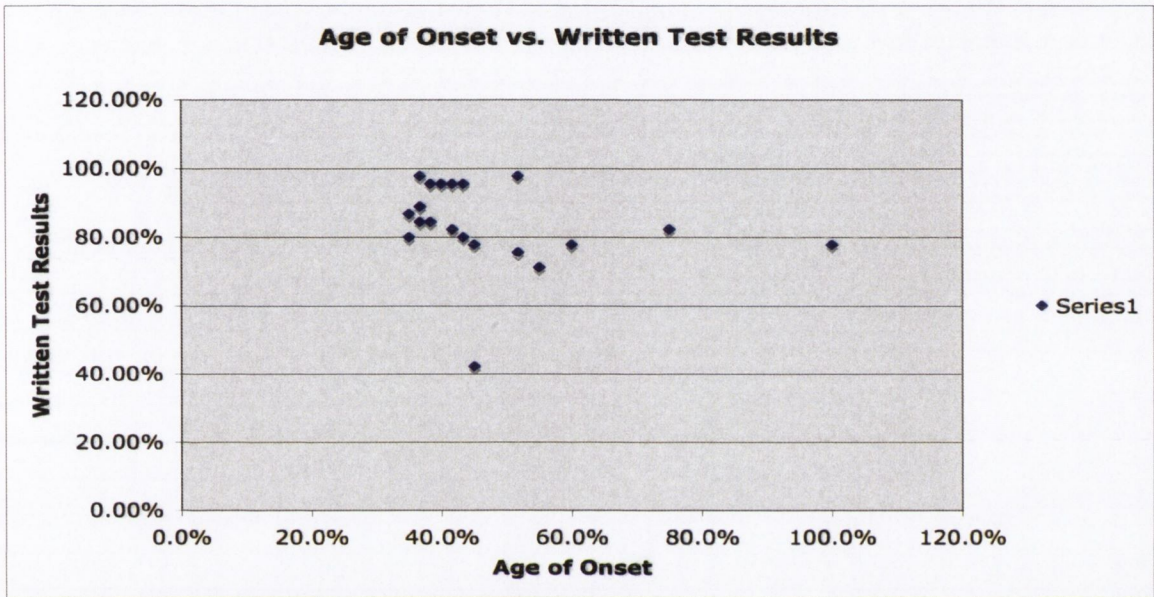
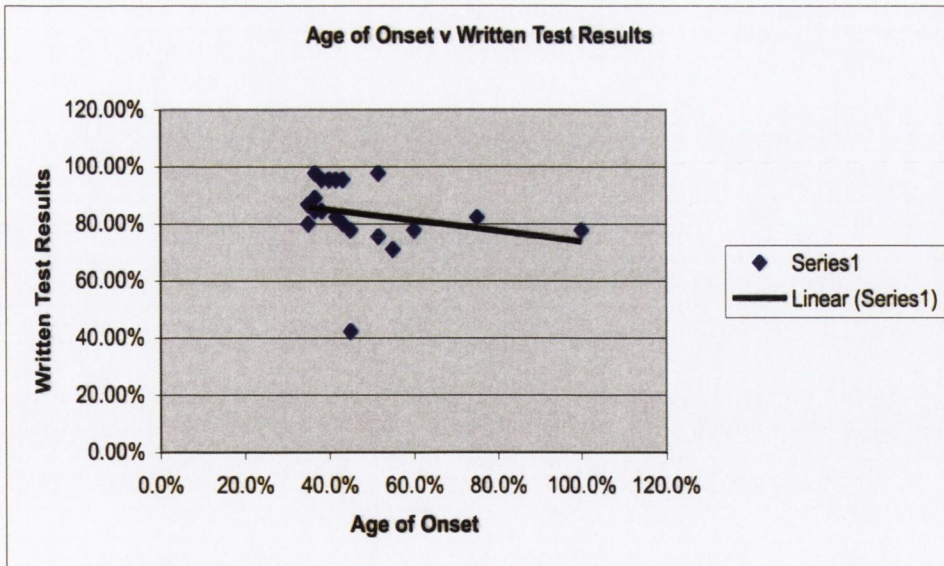


Figure 4.3 Fig. 4.2 (Linear Relationship)



Note: Age is expressed as a percentage of 63, the oldest age of onset in the study in order to correlate age of arrival with other variables

In figures 4.2 and 4.3 above it is possible to see that there is not a distinct linear correlation

between age of onset (AO) and the written test scores. In fact, according to the results of

this study, age of onset does not have an important bearing on L2 proficiency as interpreted through the written test results. In Tables 4.11 and 4.12 below, it is possible to see in a non-statistical arrangement that Freya and Maurice achieved exactly the same score in spite of there being 20 years in the difference between their ages of arrival in France, (Freya, AoA 45; Maurice, AoA 25). Also, Don and Joanne, each with a score of 77.78 have a 24-year difference in their age of arrival, (Joanne, AoA, 36; Don, AoA, 60)

Table 4.11

Participant AO Written Test Score

Olwen	26	80%
Kenneth	23	95.56%
Maurice	25	82.22%
Frey	45	82.22%
Marianne	22	97.78%
Morgan	22	88.89%
Jane	23	84.44%
Kylie	27	77.78%
Henry	27	42.22%
Tabitha	31	97.78%
Siobhan	26	95.56%
Cassie	25	95.56%
Orla	22	84.44%
Clara	21	86.67%
Don	60	77.78%
Ivan	31	75.56%
Joanne	36	77.78%
Keelin	24	95.56%
Victor	33	71.11%
Polly	21	80%

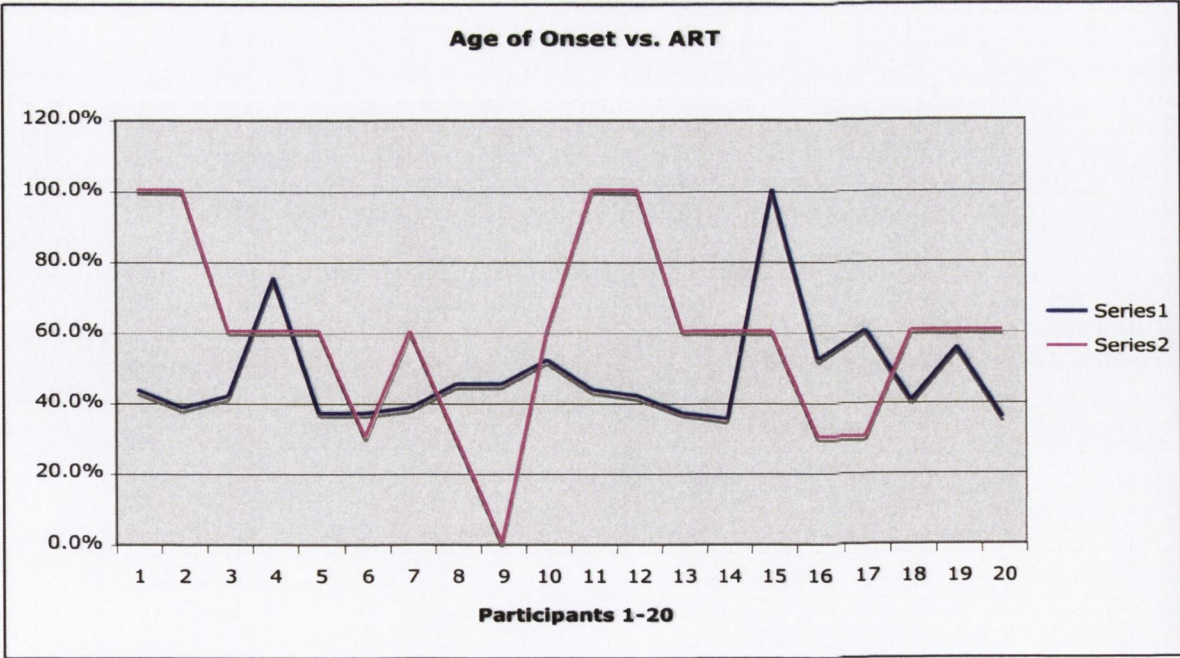
Table 4.12

Summary of NEAR-NATIVE SPEAKERS Written Test Results

	AO	Test Score
Mean	28.5	83.44%
Max	60	97.78%
Min	21	42.22%
SD	9.5	0.12

In the case of the correlation between AO and the accent recognition test, the r-value is 0.109, which is quite weak. The t-value for this correlation is -0.468, and with a p-value of 0.68, there is a 1 in 1.5 chance that the correlation is not reliable. The non-linear relationship between these two variables is evident in Figure 4.4.below. It is possible to infer, therefore, that age of arrival (or age of first significant exposure) does not have a bearing on L2 attainment as estimated by the results of both the written test and the accent recognition test.

Figure 4.4
Age of Onset correlated with Accent Recognition Task Results (ART)



4.4 Hypothesis Two

Certain experiential or biological factors such as age at testing, intention to reside or other languages known, will correlate positively with levels of attainment

The correlations between a number of different variables and L2 attainment were obtained as well as t-values of those correlations. A number of strong correlations emerged which are displayed in Table 2.3 below. Certain variables were more closely linked to L2 attainment than others. L2 attainment was measured using the result of both both the written test, and the accent recognition test, (ART). All correlations between variables and test results with a t-value of less than 2 or -2 were discarded.

Table 4.13

Correlations between variables and Written Test results.

Variable	Correlation	t-value	p-value
1. Self-rating of spoken French	0.856	7.04	0.00002
2. Frequency of spoken interaction	0.735	4.60	0.00005
3. Primary contacts	0.725	4.47	0.00009
4. Years of French Instruction	0.642	3.55	0.00019
5. Consistency of Contact	0.586	3.07	0.00107
6. Enjoy French at School	0.576	2.99	0.00130
7. Intention to Reside	0.558	2.85	0.00214
8. Level of French on arrival	0.478	2.30	0.00104
9. Frequency of Written Production	0.452	2.15	0.01562

The above table, 4.13 displays the highest positive correlations between the variables examined in the semi-structured interview. They are displayed in descending order of importance.

Table 4.14**Correlations between variables and Accent Recognition Test. (ART) results**

Variable	correlation	t-value	p-value
Intention to reside	0.779	5.27	0.000085
Length of Residence	0.697	4.13	0.000171
Frequency of spoken contact	0.635	3.49	0.000239
Consistency of contact	0.630	3.44	0.000290
Self-rating of spoken French	0.618	3.33	0.000419
Primary Contacts	0.554	2.82	0.000235
Age at Testing	0.435	2.05	0.020020

As was stated earlier, a t-value of above 2 or below -2 is considered acceptable; so all t-values beneath these values were disregarded. As can be seen in table 4.14 there are a number of strong relationships between certain biological and experiential factors and L2 attainment, in this case measured by the results of the written test. It is interesting to note that not all variables are of the same significance when it comes to correlating them with the ART. Certain factors such as “years of French instruction” or “frequency of written production” do not seem to play a strong role in the ability to identify regional accents. Other factors such as “length of residence” do seem to count in this respect, in spite of having a low correlation with written test scores, (correlation: 0.385, t-value: 1.77)

(1) Self-Rating of Spoken French

Variable tested	Correlation	t-value
Self-rating vs. written test	0.857	7.02
Self-rating vs. ART	0.618	3.34

This variable had the highest correlation value with the results of the written Test. It is a complicated variable, because not only are subjects being asked to rate their own standard of French but there are confidence and self-esteem issues in question here also. This close

linear relationship reflects the fact that those participants who believe their French to be worthy of the top score (5/5 very fluent) are correct in their assumption. It is also an important factor in the ability to identify regional French accents with a t-value of 3.34

This experiential factor was established by asking participants how fluent they felt their spoken French was on a scale of 1-5, with 1 being weak and 5 being very fluent. There was a strong correlation between high self-rating and high results of the written test. Seven of the twenty participants rated their spoken French at 5/5; of these, six participants scored within native speaker ranges on the written test. Only one participant, Orla, felt her spoken French was comparable to that of a native speaker but her results in both tasks did not lend support to her belief. Of the remaining six high scoring participants three also scored within native speaker ranges on the accent recognition task. These were, Kenneth, Siobhan and Cassie.

Below in Figure 4.5, it is possible to see a strong linear relationship between written test results and self-rating as the two variables follow very similar patterns when mapped. This strong linear relationship is also evident in Figure 1.6 between results of the ART and self-rating of spoken French. One controversial element in this study is the fact that participants were asked to rate their own fluency rather than have it rated by a panel of native speakers. The decision to do this was based on the work of Ingrid Piller who has carried out a number of studies on near-native speakers.

While it is clear that it is neither scientifically nor ethically sound to measure ultimate attainment against native speaker baseline data, the prevailing disregard of expert L2 users has led to a situation where we do not have any idea of what other yardstick to use. Therefore, for the purposes of this article I will take self-identification as measure, i.e. I discuss the accounts

of those who say of themselves that they are very advanced L2 users and who cite the fact that they can pass for native speakers on occasion as evidence for that claim. (Piller,I. 2002:182)

Piller has a number of objections to the linguistic competence of near-native speakers being compared to that of native speakers, all of which she outlines in this article and which are discussed in depth in Chapter 2 of this thesis. However small the sample in this study, the results of both accent recognition and Written Tests would indicate that using speakers' own perception of their fluency in an L2 as a measure of linguistic competence is viable. Only one of the seven "very fluent" participants' written test results did not support the self-rating. The remaining six participants, however, scored well within native-speaker ranges and three of those scored 100% on the accent recognition test.

These results demonstrate that at least three participants in the sample are justified in rating themselves as "very fluent", as their test results support their claim. This would indicate that allowing near-native speakers to rate their own fluency is a viable measurement tool in testing L2 attainment.

