Emotion and Motivation in Language Learning

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Thesis submitted to the University of Nottingham for the degree of Doctor of Philosophy

March 2017

Abstract

This thesis investigates the interaction of emotion and motivation in language learning. By means of three independent research studies, I analyse the interaction of affective, motivational, and cognitive factors as they appear in relation to the context of a classroom. Rather than studying motivation, affect, or cognition in relative isolation in terms of their impact on language development, I argue that it is worthwhile to study the amalgams formed by these three forces by means of a dynamic systems–based research methodology.

The research methodology employed for the first research study is primarily based on the concept of attractor states: salient and relatively stable states of a dynamic system. I demonstrate the existence of four main classroom *states*: interest, boredom, neutral attention, and anxiety. The factors forming the attractor basin for these states are cognitive, affective, motivational, and contextual in nature. This indicates that affect and motivation have an impact on language learners via the state they produce through their interaction with cognitive and contextual factors.

In the second research study of this thesis, I analyse the self-regulation and perseverance of ten language learners from various backgrounds. I argue that a learner's attractor basin produces a stronger and more positive attractor when there are strong motivational elements present, such as a well thought-out goal orientation. Although other factors may diminish in strength due, for example, to a new teacher with whom the learner does not get along, or a new topic that is no longer enjoyable, a well-defined and sufficiently internalised goal orientation can be the key to successful self-regulation and, ultimately, greater success in learning the target language.

In the final research study, I demonstrate that the factors that contribute to the construction of the aforementioned state in the classroom are different for younger and older learners. For older learners, the motivational element plays a significantly more prominent part, while for younger learners the affective, cognitive, and contextual elements are more important. Furthermore, the older learners have the ability to analyse and deconstruct their classroom state, while this is not the case for younger learners. Instead, the experience of the classroom for younger learners is made up of an indistinguishable combination of affective, cognitive, and contextual elements, which combine into an overall *feeling* of "I like it" or "It is difficult". Although this can result in the impression that a young learner's state is determined entirely by affective elements, this is not, in fact, the case; rather, these states are most likely a combination of affective, cognitive, and contextual elements.

Publications

Waninge, F., Dörnyei, Z., & De Bot, K. (2014). Motivational dynamics in language learning: Change, stability and context. *The Modern Language Journal, 98*(3), 704–723.

Acknowledgements

First and foremost, I would like to thank my supervisor, Zoltàn Dörnyei, for his guidance and support during this thesis. It was your initial enthusiasm and confidence in me that made me decide to undertake a PhD, and I am very glad I started on this journey. I would also like to thank my second supervisor, Norbert Schmitt, for his helpful comments on the final draft of my thesis.

Secondly, I am very grateful to Jo Robinson for her support during the final stages of my PhD, and to the School of English team for their help, especially Jo Pullen and Lydia Wallman, who hold all PGR-related wisdom. Thank you to Martin Lamb and Daniel Hunt for a fantastic viva, and for your invaluable input on how to further improve my thesis. Thank you also to all my participants for their time and effort, and to the Dutch schools that agreed to collaborate with me on this research.

This thesis was funded in part by several Dutch charities: the VSB fonds, the Vreedefonds, the Stichting Vrijvrouwe van Renswoude, and the Prins Bernhard Cultuurfonds. These contributions, in addition to the Graduate School Travel Prize, allowed me to attend several conferences and to concentrate on my research in the early stages of this PhD, for which I am extremely grateful.

My time in Nottingham would not have been the same without the support and encouragement of Makenzi Crouch, who I met on my very first day here. Thank you for the many days and evenings spent analysing our theses, life in space, and musicals; for introducing me to *Star Trek*; and above all for being my friend.

Finally, thanks to my family: to my parents Gerard and Ada for their love and support, the many detailed letters sent across the Channel, and endless phone calls filled with humour and good advice. To my sisters, Harriet and Carlijn, thank you for the many visits, absurd postcards, and late night skype sessions over tea and wine. To Jon, thank you for being part of my life and making everything seem brighter and warmer. You all helped me complete my PhD, and I love you all to bits.

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Chapter 1. Introduction

1.1 Origin of the thesis.

The first seeds of this thesis were planted many years ago in a small seminar room at the University of Groningen. I had just presented the preliminary results of my MA thesis research and proudly explained to the room how I had applied the so-called *moto-meter* as a method by which to dig deeper into students' motivation on a rather small time scale. One of the lecturers opened the round of questions by suggesting the moto-meter was not really a moto-meter after all, but more of an *emotio-meter* or *mood-o-meter*, based on the amount of affective data added by the research participants. My initial reaction was a somewhat defensive, "Yes, and why not?" However, as it happened, this remark went on to become one of the focal points in the subsequent discussion of the presentation that afternoon. If my moto-meter did not measure "pure" motivation, could this mean that this pure motivation, as proposed in theories and research questions, is, perhaps unfortunately, not something that can be found in real life — and therefore will not appear in research data? It seemed that what I had found was a combination of affective and motivational elements that merged into a classroom mood or state of being. This became the focal point of the argument of that MA thesis and the beginning of my interest in emotion in language learning.

This thesis started with a question about how emotion and motivation might interact to influence classroom behaviour. My original hypothesis focused on the possibility that motivation, emotion, and cognition would start out as indistinguishable for very young learners, forming a cluster of feelings, thoughts, and needs that together would drive behaviour. As learners grew older, I theorised, they would learn to distinguish

between motivation, emotion, and cognition and, furthermore, would learn to regulate these three, leading to motivational, affective, and behavioural regulation. In order to test this hypothesis, I undertook three research studies. The first of these was a two-part exploratory interview study on classroom conglomerate attractor states, followed by a study into self-regulated learning and the affective, motivational, cognitive, and contextual factors contributing to successful self-regulation. I concluded by performing a cross-sectional mixed methods study into implicit attitudes towards learning English as a foreign language in schools the Netherlands.

1.2 Why emotion and motivation in language learning?

As motivation is often described as the affective variable in language learning research (see Dörnyei, 2009b), it should not be a surprising decision to include affective elements in the study of motivation. However, the aforementioned reaction to the affective data in motivation research seems to suggest that the inclusion of affective characteristics in motivation research is still considered unusual. In addition, this reaction indicates that incorporating affective elements into a study focused on "pure" motivation in language learning is perhaps uncommon and unwanted. This disconnect between motivation and emotion in second language acquisition (SLA) research has several possible causes. Firstly, it may stem from the way in which motivation has been treated as a cognitive construct, related more to self-regulation of motivation rather than to the more affective side of motivation (see Dörnyei, 2009), even though it has often been labelled, alongside anxiety, as the affective variable in SLA.

Furthermore, it is notoriously difficult to measure affect and its different manifestations; as Scherer argued over a decade ago, "neither our conceptual nor our

methodological tool kits are adapted to dealing with systems of the degree of complexity exhibited by emotion processes" (2000, p. 77).

Finally, research into affect is spread across various different research domains. This could be seen as a deterrent for researchers within SLA, as investigating the existing literature on the topic can seem a nigh-impossible task due to the conflicting terminology and approach deployed by the various fields, as I will further elaborate in Chapter 2.

Fortunately, despite all of the above, the inclusion of emotion in language development motivation research is not a new occurrence. In 1995, Horwitz argued that "the fact that successful language learning depends on the emotional responses of the learners has profound implications for foreign language teaching" (p. 576). Furthermore, both feelings and emotions were central factors in Schumann's (1998) neurobiological theory on language learning, shaping behaviour, and cognition. The study of emotion or affect in language learning has experienced a significant increase in critical attention in the past two decades as more and more researchers have called for additional research into affect and language development. MacIntyre (2002), for instance, suggested that emotion "just might be the fundamental basis of motivation", and has argued that "the motivational properties of emotion have been severely underestimated in the language learning literature" (p. 45). Similarly, Dewaele (2005) has called for a stronger focus on affect, and particularly emotion, in communication in a foreign language. So and Dominguez (2005) likewise focused on emotion regulation, claiming that "questions about how emotions can or should be managed in order to optimize one's learning are a worthwhile domain for serious investigation of SLA researchers" (p. 54).

One of the common threads across research into emotions and language learning is the emphasis that researchers have placed on the implications for teaching. Horwitz (1995) argued the following: "As affective variables represent the learner's willingness to engage in the activities necessary to develop second language proficiency, it is essential

that teachers make the emotional needs of their students an instructional priority" (p. 573).

Similarly, Immordino-Yang and Damasio argued in a 2007 article that teachers should recognise the role affect plays in students' learning process, based on recent developments in neurobiological research. Dewaele (2005) proposed that focusing on affect may encourage increased attention to the communication of emotion in a second or foreign language in both teachers and authors of teaching materials after he found that the proportion of emotion words in the language of second language (L2) speakers is smaller than that of native speakers (see Dewaele & Pavlenko, 2002). Furthermore, Mendez Lopez (2011) suggested emotions are an important topic in research within educational settings since "the diverse emotions that students may experience during learning activities can cause different affective reactions in students" (p. 44).

One particular study into affect in educational settings should be mentioned here. Having all but stumbled onto emotion myself in the aforementioned MA thesis, it was a joy to read the account of Meyer and Turner (2002), who described a not dissimilar process when discussing one of their studies into motivation: "To our surprise, students had not dispassionately discussed their thoughts or goals; rather, their interviews were affect laden. Indeed, a reviewer for our article noted the pervasiveness of affect and asked us to address it more completely" (p. 107). Meyer and Turner have continued to call for new theoretical frameworks and "research programs that integrate emotion, motivation, and cognition as equal components in the social process of learning" (p. 107). The questions raised in this particular article were similar to the question that forms the foundation of this thesis, and indeed formed the basis of the first of two research questions:

> *How do affect and motivation interact to influence learners' behaviour in a classroom situation?*

The second research question emerged during the first research study, somewhat later into the thesis, and further developed from a second study into self-regulation and sustaining interest in the face of unfavourable circumstances. It became clear from this second study that the importance of a clear and tangible goal orientation was an important and frequently recurring theme in people's ability to self-regulate successfully, and ultimately one of the main reasons why students decide to continue or discontinue their study of a foreign language. This raised further questions concerning the relative influence and importance of affective and motivational factors in the interest of young language learners, as compared to older language learners. This then led to the second research question of this thesis:

> *How does the interaction of emotion and motivation differ for younger and older language learners?*

1.3 The structure of the thesis.

Before I outline the structure of the thesis, I would like to highlight two elements that deviate from the usual organisation of a PhD thesis. First of all, this thesis covers a considerable amount of theoretical ground, ranging from affect in education and language development to self-regulation and implicit and explicit biases in psychology. Therefore, even though there are two literature review chapters — one on affect and one on motivation — each research chapter also includes a brief dedicated review of the relevant theoretical background not covered in the preceding chapters. Secondly, as the thesis consists of three independent research projects with different individual research designs, participants, instruments, and analyses, I have decided not to include an overarching research methods chapter in this thesis. Instead, each of the three research chapters will have a dedicated methods section.

This thesis truly began through a thorough review of the literature surrounding emotion. As this material is vital for comprehension of the studies discussed later in the thesis, Chapter 2 begins with an in-depth introduction to emotion research in psychology, education, and SLA. The chapter explains the main terminology issues within emotion research and the problems that may occur when comparing and bringing together research across different domains. I will explore the various definitions of affect and the different elements that have and have not been included in these definitions over the years, before establishing the definition of affect I will be using in this thesis. I then conclude this second chapter by suggesting the use of *conglomerates*: clusters of affective, motivational, and cognitive elements that direct behaviour generally and classroom behaviour specifically.

Since the main theme of the thesis is the interaction of emotion and motivation, Chapter 3 consists of a second literature review, focusing on the topic of motivation and with particular attention paid to recent developments in language development research. There is a substantial focus on the complex dynamic systems approach to motivation research — with its emphasis on variability, stability, time scales, and attractor states — that has emerged over the last decade, followed by a summary of research into the motivation of young learners.

Following on from these two literature reviews is the first research chapter. Chapter 4 focuses on finding the relevant conglomerate attractor states mentioned in Chapters 2 and 3, with an emphasis on those that most frequently occur in a classroom setting. Based on the dynamic research methodologies highlighted in Chapter 3, I used a two-phase interview-based research design to elicit four frequently experienced learner states in the context of the classroom. One of these states — interest — is further explored in the second phase of this study. In this second phase, I will focus on the factors that contribute to the creation and maintenance of this conglomerate attractor state.

Following the analysis of learners' classroom experiences in Chapter 4 and the further analysis of interest, questions arose about those instances in which a construct such as interest or engagement might be at risk of decreasing. If the factors contributing to interest change or disappear entirely, this could lead to a student's loss of interest in the language and possibly decrease their ability to sustain effort in a learning situation. To address this, in Chapter 5 I discuss the results of a study into the self-regulatory strategies language learners use to overcome any significant decreases in their motivation.

This study led to a further interest in goal orientation generally and, more specifically, into the relative importance of affective and motivational elements in the construction of interest in younger learners contrasted with older learners. In Chapter 6, I will develop this question further by means of analysing the implicit and explicit attitudes of younger and older learners. This chapter contains a brief introduction to the differences between implicit and explicit attitudes and to the use of an Implicit Attitude Test (IAT). I conclude this third research chapter with a report of the mixed methods cross-sectional study on the implicit and explicit attitudes of young learners and adolescent learners of English as a foreign language in the Netherlands and the implications for the interaction of affect and motivation in both groups of students.

In the final chapter of this thesis, Chapter 7, I will conclude the arguments I brought forward in each of the individual chapters and analyse the contribution each research study has made to the answering of the initial research questions. I will further outline the implications of the arguments I have made in this thesis, as well as the limitations of some of the elements of this thesis and some potential future research directions.

Chapter 2: Emotion

2.1 Introduction.

Over the last few decades, there has been an increased awareness of the central place emotions occupy in the language classroom. Among teachers, this has long been common knowledge; as Dewaele (2011) noted, "teachers know that boredom and anxiety are the main culprits for lack of progress in foreign language learning" (2011, p. 25). However, for most of the 20th century the inclusion of emotions in SLA research has been somewhat problematic when it comes to research on second and foreign language learning (Dewaele, 2011; Dörnyei, 2009b). Although the importance of emotions to the concept of classroom motivation is seemingly apparent, emotions have nevertheless, as Dörnyei argued, been "a completely neglected topic" in motivation research (2009b, p. 19).

As I argued in Chapter 1, part of the neglect of emotions in SLA research stems from the lack of clear terminology employed in discussions of affect across a range of different publications. This creates a palpable uncertainty surrounding the terminology of emotions and reflects the difficulties that researchers have encountered in attempting to categorise affect into emotions, moods, feelings, and personality traits.

In addition to these terminology issues, the field of emotion research itself can be difficult to delineate clearly since it is highly interdisciplinary. The majority of research on the topic has been conducted in the field of psychology,

with a considerable body of literature also emerging from the field of education. More recently, researchers in the field of SLA have begun to look into the effect of emotions on language learning, but this is still a relatively new focus. Within the field of psychology, a number of disagreements have arisen regarding the nature of emotions. Interestingly, although in the early decades of psychology research emotion featured as a central subject, there is a notable gap in emotion research during what is referred to as the *behaviouristic period* in the first half of the 20th century. During this time frame, researchers tended to focus primarily on observable evidence and straightforward stimulus-response mechanisms. It was not until the rise of cognitivism in the 1960s that affect returned to the research agendas, although at the time it was approached primarily as a cognitive phenomenon (see Rosenberg & Fredrickson, 1998, for a discussion on the place of emotions in psychology).