Figure 4.5
Series 1= Written test results
Series 2= Self rating of spoken French

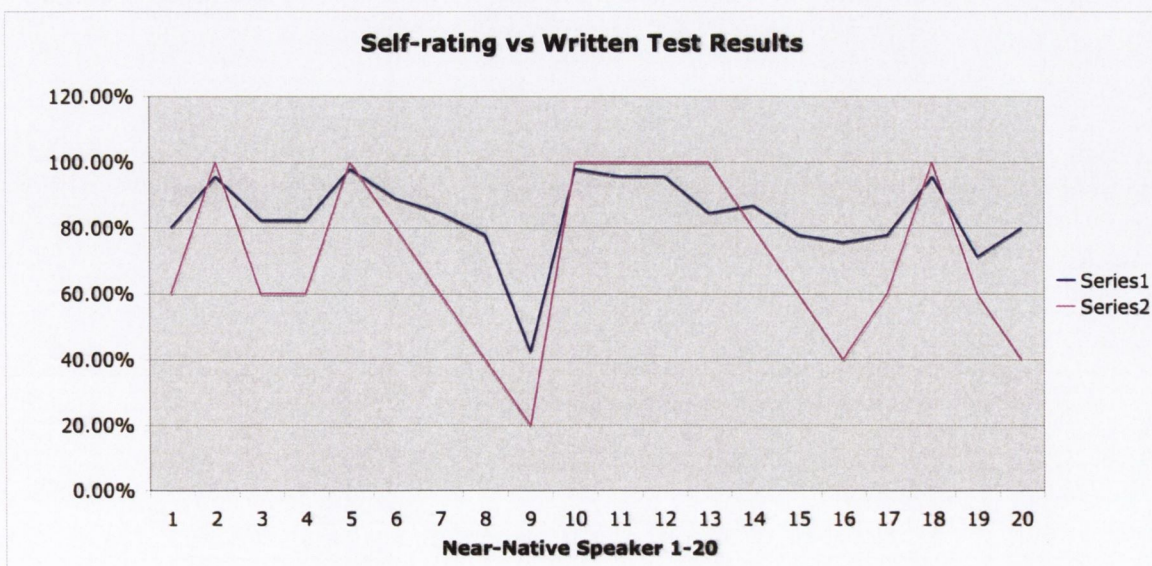
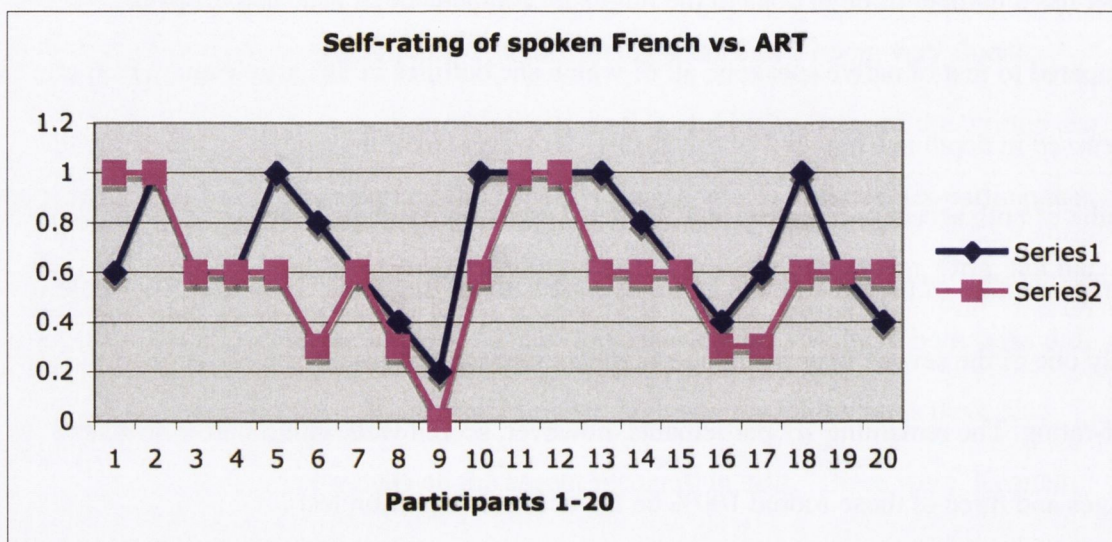


Figure 4.6

Series 1= Accent Recognition

Series 2 = Self-rating of Spoken French



2) Frequency of Contact

Variable Tested	Correlation	t-value
Frequency of Contact vs. Written Test	0.735	4.60
Frequency of Contact vs. ART	0.635	3.49

Participants were asked how many hours on average they spent communicating in French per week on average. Five options were given for the answer. The top scoring answer was 50 hours+, then 30-50 hours, 20-30 hours, 10-20 hours, and the lowest scoring option was less than ten hours per week.

The results were as follows;

50 hours+ 30% of sample, (Kenneth, Marianne, Morgan, Orla, Cassie, Siobhan)

30-50 hours 25% of sample, (Olwen, Tabitha, Keelin, Maurice, Clara)

20-30 hours 20% of sample (Jane, Don, Joanne, Polly)

10-20 hours 20% of sample (Freya, Kylie, Ivan, Victor)

-10 hours 5% of sample (Henry)

The majority of the sample has reported more than 50 hours weekly direct contact with native French speakers. Certain participants such as Tabitha and Keelin scored within native speaker ranges on the written task in spite of not having as much contact as the other participants who scored this highly. The reason for the lower frequency of contact in both cases is because both participants have demanding careers that require frequent foreign travel. Both participants however, speak French consistently at home and socialise mainly with French nationals.

Interestingly, two participants who maintain they have 50+ hours' spoken contact a week do not score within the native speaker range. They are Orla and Morgan. Although both of these subjects work in bilingual French/English working environments, they nonetheless speak English at home and socialise principally with English speaking nationals, which would imply that much of their relaxed discourse takes place in English.

Of the nine participants who have less than 30 hours spoken contact with native French speakers, eight expressed a desire to have more contact but found it difficult to expand their circle of existing contacts. For the older participants in this group, (Jane, Don and Freya), the situation is particularly frustrating. They do not have the confidence in their linguistic ability to move out of their mainly English-speaking social circle, making increased direct contact with French native speakers less likely. The participant with the lowest score on the written test, Henry, is also the one with the lowest frequency of contact with native French speakers. Henry had little interest in increasing his contact with French speakers and the six hours he spent conversing with his French co-workers were enough in the way of direct contact for him. Of all the participants, Henry was the least motivated learner and did not have any real interest in improving his French. At the time of interview, he was looking forward to leaving France when his contract terminated. The only stipulation for people to take part in the study was to occasionally pass for a native French

speaker. Henry admitted that he rarely passed for a native French speaker and that on those occasions that he had been mistaken for a French person it was because he was with his French work colleagues and did not speak very much. However, Henry was an exception to the rule in this case as he was the only participant in the study so uninterested in attaining native-like proficiency in French.

Figure 4.7
Frequency of Spoken Interaction vs. Written Test Results
Series1= Written Test Results
Series 2= Frequency of Spoken Interaction

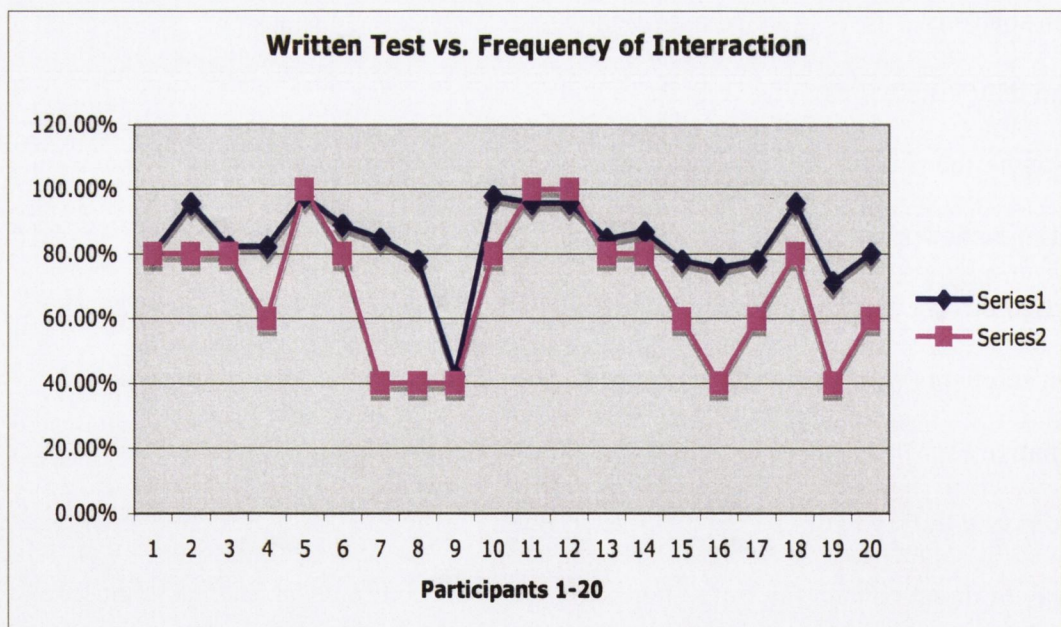
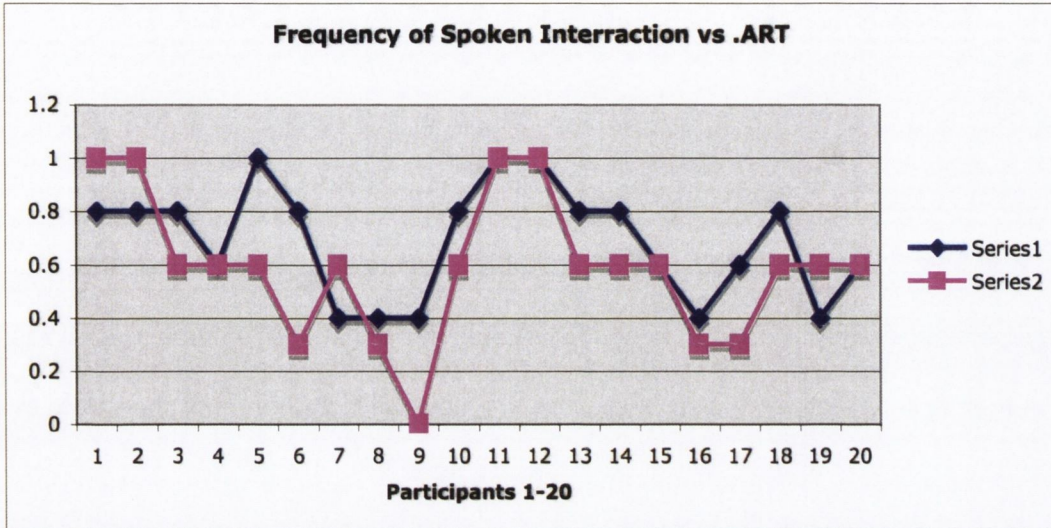


Figure 4.8
Frequency of Spoken Interaction vs. ART

Series 1 = Frequency of Spoken Interaction
 Series 2 = Accent Recognition Task



The high correlations between this variable and the two tests are visible in Figures 4.7 and 4.8. Interestingly, the correlation between frequency of spoken interaction and the written task is higher (correlation; 0.735) than that between it and the accent recognition task (correlation 0.635). One might perhaps have imagined that a higher frequency of spoken interaction would have a greater influence on phonetic proficiency rather than on morphosyntactic and lexical proficiency.

(3) Primary Native Contacts

Variable Tested	Correlation	t-value
Primary Native Contacts vs. Written Results	0.725	4.48
Primary Native Contacts vs. Accent Recog.	0.532	2.67

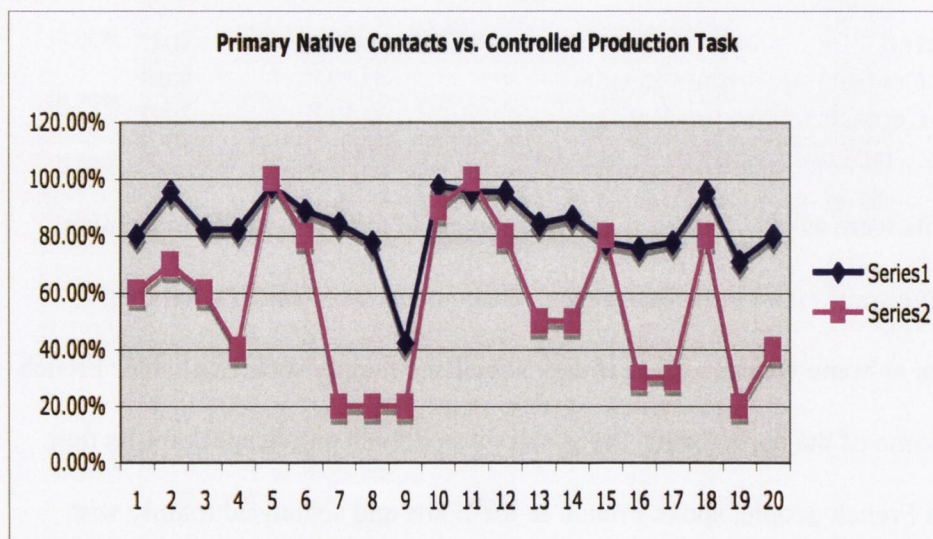
Here, participants were asked whether they communicated mainly with French native speakers or native speakers of other languages. Participants were asked what their language spoken at home was as well as if they socialised mainly with English or French speakers. For some of the participants, the answer was French native speakers, as they were married to French people, spoke French in the home and socialised mainly with

French nationals. Eight among the participants are married or living with French nationals and French is the language spoken at home, (apart from Don, whose French wife prefers to speak English at home). Of those eight, six are among the top scoring subjects. This would mean that those six subjects live their daily lives through French. For some of them, French has replaced English as the dominant language. Several among these participants find the transition from French to English increasingly difficult, especially if they go for a period without speaking English. Cassie, for example, finds it difficult to talk to her American relatives after speaking only in French for a given period. Another of the subjects, Siobhan, confessed to not knowing the English translation of a number of DIY terms and not being curious about such terms in English as she did not think she would ever need them, so certain is she of not returning to Ireland.