In order for researchers within linguistics to make the leap into the extensive literature on emotion theory, they must venture into a number of different fields of research, including psychology, neurobiology, and educational psychology. As Rosenberg and Fredrickson argued, "the field of emotion is becoming increasingly inter subdisciplinary, and thus any current review of an emotion-related issue must traverse various areas" (1998, p. 245). An interdisciplinary approach is clearly required, emphasising the need for SLA researchers to be aware of developments in adjacent areas that might be beneficial to their own research. In SLA, however, there has at times been a tendency towards scepticism with regard to psychological variables and research in education; Dewaele (2005), for instance, observed a lack of tolerance for and interest in approaches imported from fields and schools outside SLA.

There are various issues that may arise when a research topic spans several fields of research, including dealing with unknown terminology, unfamiliar methodologies, and academics moving in different academic circles. In addition to these potential problems, Dewaele (2005) urged researchers to be aware of the risk that scientists take when they wish to integrate ideas and terminology from neighbouring fields: they are more likely than other researchers to misunderstand or misinterpret these potentially unfamiliar concepts, which may lead to false conclusions. However, Dewaele nevertheless argued the following:

> It is important to realise that the domain of affect and emotion in SLA is situated at the crossroads of sociolinguistics, sociopragmatics, intercultural pragmatics, cognitive linguistics, social psychology, cognitive psychology and cultural psychology. There is inevitably a certain overlap between key concepts in these disciplines. (2005, p. 368)

After a period of predominantly cognitive research, in the last two decades studies on affective variables, such as emotion, have gained more ground in SLA (for instance, Dewaele, 2011; Dörnyei & Ushioda, 2009; So & Dominguez, 2005). To illustrate the position of affect in SLA, Dörnyei argued in his 2009 book on the psychology of language learning that emotion (or affect), along with cognition and motivation, can be categorised as one of the three factors that shape the development of individual differences in language learners.

Although there seems to be a general consensus with regard to the overall importance of emotion in the context of language learning, there is limited agreement as to the nature of the phenomenon of emotion itself. As I have mentioned above, emotion can be challenging to define and difficult to measure, and this is further complicated by the fact that it overlaps with several

other key concepts in psychology. In this chapter, I will present an overview of the various challenges researchers face in psychology, education, and SLA regarding the definitions and terminology within emotion research. I will conclude this chapter by defining the boundaries for this thesis's concept of emotion.

2.2 Defining emotions.

Ever since James (1884) published his article titled 'What is an emotion?', which focused on emotion theory, there has been an ongoing and lively debate in the field of psychology about the nature, cause, and definition of emotions. While the term *emotion* is widely used in everyday speech, its definition in academic research differs considerably from its common use; as Scherer notes, "while laypersons use 'emotion' interchangeably with terms such as affect, feeling, sentiment, or mood, psychologists define the construct as a process of changes in different components rather than a homogeneous state" (2001, p. 4472).

The varying definition of emotion has been one of the main challenges faced by researchers in the fields of psychology, education, and applied linguistics. One of the main questions when grappling with this topic centres on what should be labelled as emotions, aside from the more evident basic emotions such as anger, happiness, and sadness. Difficulties can arise as soon as more emotions or different nuances of emotions are added: is irritation an emotion, and, if it is, is it an emotion in itself or is it just a type or shade of anger? Is joy the same as excitement, or are these two different emotions? Most researchers agree that such nuances can be gathered under the umbrella of the corresponding basic emotion (Dörnyei, 2009b; Izard, 2011; Scherer, 2001).

Further to the actively experienced emotions mentioned above — such as happiness, sadness, and anger — there are the so-called *calm emotions*, such as contentment and sympathy. The status of these emotions is still subject to ongoing consideration. Some researchers have argued that emotions are only useful — and therefore only deserving of the label *emotion* — if they trigger an individual into action. This would mean that these calm emotions should not be labelled as emotions (for instance, Lewis, 2005; Lewis & Todd, 2011; Reeve, 2009). However, others have argued that these calm emotions occur frequently in a learning situation and should thus be taken into account as emotions (Pekrun, 2006; Pekrun, Frenzel, Goetz, & Perry, 2007).

A second definition issue central to emotion research concerns the various levels of complexity of emotions. Emotions such as shame, guilt, and gratitude are often referred to as *complex emotions*. Some researchers have argued that guilt should be categorised as an emotion (Lazarus, 1991a), whereas others have made a case for regarding these as social constructs rather than emotions in their own right (Arnold, 1960). These complex emotions are sometimes labelled *cognitive feelings* or *social emotions*. This second position is more frequently taken by researchers who focus more on the neurological basis of emotion (see Panksepp, 1998; Frijda, 1986).

At the opposite end of the complexity spectrum of emotions, we find *motivational feelings*, less complex emotions such as hunger, a startle reflex, and lust. These phenomena are often categorised as emotions by those researchers that focus primarily on the biological side of psychology (for example, Levenson, Ekman, & Friesen, 1990; Lewis, 2005; Panksepp, 1998). In contrast, researchers that emphasise the educational elements of psychology

will be more likely to exclude these less complex emotions from their definition of emotions (Ainley, 2006; Pekrun et al., 2007; Scherer, 2001).

As I have highlighted, the list of emotions that should be included in the definition of emotion can vary considerably from one scholar to the next and from one field to another. In general, academics in the field of education tend to be more inclusive when it comes to complex emotions (Aragão, 2011; Garrett & Young, 2009; Pekrun et al., 2007), whereas psychologists are more likely to exclude these complex emotions and focus primarily on basic emotions (Lewis & Todd, 2011; Panksepp, 1998).

Furthermore, the endurance and intensity of emotions form a third element that is subject to debate regarding its place in the definition of emotion. There is a temporal distinction to be made between emotions, moods, and traits. The question has been raised as to whether a mood should be classified as an emotion or not, and, additionally, whether a mood is simply a longer lasting version of an emotion or in fact a separate phenomenon in its own right. Some academics are clear on the topic, separating mood from emotion (Scherer, 2001) and focusing on classifying frequent emotional phenomena such as anger, sadness, and pride as either one of the two (Lazarus, 1991a). Others do not necessarily separate moods from emotions, arguing that these two represent the same phenomena across different time scales (Ainley, 2007; Lee Do & Schallert, 2004). The same questions surround the difference between moods and personality traits, or *disposition*. Several researchers have argued that both moods and long-term emotional traits arise from activities on the smaller time scale of emotions (Ainley, 2007; Lewis, 2005; Matthews & Zeidner, 2004).

A fourth discussion regarding the definition of emotions concerns the matter of consciousness. This focuses on the question of whether emotions need to be consciously experienced in order for them to be labelled as emotions. Some researchers claim that not all emotions are necessarily consciously experienced, even if cognition is involved (Scherer, 2001), whereas others argue that emotions need to be consciously experienced to be considered emotions (see Dörnyei, 2009b). *Feelings* is a term frequently used in this context. Although the terms feelings and emotions are often seen as interchangeable in everyday speech, they hold different meanings in the context of emotion research. Feelings are described as the conscious experience component of emotions (Scherer, 2001).

Due to the fact that the fields of psychology, education, and language development differ in their historical and present approach to emotions, I will review the relevant literature for these fields separately below.

2.3 Emotions in psychology.

2.3.1 Describing and defining emotions.

In a recent paper, one of the leading researchers in emotion, Izard (2010) asked over 30 academics working on emotion to elaborate on their ideas on and definitions of the term emotion. Given the context I presented above, it is perhaps not surprising that the answers Izard received were far from unanimous:

> No succinct synthesis could capture everything in the 34 definitions of "emotion" given by the participating scientists. These definitions defy complete synthesis, in part by virtue of their meaningful originality. They represent ingenious insights and intellectual nuances from each scientist's separate studies and observations, often on different aspects of emotion. (2010, p. 367)

The image that emerged from Izard's paper is that of the blind men and the elephant: several people stand around an elephant, unable to see the animal, and attempt to identify the creature before them. They all stand at different angles and feel different aspects of the elephant; one near the trunk claims it is a long, flexible animal, another holds the tusk and says it is smooth and will not bend, and the last one feels the feet and suggests that the animal is like a tree, round and sturdy. They are all correct in some sense, but none of their definitions of elephant is fully accurate as they all include only components of the whole. To return to emotion, Izard (2010) offered an extensive description of emotion by combining the components of emotion that recurred most frequently in the descriptions of emotion given by the participating scientists. Izard emphasised that this description is not intended to be a new definition and places emphasis on the word *description*; in much in the same way that "an animal with a long trunk, big tusks, and heavy feet" would be a description of an elephant, the description he offers is not necessarily a complete definition.

Izard's article further highlighted the fact that all participating researchers have acknowledged the existence of viewpoints other than their own, agreeing that there are multiple complementary approaches to the study of emotion. Furthermore, the majority of these researchers consistently agree on at least three basic aspects of emotion, regardless of the considerable differences in the viewpoints and definitions of emotion held by the various researchers involved. First of all, the importance of neural circuits and neurobiological processes is agreed upon. Secondly, there is agreement as to the

necessity of the phenomenal experience or *feeling*. Finally, there is a shared agreement regarding the importance of cognitive processing in emotions.

From Izard's article, it appears that emotion researchers generally acknowledge the multi-component nature of emotion and agree on some basic characteristics, but nevertheless treat the phenomenon from their own unique perspective. Three broad branches can be distinguished within emotion theory: biologically oriented research, cognitively oriented research, and socioculturally oriented research.

The biological branch was inspired by the work of Darwin and, specifically, his 1872 book *The expression of emotion in man and animals*. Research in this tradition heavily features the assumptions that emotion is based on patterns of neurological activity that are the product of evolution. The neurological systems that have developed have an adaptive function to help a species adapt and survive, such as fight/flight systems, and can be modified by learning (Buck, 1985; Tomkins & Izard, 1965). Contemporary biological emotion research focuses primarily on the emotion process at the brain level, determining the specific brain areas in which emotion is generated (Lewis, 2005; Panksepp, 1998), emotion-specific patterns in brain activity, and the existence of *Automatic Nervous System* (ANS) activity associated with different emotions such as anger, fear, disgust, and sadness (Gray, 1979; Lindquist, Wager, Kober, Bliss-Moreau, & Barrett, 2012; Panksepp, 1998, 2012).

The cognitive approach to emotion gained ground within emotion theory around the 1960s. The emphasis in this approach is placed on reasoning, conditioning, and appraisal as central factors in emotion. Appraisal is a term frequently used to describe the cognitive interpretation and evaluation of the significance of the event (Arnold, 1970; Frijda, 1986; Lazarus, 1991a; Mehu &

Scherer, 2015; Moors, Ellsworth, Scherer, & Frijda, 2013). An emotion is said to occur only when a situation or trigger is cognitively processed.

The final approach to research in emotion is the social and cultural approach, also known as the constructivist approach. Constructivists tend to assume that there is no such thing as basic instinct or specific neurological pattern underlying emotion. They argue that emotions are affective responses that are learned in social interaction (Averill, 1980, 2012; Shweder, 1991) and that these interactions with others trigger the majority of an individual's emotions (Oatley & Duncan, 1994). Emotions seen through a constructivist lens cannot be viewed apart from their interpersonal context and the cultural environment.

2.3.2 The emotional response triad.

Current emotion theories began with the publication of the paper *What is an emotion* by James in 1884. The common belief at the time was that emotions were triggered by events and caused bodily responses. For example, if a hiker encountered a wolf on his path, this would trigger the emotion fear, followed by an increased heartbeat, sweaty palms, and trembling. James, in contrast, reversed the argument by suggesting that an emotion was triggered as a response to bodily changes. In their theory of emotion, the *James-Lange theory*, James and Lange (1922) argued that physiological change caused emotion and that without this bodily change there was no emotion.

This theory was challenged a few years later by the *Cannon-Bard theory* (Cannon, 1927), in which Cannon argued that both emotion and arousal were triggered simultaneously, in contrast to previous assumptions that one of these phenomena would cause the other. Based on experimental research, Cannon

concluded that changes in a certain part of the brain, the thalamus, were responsible for bodily changes and subjective feeling. Subjective feeling, he stated, then occurs simultaneously with *motor expression*.

With the publication of these papers and the discussions that followed, the core elements that jointly construct an emotion were determined for the next several decades. These elements are *physiological arousal*, such as an increased heartbeat, goose bumps, or sweating; *motor expression*, such as facial expressions, tone of voice, and body language; and *subjective feeling*, such as the conscious experience of feeling happy, sad, or scared. These three elements are otherwise known as the *emotional response triad* (Scherer, 2001). The core issue in the field of emotion research has centred on these three components, the order in which they occur, their mutual influence, and, importantly, how many and which of these elements are required for a phenomenon to be labelled an emotion. In other words: what defines an emotion? Various additions to the emotional response triad have been suggested over the years, as I will discuss in further detail in the following two sections.

2.3.3 Cognition and the emotional response triad.

The first addition to the emotional response triad was an element of *cognitive processing*. This element covers more than just reasoning or interpreting an emotion or an event. The term cognition, in the context of emotion theory, includes perception, attention, evaluation, decision making, and memory (Lewis, 2005). This addition came about partially in response to the James-Lange theory: several researchers undertook research projects with the aim of proving that emotion was more than a merely physical phenomenon and that emotions could not be generated or processed without a cognitive component

(for example, Cantril & Hunt, 1932). Following the rise of cognitivism in the overall field of psychology in the 1960s, the cognitive approach to emotion theory began to gain ground. It was promoted by researchers such as Schachter (1964) and Singer (Schachter & Singer, 1962), who proposed a theory of emotion that depended largely on reasoning and the conscious labelling of bodily changes. According to their *Two Factor theory*, emotions were generated by both physiological and cognitive factors. They argued that "it is the cognition which determines whether the state of physiological arousal will be labelled as 'anger,' 'joy,' 'fear,' or whatever" (Schachter & Singer, 1962, p. 380).

Researchers working to establish this cognitive approach to emotion proposed that an emotional episode consisted of an event — or trigger — followed by a cognitive appraisal of the event. This appraisal would determine whether the event is relevant for the individual and, if it is, whether is it is a positive or a negative event. This appraisal leads to both subjective feelings and bodily change, which then occur simultaneously. This theory, referred to as *appraisal theory*, is among the most frequently cited cognitive theories in emotion research. Throughout the decades the components that make up an emotion episode have remained constant: a trigger, followed by a cognitive appraisal that triggers feelings and bodily responses. There are, however, different theories within appraisal theory that vary in the number of dimensions along which an event is appraised.

The *dimensional model* is often attributed to Arnold (1960) but has its roots in the early 20th-century work of William Wundt (1905, cited by Scherer, 2001, p. 4474). Wundt proposed that the position of an emotion on several different dimensions eventually determined the type of emotion that would be elicited by an event. Wundt proposed three different and independent

categories: one dimension of pleasantness and unpleasantness, one dimension of rest and activation, and a dimension of relaxation and attention (Scherer, 2001). Depending on the position of an event on these three dimensions, a different emotion would occur: an event that is evaluated as unpleasant, active, and attentive will cause a different emotion than an event that is appraised as pleasant, resting, and relaxing.

This dimensional model has been particularly influential in emotion psychology. Arnold's original proposal argued for only one dimension, the positive-negative dimension of an appraisal (that is, the matter of whether an event is positive or negative for an individual), which meant this model had the potential to explain two emotions: like and dislike (Arnold, 1960). In contrast, Lazarus further added a personal relevance dimension (the matter of whether an event is important for an individual) and a dimension of coping ability (the matter of whether or not an individual can cope with the event). This meant this version of the dimensional model had the potential to explain up to fifteen different types of emotions, including pride, love, hope, anger, guilt, shame, anxiety, and jealousy (Lazarus, 1991a, 1991b). Following these models, more emotion researchers have sought to explain all emotions by including dimensions such as expectancy, concerning the question of what will happen after this event; responsibility or control, concerning the question of who or what has caused the event; and legitimacy, concerning the question of whether or not the event is allowed (Scherer, 1997; Smith & Ellsworth, 1985). Depending on the appraisals made by an individual along the dimensions included in each of these models, a certain emotion will follow.

There are considerable differences between these different dimensional modules concerning how many dimensions they include in their model and

those they leave out. This means that the type and number of emotions that researchers list as possible outcomes of the appraisal process will also differ from one model to the next depending on the type and number of dimensions that are included. However, despite these differences, researchers agree on the crucial role of the cognitive processing element of emotion. Without cognitive processing, they argue, there is no emotion.

It has been argued that the influence of cognitive processing on the experience of emotion is a bidirectional one. Rather than simply affecting subjective emotion, cognitive processing is also said to be influenced in return by emotion experience. It has been argued that one of the functions of consciously experienced emotion is to direct an individual's cognitive attention towards a certain event or phenomenon (Lewis & Todd, 2011; Mathews & MacLeod, 1985). Furthermore, if an event is not emotionally relevant, it is less likely to be the focus of an individual's attention, which would indicate that cognitive processing can be interpreted as at least partly guided by emotion. Similarly, researchers have argued that emotion influences other cognitive functions such as memory recall (Isen, 1985; Isen & Stein, 1990) and the selection of helpful or unhelpful learning strategies (Pekrun, Goetz, Titz, & Perry, 2002).

2.3.4 Action tendencies and the emotional response triad.

The second addition to the emotional response triad was the element of *action tendencies*, or *action readiness* (Scherer, 2001; Lewis, 2005). Emotions are known to influence behaviour and trigger the body into action. In other words, they are seen as motivators (Lewis, 2005; Lewis & Todd, 2011; Scherer, 2001). As Lewis and Todd argued, "emotions are useless without intentions to act, and

intentions can be translated into actions effectively only through the coordination of the many neural systems that have been designed by evolution to work together in emotional states" (2011, p. 23). Researchers that argue for the inclusion of action tendencies in the emotional response triad suggest that an emotion cannot be classified as an emotion if it does not include an element of intention or action readiness (Aragão, 2011; Lewis & Todd, 2011).

There have been suggestions in addition to the original emotional response triad besides the aforementioned action tendencies and cognitive processing. Lewis (2005) and Panksepp (1998) have included neurological activity as a key component of emotion processing, and Averill (1980) and Izard (2010) included social context as an essential part of emotions. These various additions to what constitutes an emotion have left emotion theory with an extensive list of potentially essential components of an emotion episode: physiological arousal, motor expression, subjective feeling, cognitive processing, action tendencies, neurological activity, and social context. One of the key debates within emotion theory in psychology has focused on which of these components are prerequisites for an emotion to be labelled as an emotion.

2.3.5 Basic and complex emotions.

Several researchers have proposed a solution to the aforementioned problems surrounding the definition of emotion by organising emotions on two different levels. This is a frequently recurring concept that has been introduced under different names: Buck (1985) introduced his model as the *Prime Theory*, while Levenson (1999) called his the *Two-System View of Emotion.* Izard (1981, 2007, 2011) has introduced the *Differential Emotions Theory*, or DET.

Although these models differ in some ways, they are remarkably similar in others. First of all, all of these theories proposed the existence of emotions on different levels. One of these levels can be described as more basic, while the other is seen as a higher or more complex level emotion. It is important to note here that researchers, more often than not, are hesitant to use the term basic to describe these emotions: Levinson spoke of these emotions as resulting from a *core emotion system*, while Buck has used the terms *Emotion 1*, *Emotion 2*, and *Emotion 3* to distinguish between the different levels of complexity. Izard has argued the following regarding the term *basic emotions*.

> I think "first-order emotions" is a better and less controversial descriptor than "basic emotions" [...] It should also be less of an attractor for what may prove to be fruitless debate and controversy. The term "first-order" emphasises that the emotion does not have a component consisting of cognitive processes like analytic and deliberative thinking and decision making or memories formed by such processes. (2011, p. 372)

Among these various models there is an agreement as to the existence of a limited number of emotions that are basic in the sense that they a) have emerged predominantly as a result of bio-evolutionary processes and b) do not involve higher order cognitive processes (Izard, 2011). Izard (2011) has labelled this first, basic level of emotions *first-order emotions*, and has specified which emotions he included in it: interest, enjoyment, sadness, anger, disgust, and fear. These emotions are generated rapidly and automatically in response to certain events and are more important and frequent in the earlier stages of a person's development. The addition of higher order cognition transforms the first-order emotion into an *emotion-schema*. The relative importance of the various components of emotion — such as motor expression, action tendencies, and subjective feeling — is different for these different emotional levels; the emphasis is more on neurological activity, bodily changes, and action

tendencies in first-order emotions, whereas cognitive processing and social context feature more prominently in the higher order emotions.

Levinson distinguished two categories of emotions based on their emergence from either the *Core System* or the *Control System:*

> At the core of the emotion system is a remarkably durable, simple, and efficient "processor", designed early in evolution to cope effectively with a few very basic, ubiquitous problems, in time-tested, highly predictable, and quite automatic ways. Surrounding this core system is a more recently evolved, highly flexible, and much less predictable set of control mechanisms that are designed to influence the reactions of the core system. (1999, p. 483)

It has been suggested (Abe & Izard, 1999; Izard, 2011) that the basic emotions, which is to say those without any cognitive appraisal, hardly ever feature after early childhood development. With the further maturation of the cognitive system, the basic emotions transform into higher order emotions immediately when they are experienced. This means that the further an individual is in their development, the more prominent a place cognitive processing takes in their experience of emotions.

2.3.6 Emotion regulation.

When an individual's cognitive system matures beyond this point we speak of *meta-emotional control*. This is more frequently referred to as *emotion regulation*, an important feature in emotion research generally as well as within educational psychology and language learning more specifically. Emotion regulation has been described by Gross and Barret as "the things we do to influence which emotions we have when we have them, and how we experience and express them" (2011, p. 8).

Emotion regulation is related to the well-known phenomenon of e*motional intelligence*. Emotion regulation is regarded as a more specific concept and a vital component of emotional intelligence. Emotional intelligence has been described as an umbrella term that constitutes a set of abilities that contribute to competence in the social and emotional domains. Siegler, DeLoache, and Eisenberg summarised this by suggesting that

> these abilities include being able to motivate oneself and persist in the face of frustration, control impulses and delay gratification, identify and understand one's own and others' feelings, regulate one's moods, regulate the expression of emotion in social interactions, and empathise with others' emotions. (2003, p. 383)

Emotion regulation has been described by Frijda (1986) as a mechanism of coping and control, and as an integral part of emotion. However, it has also been argued that cognitive processing is not so much part of the emotion system, but rather the consequence of the interaction of the emotional system and the cognitive system (Lewis & Todd, 2011). This holds true for the higher order emotions, but also for meta-emotional control. Thus, emotion regulation is not treated as a component of emotion, but rather a process that involves both emotional and cognitive systems, similar to Lewis and Todd's description of "cognitive control of emotional responses" (2011, p. 16)

Although having emotions is said to be at least partially innate (see Abe & Izard, 1999; Izard, 2011; Panksepp, 1998), emotion regulation — the ability to control and direct emotions — develops over time. Very young infants are unable to regulate their emotions and will, therefore, rely on a parent or caregiver to regulate their emotions for them; in order to calm down, a distressed baby must be soothed or distracted by a parent. The development of emotion regulation is often divided into several stages or steps. The first step in

the development of emotion regulation is the transition from this caregiver-led regulation of emotions to self-regulation (Siegler et al., 2003). This first step tends to take place quite early in life; from as early as six months of age, children are thought to regulate their emotions by distracting themselves from the source of distress (Mangelsdorf, Shapiro, & Marzolf, 1995). Over the course of several years, children learn to use different behavioural strategies to manage their emotions; they distract or soothe themselves and use language to communicate their emotions rather than crying or pouting. Children also learn to classify the different emotions that they experience, recognising an experience as anger, sadness, or joy. This is a phenomenon often referred to as *emotion knowledge*. These developments are due to multiple factors, such as the maturation of the neurological system and the following growth of cognitive capabilities and language acquisition, as well as the expectations of society (see Reeve, 2009).

The second stage in the development of emotional self-regulation is the conscious use of cognitive strategies to control emotions. Children learn to rethink their goals or reappraise events that they find unpleasant or threatening (Skinner & Zimer-Gembeck, 2007). For example, a child could attempt to cope with a distressing event, such as having a toy broken or taken away, by downplaying the importance of or love for the toy in order to diminish feelings of sadness or anger.

The third stage in the development of emotion regulation is a deliberate selection of the best regulatory strategies to decrease negative emotion. There are two well-known strategies for doing this. The first one is called *distraction* and consists of changing the way an individual attends to a stimulus or event. The second strategy is *reappraisal*, which consists of changing the way an

individual interprets the stimulus. Both are cognitive processes, drawing on the same neurological resources, but they engage differently with these resources and the event or stimulus and therefore have different emotional consequences (McRae, Hughes, Chopra, Gabrieli, Gross, & Ochsner, 2011). In a learning situation, emotion regulation could be needed to respond to a poor result for an important test. An example of emotion regulation by distraction, the first strategy, would be a student trying not to think about their result too much and instead choosing to read a book, see a movie, or call a friend. Regulation by appraisal would be a student focusing on the stimulus (for example, the test result) and reframing the context: the test was not that important, the previous test was very well done, there may be a resit, and similar thoughts. This reappraisal of the context will make the stimulus less powerful and therefore diminish any negative emotions it triggers. As pointed out by Siegler and colleagues (2003), the extent to which children eventually learn how to successfully regulate their emotions has a considerable effect on their level of social competence.

In the early stages of research into emotion regulation, researchers emphasised the independence of the process of emotion regulation, claiming it was a separate process entirely from the generation and experience of emotion itself (Campos, Frankel, & Camras, 2004; Tamir, 2011). As Tamir (2011) explained, this focus served primarily to justify the existence of emotion regulation as a unique field of study. Recently, with the existence and importance of emotion regulation no longer subject to debate and the field of emotion regulation starting to mature, researchers have returned to the question of to what extent the generation of an emotion and its regulation really are two separate processes. The notion that emotions and emotion

regulation are inseparable was first suggested by Campos and colleagues (Campos, Frankel, & Camras, 2004).

The answer to whether emotions and emotion regulation are independent of one another or inseparable depends on the definition of emotion that researchers choose to adopt, as argued by Gross and Barret (2011):

> Models that treat emotions as special, discrete states (with or without clear subcortical causes) are most likely to embrace the distinction between emotion generation and regulation in mechanistic terms. Models that view emotions as continually emergent and constructed treat the distinction as useful in a descriptive and communicative, but not in a mechanistic, way. Models that reduce emotion to their parts (with more or less emphasis on the body vs. the social constraints) are less likely to make the generation–regulation distinction in the first place. (pp. 13–14)

2.3.7 Interim summary.

In the above sections, I have highlighted several themes central to emotion research in psychology. To summarise: the key debate in emotion research concerns the definition of an emotion and the relevant elements that contribute to emotion processing. The emotional response triad of *bodily change*, *motor expression*, and *subjective experience* has been expanded over the years to include further components such as *cognitive processing*, *action tendencies*, *neurological activity*, and *social context.* The number and type of phenomena that researchers acknowledge as emotions will depend on the elements they deem central to an emotional process. I highlighted two types of models that are widespread in emotion theory. The first of these are *dimensional models*, which are based on the cognitively rooted appraisal theory. In these models, emotions are evaluated along certain dimensions, such as pleasantness, personal valence, and legitimacy. Once again, the number of dimensions along which an event is appraised will determine the number and

type of emotional phenomena that a researcher considers to be emotions. The second frequently recurring model, *basic emotion theory*, classifies emotions on two levels. The first level is a *basic* level, which consists of fundamental emotions that are mostly fully automatic and occur more frequently early in an individual's development, while the second level includes complex emotions that require an element of cognitive processing. These complex emotions become more frequent during an individual's development. Further development of these cognitive elements will eventually lead to emotion regulation, the process by which someone can regulate the emotions they experience and when they experience them. This skill is essential to the development of social competence and, as I will emphasise in the following sections, is an important factor in a student's success in learning situations.

2.4 Emotion in education and SLA.

In this section, I will introduce the approaches to emotion research in educational psychology and second language acquisition (SLA). I will discuss the most frequently recurring definitions and frameworks in these fields, as well as some of the emotions at the centre of the current debates and further interesting themes relating to emotion and language learning.

2.4.1 Definitions of emotions in education and SLA.

When it comes to defining emotions, both education and SLA literature display a variety of definitions and frameworks to describe emotion and the way they function in education in general and language education specifically. Pekrun and colleagues have argued that there is a lack of consensus regarding the

nature of emotion within the field, suggesting that "research on emotions in education and on achievement emotions more generally, is in a state of fragmentation today. More integrative frameworks seem to be largely lacking, thereby limiting theoretical and empirical progress" (Pekrun, Frenzel, Goetz, & Perry, 2007, p. 14).

Nevertheless, the existing models and theories within education research are not as divergent as those in the field of psychology. There is a strong consensus regarding the importance of emotion and the effect it has on the learning process — and consequently on the achievement outcome (Ainley, 2006, 2007; Aragão, 2011; Dewaele, 2011; Linnenbrink, 2007; Pekrun, Goetz, Titz, & Perry, 2002). Schuman has argued (1998, 2004) that all learning is inherently based on the formation of patterns of cognitive appraisal. This is articulated well in the following extract from Dewaele's 2011 paper on emotional aspects of language learning:

> When a stimulus is positively assessed in a learning situation, it will have a positive effect on the amount of attention and effort a learner will be prepared to devote to it. It will also encourage the learner to approach similar stimuli in the future. However, when a stimulus is negatively assessed in a learning situation, less attention and effort will be devoted to it, and the negative affective assessment may promote avoidance in the future. (p. 24)

These patterns of appraisal will lead to preferences and aversions; what is positively experienced is likely to be repeated and therefore learned. Similarly, in an article titled *We feel therefore we learn*, Immordino-Yang and Damasio (2007) stated that all human learning is neurologically based on emotion.

Researchers within education and SLA do not place the underlying components of emotion at the centre of their research. Rather than

investigating the processes by which an emotion is elicited and experienced, these researchers focus on a more specific type of emotion, usually referred to as *achievement emotion* or *academic emotion*, which are those that are influential in a learning environment. For educational psychologists, the main focus of their research has been the classification of these achievement emotions, their causes, and their consequences for learning.