Only one participant, Olwen, who spoke French in the home, did not achieve written scores within native speaker ranges. However, her social circle was mainly composed of native English speakers and she spoke more English than French at work.

Figure 4.9
Primary Native Contacts vs. Results of Written Test

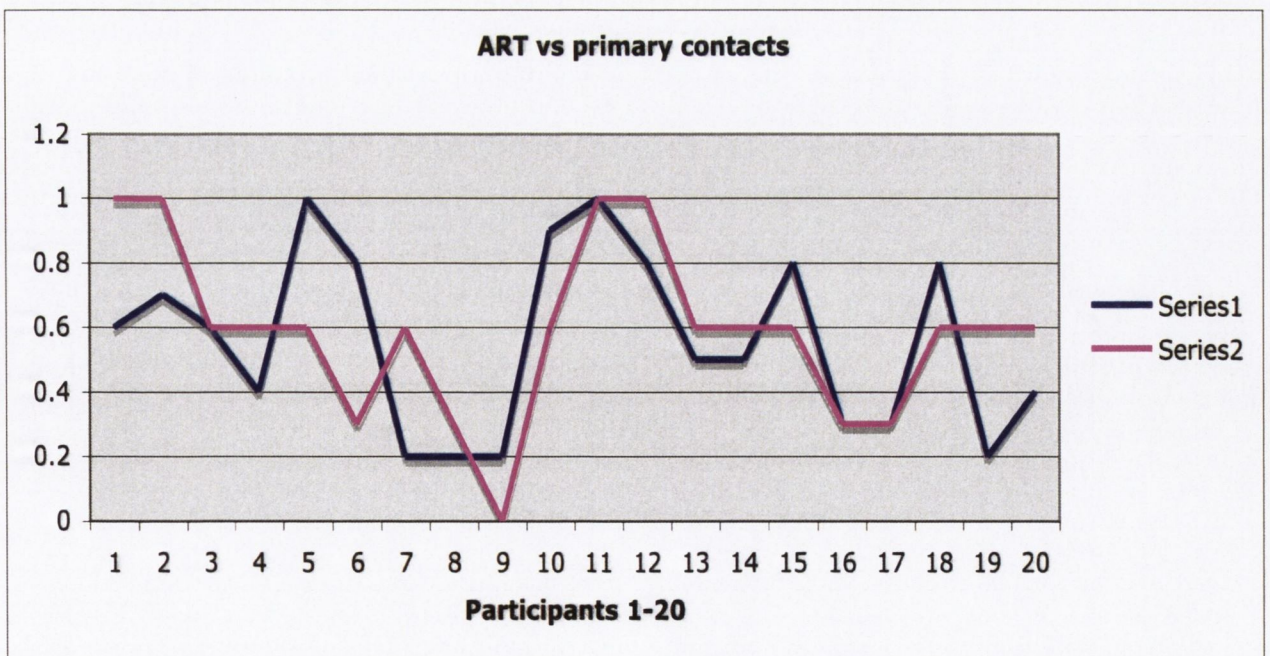
Series 1 =Task Results
Series 2 =Primary Native Contacts



There is a significant correlation between the accent recognition task results and the primary native contacts variable, (0.532), but it is not as strong as that between the written test results and primary native contacts, (0.725). The linear relationship as shown in Figures 4.9 and 4.10 is strong with both graphs exhibiting closely related patterns. Having native French speakers as primary contacts means that those participants have much opportunity for implicit language acquisition. A later discussed variable, consistency of contact is closely linked to primary contacts as it relates not only to whether or not participants have the opportunity to speak and listen to French as spoken by native speakers but to also how consistent that contact is.

Figure 4.10
Accent Recognition Task vs Primary Contacts
Series 1 =Primary Contacts

Series 2 = Accent Recognition Task Results



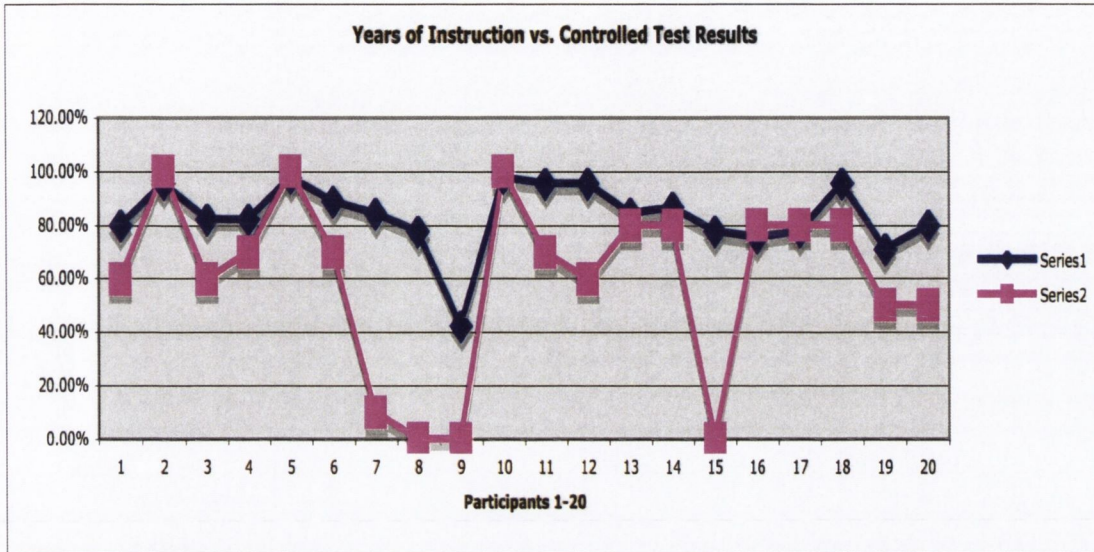
4) Years of French Instruction

Variable Tested	Correlation	t-value
Years of French Instruction Vs. Written Test Results	0.642	3.5

That there is a significant relationship between length of instruction and L2 attainment in written L2 production is not very surprising, as there has been much research carried out in this area already (Muñoz, 2003, 2006, Harley & Hart, 1997, 2002). Direct instruction may play an important role in enhancing fluency in an L2. This variable, unlike the previous two, does not appear to play a significant role in the ability to identify regional French accents (t-value: 1.59), but its relationship with the written task results is undeniable with a relatively high t-value of 3.55. For the six participants who scored within native-speaker ranges in the written task the average number of years of French instruction was 8.5, whereas the average for the remainder of the sample was 4.9. Three of the six top scoring participants, (Kenneth Marianne and Tabitha) have studied French at university level and Marianne holds a PhD in comparative French and German literature which she did through the medium of the French language in France. All three participants attended university to study French in the UK before becoming resident in France, which would have been an advantage in acquiring the language. Two other participants, however, are also graduates with a B.A. in French, (Orla and Clara). The fact that these particular subjects did not achieve scores within native speaker ranges would indicate that length of instruction in an L2 is only effective in combination with a number of other factors. This mix of variables will be discussed later in the study.

Figure 4.11
Years of Instruction vs. Written Test Results

Series 1=Written Test Results
 Series 2 =Years of Instruction



(5) Consistency of Contact

Variable Tested	Correlation	t-value
Consistency of Contact vs. Written Test	0.586	3.07
Consistency of Contact vs. ART	0.511	2.52

This variable is, essentially one of a group of three, centring on the nature, consistency and frequency of contact participants have with native French speakers. The three variables are interdependent, particularly the last two, consistency and frequency. Having already established the nationality of the primary contact, it was then necessary to determine how regular or consistent this contact was. As we can see from the above results, consistency of contact has a stronger relationship with the accent recognition test than with the written test. This is an unsurprising result confirming that consistent communication with native speakers has a positive influence on phonological recognition abilities.

Participants were asked how consistent their contact with native French speakers was, and the top scoring answer was at 5/5, very consistent contact, the lowest scoring

answer in this study was 2/5, occasional contact. Obviously, for those participants whose home language was French, the consistency was strong. Participants Marianne, Siobhan and Cassie all reported speaking French constantly throughout the day and only very occasionally speaking English. Others such as Olwen, Kenneth and Keelin speak mainly English at work, and so in spite of French being the home language, English is spoken for a long period every workday. Tabitha travels to the UK every week for her work, which limits her contact with French somewhat. Some subjects, such as Jane and Don, complained that they did not have enough contact with native French speakers in spite of (in Jane’s case) living in France for many years. They relied on communicating in French with other nationals. Kylie, whose main French contacts are her family-in-law, speaks French only at weekends and English throughout the week, as her job requires her to speak in English. Some, such as Clara and Siobhan and Keelin, said they found it difficult to form close friendships with French people and as a result did not have the consistency of contact they would have liked.

Figure 4.12
Consistency of Contact vs. Written Test Results

Series 1= Written Test Results

Series 2= Consistency of Contact with Native Speakers

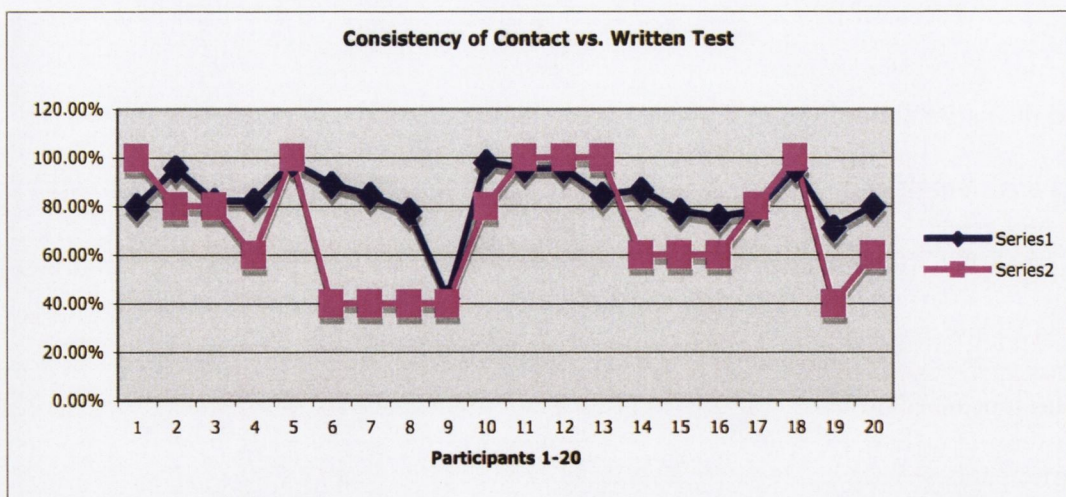
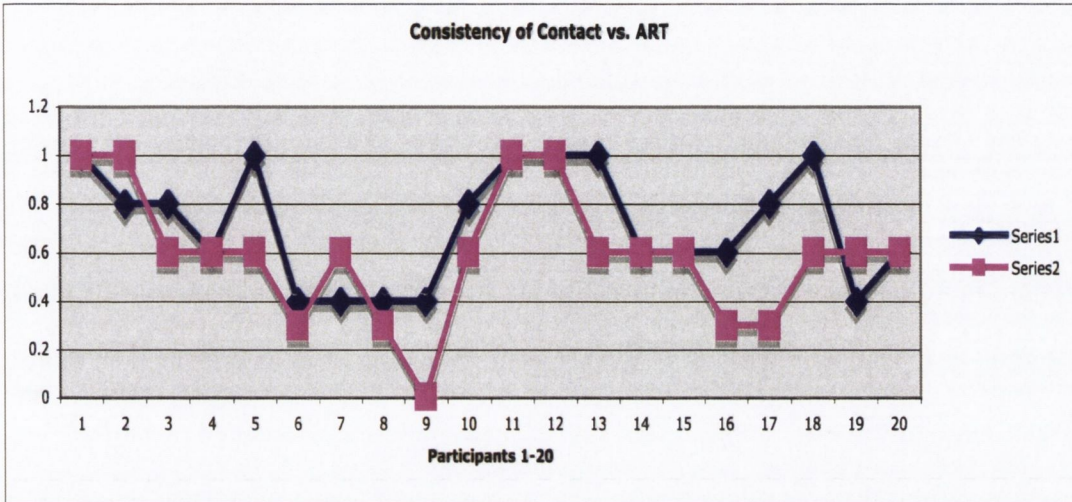


Figure 4.13
Consistency of Contact vs ART

Series 1=Consistency of Contact
 Series 2=ART



(6) Enjoyment of French at School

Variable Tested	Correlation	t-value
Enjoyment of French at School vs. Written Task Results	0.576	2.989

All participants started to learn French at school from the age of eleven or twelve at the latest. Some of them had a more positive experience than others. They were asked in the interview to give an answer on a scale of 1-5 to whether they enjoyed learning French at school. 5 was the top answer, meaning French was their favourite subject and 1 was the lowest if they really did not enjoy learning the language.