Achievement emotions and academic emotions are two terms used frequently within educational psychology. Although the two terms are sometimes treated as synonyms, there is a difference between the two. Pekrun et al. (2007) described achievement emotions and academic emotions as largely overlapping concepts. Achievement emotions are those that are directly tied to achievement activities or achievement outcomes, including those outside of a learning context. Academic emotions, however, are solely related to the academic context and include emotions that are not necessarily related to achievement. Pekrun et al. (2007) argued that although most emotions relating to a student's academic learning and achievements tend to be achievement emotions, this is not true for all emotions experienced within a learning setting. Pekrun and colleagues (2002) described academic emotions as

> emotions that are directly linked to academic learning, classroom instruction, and achievement (e.g., enjoyment of learning, pride of success, or test-related anxiety) [...] the domain of academic emotions would include students' achievement emotions experienced in school or university settings but goes beyond emotions relating to success and failure by also covering, for example, emotions relating to instruction or to the process of studying. (p. 92)

Within the field of second language acquisition, research into emotions has been typically connected to motivation research, as this has been labelled as the affective variable within the field for the last few decades (see Dörnyei,

2009b). However, while research into motivation and language learning has developed significantly, as I will discuss further in Chapter 3, emotions as a factor of language learning are still considered a relatively new area of research (Dewaele, 2011; So & Dominguez, 2005). Research into emotion and language learning is currently less formalised and less consistently defined as compared to motivation. However, researchers within SLA are certainly conscious of the complexity of emotion, as can be seen in the following statement from So and Dominguez: "Emotion [...] is the psychological outcome of dynamic interactions between different layers of internal and external systems — physiological, cognitive, behavioural and social" (2005, p. 43).

2.4.2 Theoretical models in education and SLA.

The cognitively based appraisal theory of emotion has been quite influential in the way emotions have been approached within education and educational psychology; there is an emphasis on the cognitive processing of emotion, and dimensional models are widely spread. Linnenbrink's (2007) model of emotion, for instance, has its roots in a dimensional representation of emotion. In this model, emotions can be evaluated — or appraised — on two different dimensions: one dimension of *valence*, which can be evaluated as either positive or negative, and one dimension of *activation*, which can be evaluated as either active or passive. Pekrun et al. (2007) have taken this dimensional model a step further by adding a subdivision to one of their dimensions. They have also organised academic emotions on two dimensions: *valence*, which can be either positive or negative, and *setting*, which can be either task-related or social. Task-related emotions then have three further sub-dimensions. Students can evaluate an event at different moments — prior to a task, during a task, and

after a task. This then leads to *prospective*, *retrospective*, and *process* emotions. In this model, *boredom* is an academic emotion that is evaluated as task-related, process-related, and negative. Pride, to name another example, can be categorised as a task-related, retrospective, and positive academic emotion. In dimensional models like these, the number of dimensions that are included in the model largely depends on the type and number of emotions a researcher would want to include in the model.

Research on emotion in language development similarly tends to focus on cognitive components of emotion, with an emphasis on emotion regulation, as well as on action tendencies, such as behavioural and motivational consequences. Most of the studies into emotion and language learning feature group interviews, group discussion and diary studies, the interaction of group conversations, questionnaires, drawings, and other creative ways of expression (Aragão, 2011; Gareth & Young, 2009; Imai, 2010; Miyahara, 2015; Pishghadam & Zabetipour Aminzadeh, 2016; So & Dominguez, 2005). These instruments and methodologies aim to elicit a student's subjective feelings and their reflections on them in order "to address the common phenomenon of variable success in second language acquisition" (So & Dominguez, 2005, p. 44).

2.4.3 Different emotions in education and SLA.

There are a considerable number of academic emotions, such as joy, enthusiasm, hope, relief, pride, gratitude, sadness, anger, envy, and disappointment (see Pekrun et al., 2007, for an overview). Historically, however, *test anxiety* has been emphasised as one of the most important emotional elements of educational psychology given its tangible effect on academic performance. In a review of various research studies that connect emotions to

learning and achievement, Pekrun and colleagues (2002) have highlighted the way in which test anxiety has dominated the research in this field. Test anxiety accounted for the vast majority of the studies under review; over 500 studies from 1991 to 2000 concerned test anxiety. The next most frequently studied academic emotion was *anger*, with 33 studies dedicated to its role in learning and achievement, followed by *joy* (29 studies), the combination of *shame* and *guilt* (20 studies), and, finally, boredom (16 studies) (Pekrun et al., 2002). The authors raised the concern that emotion research has been too concerned with negative emotions in general and test anxiety specifically, and proposed a move towards positive academic emotions and how to best promote these in a classroom environment. Imai has similarly argued for a more holistic approach to emotion in language learning, calling for "a more fine-tuned analysis of emotions manifested, constructed, and shared between people in the context of language learning" (2010, p. 289), in which affect is treated as a dynamic factor rather than either a positive or detrimental influence on learners' language learning achievements. As will be discussed later in this chapter, there has been an increase in research into emotion and language learning from a dynamic perspective. Some examples of research from a more holistic perspective, we find in the work of Méndez López and Febale Cárdenas (2014) who discussed the relationship between emotions, motivation and the social context where these are experienced, through a number of qualitative research tools, and in the work of Miyahara (2014) who focused on the emerging self identities as shaped by emotions and learning experience. More recently, De Costa (2016) investigated timescales and emotion in relation to a student's language learning outcomes. Benesch (2012), on the other hand, has written from the perspective of an educator with a holistic perspective on emotions in the language

classroom. A further frequently studied affective phenomenon in education and SLA is *interest*, which is seen as an important factor in determining student motivation and learning achievement (Durik, Hulleman, & Harackiewicz, 2015; Hidi & Renninger, 2006; Renninger, 2009; Renninger & Hidi, 2011; Schiefele, 1991; Schiefele & Csikszentmihalyi, 1994). Interest has been labelled as an emotion by some researchers (Izard, 2011; Silvia, 2005), but more recently researchers have moved towards treating interest as a combination of emotional, cognitive, and motivational variables (Ainley, 2006, 2007; Hidi, Renninger, & Krapp, 2004).

Interest is not the only emotion that is considered a combination of affective, cognitive, and motivational factors; there have been several other studies into classroom emotions that chose not to focus on the emotions that are typically listed as academic emotions, such as enjoyment, anxiety, and anger. Instead, these researchers have focused on what they describe as *cognitive-affective states*: combinations of cognitive and emotional processes that shape a learner's classroom state. The most frequently mentioned cognitive-affective states are boredom, engagement and flow, frustration, confusion, and interest (D'Mello & Graesser, 2011, 2012; Do & Schallert, 2004; Rodrigo, 2011). In these studies, researchers record and analyse a student's movements from one state to another in the context of a single lesson in order to study the fluctuating nature of these classroom states in the direct learning context. They do this by means of computer programs and classroom observations (D'Mello & Graesser, 2012; Rodrigo, 2011) or interviews and questionnaires (Do & Schallert, 2004). Out of the cognitive-affective states that were recorded and analysed, boredom seems to be the only state that can

persevere for longer periods during a lesson, while other states, such as confusion, engagement, and frustration, are less likely to endure over time.

2.4.4 Further themes in emotion research in education and SLA.

A further characteristic of emotion research in the fields of educational psychology and SLA is the emphasis that is placed on the fluidity of emotion and its temporal dimension. While research into motivation began with a focus on trait-like motivation before moving to a more process-based and dynamic approach, emotion is frequently approached as a state-like short-term phenomenon (Ainley, 2007; Buckley, Hase, & Ainley, 2004; Meyer & Turner, 2002; Turner & Meyer, 2000; Turner & Waugh, 2007). This is best illustrated by the following extract from So and Dominguez's 2005 article on emotion processes in language learning: "The new paradigm should emphasize emotion process (rather than emotional state), that is, dynamic self-organising processes of emotions that are non-linear and constantly emerging through the causal interdependence among internal and external variables on different timescales" (p. 51). Their call for a more fluid and context-based research into emotions is similar to Imai's (2010) case for more a more holistic approach. So and Dominguez specifically argue in favour of open-ended and semi-structured interviews, diaries and autobiographies, and other methods that capture learners' subjective experiences, stating that "these qualitative approaches to the study of language learners' emotions should be recognized as appropriate research strategies in building more ecologically valid models of the emotion process in real-life and concrete situational settings" (p. 44). They further discuss the fact that emotions result from both implicit and explicit mental processes, which is a topic more widely debated in the field of psychology, and

on which I will elaborate below in a dedicated section on emotion and consciousness (Paragraph 2.6.2).

Another recurring feature of emotion research in SLA is the considerable amount of attention given to the context in which the learning and emotional experience take place (Corpus, McClintic-Gilbert, & Hayenga, 2009; Pfenninger & Singleton, 2016; Turner & Meyer, 2000). Researchers have expressed disagreement with some of the practices in other fields, where emotion is sometimes considered as an individual affective state, outside of the learning context: "at the cost of neglecting learners' relation to the context, as if the only process took place in the individual minds, bodies or individual contexts, such as the classroom" (Aragão, 2011, p. 303). This implies that both the learning context and the wider social context of a language learner ought to be included in the research design and data collection, as well as taken into consideration in any data analysis that follows. It also follows that emotion is not treated as a static individual difference, but rather a part of the learning experience, and as such should be studied in combination with other factors such as motivation and context. As I will discuss further in the next paragraph, as well as in Chapter 4, the interaction of affect with other factors such as cognition, motivation and context, lies at the very core of the first research study in this thesis.

Another interesting field of study within SLA concerns emotions in different languages and, more specifically, the question of how emotions are experienced in different languages by language learners. It has been argued that for speakers of multiple languages, the subjective feeling related to emotions varies for their first and second or third language (Brase & Mani, in press; Dewaele, 2011; Dewaele & Pavlenko, 2002). Dewaele (2011) has emphasised the

importance of teaching students the emotional vocabulary of the target language when teaching a second language. He argued that emotions are the driving force in second and foreign language learning and the way in which "the ability to understand and communicate emotions in a language is the key to successful social interactions in the language, which are in turn vital for the language user's mental balance" (Dewaele, 2011, p. 36). Similarly, Panayiotou (2004) argued that emotional vocabulary and its variation across languages is likely to influence an individual's ability to express subjective feelings.

Emotional intelligence has been related to affective-motivational states in the language classroom (Dewaele, Petrides, & Furnham, 2008). Trait Emotional Intelligence (Trait EI) is argued as enabling students to regulate their emotional reactions over time, manage stress, and be assertive. These students will therefore experience fewer negative states such as anxiety and frustration. Several studies have demonstrated a connection between students' emotional intelligence and their academic achievement in English as a foreign language (Fahim & Pishghadam, 2007; Pishghadam, 2009). It is no surprise, therefore, that the subject of emotion regulation receives considerable attention in the context of education and SLA research. As So and Dominguez explained, "the ways in which individuals go about emotion regulation can shape the success of their undertakings" (2005, p. 52). For some researchers, like Schutz and Decuir (2002), emotion regulation is at the very basis of emotional processes in the classroom. They argued that an emotion starts with a judgment of how successfully we see ourselves reaching a goal:

> People make judgments such as "Is what is happening important to my goals?", "Is this going the way I hoped?", or "Can I handle the situation?" How individuals answer those questions, within a particular social-historical context, will influence the emotions they experience, the intensity of those emotions, and the

> *emotional regulation* they use during self-direction. (Schutz & Decuir, 2002, p. 127, emphasis added)

Emotion regulation does indeed influence learning outcomes to a certain extent. Several studies have shown that students who can successfully cope with and regulate their emotions during the learning process and who can, for example, successfully turn themselves around when confronted with a poor result for an exam, are more successful over the course of a semester than students who are incapable of regulating their emotions effectively (Macklem, 2008, 2015; Pekrun et al., 2002; Schutz & Davis, 2000; Turner & Waugh, 2007).

2.5 The trilogy of mind: The interaction of emotion, motivation, and cognition.

In psychology, education, and SLA, motivation and cognition feature prominently in theories of emotion. This is not a recent development: for decades — centuries, even — philosophers and academics have typically related emotion to motivation, cognition, or both. Plato was among the first to suggest that these three components lie at the heart of human behaviour, and his reasoning regarding the tripartite structure of the soul has influenced scholars ever since (see Scherer, 1995, for a discussion on Plato's legacy in emotion theory). These three components, which constitute the so-called *trilogy of mind*, are *nous*, *epithumia*, *and thumos*. Nous is seen as the representation of intellect and reasoning, what we would consider cognition. Epithumia, on the other hand, is described as appetite, or wanting, and the needs of the body, which could represent motivation. Finally, thumos is related to passion and emotion, representing higher ideals and virtue. Plato applied his tripartite

structure not only to the soul but also to his vision of the ideal state. The three social classes represented by the aforementioned elements were to be strictly separated, in a state of antagonism to one another, and should ultimately be ruled by nous, the element of intellect and reasoning. As Scherer (1995) pointed out, thumos — emotion — was originally intended to function as a watchdog, assisting the element of cognition, nous, in ruling the impulses of the motivational element. Later theories drawing on the trilogy of mind featured emotion and motivation on the same level, to be ruled by cognition. Personal well-being depended on the state of harmony between the different elements of the soul.

In accordance with Plato's idea of reason as the dominant part of the soul, the focus in philosophy and academic research has been primarily on cognition. Intellectual functioning and development are seen as cognitive phenomena in which emotion and motivation are mere side figures or as potentially disadvantageous for reasoning and clear judgment. This view has also been called a "cognitive-reductionist perspective" (Dai & Sternberg, 2004, p. xi).

However influential Plato's theory might have been, the strict separation of the systems did not hold in real life, as other scholars, including Plato's own student (Aristotle, 1986), have pointed out. Over the years it has been argued that not only do cognition, emotion, and motivation heavily influence one another, they are also virtually inseparable (Damasio, 2000; Lewis, 2005; Neisser, 1963; Swain, 2013). Even though a cognitive-reductionist perspective has been prominent for years, following the rise of artificial intelligence and the seemingly endless possibilities of machines and computers, there have always been voices arguing for an integrative perspective. Neisser, in his 1963 paper

The imitation of man by machine, argued that reasoning alone can never represent the human mind. He stipulated that cognition is initiated and persists solely by the strong link with emotions and that cognition is continuously influenced by ongoing motives:

> Needs and emotions do not merely set the stage for cognitive activity and then retire. They continue to operate throughout the course of development. Moreover, they do not remain constant but undergo growth and change of their own, with substantial effects on intellectual activities. Some emotional growth, such as the gradual differentiation of specific fear from general anxiety, is the result of interaction with the environment. Other changes, like those of puberty, seem to be relatively autonomous. It would be rash indeed to believe that events so important to the individual's life play no role in his thinking. (Neisser, 1963, p. 196)

Several researchers argue that there is no reasoning without emotion or motivation, no motivation without cognition — in other words, one cannot function without the other. Researchers have studied this integration on several levels. First of all, at the level of neurobiological functioning (Damasio, 2000; Panksepp, 1998; Tucker & Derryberry, 1992), Dai and Sternberg have argued that

> (a) the infrastructure of the brain that supports various higher order mental functions can be localized to some extent; (b) cognitive and emotional processes are intricately related, structurally as well as functionally, at the brain level; and (c) there are neurochemical mechanisms for the interplay of affect and cognition which are typically neglected or unobservable in psychological research. (2004, p. 10)

Another level of integration is phenomenological. At this level, the focus is the conscious aspect of emotion. Dai and Sternberg (2004) described this level as including subjective, conscious experience of bodily sensations, mental images, and other cognitions such as wishes, goals, and the self.

On both levels of integration, research has confirmed that the systems of motivation, emotion, and cognition mutually influence one another and are

difficult to distinguish (Linnenbrink & Pintrich, 2002a, 2002b, 2004). Dai and Sternberg have therefore argued that intellectual functioning and development are never solely cognitive, but involve the systems of emotion and motivation as well: "Reducing intellectual functioning and development to merely cognitive matters is simply no longer tenable both on theoretical grounds and in the light of empirical evidence" (2004, p. 29).

It should come as no surprise, then, that emotion has mostly been depicted as functioning in partnership with the two other systems of cognition and motivation. Approaching emotion as a process of appraisal emphasises the interaction of emotion and cognition (Frijda, 1985; Lazarus, 1991a, 1991b; Pekrun et al., 2002), whereas a focus on the behavioural elements of emotions, such as action tendencies, emphasises the link interaction of emotion and motivation (Aragão, 2011; Turner & Waugh, 2007). Lewis claimed that, from a Complex Dynamic Systems point of view, there is no such thing as a cognitive system without emotion, and no emotional system without cognition:

> A DS analysis of the neurobiology of emotion then demonstrates, in precise and concrete terms, that cognition and emotion were never two distinct systems at all. They are not distinct at the level of interacting parts, or at the level of the wholes to which these interactions give rise. (2005, p. 194)

It is important to note that researchers from various theoretical backgrounds in emotion theory have acknowledged the contribution of motivation and cognition to emotion processes. A literature review may sketch the field of emotion theory as neatly organised schools of research, divided up by being focused on cognition, behaviour, social context, or neurobiology, but the reality of emotion research is far more complex than this. Researchers of different theoretical backgrounds generally do not ignore findings from those theories different from their own: appraisal theory takes into account

motivational features of emotion, as can be seen in Lazarus' *cognitive-motivational-relational theory of emotion* (1991b). This is the case even though Lazarus' emphasis is still on the interaction of emotion with cognitive processing. Similarly, researchers that focus primarily on physiological elements of emotion do not usually deny the effect of other elements, such as cognitive processing, in the emotion process. Levenson, often categorised as a physiobiological researcher (Levenson et al., 1990), argued for an appraisal element in emotion processing (Levenson, 1999), while Gray, known for his research into brain activity and emotion, cautioned fellow researchers to take into consideration the fact that "it is essential to recognise that it [anxiety] has cognitive as well as emotional aspects" (p.605) in a 1979 paper titled *Anxiety and the brain: Not by neurochemistry alone*.

On the other side of the theoretical spectrum, Lazarus — often referred to as the most prominent appraisal theorist — included patterns of automatic neurological activity in his theory. Similarly, Frijda — who has also been referred to as an appraisal theorist (see Scherer, 2000) — almost reluctantly classified himself as a cognitivist in the preface of his 1986 book *The emotions*, saying

> the approach taken in this book — if one wishes to oppose cognitive and behavioural formulations — is a cognitive one. But this does not do justice to the present orientation. A better designation is affective, or conative. What is interesting about emotion is the emotional. Feeling is not cognition, it is feeling — it is responding "yes" or "no". Striving is not behaviour, it is tending-toward, trying to reach or avoid. (p. 5)

Although the aforementioned theorists have been placed firmly in either the "biological camp" or the "cognitive camp" by colleagues and readers, a closer reading suggests a more nuanced perspective. As Lazarus has pointed

out, “the differences are largely matters of emphasis and the central focus of their research” (1991b, p. 825).

In all three fields of research — psychology, education, and SLA — there is an increasing tendency to include the elements of the trilogy of mind — emotion, motivation, and cognition — in one construct of behaviour regulation. This can be seen in the work of Lazarus (1991b) in psychology, Ainley (2006) in education, and Dörnyei (2009b) in SLA. This happens on the level of a transient state in the case of short-term emotions (Lewis & Todd, 2011) and on the level of personality traits. Matthews and Zeidner (2004) for example, have described personality traits as self-regulating, organised units of emotion, cognition, and motivation.

This interaction of the systems that make up the classic trilogy of mind can provide an answer to the question of whether emotion is a process of cognitive appraisal, a mechanism for action, a motivational construct such as goal orientation, or a social construct. In essence, it is none of the above. Through its strong connection to both cognition and motivation on all levels, from neurological to phenomenological processing, emotion has consequences for the processes of motivation and cognition. The influence is mutual and sufficiently strong such that, in reality, emotion always operates in combination with either one of the two other systems — just as cognition is said to be always connected to either motivation or emotion and motivation is always affected by emotion and cognition. This means that in terms of how they are studied in the context of a language classroom, emotions are not emotions in the “clean” sense of the word. They operate together with cognition and motivation in determining a student’s *affective-cognitive-motivational state*. These states are

the theoretical concept at the centre of the research in this thesis, as I will further discuss at the end of section 2.6,

2.6 The conceptualisation of emotion in the current thesis.

In the wider field of emotion research, where does all of the above information leave the researcher? In the following section, I will address this question by laying out the principles used to define affect and emotions in the research in this study.

2.6.1 Feeling, Emotion, Mood, and Trait.

In both academic research and everyday life, the terms feeling, emotion, and mood are frequently treated as synonyms (see Linnenbrink-Garcia & Pekrun, 2011). However, scholars in the field of psychology emotion research tend to separate these phenomena and make a distinction between feeling, mood, and affective trait. Feelings, to begin with, have been described as an element of emotion — the subjective experience component that was included in the original emotional response triad that I highlighted in previous sections of this chapter. The terms feeling and emotion therefore cannot be regarded as interchangeable because, as Scherer observed, "it is important to differentially define the concepts [...] as the tendency to use emotion (the process as a whole) and feeling (one of its components) as synonyms results in confusion" (2001, p. 4473).

Emotion, also referred to as a *transient state*, is characterised by its intense and short-lived nature. Emotions are typically triggered by a particular event or stimulus. In contrast, mood is described as a more diffuse state, one

that lasts longer than an emotion. In addition, moods tend not to be as easily attributed to a single cause (Do & Schallert, 2004). Affective traits, the final phenomenon, are sometimes referred to as emotional bias or disposition. These states are depicted as more enduring aspects of an individual's personality, influencing behaviour, cognition, and motivation (Rosenberg, 1998; Dörnyei, 2009).

It may be challenging to meaningfully separate feeling, emotion, mood, and trait in an individual's behaviour, as they are likely to influence one another continuously. Ainley (2006, 2007) described these emotional phenomena as representations of emotion on different time scales, "representing different levels of generality" (Ainley, 2007, p. 148). The level of affective trait is the manner in which individual processes information, regardless of the context: some individuals will react differently to a stimulus than others due to differences in their affective traits — or emotional disposition. The time scale of mood can be seen as a level in between affective trait and an emotion or subjective feeling. This level is not as stable as an affective trait but does last longer than the short-lived phenomenon of emotion. Both affective trait and mood influence the experience and occurrence of transient emotions, and vice versa:

> There is a significant focus in research on emotions in education on the way situations can trigger behaviour consistent with disposition, or, consistent with current mood; the way transient state may impact mood and how both may impact disposition. (Ainley, 2007, p. 149)

Although most research has focused on how trait and mood influence the occurrence of emotions, it has also been suggested that this influence is a bidirectional one (Ainley, 2007). Lewis discussed this in his 2005 paper on emotion theory and neurobiology from a dynamic systems perspective. He

argued that the short-lived experiences of emotion form patterns at a neurobiological level. Patterns that are repeated frequently (for instance, emotions that are experienced repeatedly) are more likely to occur again, biasing an individual's emotional experiences in the long term:

> Whereas emotion theorists restrict their analysis to the effects of clinical traits on emotion and appraisal, the present model suggests that causation flows the other way as well, from recurring emotion-appraisal states to enduring clinical patterns. (Lewis, 2005, p. 193)

Researchers within education and SLA frequently refer to a variety of emotional phenomena by using the term *affect* (Aragão, 2011). This is a more general term, which Aragão described as "an umbrella term, subsuming a list of other concepts (feeling, mood, attitude, value, judgment, personality factor, learner variables)" (2011, p. 303). As Aragão argued, the term affect features more prominently in the fields of education and SLA. Within this broad concept of affect, the three aforementioned levels of emotion, mood, and trait are called *affective states* (Ainley, 2006). Although in psychology most researchers explicitly specify which of the three affective states is their main point of focus (Lazarus, 1991b; Levenson, 1994; Scherer, 2001), researchers in both education and SLA prefer to be inclusive rather than selective in their use of the terminology, and consequently include all levels of affective state that are relevant to the learning context of the study (Ainley, 2007; Do & Schallert, 2004). Some researchers prefer to use the term emotion to mean affect in general or do not define which aspect of affect is their main concern (Immordino Yang & Damasio, 2007; Meyer & Turner, 2002).

For the purpose of this thesis, I will use the term affect as an umbrella term that will cover the three affective states of emotion, mood, and trait; these operate on distinguishable and interacting time scales. The main focus,

however, will be on the time scales of emotion as a transient state and as moods.

2.6.2 Emotion and consciousness.

Earlier in this chapter, I briefly touched upon the topic of consciousness. This concerns the conscious experience of emotion and the question of whether or not an emotion needs to be experienced consciously before it can be called an emotion.

As I highlighted in Section 2.3 above, researchers in both education and SLA have mostly focused on consciously experienced emotions, usually ones that involve a considerable amount of cognitive processing. However, researchers in the field of psychology do not necessarily assume that all emotions are conscious ones. According to several academics, including Scherer (2001), Reeve (2009), and Lewis (Lewis, 2005; Lewis & Todd, 2011), emotions exist on different levels — a conscious level and an unconscious level. Scherer argued that emotions become feelings when an individual is aware of ongoing changes in different bodily systems: "speculatively, one might assume that this is also the point when unconscious reflections of component subsystem changes become conscious" (2000, p. 87).

Reeve, in contrast, argued that emotions are by definition consciously experienced, while the somewhat vaguer concept of mood is reserved for unconscious emotions. He reasoned that the purpose of emotions is to grab and direct an individual's attention, which implies the need for them to be consciously experienced; otherwise, they do not fulfil their main purpose (Reeve, 2009).

Lewis and Todd distinguished between two states of emotion processing when they discussed consciousness and emotions. The first of these states is *focal attention*, or *executive attention*, which is related to higher order consciousness and explicit awareness. The second state of processing is called *preattentive* or *background awareness* and is related to less conscious awareness. In this state, an experience is subjectively felt but not cognitively assessed:

> With respect to affects, such as those accompanying emotions, preattentive awareness can include feelings (e.g., tightness in the chest) before they are the object of focal attention. Our use of preattentive awareness is similar to the notion of implicit consciousness in some accounts. (Lewis & Todd, 2011, p. 4)

Similar arguments can be found in the work of Damasio (2000, 2004), who reasoned that even though we tend to be conscious of our feelings, there is no evidence to suggest we are aware of all of our feelings. In his 2004 book *Looking for Spinoza: Joy, Sorrow and the Feeling Brain*, Damasio gave a detailed account of the different levels on which emotion is represented in the body by using the image of a tree. The lowest branches of this tree represent the basic reflexes, such as the startle reflex, the process of metabolism, heart rate regulation, blood pressure, and the immune system. The branches on the middle level represent the behaviours associated with pain and pleasure or punishment and reward. Examples include approach or avoidance of certain stimuli and pain behaviours. On the next level of branches, Damasio placed drives and motivations such as hunger, thirst, curiosity, and sex. The branches one level further up the tree represent emotions proper: "emotions in the narrow sense of the term — from joy and sorrow and fear, to pride and shame and sympathy" (Damasio, 2004, p. 34). At the very top of the tree we find feelings. These are defined as being the mental expression of all other levels of

emotion further down the tree. Not all of these levels of emotions have an element of conscious processing associated with them.

Currently, there seems to be a general consensus in the field of emotion research that not all of our emotions are consciously processed (Izard, 2011; Lewis & Todd, 2011; Reeves, 2009; Scherer, 2001). Emotion is represented on different levels of consciousness, ranging from fully automatised responses of which an individual will not be consciously aware to fully conscious and cognitively processed feelings. Emotions of which individuals are aware (that is, consciously experience) are sometimes given a separate emotion category and defined as feelings.

For the purpose of this thesis, I will begin by focusing on the emotions that fall into the final category: the type of emotion of which an individual is aware and consciously experiences. This has the advantage of making the phenomenon of emotion subjectively gradable. However, in Chapter 6, I will further discuss the notion of *implicit attitudes* and the way in which these implicit attitudes affect the interaction of affect and motivation in language learning situations.

2.6.3 A dynamic account of emotion.

From the overview above it is clear that emotion consists of a complex interaction of different systems and components. To integrate all of these perspectives, scholars in all aforementioned fields have started to turn towards a *Complex Dynamic Systems Theory* (CDST) perspective on emotion. Emotion is depicted as emerging from the previously mentioned interactions of the different components of an emotion episode and an individual's environment. From a CDST perspective, the different components of an emotion, such as

neurological processing, motor expression, subjective feeling, and cognitive processing, are interacting elements, contributing to the emergence of emotion states. Causal relationships are less likely to only have one direction, as Lewis (2005) argued regarding the influence of cognitive appraisal on emotion: "Reciprocal and recursive relations among appraisal and emotion components lead to the emergence of appraisal-emotion wholes, and that neither whole (i.e., fully articulated) emotions nor whole appraisals can exist in isolation from each other" (p. 178).

Scherer (2000) has argued for a paradigm shift in the field of emotion research, and explained that he is fascinated by the notion that "emotion episodes might be considered as processes of self-organization among neurophysiological systems that are mapped onto cultural meaning structures" (p. 80).

Similarly, Lewis and colleagues (Lewis, 2005; Lewis & Granic, 2002; Lewis & Todd, 2011) took a dynamic systems approach to emotion, bridging the psychological categories of emotion theory with the biological evidence from research at the level of neurological processing. They emphasised the way in which emotion is a self-organising system, based on "bidirectional causal relations that organise parts as well as wholes at both momentary and developmental time scales" (Lewis, 2005, p. 173).

Furthermore, describing the three affective states — emotion, mood, and trait — as different representations of the same phenomenon (Ainley, 2007; Do & Schallert, 2004) is an example of the nesting time scale principle featuring frequently in the literature of Complex Systems (see De Bot, 2012 and 2014 for a summary). The interaction of these time scales is also visible in the argument made by Lewis, which I highlighted earlier in this chapter. Lewis explained how

some patterns of emotion-action-cognition interaction occur more frequently, eventually leading to long-term emotion biases, otherwise known as traits: "The DS principle relating real-time coherence to structural change provides a means for integrating the third branch of emotion theory, dealing with individual traits, by suggesting how traits might arise from, as well as contribute to, cognition-emotion outcomes" (2005, p. 193).