The results were as follows

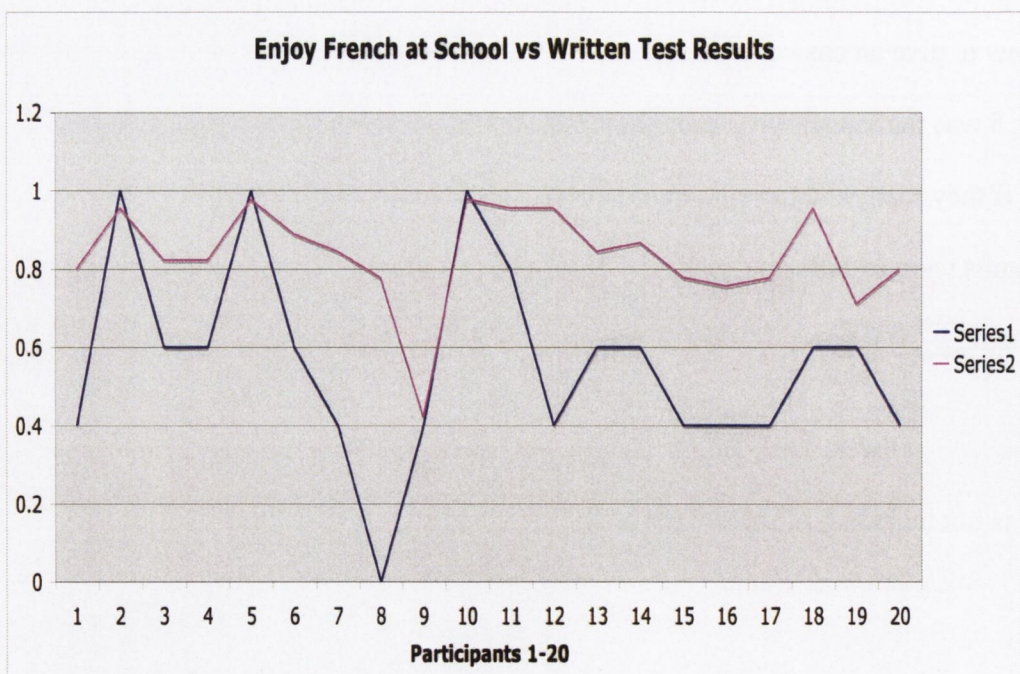
- 5/5 Marianne, Tabitha, Kenneth
- 4/5 Siobhan,
- 3/5 Maurice, Freya, Morgan, Orla, Clara, Helen, Victor
- 2/5 Olwen, Jane, Henry, Cassie, Ivan, Joanne, Polly

(Kylie is not included, as she did not learn French at school)

For Marianne and Kenneth, the French learning experience was made exceptional by outstanding teachers who resorted to unusual teaching methods in an attempt to bring French alive in the classroom. Kenneth’s French teacher played records of French singers such as Jacques Brel and Serge Gainsbourg in class and encouraged the boys to translate the lyrics. Marianne’s teacher insisted on pupils translating nonsensical but funny poems which he made up himself. Marianne could still remember the poems during the semi-structured interview. Tabitha enjoyed French mainly because she found it easy and felt she had good teachers who explained everything clearly.

For other participants such as Helen and Cassie, French was a subject like any other. These participants, among others expressed disappointment that they had not spoken more French at school but instead concentrated on grammar, French literature and dictation. Coming to France and hearing French spoken with a native French accent was a shock to some participants such as Jane and Ivan. For Ivan who had been used to being taught French through English, it was particularly difficult

Figure 4.14
Enjoyment of French at School vs. Written Test Results



Series 1 = Enjoyment of French at School
 Series 2 = Written Test Results

The correlation between “Enjoyment of French at School” and the ART was not significant.

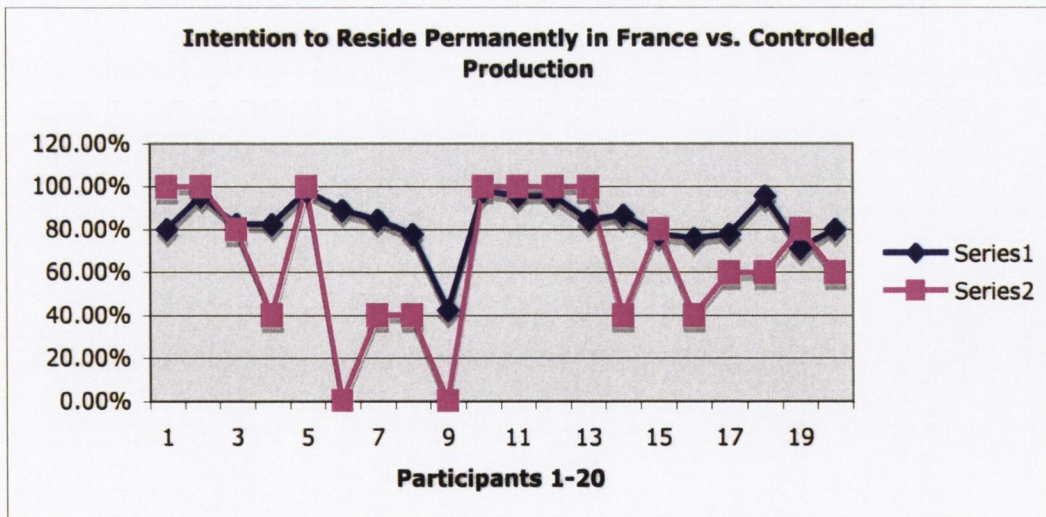
(7) Intention to reside in France

Variable tested	Correlation	t-value
Intention to reside vs. Written Test	0.558	2.85
Intention to reside vs. ART	0.779	5.27

The correlation between the intention to remain resident in France and the overall test results is not as strong as that of self-rating of spoken French but it is, nonetheless, worth taking into account in light of its t-value. Clearly, intention to reside in France is a much more significant factor in the ability to recognise regional accents, as it is this variable over all others that has the highest correlation and t-value.

Figure 4.15
Intention to Reside Permanently in France vs. Written Test Results

Series 1= Written Test Results
 Series 2= Plans to Reside Permanently



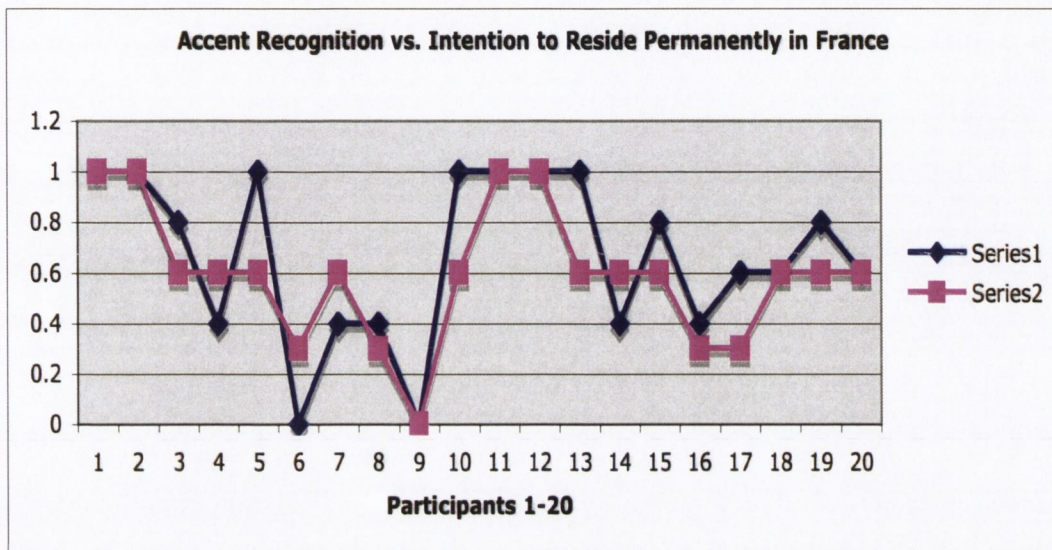
Of the twenty participants, seven intend to live permanently in France. Of those seven, five are participants whose Written Test scores were within native speaker ranges.

The six participants who gave this question a score of 2 or less, i.e. those who did not intend to remain in France, scored an average of 74.8 in the written test, well below native speaker norms. These results would indicate that although the correlation is not as strong as others, it is nonetheless, important. They would suggest that the fact that participants do not intend to remain in France leaves them with less reason and therefore, motivation, to improve their French. There is clearly a relationship between planning to reside in France and L2 attainment. To make their intentions very clear, some subjects, (Kenneth, Siobhan, Cassie, Olwen) indicated that they intended to be buried in France, as they did not feel at home anywhere else. This is not surprising, as three out of four of these participants have spent the majority of their life in France. It is also interesting to note that the average age amongst those who intend to reside permanently in France is 46 compared to 37.8 among those who intend to leave.

Intention to reside permanently in France is the most significant variable for regional accent recognition as can be seen in Table 5.8 where the strong linear relationship is visible. However, this variable is undeniably linked to age at testing, because, as stated previously, the participants who intend to reside permanently in France are among the oldest in the sample. Clearly, these are the participants who have the most experience of the French language, which confers upon them an advantage as far as the ability to recognise a regional French accent is concerned. Length of residence is another factor, which will be discussed later in the chapter.

Figure 4.16
Series 1-Intention to Reside Permanently in France
Series 2-Accent Recognition Results.

Series 1=Intention to Reside Permanently in France
 Series 2= Accent Recognition



(8) Level of French on Arrival

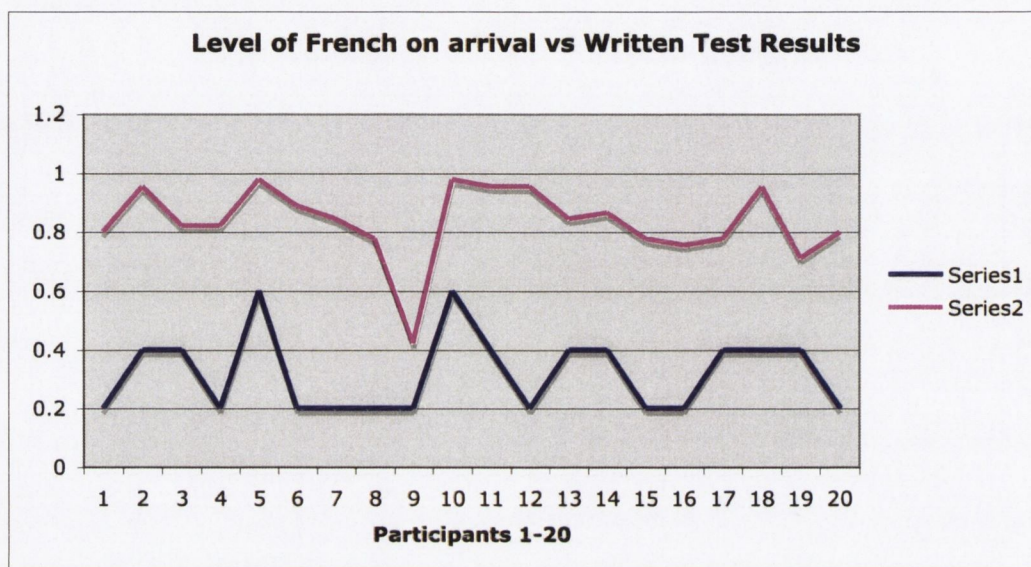
Variable Tested	Correlation	t-value
Level of French on arrival vs. Written Test Results	0.478	2.989

Participants were asked how fluent they felt their French was when they arrived in France. Many of the participants gave the lowest score in answer to this question which was 1/5, indicating that their French was poor on arrival. For those participants who studied French at third level before settling in France, the score was higher at 3/5. The main reason for the low correlation between level of French on arrival and the written test results is that a number of the higher scoring participants gave themselves low scores for this question. This indicates that they feel their French has improved only since arriving in France and commenced beginning to have contact with native French speakers.

For some participants, the transition was particularly difficult as they had difficulty performing mundane tasks because of their lack of basic French.

Figure 4.17 Level of French on Arrival

Series 1 = Level of French on Arrival
 Series 2 = Written Test Results



(9) Frequency of Written Production

Variable Tested	Correlation	t-value
Frequency of written production vs. written task	0.452	2.15

This variable has a relationship with the written task results, but not a very close one.

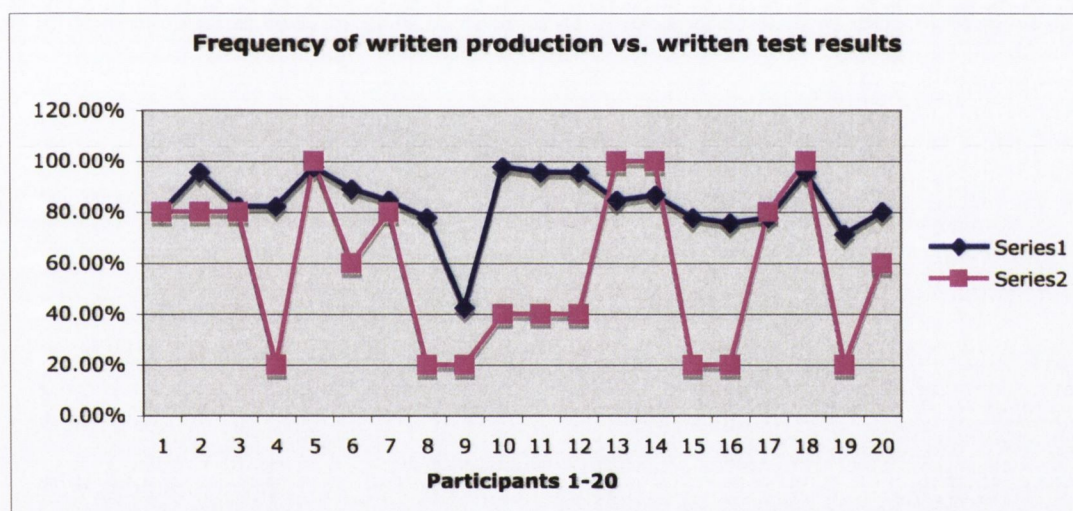
Although two of the participants whose scores were within native speaker ranges gave the top answer for this question, not all of them did. Also two participants whose written scores were not within native ranges gave the top answer to this question. The range was as follows:

Question: How frequently do you write in French on average?