Whereas Lewis and colleagues approached the neurobiological level of emotion generation, Turner and Waugh (2007) focused on the student as a dynamic system in itself. The student acts and reacts to external stimuli, such as the classroom environment, the tasks at hand, and the interaction with other students, as well as internal stimuli, such as thoughts and emotions. These external and internal stimuli will both influence cognition, affect, and motivation (Turner & Waugh, 2007). Turner and Waugh argued that CDST is the most suitable framework for research into individual differences in learning environments since the alternative theoretical models on emotion were lacking:

> Despite our best efforts to control and predict learning-related processes and outcomes, each student's learning experience is a unique tapestry of cognitions (ongoing goals, perceptions, interpretations, understanding, etc.), emotions, behaviours, and psychophysiology. No matter how we slice academic experiences into segments of learning (i.e., academic "events" or "episodes") for research purposes, students' learning remains highly individualistic. DST provides a useful framework to understand these processes. (2007, p. 127)

Using Dynamic Systems–based methodology, Turner and Waugh (2003) have discovered that an individual's motivation, emotion, behaviour, and achievement visibly move in patterns throughout the course of a semester, consistent with a dynamic perspective.

A similar approach can be found in the work of Dörnyei (2009b), who has advocated a dynamic approach to affective variables in language learning.

Dörnyei and Turner and Waugh proposed the integration of cognitive, motivational, and emotional processes in the context of a classroom. However, measuring affective states as they occur in classrooms can be challenging, as Lewis and Todd highlighted in the following abstract:

> Emotional wholes are seen as cohering in real time through the interaction of many constituent processes, and it is the synchronization of these processes, as well as the properties of the whole, that becomes the focus of investigation. However, it is extremely difficult to study the real-time interaction of such constituent processes with behavioral methods. Observational techniques cannot see them, self-report cannot access them, and experimental manipulation cannot segregate them. (2011, pp. 6–7)

Although a dynamic approach to emotion research is a promising one, one of the main difficulties is, in the words of Scherer, that "neither our conceptual nor our methodological tool kits are adapted to dealing with systems of the degree of complexity exhibited by emotion processes" (2000, p. 77). Dewaele, however, displayed an optimistic attitude concerning the study of emotion in education and language learning, writing "I am confident that the methodological and epistemological problems can be overcome through a combination of ingenuity, flair and some inevitable compromises" (2008, p. 175).

2.6.4 Summary.

In order to study the interaction of emotion and motivation in language learning, I have identified several boundaries that define the type of phenomenon that will be included in the description of emotion for this research. As I have argued in above, the main criterion for a phenomenon to be classified as an emotion is the occurrence of an element of conscious experience. Furthermore, with regards to the three affective states — emotion,

mood, and trait — I will follow the line of reasoning by Ainley (2006, 2007), Lewis (2005), and Matthews and Zeidner (2004), who have suggested that these affective states represent the same phenomenon: namely, an affective state experienced as subjective feeling, on different time scales, with different levels of stability. In this thesis, I will primarily focus on the two smaller time scales, those of emotion as a transient state and mood.

As I highlighted in Section 2.4, cognition and motivation feature heavily in emotion theory. From a CDST perspective, it makes logical sense to apply the so-called trilogy of mind and to use *amalgams* or *conglomerate states* of affective, cognitive, and motivational elements to describe the interaction of affect and motivation in language learning. These states, such as interest, boredom, or frustration, can be short-lived or have a more permanent character, just as emotions can manifest in moods or even personality traits.

With these boundaries in mind, I will focus on the affective-cognitive-motivational states that emerge in a language learning classroom, which can manifest at the conscious and the unconscious level and exist on different time scales.

In the following chapter, Chapter 3, I will first review the most recent research on motivation in language learning before moving on to an overview of young learners' motivation. I will return to the concept of affective-cognitive-motivational states in Chapter 4, the first research chapter of this thesis. In this fourth chapter, I will identify the most frequently recurring *conglomerate states* that are experienced in classroom situations.

Chapter 3. Motivation

3.1 Introduction.

The understanding of L2 motivation has undergone a transformation over the past two decades; indeed, the days in which motivation was seen as a static individual difference variable within a modular framework — the most famous of which is Robert Gardner's (1985) socio-educational model — seem to belong to the past. Motivation research has undergone various phases through the years, as summarised by Lamb (in press): the social psychological phase, with its focus on attitudes towards the target language and its speakers; the cognitive-situated phase, which began in the 1990s, with its focus on classroom environment and constructs such as self-determination theory (Ryan & Deci, 2000) and attribution theory (Williams & Burden, 1997); and a process oriented period, in which the focus came to rest on the temporal dimension of motivation (Williams & Burden, 1997; Williams, Burden, & Lanvers, 2002; Dörnyei and Ottó, 1998). The research focus in motivation has since shifted to a Complex Dynamic Systems, with an emphasis on nonlinear change, variability, and dynamic interactions between complex systems (De Bot, Lowie, & Verspoor, 2007; Dörnyei, MacIntyre, & Henry, 2014; Ellis & Larsen-Freeman, 2006; Larsen-Freeman, 1997; Larsen-Freeman & Cameron, 2008). As Boo and Dörnyei (2015) have neatly analysed, there has been a notable surge in publications in the field of L2 motivation since the early 2000s, with a particular increase in the number of articles that focus on motivating learners rather than

on the theoretical concept of motivation; there has additionally been an increase in innovative research methods.

Given the current landscape of motivation research, there are several recurring themes that deserve further attention. In this chapter, I will focus in particular on four themes: the notion of *time*, or variability and stability; the use of *conglomerates* in theorising motivation; the importance of *context*; and the use of *self-concept* in a number of motivation theories. These four themes are especially of interest due to their contribution to the emergence of Complex Dynamic Systems Theory in motivation research. In addition to an exploration and analysis of these themes, I will elaborate on the study of Younger Learner Motivation, as this field faces a variety of different concerns in addition to those outlined for the general field of language learning motivation, such as the conceptualisation of motivation in younger students and the ongoing debate regarding suitable starting ages for learning English in school.

3.2 Time.

During the *educational shift* in the 1990s, motivation came to be seen as a situated construct (see, for example, Crookes & Schmidt, 1991; Dörnyei, 1994; Williams & Burden, 1997), meaning that it existed in the process of learning. Once this had occurred, it became quite clear that motivation also possessed a prominent temporal dimension; in other words, it displays ongoing change. The first step towards a more time-oriented conception of L2 motivation was the introduction of various *process models*, such as Williams and Burden's theory (Williams & Burden, 1997; Williams, Burden, & Lanvers, 2002) and the process model of L2 motivation proposed by Dörnyei and Ottó (1998). The latter was

one of the more influential process-models for SLA and distinguished between three phases in the development of a student's L2 motivation: a pre-actional phase, or *choice motivation*, in which motivation to initiate an activity is formed; an actional phase, or *executive motivation*, in which the initial level of motivation has to be maintained during the learning activity; and a post-actional phase, or *motivational retrospection*, in which the learning process is evaluated. Although this model served to highlight the importance of the temporal dimension of motivation, it was still based on linear cause-effect relationships, as Dörnyei argued later: "It was really a matter of time before I realized that such a patchwork of interwoven cause–effect relationships would not do the complexity of the motivation system justice and therefore a more radical reformulation was needed" (2009b, p. 197).

In order to deal with the complexity of motivation, particularly its change over time on the one hand and its stability on the other, many scholars in motivation research have adopted elements of a dynamic or complex systems approach in their conceptualisation of motivation. The CDST approach to variability, stability, and time scales has much to offer for our view of motivation in SLA, as I outline in greater detail below.

3.2.1 Variability.

Central to the temporal dimension of motivation is the emphasis placed on the variability and change of a system's state — that is, the position of the object of study, such as a student's motivation, at any given moment in time. CDST highlights the fact that this change can be nonlinear (Macintyre & Legatto, 2010; Mercer, 2011a, 2011b, 2014; Spoelman & Verspoor, 2010; Van Dijk, Verspoor, & Lowie, 2011). This nonlinearity refers to the phenomenon in which the change

in a system's state is not proportional to its input, for instance when an increase or decrease in L2 motivation does not lead to a proportional increase or decrease in L2 proficiency. This gives a system's development a certain amount of unpredictability; a huge amount of input can have little to no effect, whereas a slight change in input can suddenly propel the system forwards, a phenomenon sometimes referred to as the *butterfly effect*.

There have been several studies demonstrating variability in L2 or FL-motivation. Hotho (2000), for example, reported that even when a learner's overall L2-motivational profile remained relatively stable during a semester, short term motivation was susceptible to considerable change: "the teachers may sense changes or fluctuations from week to week, as a result, perhaps, of a piece of homework, a test, or a class that was particularly inspiring or noninspiring" (p. 326). Similarly, McIntyre and Serroul (2014), Pawlak (2012), Piniel and Csizér (2014), Poupore (2013), and Waninge, Dörnyei, and De Bot (2014) traced the development of groups of L2 learners during several classroom hours and highlighted the variability of motivation on relatively small time scales. While these studies have focused on motivation from moment to moment, other studies have documented changes in motivation over longer periods of time, pointing to a decline in motivation over the course of semesters, years, and courses (see, for instance, Chambers, 1999; Dörnyei, Csizér, & Németh, 2006; Falout, Elwood, & Hood, 2009; Gardner, Graham, Courtney, Tonkyn, & Marinis, 2016; Hassaskhah, Mahdavi Zafarghandi, & Fazeli, 2015: Masgoret, Tennant, & Mihic, 2004).

3.2.2 Stability.

An emphasis on variability and unpredictability might give the impression of a system in which behaviour is completely random; when motivation appears to be constantly in motion, influenced by all possible factors and seemingly moving without patterns, studying motivation can suddenly seem a daunting undertaking. What use, it could be asked, is studying something that might be seen to amount to nothing but noise?

This is where the notion of *dynamic stability* plays a vital part in dynamic systems theorising. Despite the emphasis on change and ongoing system dynamics, CDST also recognises stable — and therefore predictable — states in system behaviour. Dynamic systems are known to *self-organise*, which as a result means that they can settle into preferred states — referred to as *attractor states* — during their development. Interestingly, some behavioural outcomes of the system's self-organisation process are so stable that they seem to be programmed or hardwired; an example of this might be that most children learn to walk and speak a language up to an advanced level (Thelen, 2005). From a research perspective, it is important to emphasise that it is this stability of the system that allows predictable outcomes and patterns of development to become visible (Mercer, 2011a; Van Geert, 1998, 2005). While in theory the possible developmental patterns for a system can be endless, in reality the system's self-organising function results in a limited number of outcomes; that is, as Dörnyei observes, "even very complex systems tend to arrive at certain salient outcomes, and although we cannot predict in advance what these outcomes might be, when we see them we recognize them" (2011, p. 85). An example of such a limited number of outcomes with which most teachers will be familiar is the existence of different student types in every

classroom. Although a group of 30 students could theoretically consist of 30 different student types, what we normally find is a limited number of student profiles that both teachers and students will recognise as typical (Chan, Dörnyei, & Henry, 2014).

Several studies have evidenced stable phases and a certain level of predictability in learners' L2 motivation. Koizumi and Matsuo (1993) found that students' motivation settled into a stable level of motivation after a sudden decrease following their transition from primary school to junior high school. In a qualitative study examining motivational evolution over the lifespan, Shoaib and Dörnyei (2005) found evidence for a number of recurring temporal patterns and key *transformational episodes* affecting motivation, including, for example, transitions to new phases of life (such as leaving school and entering the world of work) or the experience of visiting an English-speaking environment.

3.2.3 Time scales.

The existence of both variability and stability relates to another frequently mentioned asset of DS theory: time scales (for an overview of time scales, see De Bot, 2012 and 2014). Similar to emotion, motivation manifests itself on different levels across time. As I mentioned in Chapter 2, there is a recurring distinction in emotion research between state, mood, and trait. This is based on the observation that although emotion can fluctuate from moment to moment, some tend to last for longer periods of time; an individual may have a tendency to display certain types of emotions more frequently than others, showing a rather stable affective profile or disposition. A similar phenomenon is witnessed in L2 motivation. Motivation has a temporal dimension that operates on different levels: a student can be particularly motivated for a task during

German class on a Tuesday morning, some students are generally more motivated for a language course than others, and some learners would be described as overall motivated and curious. Motivation, just like emotion, operates on different time scales, ranging from the scale of a single lesson to students' overall L2 motivational profile. The temporal dimension of motivation does not limit itself to one time scale: both variability and dynamic stability are likely to be found on several time scales.

Studies reporting either stability or variability of L2 motivation, which could be interpreted as contradictory from a temporal perspective, become complementary when viewed through a Dynamic Systems lens. Change and stability are not mutually exclusive but are both the result of the interaction of the system and its context, leading to either a changeable and chaotic system or a rather stable state, and everything in between. In terms of interacting time scales, an interesting study by Nitta (2013) focused on the interaction of the more general trait-like motivation and situation-specific motivation. Their study illustrated how students' repeated experiences in class and the consequential variability in their state-motivation ultimately self-organise into a stable state, which can eventually become the students' general *default* level of motivation in the language classroom.

3.2.4 Methodological implications.

The notion of time scales has some implications for research design and the interpretation of the gathered data. As De Bot has argued, "looking at one time scale only may block our view on the larger picture of phenomena on different time scales" (2014, p. 38). If our attention is focused on a student's L2 motivational profile, with particular interest devoted to the larger side of

motivation time scales, then the chances of finding large amounts of variability are slim if the research conducted only spans a period of a month or two. In order to tap into the fluctuation of such a large scale concept, the research design needs to span at least a full semester (see, for example, Campbell & Storch, 2011). Similarly, when we want to measure change over time in *state motivation*, as Gardner et al. (2004) discussed, the data in question needs to be sufficiently dense in order to yield results; effectively, this means that research that undertakes measuring state motivation four times in a year-long language course, for instance, is not likely to represent the daily ups and downs of the state motivation concept it attempts to measure. It is no surprise, then, that Gardner and colleagues (2004) found little evidence for a moment-to-moment variation in motivation, despite the fact that others have demonstrated such variability by conducting their data collection across the same time scale about which they were making claims (Pawlak, 2012; Poupore, 2013; Nitta, 2013). In other words, the scale of any research design ought to match the scale of the concept into which the researcher wants to tap.

Using the right time scale is, of course, no guarantee of finding a change in L2 motivation. A clear example can be seen in a study performed by Hotho (2000), in which changes in students' motivational profiles over a semester were traced through the use of questionnaires and the calculation of group averages. This study did not demonstrate any changes in students' overall motivation; in contrast, Campbell and Storch (2011), working with a similar time scale, did demonstrate these changes by using several interview studies with a limited number of individual learners. The temporal dimension, if interpreted with DS theory in mind, dictates the importance of researchers being aware, more than ever, where their focus lies in terms of scale and whether their

research design and methodology are suitable for the type of motivation they wish to study. An excellent example is the work of Henry (2014), who combined teacher interviews, classroom observation, questionnaires, stimulated retrospection, and interviews spread out over an entire academic year to capture the temporal dynamics of L3 motivation.

3.3 Conglomerates.

A second theme within current motivation research in SLA concerns conglomerates, which I discussed in Chapter 2 with regard to affect. Recent theories on motivation in SLA include the interaction between motivation and cognition and motivation and affect. In fact, Dörnyei (2009b) has proposed a landscape of Individual Differences ruled by these three systems. He explains that

> most learner characteristics are complex, higher order mental attributes, resulting from the integrated operation of several sub processes. Indeed, higher order ID variables such as aptitude and motivation involve, at one level or another, the cooperation of components of very different nature (e.g., cognitive, motivational, or emotional), resulting in "hybrid" attributes. (Dörnyei, 2009b, p. 233)

3.3.1 Cognition.

In SLA, cognition is often represented by its most well-known variable: language aptitude (Kiss & Nikolov, 2005; Li, 2016; Robinson, 2005). Language aptitude can be summed up as an individual's natural talent for learning languages in general. As this is sometimes viewed as too broad a term (Dörnyei, 2009b), researchers have focused on specific cognitive elements of language learning, such as working memory (Juffs, 2004; Juffs & Harrington, 2011; Kormos & Safar, 2008). Other than aptitude and working memory, cognitive elements in

the field of SLA include concepts such as *learning styles* (Ehrman & Leaver, 2003; Karabuga, 2015) and *self-regulation* (Alzubaidi, Aldridge, & Khine, 2016; Boekaerts, 2010; Zimmerman, 2005).

Several publications within the fields of education and SLA, such as Swain (2013) and Dörnyei (2005, 2009b), highlighted the interaction of cognitive and affective components in language learning. One of the interesting claims made in these and other publications was that cognition is, in essence, not a separate system in itself (see Lewis, 2005; Lewis & Todd, 2011), but instead is deeply interrelated with affect and motivation. Like Lewis, Pessoa (2013, 2014) even went as far as to argue the following:

> Brain research has been ill-served by the dichotomization of large concepts like cognition and emotion. Further, strict a priori definitions of these concepts fuel dichotomization. We need a vocabulary that views concepts as complementary pairs that mutually define each other and, critically, do not exclude each other. (2014, p. 1)

3.3.2 Affect.

In Chapter 2, I discussed general emotion theory as it has been developed within psychology and the research that has shaped the way affect has been discussed in education and SLA. In this section, I will briefly recap some of the themes in emotion research in SLA, after which I focus in particular on the interaction of motivation and affect in language learning. As in Chapter 2, I will refer to this as *affect*. Although cognition has been prominent in SLA research in general, and in L2 motivation in particular, for several decades, affect is a relatively new addition. Cognition may have dominated SLA research for many years (see Dörnyei, 2009b), in much the same way as the similar movement in educational psychology (see Immordino-Yang & Damasio, 2007; Meyer & Turner, 2002; Schutz & Pekrun, 2007), but recently affect has found its way

back on to the SLA and motivational research agenda (see Cahour, 2013; Kebłowska, 2009; Sampson, 2016).

This research is conducted from a variety of different angles: some, such as Immordino-Yang and Damasio (2007) and Schuman (1998) studied the neuropsychological side of the construct, while some, like Ahmed, Van der Werf, Minnaert, and Kuyper (2011), and Ainley (2006, 2007), examined the different classification of emotions experienced in a learning situation. Others focused on the emotional impact of certain words (Dewaele, 2002, 2008), the interaction of emotions and beliefs (Aragão, 2011), and the affective response of a learner during a language course (Garrett & Young, 2009).

There is one strand of SLA research that has long focused specifically on affect: *anxiety*, one of the most famous of affective variables, is also one of the traditional factors within research into Individual Differences. Anxiety, and its SLA-specific concept of Foreign Language Anxiety (FLA), is traditionally seen as negative and detrimental to language learning success and L2 motivation (see Horwitz, 2001; MacIntyre, 2002; MacIntyre & Dewaele, 2014; MacIntyre & Gardner, 1994). However, the relation between anxiety and L2 development is all but linear. This has been shown in several studies, including MacIntyre and Legatto's 2011 study on the development of Willingness to Communicate (WTC) in relation to performance and anxiety. In the course of the study, it became clear that although anxiety may rise and fall, WTC is not necessarily changed in the process. Similarly, Swain (2013) illustrated how negative emotions can positively shape L2 motivation and consequential L2 development with the story of a young learner of English who was so mortified by making a mistake in class that she spent more time and effort learning the correct vocabulary and pronunciation.

MacIntyre and Gregersen summed up the argument of anxiety and L2 learning as follows:

> affect in general, and anxiety in particular, is a part of an ongoing cycle, and should not be approached in strict cause-effect terms. For this reason, it is not particularly helpful to ask "Is anxiety a cause or an effect of poor language performance?" (2012, p. 111).

A more helpful approach would be to study the interactions of affect with other relevant factors in the learning situation, keeping in mind the dynamic perspective presented in the previous paragraph on time scales, stability, and variability.

The interaction of motivation and affect has been a recurring suggestion within SLA motivation research. MacIntyre, Mackinnon, and Clement (2012) have argued that emotions should be included in theories of L2 motivation, and MacIntyre and Gregersen (2012) have similarly suggested that the motivational drive of L2 possible self cannot be considered completely without taking in account the relevant emotional states. Teimouri has recently discussed the notion that motivational models ought to include an affective element, as emotion "can account for differences between engaged and unengaged learners, explaining why some learners with motivational goals are not stimulated enough to take action" (2016, p. 1).

3.3.3 The trilogy of mind.

Cognitive and affective elements continuously interact both with each other and with motivational elements. This in itself is not a new concept; the idea of a *trilogy of mind* has been introduced in Chapter 2. The question still remains as to how this interaction of affect, cognition, and motivation can be conceptualised and researched practically within SLA. As a possible solution,

Dörnyei has proposed the concept of so-called *conglomerates*: "higher level amalgams or constellations of cognition, affect, and motivation that are relatively stable (i.e. are governed by a powerful attractor) and which act as wholes" (2009b, p. 225).

The addition of conglomerates to motivation research suggests that researchers should study the outcome of the interaction of the aforementioned trilogy as a whole, rather than analysing cognitive, affective, and motivational elements separately. Several scholars both in applied linguistics and in adjacent fields of research have proposed ideas similar to Dörnyei's conglomerates. In educational psychology, Hidi, Renninger, and Krapp (2004) and Ainley (2006) have suggested we study interest as a conglomerate functioning as a whole. In a similar vein, several papers in psychology suggested studying students' cognitive-affective state during language learning, rather than looking at their motivation alone (D'Mello & Graesser, 2011, 2012; Mercedes & Rodrigo, 2011). The states in these studies include flow/engagement, boredom, confusion, and frustration.

This focus on cognitive-affective-motivational conglomerates, or states, is somewhat different to previous research that has looked at affect in language learning or L2 motivation. Indeed, it goes beyond seeing affect as a variable in motivation research. When conglomerates are focused on, the researcher does not concentrate on motivation and affect so much as separate variables; instead, the outcomes of the interaction of affective, cognitive, and motivational variables that students experience in class, such as interest or flow, boredom and anxiety, become the focus instead.

An interesting nod to the trilogy of mind in language learning motivation can be found in the work of Nitta (2013), who measured learners'

motivation on a day-to-day basis by using the concept of the trilogy of mind to define motivation; this was operationalised in the research design as the combination of enjoyment, understanding, and effort. The results led Nitta to tentatively suggest that motivation is at its strongest when these three measures are well balanced within the learner.

To summarise: approaching research on affect in SLA from the perspective of a conglomerate of affective, cognitive, and motivational elements suggests a potentially fruitful line of research. However, as I will discuss in the next section, there is more that ought to be taken into account.

3.3.4 Conglomerates and time.

The conglomerates, or states, mentioned in the previous section are also likely to exist on different time scales and be susceptible to change over time. If interest is taken as an example of a conglomerate, then a student might be expected to show different levels of interest in a classroom session of one hour, for instance showing variability due to a fun exercise, a clear and well-understood explanation of a problem, a boring reading task, or a struggle with a difficult piece of grammar. However, at the same time, the student might find French an uninteresting subject in general and thereby show stability for this interest-conglomerate on a different time scale.

These different time scales are not entirely separate from one another: repeated experiences on a smaller time scale may influence other time scales. With respect to these interacting time scales, it is worth mentioning the notion of *vibes*, a concept that MacIntyre and Gregersen (2012) pointed out in the work of Epstein (1993) and Kahneman and Riis (2005). Most teachers will recognise that a learner can sometimes enter the classroom displaying a certain affective

state, whether it be a positive one, such as enthusiasm, or a negative one, such as boredom. The notion of vibes can be used to explain this, as they act as precursors to cognition and behaviour. Vibes are "automatic, unconscious, subtle and influential sensations" (MacIntyre & Gregersen, 2012, p. 111) and are caused by the system scanning the memory for related events; these can then colour or influence thought and action. The moment-to-moment changes in students' states that occur in a certain environment — say, for instance, a German class — may not necessarily be consciously remembered, but may nevertheless shape these vibes and influence future reactions to the target language. This is similar to my discussion in Chapter 2 regarding emotion theory: repeatedly occurring affective experiences on a small time scale (an hour of L2 class, for instance) have the power to shape a student's overall attitude towards learning German, despite the fact that the latter is functioning on a different time scale.

3.4 Context.

Further to the two themes discussed above, time scales and conglomerates, there is a third theme that deserves further attention: the context in which language learning takes place. When it comes to a dynamic approach to language learning and conglomerates of motivation, cognition, and affect, one of the key principles is, as Dörnyei observed, that "the interaction between the language learner/user and the environment matters" (2009a, p. 230). These interactions between person and context take place on different scales of magnitude, as I will outline in further detail in the following paragraphs.

3.4.1 The classroom situation.

First of all, the language learning process is directly related to the immediate classroom situation. Turner and Meyer (2000) defined this as the "beliefs, goals, values, perceptions, behaviour, classroom management, social relations, physical space, and social-emotional and evaluative climates that contribute to the participants' understanding of the classroom" (p. 70). This can be roughly divided into two elements: instructional context, concerned on the one hand with curriculum, tasks, methods, and teachers; and social context, concerned with friendships, group dynamics, and learners' identities on the other (Dörnyei, 2009a). Research into the classroom situation has included Zuengler and Mori's investigation of classroom discourse (2002); group dynamics (Dörnyei & Murphey, 2003; Kozaki & Ross, 2011; Murphey, Falout, Fakuda, & Fakuda, 2014); and teachers' behaviour and teaching methods (Benesch, 2012; Csizér, Kormos, & Sarkadi, 2010; Guilloteaux & Dörnyei, 2008; Huang, 2011; Kao & Oxford, 2014; Kikuchi, 2013). These areas of study have been proven to have a significant effect on learners' motivation and overall FL development.

3.4.2 The social context.

On the larger scale of context, we find the context of culture, society, status, and societal expectation among others. This is important, as what learners in one context find motivating may not be perceived as such in another; Lamb and Wedell (2015) came to this conclusion when they asked Chinese and Indonesian learners to elaborate on motivating teaching practices (see also Forman, 2011; Lamb & Budiyanto, 2013). These differences can be found not only between cultures and/or countries, but also within these; Lamb (2012) found that learners' L2 motivation, as well as the strength of their ideal L2 self, can vary

considerably depending on where an individual lives. For instance, the distinctions between a rural area, a medium-sized town, or a larger city were found to be significant: learners in the rural area had not developed their ideal L2 self as well as students in either town or city, most likely due to limited contact with the language and limited access to resources.

A further element of the wider social context of language learning is the inequality that accompanies the learning of languages that hold a higher status in a society. This is especially true in the case of English in various contexts around the world. Not only is the English language frequently compared to and regarded as currency (Sayer & Ban, 2014), access to opportunities for learning the language is also both affected by and affects learners' socioeconomic statuses (SES) (Mattheoudakis & Alexiou, 2009; Besser & Chik, 2014; Csapó & Nikolov, 2009; Enever et al., 2009; Nikolov & Mihaljević Djigunović, 2011). In particular, access to early English programmes can be limited, which means as a result that those of more advantaged backgrounds are likely to gain this access more easily. This in turn can provide advantages when it comes to further education and employment.

3.4.3. The individual in context.

There is an ongoing debate concerning context in social psychology that focuses on the perspective from which we study the individual and society (see Zuengler & Miller, 2006; Dörnyei, 2009a). This debate poses the following questions: do we assume that our social context is influenced by our individual perception and appraisal, or do we take the opposite view and assume that the individual's behaviour is influenced by social context at large? In terms of classroom environment more specifically, it must be asked whether we assume

that individuals have a different contextual experience, or if we instead assume that the context shapes the way individuals behave in the classroom situation. These questions reflect the problematic nature of a dualistic approach to the individual and the environment. To what extent can we say that the individual and his or her environment are separate from one another? Dörnyei (2009a) argued that "humans are social beings, and in an inherently social process such as language acquisition/use, the agent cannot be meaningfully separated from the social environment within which he/she operates" (p. 244). Similarly, Henry (2014) pointed out that in a complex dynamic system framework, the context and the system under study are not separate from one another: "Not only are contextual factors highly implicated in all types of change to the system, but in CDS physical and cultural factors are inseparable from social and cognitive factors" (p. 318). This implies a level of interconnectedness of person and environment that makes it impossible to treat context simply as a background to the language learning process. Ushioda (2009) addressed this by proposing a Person-in-Context relational view of motivation that urges researchers to

> focus on real persons, rather than on learners as theoretical abstractions; a focus on the agency of the individual person as a thinking, feeling human being, with an identity, a personality, a unique history and backgrounds, with goals, motives and intentions; a focus on the interaction between this self-reflective agent, and the fluid and complex web of social relations, activities, experiences and multiple micro- and macro-contexts in which the person is embedded, moves and is inherently part of. (p. 220)

It has become clear that the context in which learning takes place is an invaluable and essential factor that must be taken into account when researching the conglomerates I proposed earlier in this chapter. Importantly, however, contextual influence operates on different scales of magnitude, ranging from classroom tasks to socioeconomic status and cultural influences.

An exciting and promising new motivational framework was proposed recently in several publications by Muir, Dörnyei, and colleagues (Muir & Dörnyei, 2013; Dörnyei, Ibrahim, & Muir, 2014; Dörnyei, Henry, & Muir, 2015), who introduced the concept of a Directed Motivational Current (DMC). This, they explained, is "a potent motivational surge that emerges from the alignment of a number of personal, temporal and contextual factors/parameters, creating momentum to pursue an individually defined future goal/vision that is personally significant and emotionally satisfying" (Dörnyei, Ibrahim, & Muir, 2014, p. 103). Similar to the experience of flow (Csikszentmihalyi, 1990) people experiencing a DMC will often function at an increased level of productivity and intensity, working for an extended period of time towards a highly valued end goal. The authors propose DMCs as a new motivational framework, one drawing from g*oal-setting theory, flow theory, future time perspective,* and *self-determination theory* (2014, p. 102). This framework combines several of the themes introduced above, the dynamics of time scales, the interaction of motivational and affective elements, and the importance of context. It is, as Dörnyei, Ibrahim and Muir explain, an additional pathway to studying development from a Complex Dynamic Systems perspective. This framework exists alongside several other pathways as proposed by Dörnyei (2014): focusing on attractor-governed phenomena, focusing on conglomerates of system components and focusing on retrodictive qualitative modelling (2014, p. 96). The practical significance of this framework comes with the possibility to consciously generate the right circumstances and triggers for a DMC to take place, such as a well-designed task in the language classroom, or a program to study abroad.

3.5 Self-concepts.

In addition to those themes addressed above, there is one further dominant theme in L2 motivation research that I wish to address here. This theme involves the introduction of a learner's *identity*, or *self-concept*. The concepts of identity and self have become essential elements of several leading motivation theories in SLA, such as the L2-motivational self-system introduced by Dörnyei (Dörnyei, 2005; Dörnyei & Ushioda, 2009) and Mercer's dynamic view of the self-concept in language learner's motivation (Mercer, 2009, 2011a, 2011b). In the following sub-sections, I will provide a brief overview of some essential definitions and frameworks and highlight their relevance before summarising current self-theories in SLA.