1. Several times a day (Marianne, Orla, Clara, Keelin) 5/5
2. Daily (Olwen, Kenneth, Maurice, Jane, Joanne) 4/5
3. Several times a week (Morgan, Polly) 3/5
4. Once or twice weekly (Siobhan, Cassie, Tabitha) 2/5
5. Once a week (Kylie, Henry, Freya, Victor, Ivan, Don) 1/5

As can be seen from the results, two of the top scoring participants only write in French once or twice a week on average, Siobhan and Cassie. From these results it is possible to infer that written production is not indispensable for morphosyntactic and lexical proficiency nor for the level of writing demanded by the test in question.

Figure 4.18 Frequency of Written Production vs. Written Test Result



In Table 4.18 the relatively weak linear relationship between the two variables is obvious as the course of the two axes is quite different. This is the weakest correlation and subsequently lowest t-value between any of the affective variables.

(10) Length of Residence

Variable Tested	Correlation	t-value
LOR vs. ART	0.697	4.13

This variable had only a small correlation with the written test results, (0.385) and therefore was not analysed. However the correlation with the Accent Recognition Task was 0.697

with a t-value of 4.134, which in relation to this dimension, makes length of residence second only to intention to reside in terms of importance. One participant had a slightly unusual linguistic background in that she (Tabitha) had only been resident in France for two years but had been communicating principally through French with her husband in French although they were both living in Asia at the time. For this reason, statistical analysis was carried out on both an LOR of 2 and 7 years respectively, however the correlation did not increase to a significant extent (0.4167) nor did it affect the positive correlation with the ART to a significant degree.

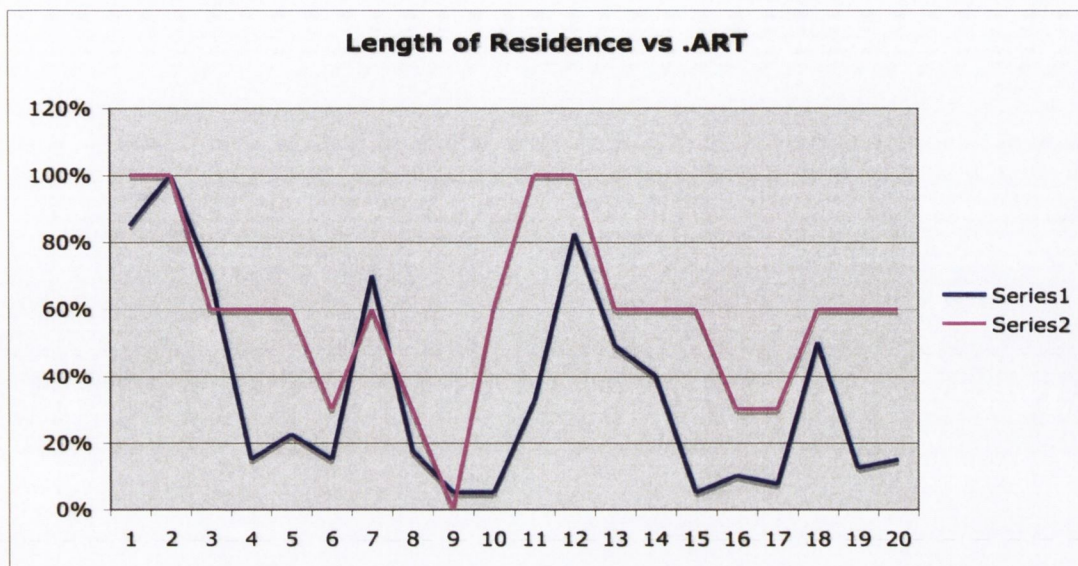
As already stated, the four participants who managed to correctly identify the three regional accents are also among those who are longest in residence in France.

Subject	Length of Residence
Kenneth	40 years
Olwen	34 years
Cassie	33 years
Siobhan	13 years

The fact that these participants have been resident in France for, on average, 30 years, seems to have conferred an advantage upon them as far as recognising regional accents is concerned. It is also the case for these participants that this long residence coincides with much travelling around France and consequent exposure to the various regional accents of the country.

Figure 4.19
Length of Residence vs. ART

Series 1 = LOR
 Series 2 = ART



Note, in Figure 4.19, length of residence of participants is expressed as percentages of 40, the maximum LOR. Also, the close linear relationship between LOR and the Accent Recognition Task is evident, with the values for each variable following a very similar pattern.

(10) Age at Testing

Variable Tested	Correlation	t-value
Age at Testing vs. ART	0.435	2.05

This is the final variable that had a notable correlation with the Accent Recognition Test. Once again, the correlation with the written test score was insignificant at 0.214, whereas the correlation with the ART was 0.435. Unlike the previous variable tested, (where all but one of the top scoring candidates on the ART had been resident in France for periods well above the average LOR for the sample (14 years), in this case, there are a number of

participants whose age is well above the average and who did not recognise the three regional accents.

Subject	Age at Testing
Maurice,	53
Freya,	51
Jane,	51
Don,	62
Keelin	44

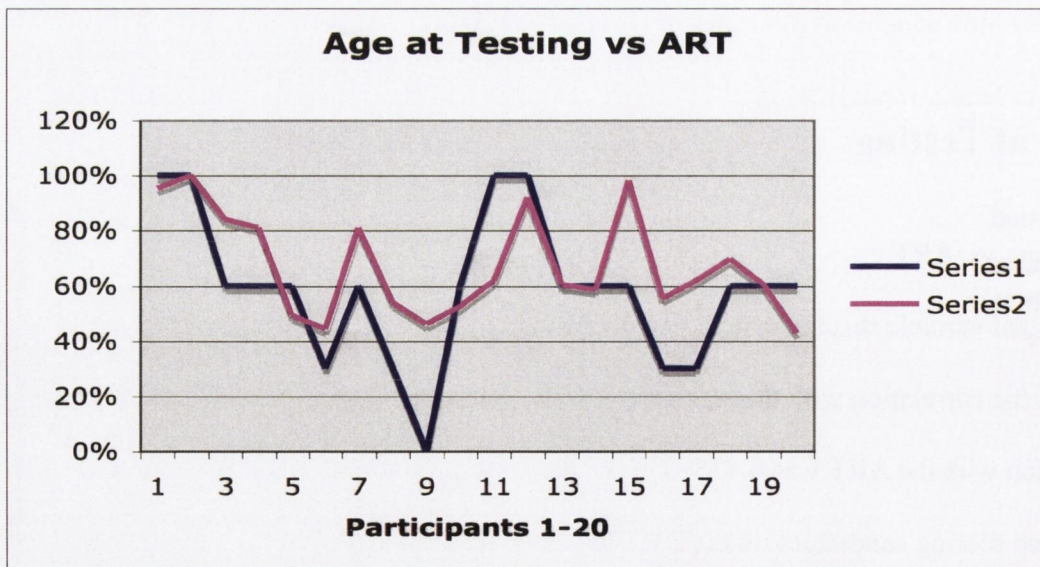
Therefore, although there is a positive correlation between age at testing and the Accent Recognition Task results, meaning that the older the participant, the higher the score on the ART, it is, nonetheless, not a strong correlation. This is evident in Figure 4.19 where the weak linear relationship is displayed.

Figure 4.20

Age at Testing vs ART results

Series 1 = Age at Testing

Series 2 = ART results



Of the twenty variables studied, eight have proved significant when correlated with the Written Test (written test) and seven variables correlated positively with the ART results. Of all the significant correlations there was only one variable that had a significant negative correlation with both tests: feedback from native speakers.

(11) Feedback from native speakers

Variable Tested	Correlation	t-value
Feedback from native speakers vs. written test results	-0.673	-3.86
Feedback from native speakers vs. ART	-0.647	-3.60

Only one variable has a significant negative correlation with the written test results and the ART and that is feedback from native speakers. A negative correlation indicates that as one variable increases, the other decreases and vice-versa. This implies that the higher the written test result is, the lower the amount of feedback. What is meant by feedback is generally the response of native speakers to mistakes made by participants. It could take a number of forms, correction being the most common, but also suggestions for alternative forms or requests for explanation or clarification from the participant making the error. In this instance, those participants whose test scores were higher reported less feedback from native speakers than those with lower scores. This is a predictable result, as participants whose test scores are within native speaker ranges would logically require less feedback than less proficient learners.

Figure 4.21

Feedback from native speakers vs. written test results

Series 1 = Feedback

Series 2 = Results

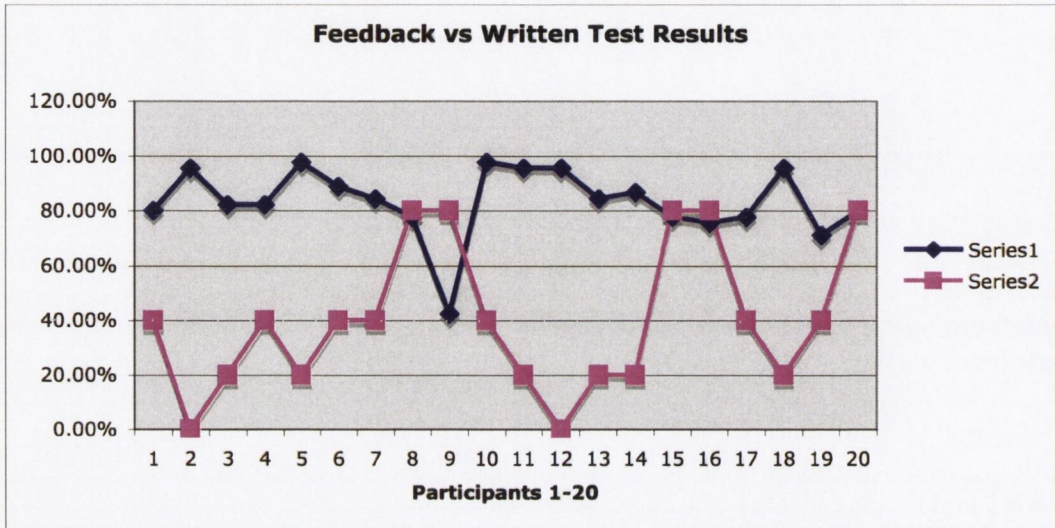
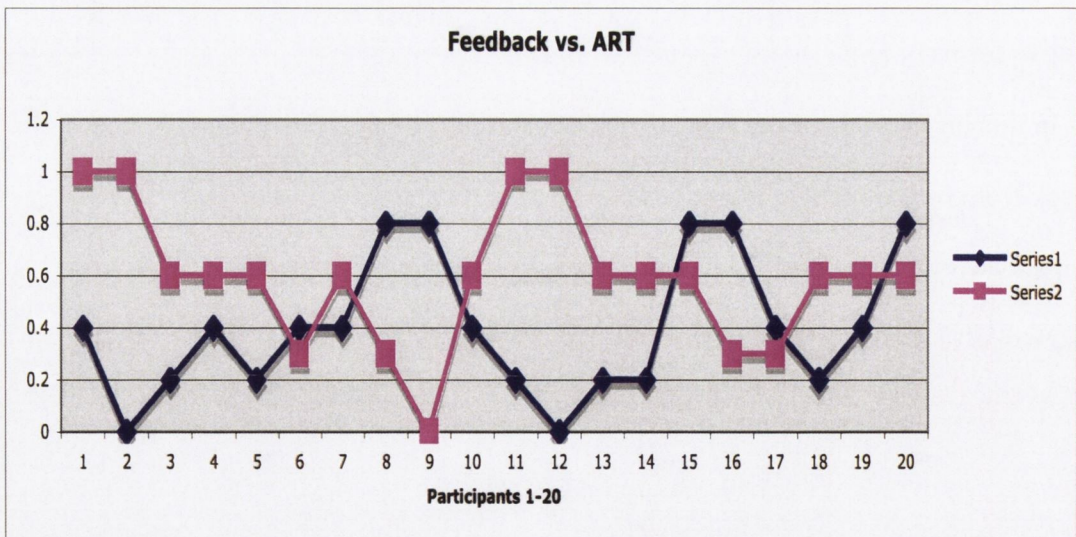


Figure 4.22

Feedback from native speakers vs. ART

Series 1 = Feedback

Series 2 = ART



The graphs displayed in Figures 4.21 and 4.22 clearly reflect the non-linear relationship between feedback from native speakers and both the accent recognition and written test results.

The results were as follows:

Question: “Do French people correct your mistakes?”

Regular Feedback 4/5 Kylie, Henry, Don, Ivan, Polly

Occasional Feedback 2/5 Olwen, Freya, Morgan, Jane, Tabitha, Joanne, Victor

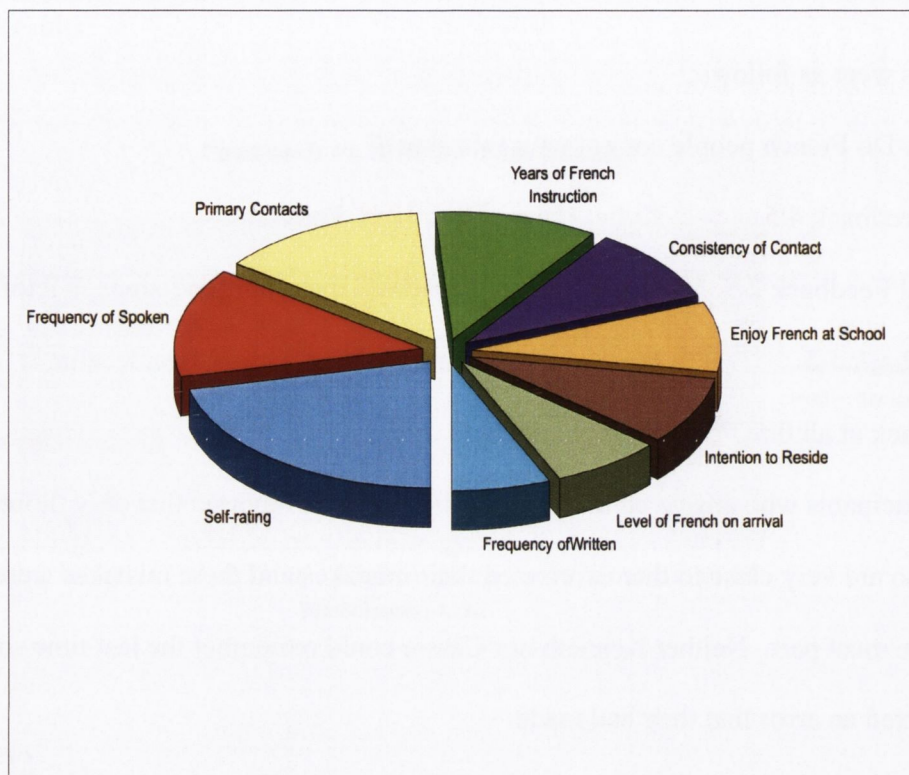
Rare Feedback 1/5 Maurice, Marianne, Siobhan, Orla, Clara, Keelin

No Feedback at all 0/5 Kenneth, Cassie

Those participants who answered in the last two categories reported that only those French people who are very close to them corrected their mistakes and these mistakes were very rare for the most part. Neither Kenneth nor Cassie could remember the last time someone had corrected an error that they had made.

Figure 4.23

Pie chart displaying variables with highest positive correlations with written test results



In Figure 4.23 those variables with the highest positive correlations with the written test results are displayed. They are listed in order of descending importance below in Table 4.15

Table 4.15 Highest-Correlating Variable with Written Test Results

Variable	Correlation	t-value	p-value
1. Self-rating of spoken French	0.856	7.04	0.00002
2. Frequency of spoken interaction	0.735	4.60	0.00005
3. Primary contacts	0.725	4.47	0.00009
4. Years of French Instruction	0.642	3.55	0.00019
5. Consistency of Contact	0.586	3.06	0.00107
6. Enjoy French at School	0.576	2.99	0.00130
7. Intention to Reside	0.558	2.85	0.00214
8. Level of French on arrival	0.478	2.30	0.00104
9. Frequency of Written Production	0.452	2.15	0.01562

The second hypothesis in the study is that there is a positive correlation between certain biological and experiential factors and L2 attainment. The analyses in this chapter demonstrate that this hypothesis is true. As only six subjects obtained written scores that are within native speaker ranges it is important at this stage of the exercise to examine those six participants more closely and to determine which variables are the most important in L2 attainment. In order to refine the results yet further it is important to see which of the top variables obtained the highest score among the six most successful participants or subset.

The first factor to note is the length of residence of the top six candidates, which is, on average, 18.1 years, 3.9 years over the mean LOR for the group. However, the shortest LOR is two years, Tabitha only moved to France in 2005. However she had been living with her partner for almost 7 years at that point and the language spoken at home is French. This successful sample also includes Kenneth who has the longest length of residence of the whole group at 40 years. His LOR along with Cassie's does much to boost the overall LOR of the successful group.

The next variable to correlate consistently with success was "Self-Rating of Spoken French". For this variable, each of the subset gave the question a rating of 5/5. Each one of them felt their spoken French was very fluent and claimed to pass for a native speaker on a regular basis. Kenneth and Cassie admitted that their English had suffered since their arrival in France and they often searched for the correct word in English, as the French version was the first to come to mind. Keelin was proud of her ability to use an extremely formal register in French when the situation demanded it and felt she could pass for a native speaker whatever the occasion. For Marianne, who, after submitting her doctoral thesis, was offered a permanent position by Université de la Sorbonne, speaking fluent French is vitally important. Cassie, who regularly contributes to the famous *cafés philosophiques* of Paris, is delighted when her audience accept her as a Frenchwoman. This variable leads us

directly onto the next one “ Importance of Passing for a Native Speaker”. This next variable was not analysed as it has a correlation of only $r = 0.220$ with the written test results.

For the subset, however, this is an interesting variable. Their answers were as follows;

Kenneth	0/3
Marianne	3/3
Tabitha	3/3
Cassie	0/3
Siobhan	0/3
Keelin	0/3

The four participants who gave this question a score of 0/3 (passing for a native speaker being totally irrelevant) all admitted that in the past, passing for a native speaker was very important. It was only as time passed and their French improved to the point that they felt like fluent speakers that passing for a native speaker lost its significance. For Tabitha and Marianne, who have been resident in France for 2 and 9 years respectively, passing for a native speaker is still very important. Both subjects prefer to be thought of as French and rarely reveal their non-French background if they can help it. Keelin and Siobhan admit to feeling like this earlier in their residency but now feel that their “foreignness” confers upon them an advantage they would not have otherwise. For Keelin this advantage is being a little bit different from her peer group. She feels that there is a strong affiliation between French and Irish people.

Generally, when she reveals her Irish background, the reception from her interlocutor is very positive.

To really test how subjects felt about their adopted homeland, they were asked if they thought they would be buried in France. All of them, with the exception of Keelin thought they would. Everyone in the subset intend to remain in France for the foreseeable future. For them, France is home. Kenneth, Tabitha, Cassie and Síobhán all have children

who are resident in France. In Cassie's case, her children are not bilingual and view France as their only home, never having lived elsewhere. None of the subset have strong connections to their homeland. Even Siobhan and Keelin who keep in constant contact with their Irish families, only return once a year.

The majority of primary contacts for this subset were French. Of the six subjects in the subset, five of them are living with French partners and French is the language spoken in the home. Certain subjects, such as Tabitha and Marianne socialise only with French speakers. This is a deliberate choice on their part as they prefer to avoid socialising in English. For Siobhan, socialising in English is out of the question as she is the only English speaker in her area. Kenneth, Cassie and Keelin are happy to socialise with either French or English speakers.

The average length of instruction for the sample was five years whereas that of the subset is 8.5 years. Of the subset, three have studied French at third-level and two, Kenneth and Marianne have a PhD in French. None of the subset used any strategy other than listening and imitation to improve their French and none were reliant on French native speakers to correct their mistakes. Marianne noted that she could not remember the last time somebody corrected her French. Of the six participants, Tabitha received the most feedback from a French speaker and this was from her husband who occasionally corrected Tabitha's use of French slang as well as her written correspondence.

Surprisingly, this sub-group did not score highly on the risk-taking question. Only Kenneth and Keelin were happy to take a risk with a new or unfamiliar structure or word in French. The other members, and especially Marianne and Tabitha preferred not to risk humiliation should they use a structure incorrectly. The subset scored 86% on how much of their primary contact was French, compared to the overall sample, which yielded a score of 63% on average. Once again, the subset score is due to the fact that 5/6 of the

participants speak French in the home. This is also the reason for the high scores given for consistency and frequency of feedback by the subset. All but Tabitha gave 5/5 in answer to the question on consistency of feedback. Tabitha travels frequently for her work, so she felt that giving the top score for this answer would be unjustified, as for three days every two weeks, she speaks only in English.

High scores were also given for frequency of contact, with an average score of 4.5/5 for the subset. The scores for this variable are obviously linked to those for the previous two variables.. The subset did not score highly on the frequency of written production with Tabitha, Siobhan and Cassie only writing in French approximately once a week. The correlation for this last variable with the results of the written test was the lowest of all the significant variables. The significantly correlating biological and experiential variables are displayed below in Table

Table 4.16 Biological Variables of subset

Subject Partner	Gender	Other languages	French
Kenneth	Male	Russian, Latin	Yes
Marianne	Female	German	Yes
Cassie	Female	None	Yes
Siobhan	Female	Irish	Yes
Tabitha	Female	German	Yes
Keelin	Female	Irish, Italian	Yes

Of the six participants, Cassie is the only one who does not speak a third language. She made a number of frustrating attempts to learn Spanish and Italian over the years but never managed to learn more than the basics. She believed her lack of success with other languages was because she did not need to learn them and was therefore not motivated

enough. Cassie felt that she had had no choice but to learn French when she arrived in Paris in the mid-seventies as so few people were able to speak English. For her, it was a question of survival.

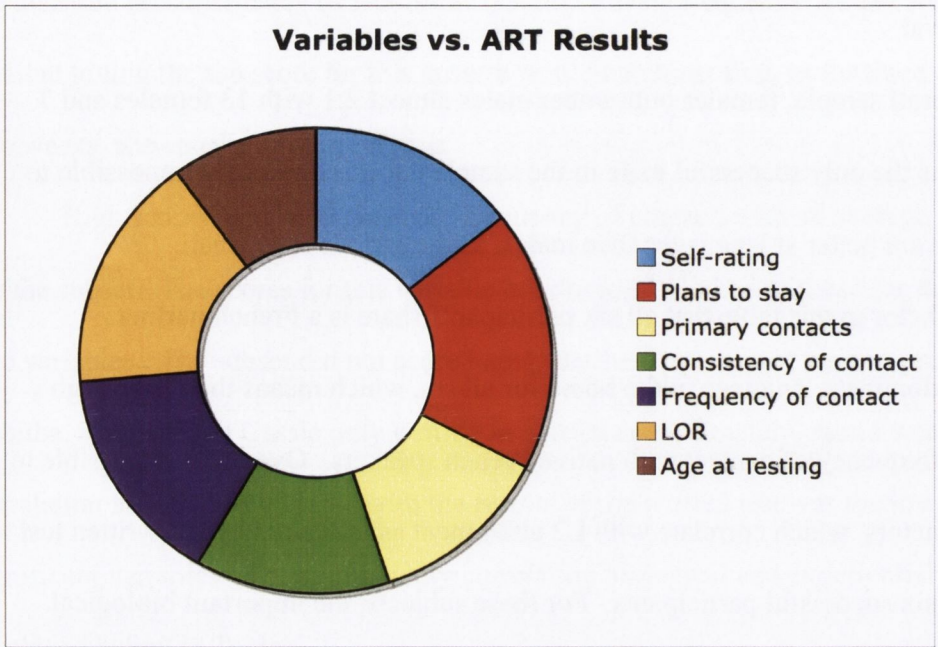
In the overall sample, females outnumber males almost 2:1 with 13 females and 7 males. Kenneth is the only successful male in the sample but it is obviously impossible to infer that females are better at languages than males, as the sample is so small.

The one factor in this table that all six participants share is a French partner. French is the predominant language in the home for all six, which means they have high consistency and frequency of contact with native French speakers. Overall, it is possible to identify certain factors, which correlate with L2 attainment as measured by the written test for the subset of six successful participants. For these subjects, the important biological and experiential factors are, in descending order of importance:

- (1) Self-rating of spoken French
- (2) Intention to Reside in France
- (3) Primary contacts in France
- (4) Consistency and Frequency of those contacts
- (5) Years of Instruction in French

These factors above all others, have contributed to the L2 attainment of those six participants whose scores on the written test were within native-speaker ranges. For the four participants who were able to identify all three regional accents, (three of whom also had high scores on the written test), it is interesting to explore whether the same variables yield the same high correlations with the results of the Accent Recognition Test.

Figure 4.24
Variables with highest correlations with ART results



The above chart (Figure 4.24) displays the variables with the highest correlations with the Accent Recognition Task results. They are listed in order of descending importance below in Table 4.17

Table 4.17
Variables with highest correlations with ART results

Variable	correlation	t-value	p-value
Intention to reside	0.779	5.27	0.000085
Length of Residence	0.697	4.13	0.000171
Frequency of spoken contact	0.635	3.49	0.000239
Consistency of contact	0.630	3.44	0.000290
Self-rating of spoken French	0.618	3.33	0.000419
Primary Contacts	0.554	2.82	0.000235
Age at Testing	0.435	2.05	0.020020

Table 4.18
Length of Residence of Successful ART subgroup

Subject	Age at Testing	LOR
Kenneth	63	40 years
Olwen	60	34 years
Cassie	58	33 years
Siobhan	39	13 years

As we can see from table 4.17 the most important variable is “Intention to Reside”. These four participants have embraced French life and feel themselves to be members of the French community. This feeling of belonging may be due in part to the many years these people have spent in France. In fact, for these participants, France is home.

The average LOR for this particular subgroup is 30 years (see Table 4.18), over double the average LOR for the sample at 14.2 years. Another factor, which makes this subgroup different from the group at large, is “age at testing”. Once again the average age of this subgroup is well above that of the sample at large. (52 years vs. 41.1). Obviously these are not the only factors at play. The fact that three members of this sub-group are also in the successful subgroup for the written test means that variables that correlated highly with the written task results also correlate with the ART results, with the exception of “Years of French Instruction” and “Frequency of Written Production”.

It is worth noting that the high scores attributed to this particular combination of variables are unique to the four successful participants. There are other participants who have been resident as long as these, but who may not, for example, have a French partner. Moreover, their primary social contacts may be from the English speaking community in France. It is also important to note that three of the four successful candidates were among the six who scored within native speaker ranges on the written test. Kenneth, Cassie and

Siobhan, have, according to the results of this study, achieved a level of attainment comparable with that of native French speakers.

4.5 Hypothesis No.3

Factors relating to experience will correlate positively with each other. For example, level of French on arrival will correlate positively with primary contacts in France, as well as interrelating with other experiential factors such as frequency and quality of contact with native French speakers.

In order to determine whether certain factors impact upon each other, it was first necessary to determine whether there is a substantial negative or positive correlation between them. Each variable was correlated against the others and certain correlations were positive. Many factors correlated with other factors within the same group, which is clear in the colour-coded chart below. Only factors that had a rated answer (1-5) or a numerical response (as in age or test score) were suitable for this analysis. Below is the list of those factors.

Biological/Experiential Factors

1. **Age at Testing**
2. **Length of Residence**

Social/Psychological Factors

3. Necessity of French for career
4. Self-rating of spoken French
5. Importance of passing for a native speaker
6. Plans to reside in France

7. Primary Contacts
8. Willingness to take risks with the language

Experiential/Interactive Factors

9. Consistency of Contact
10. Frequency of Spoken Interaction
11. Frequency of Written Production

Instructional/Cognitive Factors

12. Instructional Years in French
13. Level of French on arrival
14. Enjoy French at School
15. Strategies to improve French
16. Feedback from native speakers

Each of these variables correlates positively with others in the study, some more so than others. Below is a list of these inter-variable correlations. Each variable is coloured according to the group of factors it belongs to. This will enable us to see if any one group of factors correlates positively or negatively with another group. The highest correlation in each group is underlined.

Variable	Variable	Correlation
(1) Age at Testing	Plans to Reside	0.435
	Importance of Passing for native	0.504
	Length of Residence	<u>0.691</u>
(2) Length of Residence	Importance of Passing for native	-0.593
	Feedback from native speakers	<u>-0.658</u>
	Frequency of written	0.493
	Consistency of spoken contact	0.434
(3) Nec of French for career	Freq. of written	<u>0.569</u>

(4) Self-rating	Primary contact	<u>0.790</u>
	Plans to Reside Permanently	0.614
	Years of French Instruction	<u>0.676</u>
	Frequency of Spoken contact	<u>0.826</u>
	Frequency of Written Production	0.496
	Consistency of contact	0.690
(5) Importance of Passing for native speaker	Feedback from native speakers	<u>0.432</u>
(6) Plans to Reside permanently	Primary Contacts	0.519
	Consistency of contact	<u>0.765</u>
	Frequency of contact	0.583
(7) Primary Contacts	Consistency of contact	0.632
	Frequency of contact	<u>0.855</u>
(8) Willingness to take risks	Primary Contacts	<u>0.558</u>
(9) Consistency of contact	Frequency of Written Production	<u>0.801</u>
	Frequency of Spoken contact	0.504
(10) Frequency of Spoken	Frequency of Written	<u>0.502</u>
(11) Instructional Years	Primary Native Contacts	0.453
	Consistency of contact	0.603
	Frequency of contact	<u>0.624</u>
	Frequency of Written Production	0.483
	Feedback from native speakers	<u>-0.633</u>
(12) Level of French on arrival	Self-rating of spoken French	<u>0.630</u>
	Primary Contacts	0.450
	Consistency of contact	0.480
	Frequency of contact	0.486
	Frequency of Written Production	0.448
	Feedback from native speakers	-0.520
	Instructional Years in French	<u>0.657</u>
(13) Enjoy French at school	Primary Contacts	0.666
	Self-rating of spoken French	0.710
	Consistency of contact	0.426
	Frequency of contact	0.607
	Years of French Instruction	<u>0.711</u>
	Level of French on arrival	<u>0.834</u>
(14) Feedback from native speaker		

Primary Contacts	-0.529
Consistency of contact	-0.627
Frequency of contact	<u>-0.749</u>
Frequency of Written Production	-0.595

The two language-learning realms that have the most correlations within the group of four are Social/Psychological Factors and Instructional/Cognitive factors. A summary of the correlations is as follows:

Table 4.19 Key to Factor Groups

(A)	Biological/Experiential
(B)	Social/Psychological Factors
(C)	Experiential/Interactive
(D)	Instructional/Cognitive

Table 4.20 Summary of Inter-Factor Correlations

Group of Factors	Correlations with other groups
(A)	(A)×1, (B)×2, (C)×2,(D)×1
(B)	(B)×4, (C)×11, (D)×2
(C)	(C)×3
(D)	(B)×6, (C)×11, (D)×5

Each of the four groups contains variables that intercorrelate within the group, (see Tables 4.19 and 4.20. Many of these intra-group correlations are straightforward and predictable. For example, within group (C), “Consistency of Contact” correlates with “Frequency of Contact”. These two factors have an extremely high correlation at 0.801, which makes sense as the two factors are very much interlinked. In fact, these two variables together correlate with nine other variables in the study. If we include the third variable in the group, “Frequency of Written Production, the total of intervariable correlations is 22. As previously discussed, the first two correlations in this group are interlinked, however, the

third, concerning how frequently participants write in French is less straightforward. This factor alone correlates with 7 other variables.

Table 4.21 Correlations between Frequency of Written Production and Other Variables

Other Variable	Correlation	t-value	p-value
LOR	0.493	2.408	0.00802
Nec of French for Career	0.569	2.941	0.00163
Self-Rating of Spoken French	0.496	2.427	0.00761
Consistency of Contact	0.504	2.477	0.00662
Frequency of Spoken Contact	0.502	2.465	0.00685
Instructional Years in French	0.483	2.344	0.00953
Level of French on Arrival	0.448	2.129	0.01662
Feedback from Native Speakers	-0.595	-3.14	0.99915

In Table 4.21 we can see that there are a number of variables that correlate with “Frequency of Written Production”. These correlations are difficult to predict apart from the second, “Necessity of French for Career” which one could guess would correlate with this variable. The seven correlations considered together would lead one to conclude that participants who write regularly in French are members of a French social network, need to speak French well for their work and have studied French at school and possibly at third-level.

If we examine table 4.20 and in particular, group (D), more closely, we see that three of the factors included in this group correlate with those from group (C). These factors include “Level of French on arrival”, “Instructional Years in French” and “Enjoy French at School” which correlate with “Consistency and Frequency of contact” as well as “Frequency of Written Production”. This would imply that those participants who arrived in France with a good standard of French found it easier to insert themselves into French society and make contact with French natives. It would also imply, less predictably that participants who accorded themselves a good score for standard of spoken French on

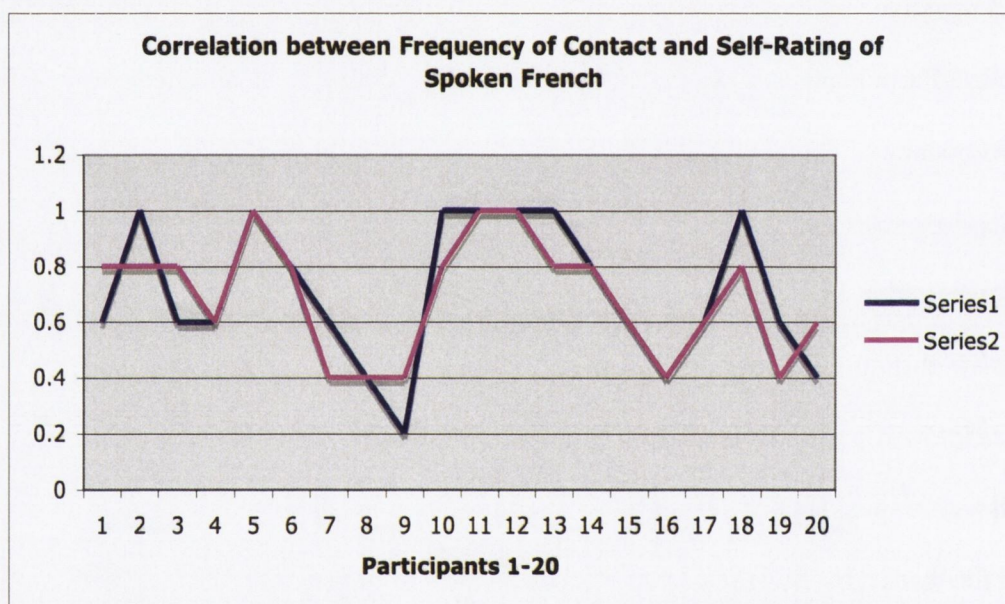
arrival and who had enjoyed long and enjoyable instruction in French would also have greater occasion to write in French.

Those participants who had longer instructional years in French had (and in particular those who had studied French at university) gave themselves a higher score for “Level of French on arrival” than those who studied it for shorter periods. Quite predictably, some participants who enjoyed learning French at school also studied it for longer yielding a high correlation of 0.711. Those same participants awarded themselves a high score for level of French on arrival. In this group there is one set of correlations, which are all negative and those are between “Feedback from Native Speakers” and four other variables. Participants who scored high on “Primary Contacts”, “Consistency of contact”, “Frequency of contact” and “Frequency of Written Production” had corresponding low scores on the feedback variable implying that those participants who are comfortably inserted in French society have very little feedback from native speakers. With correlations it is difficult to know which factor influences the other. In this case, it is impossible to know if participants get little feedback because they have high levels of contact with native speakers or whether they have those high levels of contact because they do not need feedback. In any case correlations between “Consistency of Contact” and “Frequency of Contact” with feedback are high at 0.627 and 0.749 respectively.

Some correlations between group (B) and other groups are quite obvious. Two factors, “Self-rating of spoken French” and “Plans to Stay” have high correlations with group (C). Those participants who believe they speak fluent French and who plan to remain in France also have high scores for consistency and frequency of contact with native speakers. For those participants who plan to remain in France for good, there are high correlations between “Plans to Reside in France” and “Primary Contacts”, “Consistency of Contact” and “Frequency of Contact”. The highest correlation between factors is that of

“Self-Rating of Spoken French” and “Frequency of Spoken Contact” at 0.826. The close linear correlation between these two variables is evident below in Figure 4.2I where the scores for these two variables follow a very similar pattern. This correlation seems quite logical; participants who believe their French to be fluent also socialise and communicate very regularly with French native speakers. The majority of these participants, in fact, live with French partners, hence the high scores for “Frequency of Contact”.

Figure 4.25
Highest Inter-Variable Correlation



Group (A), Biological/Experiential Factors does not influence as many variables outside of its own group as the other groups but it does yield a number of high correlations, notably with groups (B) and (C). “Age at Testing”, for example has a high correlation with LOR, (0.691), as well as with “Plans to Reside”. Of those participants who plan to remain in France, the average age is well over the average age at testing for the sample. (46 compared to 41.1). This group also contains a negative correlation in the LOR versus “Importance of Passing”, (-0.593). Previously, it was noted that it was principally among

those candidates with a long LOR that passing for a native speaker was unimportant. LOR also correlates negatively with “Feedback from Native Speakers”.

4.6 Concluding Remarks

Three hypotheses are at the basis of this study as outlined at the beginning of this chapter. Each one has been confirmed or disconfirmed depending on the results from the three tests. In this chapter the results have been examined in order to determine the verity or falsity of the three hypotheses.

The first hypothesis is that late age of onset (or late age of significant exposure) will preclude native levels of attainment. By age of significant exposure, we mean the age at which participants encountered their L2 in a natural setting. The participants in this study are late learners in two ways. None of them started learning French before the age of 11 and all but one participant commenced learning French at age eleven or twelve when they started secondary or high school. None of the participants arrived in France before the age of 20. One participant, Kylie, started learning French as an adult aged 25 when she met her husband. L2 attainment was gauged through a combination of two tests, an accent recognition test, (ART), and a written test. Both tests were taken by a control group of 20 native French speakers.

From the ART results four participants emerge whose accent identification skills rival those of French native speakers. In fact the control group had some difficulty identifying all three regional accents. The accent that proved the most difficult to identify was the third one which was chosen deliberately as it is not as well-known as the first two.

The written test also, was deliberately devised to test those traditionally difficult areas of French for English speakers. The first ten questions in which subjects had to

complete French proverbs or complete idiomatic comparisons proved particularly difficult for those who accorded themselves low scores when asked to rate their own command of France. Other questions covered grammatical areas such as the use of the future tense in an adverbial clause, which does not occur in English.

Six participants obtained scores on this written test that were comparable to native speakers'. Three of those six also scored within native speaker ranges on the Accent Recognition Task. These results allow us to consider the first hypothesis disconfirmed. Three participants have scored within native speaker ranges on both tasks thus casting doubt on the notion that late language learning will preclude native levels of L2 attainment.

The second hypothesis; that there is a positive correlation between variables pertaining to experience and L2 attainment was tested by calculating the correlations between all the measurable variables and the results of the two tests. In total, 16 variables were correlated with the results of the ART and the written task. Not all of these variables yielded noteworthy correlations. "Willingness to take risks with the French language", for example did not correlate significantly with either set of results. Other variables such as "Age at Testing" correlated with the results of the ART but not with the written test results. All in all, 9 variable correlated significantly with the written test results and 7 correlated with the ART results. Five variables correlated significantly with both sets of test results. These were:

- (1) Self-rating of spoken French
- (2) Intention to Reside
- (3) Primary Contacts
- (4) Consistency of Spoken Contact
- (5) Frequency of Spoken Contact

The fact that these variables had strong correlations with the test results implies that more native-like attainment is dependent on a number of different factors. Those participants who intend to remain the rest of their lives in France had more native-like attainment than those who planned to leave. Participants whose primary contacts were mainly French speaking also had higher levels of attainment than those whose contacts were English-speaking. Also, high levels of consistency and frequency of contact impacted strongly on L2 attainment among participants. “Self-rating of spoken French” was the variable with the highest correlation with the written test results. In the study, participants were asked if they passed regularly for native French speakers. Those who accorded themselves a high score for their standard of spoken French claimed to pass frequently for native speakers, this variable clearly impacts strongly upon L2 attainment.

Unfortunately it was not possible to perform a quantitative analysis on all variables in the biological/experiential field such as gender, other languages known, level of education etc. On average, females performed better than males in the study, see Table 4.22

Table 4.22 Average Male/Female Scores for tests

Gender	Written Test Score Average	ART average
Male	76.19%	48.5%
Female	87.35%	64.6%

As the test sample is so small it is impossible to consider these as representative of the performance of males versus females in general. Although the number of years that each participant had studied French was a quantifiable variable, level of education was not. Rather than analysing the sample as a whole in this case, the level of education of participants in the two successful subsets will be examined.

Table 4.23 Level of Education of Successful Participants

Subset 1, Native-like Scores in the Written Test.	
Kenneth	B.A. French Literature
Marianne	PhD Comparative Literature (in French)
Tabitha	B.A. French Literature
Siobhan	B.Education
Cassie	
Keelin	PhD Journalism (in English)

Subset 2, Native-like Scores in ART	
Kenneth	as above
Siobhan	as above
Cassie	
Olwen	B.Education

As can be seen in Figure 4.23, Cassie is the only participant in the successful subgroup who does not possess a third-level qualification. These participants are among the most highly qualified in the study. Further education is not a pre-requisite for native-like attainment in French as the presence of Cassie in the group demonstrates. Also there are a number of participants with university degrees who did not achieve native-like scores in the either test such as Clara, Orla and Maurice.

Another variable, which was difficult to quantify, was whether participants spoke another language. For all of the participants, French is the dominant second language. Some of the participants learned Latin at school in conjunction with French and or German and they found this to be helpful, (Kenneth and Tabitha). All Irish participants learned Irish at school and found this also helped their French.

Lots of psychology studies show that learning a foreign language as a child leads to greater facility in learning more languages, even later on. I also note that Irish people generally have much better accents in French, ...maybe Irish grammar more responsible since we did more Irish grammar exercises, at least at first. But

there are also traps with trying to compare grammar rules. Perhaps a grasp of general grammar rules helps with any language learning as you go through the process of working out what ought to come next. I believe that learning other foreign (non-first language/mother tongue) languages is a better help for learning other languages. As in, the more exposure you get to other languages, the more you understand that rules are different for each. (Keelin, 2007).

Once again, all participants in the subsets apart from Cassie had learnt at least one other language. These three biological/experiential variables are prevalent among the successful subgroup. They, along with the more quantifiable factors in the study, which correlate positively with L2 attainment as measured by the two tests, demonstrate that the second hypothesis is valid. These factors, both biological and from the domain of experience do indeed impact upon L2 attainment.

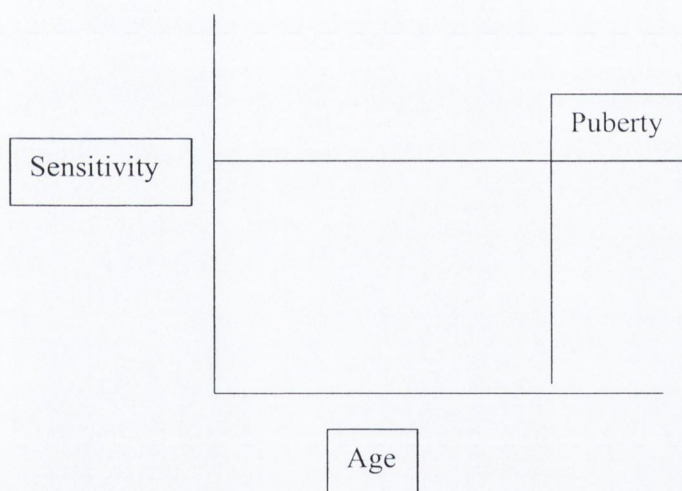
The third and final hypothesis in the study proposes that there is a relationship between the factors examined in the study. Once again, correlations between all quantifiable variables were calculated in order to determine the impact that one variable has on another. The results of these calculations confirm that this hypothesis was true. Many of the factors are interrelated and impact upon each other in a positive way. For example, participants who intend to remain permanently in France obviously have a strong connection to the country. Relationships with French family or friends invariably are what form this connection. Regular contact with the French community also springs from this connection thus linking the variable “Intention to Reside” with “Primary Contacts” and “Frequency of Contact”. It is therefore clear that certain variables studied in the semi-structured interview have an impact on other variables within the study and also that each realm of experience touches upon another.

Chapter Five: Conclusion

5.1 Conclusion

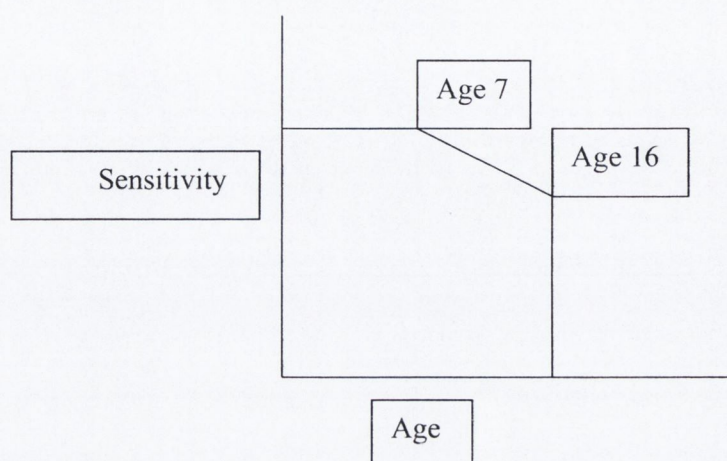
According to the *strong* interpretation of the CPH, the window during which it is possible to completely master a language closes down at puberty. This critical period has also been referred to as a *sensitive period* (Oyama 1976) The CPH has been disputed by a number of linguists over the fifty years since it was first proposed by Lenneberg (1967) on foot partly of research conducted by Penfield & Roberts (1959).

Figure 5.1 Traditional Interpretation of the CPH



Above in Figure 5.1 is the CPH, represented in graph form, as it was originally conceived by Lenneberg (1967). According to the results of Johnson & Newport's seminal study (1989), participants under the age of 7 performed within native ranges, then, there is a linear decline in performance between the ages of 7 and 16. After the age of 16, performance was found to be random. Below in Figure 5.2 is the graphic representation of the CPH in light of the Johnson & Newport (1989) study.

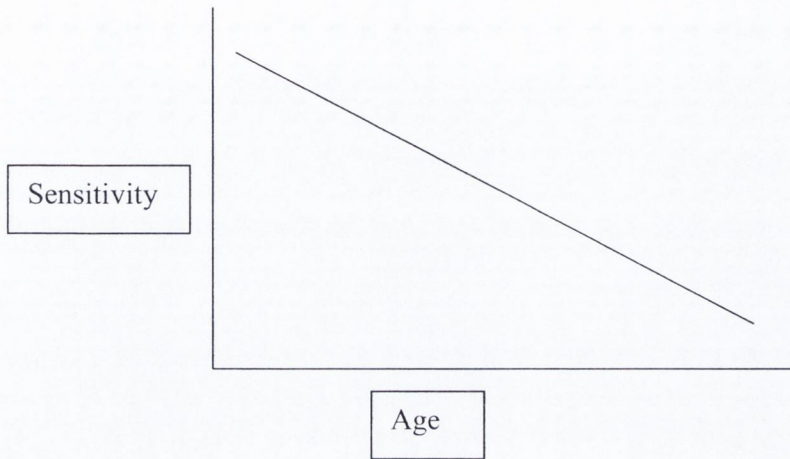
Figure 5.2 The CPH according to Johnson & Newport (1989)



As previously mentioned in Chapter Two, there have been a number of criticisms of the Johnson & Newport (1989) study. Bialystok & Hakuta, (1994) for example, found, on reinterpretation of the original results, that if the cut-off point were set at 20, then the tendency for proficiency to decline with age reaches well into adulthood. These are but two interpretations of the CPH. Singleton (2005) reported that there were at least 14 different versions of the CPH as it applies to SLA. MacWhinney (2005) cited 10 “concrete proposals” in SLA literature that relate AO to ultimate attainment. . More recent SLA literature has moved away from the CPH and favours the notion of a steady decline in L2 competence throughout the lifespan.

For example, in a study by Bialystok, Hakuta & Wiley, (2003) no discontinuity in language learning potential was found. The authors proposed on foot of these findings that SLA ability declined steadily throughout the lifespan of an individual

Figure 5.3 Linear Decline in SLA potential (Bialystok, Hakuta & Wiley, 2003)



There is still, however, support for the CPH (Breathnach, 1993) in spite of much evidence to the contrary. Much of this evidence comes from studies of late learners of a second language who have achieved nativelike proficiency in that language.

The first studies on near-native speakers in SLA were conducted in an attempt to provide solid counter-evidence for the CPH. It was believed that if late learners were found who had achieved nativelike proficiency then this would constitute disconfirmation of the Critical Period Hypothesis. Coppetiers (1987) and Birdsong (1992) both based their near-native speaker studies on whether or not late learners still had access to Universal Grammar (UG). However, Coppetiers' study was subject to some criticism on methodological grounds; the results of Birdsong's study demonstrated that grammar structures considered to be UG structures were not predictive of the differences in the results between the near-native speakers and the native-speaker control group.

A number of other studies followed which tested Near-native speakers on their ability to perform within native ranges in phonology (Bongaerts *et al.* 1995, Palmen *et al.* 1997, Moyer 1999) and following in Ioup *et al.*'s footsteps; a multiple factor approach

where near-native speakers are tested on an array of linguistic abilities (Marinova-Todd, 2003, Moyer, 2004). In these latter studies, not only have a variety of linguistic features pertaining to near-native speaker L2 proficiency been addressed but also has there been a move towards establishing the various determining factors (apart from age) in L2 proficiency among near-native speakers.

This study, as has already been stated, has been conducted in the vein of this multi-factor approach to L2 proficiency (in particular, Moyer 2004). Participants were tested on a range of linguistic abilities and answered a comprehensive questionnaire on their linguistic background. In this way, it was hoped to provide some insight into the factors that influenced their L2 ability. In this study it was demonstrated that a number of different factors contributed to L2 proficiency. All participants were late learners in that none of them learned French before the age of 11, and none of them commenced learning French in a natural setting before the age of 20. Age of significant exposure (or age of onset) was not predictive of performance on either the written test or the accent recognition task (ART). However, a number of other factors correlated closely with performance.

Of the twenty participants, six scored within native ranges on the written test and four were able to identify all three regional French accents. Three subjects scored within native ranges on both tasks. These three exceptional participants had a number of factors in common. They were all married to French native speakers and they were, to all intents and purposes, immersed in the French language. All three felt part of the French-speaking community and all three intended to reside permanently in France. The factors most closely associated with L2 attainment as measured by the written test were (1) self-rating of spoken French and (2) frequency of spoken interaction whereas the highest correlating variables with the ART were (1) intention to reside and (2) length of residence. Clearly it is a combination of these factors that are key to the nativelike proficiency of the three

exceptional participants. It is also noteworthy that age at testing correlated positively with the ART results as the subgroup of four who correctly identified the three regional accents were among the oldest in the overall sample. According to Stevens:

Studies have also suggested that age among adults is positively associated with some aspects of language proficiency, such as vocabulary (e.g., Wilson & Gove, 1999), presumably because of the accumulation of exposure and experiences. (Stevens, 2006:683)

Age at testing (AT) is a biological variable that has been neglected in many SLA studies. Stevens (2006) refers to the respondents in the Johnson & Newport (1989) study, who consisted of faculty and students in the University of Illinois. AT was not taken into account in the study and Stevens argues that the older participants were most likely members of the faculty with considerably less opportunity for L2 interaction than the younger participants.

Students, especially undergraduate students, a heavily English language dominated environment at the University of Illinois. Every semester, undergraduate students take classes taught in English read and write intensively in English, and often live on campus in English language dormitories. Students also have recent and extensive practise in taking tests. Faculty members, on the other hand, usually teach two or fewer classes in English, generally live off-campus with their families, and rarely, if ever, take tests. (Stevens, 2006: 679)

Stevens (2006) calls for an approach incorporating AT, LOR and AO as she reports that, in many SLA studies, one or more of these biological variables have been omitted. Two of these variables have proved to be closely correlated with L2 attainment in this study.

The three exceptional students in this study buck the trend somewhat for older learners in that they all have ample opportunity to interact in their L2 as well as receiving constant L2 input. More mature L2 learners, moreover, may have an advantage over younger learners in that, because of their superior cognitive development they perform better in language tests. This is evident in the present study as older participants performed better on the lexical tasks than the younger participants, particularly on the proverbs section.

5.2 Directions for Future Research

Birdsong (2005) called for more studies in individual L2 learners' "end-state attainment across a range of linguistic behaviours, to determine if nativelikeness, when observed, is in fact limited to narrow domains of performance." (Birdsong, 2005:12). This study has reported on selected areas of linguistic performance and a comprehensive study, particularly of the exceptional late learners, would provide a more rounded representation of not only their linguistic ability but also the factors that have contributed to it. Moyer states:

The situation of most late language learning today begs for closer examination of the learning environment, the learner's cumulative experience, and the learner's developing sense of self as a speaker of the target language. Approaching these goals requires an integration of methodological inquiry. (Moyer, 2004:148)

Birdsong (2005) suggests that the multi-factor model approach is essential to determine whether there are areas of linguistic performance where Near-native speakers cannot equal NSs (e.g. language processing tasks). Research into the abilities of exceptional late L2

learners would according to Birdsong, provide strong foundations for “developing theory”.

(Birdsong, 2005:13)

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