3.5.1 The self.

In both educational psychology and in applied linguistics, differentiating between the notions of identity and self is potentially problematic. As explained by White and Ding,

> conceptually the main difference seems to be that identity is understood to be external — negotiated during social intercourse, while self is understood as internal — a set of beliefs about who we are. This distinction, however, is rather contrived and over-simplistic since the self is determined by social relationships, while the social personae we create in interaction are based on our notions of self. (2009, p. 336)

This means that the two concepts of identity and self are fundamentally interrelated and therefore difficult to separate into two definitions. In an effort to provide this distinction, White and Bong drew attention to the work of Van Lier (2007), who offered a possible solution by suggesting that identities are to be seen as a way to *relate the self to the world.* Mercer took a similar stance,

adding that "this is not to say that self-concept should be viewed as detached and independent of context [...] rather it means that studies investigating either construct tend to have a differing emphasis and focus" (2012, p. 12).

In general and educational psychology, the self has for several decades been a prominent feature in learner motivation (see Byrne & Shavelson, 1986; Marsh, Byrne, & Shavelson, 1988; Marsh, 1990; Marsh & Martin, 2011). Upon exploration of the literature on the self in both education and language learning, it becomes clear that the range of self-constructs, definitions, and models is wide and diverse, similar to what was seen earlier in Chapter 2 with regards to emotion theory. As Bong, Sho, Ahn, and Kim (2012) explained, many researchers still struggle to empirically separate different self-constructs. In her 2011 paper on the self as a complex, dynamic system, Mercer suggested this apparent lack of consensus in the field reflects the nature of the self as a system: "the complexity of the self per se is mirrored in the complex interrelated web of definitions and terms used in relation to the self" (2011b, p. 59).

Of the many constructs out there, there are three that have received the most academic attention in the fields of education, motivation, and language learning (Bong et al., 2012; Mercer, 2009). These are *self-efficacy*, *self-concept*, and *self-esteem*. Self-efficacy is traditionally defined as personal judgments of an individual's capabilities to organise courses of action to attain designated goals (Bandura, 1977). These self-efficacy beliefs, as Bong and colleagues explained, "primarily involve cognitive appraisals of one's personal capabilities" (2012, p. 337).

Self-concept, on the other hand, includes more affective components. It is defined as an individual's knowledge of themselves, along with their emotional reactions to this knowledge, which derives from interactions with

others, self-attributions, and the experience of their social context (Bong et al., 2012; Byrne & Shavelson, 1985). The difference between self-efficacy and self-concept is explained as follows by Bong and colleagues:

> Self-efficacy develops by asking questions about capability (e.g., "Can I write a logical and persuasive piece on the causes of the Vietnam War?"). In contrast, self-concept is formed by asking questions about feelings and being (e.g., "How do I feel about myself as a writer?"). Answering self-efficacy questions reveals students' confidence toward successfully performing a task, whereas answering self-concept questions discloses their positive or negative views of themselves and their competencies. (2012, p. 337)

The third and final of these self-constructs is self-esteem. As the most loosely defined of the three, it describes how individuals feel about themselves and defines their global self-worth (see Bong et al., 2012). It is sometimes placed under the header of affect (Aragão, 2011; Kębłowska, 2009) and is frequently linked to linguistic self-confidence and anxiety in language learning (MacIntyre & Legatto, 2011; Rubio, 2007).

These three constructs are, as Mercer (2012) explained, not entirely separate from one another: self-efficacy beliefs are generally acknowledged to contribute to an individual's more global self-concept, and a learner's self-esteem can be influenced by specific self-concepts. In SLA theory, self-concept is the construct that has been most widely used.

3.5.2 The self and motivation: L2 motivational self system.

Self-concept is featured mainly in one of the more well-known motivational theories as of late: Dörnyei's (2005, 2009b) L2 Motivational Self System. This proposal builds on the Possible Selves Theory by Markus and Nurius (1986) and discrepancy theory by Higgins (1987). Markus and Nurius argued that a learner's self-concept is linked to future goals via possible selves. These are

images a learner has of themselves in the future: of what they might become, would like to become, and are afraid of becoming. A possible self can be seen as a bridge between an individual's present and future self. The motivational power of this possible self is made evident by discrepancy theory, which postulates that noticing the discrepancy between the current self and the ideal self makes a learner want to work in order to become closer to the ideal self.

The L2 motivational self-system suggests that a language learner can be motivated by several possible L2 selves. First of all, there is the *ideal L2 self*, which is the image a learner has of themselves as a competent L2 speaker. Another possible self is the *ought-to L2 self*. This is an image based on what a learner thinks they ought to become with regards to their language proficiency and is influenced by expectations from family, friends, and society in general. A third aspect of the L2 self-system is the *L2 learning experience.* Rather than being linked to a future image a learner has of themselves, the learning experience concerns a learner's past and present experiences with the language and the learning process (see Dörnyei & Ushioda, 2009).

The system in general, and specifically the ideal L2 self, has been evaluated both quantitatively (Csizér & Kormos, 2009; Kormos, Kiddle, & Csizér, 2011; Taguchi, Magid, & Papi, 2009) and qualitatively (Campbell & Storch, 2011; Gao, 2013; Magid, 2009; You & Chan, 2014). Overall, it is clear that there is a strong correlation between the ideal L2 self and motivated behaviour. The ideal L2 self is one of the most important factors in determining how much effort students are willing to invest in studying their L2; a well-developed ideal L2 self can prevent learners from losing motivation over time, even in the face of negative learning experiences. This is in line with expectations when research in educational psychology is considered, demonstrating relationships between

self-concept, self-efficacy, and motivation (see Bong & Skaalvik, 2003; Kormos et al., 2011). The ideal L2 self seems to be largely internalised by the learner and normally includes what would traditionally be referred to as *integrative motivation* — that is, the desire to interact with a community of native speakers. Many critics, such as Kormos and Csizér (2008), Dörnyei (2005), and Ryan (2009), have argued that this notion of integrativeness has become problematic. This is especially the case, they have suggested, when it concerns English, since the language is "no longer associated with any particular ethnic or national group but may instead be identified with either more educated and cosmopolitan members of one's own group, or with an amorphous imagined community of international English users" (Lamb, 2012, p. 1000). The more contemporary version of this integrative motivation is proposed by Yashima (2009; Yashima, Zenuk-Nishide, & Shimizu, 2004). The construct, called *International Posture*, is meant to "capture a tendency to relate oneself to the international community rather than any specific L2 group" (Yashima, 2009, p. 145). This international posture is related to the ideal L2 self in that it affects or even shapes students' ideal L2 self-concepts.

Although the concept of an ideal L2 self has been broadly validated, researchers have struggled to identify its less internalised counterpart, the ought-to self. This has been described by Dörnyei and Chan as possibly "bearing little resemblance to the students' own desires or wishes" (2013, p. 438). While the ideal L2 self has proven to be essential for students' motivated behaviour, several studies have suggested that the ought-to L2 self seems to play a minor part, not always making a significant difference in students' behaviour (Csizér & Kormos, 2009; Csizér & Lukács, 2010; Kormos & Csizér, 2008; Magid, 2009; Ryan, 2009; Taguchi et al., 2009). Indeed, sometimes a prominent ought-to self-

dimension is not found at all (Dörnyei, Csizér, & Nemeth, 2006; Kormos & Csizér, 2008; Lamb, 2012). Dörnyei and Chan (2013) found the ought-to self to be related to intended effort, but not to obtained course grades; this led them to suggest that "while externally sourced self-images [...] do play a role in shaping the learners' motivational mind-set, in many language contexts they lack the energising force to make a difference in actual motivated learner behaviours by themselves" (p. 454).

However, this is not to say that the ought-to L2 self is of no significance to motivation. Magid (2009) and Taguchi and colleagues (2009) surprisingly found a link between promotional instrumentality (which is normally associated with the ideal L2-self) and the ought-to L2 self in the context of China and Japan. As Magid (2009) elaborated, this could be explained by the fact that the learners in question had internalised the expectations of their environment:

> it is important to understand that in the Chinese culture, the family and the self are inextricably linked. In fact, the Chinese family's dreams and expectations of their children's achievements in English has become internalized in their Ideal L2 Self (p. 83).

The ought-to self therefore had similar motivational power to the ideal L2 self. Kormos and colleagues (2011) pointed out that this relates to earlier research in education (Deci et al., 1991), showing that constructs like the ought-to self only significantly enhance student motivated behaviour once students internalise the goals of their surroundings. They concluded that

> in certain cultures where socio-educational factors put a great pressure on students' achievement and where foreign language education is highly exam-oriented (e.g. China and Japan), it is possible that the ought-to L2 self has an effect on effort and persistence in language learning. (Kormos et al., 2011, pp. 508–09)

Similarly, Csizér and Kormos (2009) performed a Hungarian study that demonstrated that the ideal L2 self was the most important in determining motivated behaviour for both university students and secondary school learners of English. They explained that — especially in a setting such as Hungary — the most powerful influences of the ought-to L2 self have probably been internalised and are integrated into the ideal L2 self:

> by the age of 16 students internalize the values attached to the importance of speaking English, and external incentives embodied by the ought-to L2 self play a limited role in how much effort students invest in language learning. (Csizér & Kormos, 2009, p. 107)

The third and final component of the L2 motivational self-system is the *L2 learning experience*, which, as Lamb wrote, acknowledges "the likely impact of classroom processes, teachers, curriculum and grades on learners' motivation to continue learning" (2012, p. 1002). As I noted above, the ideal L2 self has been a welcome addition to the field of L2 motivation, with the ought-to self — although more problematic when applied to data collection and results — having since been added to the motivational vocabulary. Research into the L2 learning experience, however, has been limited by comparison. It can be broadly seen as the contextual element within the L2 motivational self system, but how exactly it interacts with the other elements of the system is still largely uncovered terrain.

A study conducted by Campbell and Storch (2011) is particularly interesting with regards to the L2 learning experience. They studied the motivational development of eight learners of Chinese over the course of a university semester and found that factors related to the L2 learning experience were most strongly related to both increases and decreases in motivation. However, learners who reported themselves as having a strong vision about

their future as L2 speakers were able to stay motivated, even in the face of less favourable learning circumstances. In addition to the motivating and demotivating power the L2 learning experience holds, past L2 learning experience was also a decisive factor in initiating L2 learning in the first place. All in all, the Campbell and Storch study indicated that the L2 learning experience is a factor that should not be forgotten in this tripartite system, indeed strongly suggesting that "these factors are important and certainly need attention" (2011, p. 186).

3.5.3 Self and time.

As is to be expected, the theme of the Self in SLA and L2 motivation research does not stand isolated from the other themes I have discussed in this chapter; the notion of time, for example, is a prominent feature in several self-theories. Strawinska (2013) was among the researchers to argue for a CDST perspective on the self in psychology, explaining that

> change and dynamics are integral aspects of the human experience; the dynamical systems perspective captures this essence of the Self. This has advanced our understanding of many self-related concepts that previously were difficult to address accurately within a non-dynamic framework. (Strawinska, 2013, p. 35)

Within applied linguistics, Mercer (2009, 2011a, 2011b) argued for a dynamic theory of the self. Mercer's research focused on the stability and change of learners' self-concept over time (2009, 2011a). She highlighted how a learner's FL self-concept is complex and layered, arguing that "within a single language domain, some beliefs are expressed in more global, general terms, which are less immediately situational in nature, whereas others are more specific and more closely reflect ongoing contextual parameters and

experience" (Mercer, 2011a, p. 343). In addition, Mercer concluded that although the system can be stable, showing typical attractor state behaviour, its components can at the same time change and vary across contexts, "thereby explaining what have traditionally been viewed as conflicting findings in which the self can be both simultaneously stable and dynamic" (2011a, p. 343).

Similarly, in a variety of studies concerning the L2 self system, there has been an emphasis on change over time in students' ideal L2 self-concepts. This is comparable to the work on vision and changing L2 future guides by You and Chan (2014) as well as a longitudinal study by Henry (2009) in the Swedish context, the latter of which found that language learners' ideal L2 and FL selves are susceptible to change.

A different take on the issue of time concerns itself with a change in the balance of the three elements in a student's motivational self-system. Csizér and Kormos (Csizér & Kormos, 2009; Kormos & Csizér, 2008) have found university students to have a stronger ideal L2 self-concept than secondary school learners. This, they explained, could be due to the fact that during adolescence, the self-concept undergoes considerable changes, and as a result the L2 self is likely to be less stable during secondary school. University students are more likely to have a relatively stable self-concept. Another reason for the L2 self to be more influential in university students than secondary school students is that university students have more contact with other speakers of English and are more aware of the high importance of using English in the future (Csizér & Kormos, 2009).

The same holds true for the motivational power of the L2 learning experience. Several studies (Kormos & Csizér, 2008; Csizér & Kormos, 2009) have demonstrated that the L2 learning experience is more influential in

younger learners, whereas the ideal L2 self is more important for university students. Further research by Lamb (2012) concerning young adolescent learners once again confirmed this:

> although these young Indonesians appear to believe strongly in the usefulness of English for their future (instrumentality), have an openness toward and interest in the world a large (international posture), and would like to see themselves as future speakers of English (Ideal L2 self), what makes them more likely to invest effort in learning is whether they feel positive about the process of learning. (p. 1014)

The fact that the more contextual element of the L2 learning experience appears to be so much more important to learners in some contexts than in others, especially among younger learners, can be explained with the reminder that for many secondary school learners, English is just another subject in a school routine — these language lessons are all the contact the learners have with the language. As a result, the learning experiences in these classrooms are extremely important in determining the effort students will invest in learning the language. At the same time, the limited influence of the ideal L2 self could potentially be explained by the fact that these were relatively young learners, and their ideal selves were less realistic than would be likely in older learners.

In the next section, I will discuss in more detail the motivation experienced by young language learners, as well as the specific challenges research in this area brings.

3.6. Motivation in Young Language Learners.

Research into the motivation of younger language learners comes with its own challenges and complications. Considering the second research question that I introduced in Chapter 1, which focuses on differences in affective and

motivational interaction in younger and older language learners, I felt it would be beneficial to include a review of research into young learner motivation, especially young learner language learning motivation. I will first define what researchers consider a young learner, before moving on to some of the concerns that are recurrent in the field of young learner motivation.

3.6.1 Introduction and definition of a young learner.

Research into *Young Learners* and their motivation has come a long way in the last decade and a half. Whereas Nikolov noted in 1999 that young learners' motivation research was difficult to find, explaining that "the traditional view on motivation in SLA does not provide a relevant framework for common classroom contexts" (p. 52), a more recent article from Nikolov and Mihaljević Djigunović ended on a much more positive note, observing that "obviously, the academic discussions and research have moved beyond unrealistic expectations of native speaker levels, both in the case of YLs [young learners] and their teachers. Most studies explore realities of daily work with YLs" (2011, p. 112). As the practice of teaching of English to Young Learners has become incredibly widespread in recent years, we have seen a sharp increase in the amount of research in what Copland and Garton have called a "Cinderella area of study", which is to say that this field had until recently undeservedly been overlooked (Copland & Garton, 2014, p. 223). Not only has there been an "unprecedented increase [...] in quantity of language policy documents, teachers' handbooks, teaching materials and empirical studies devoted to the topic of early foreign language learning" (Nikolov & Mihaljević Djigunović, 2011, p. 95), the questions asked (and answered) are changing. Discussions are focusing on the role of social factors such as social class, the importance of English in today's world,

attitude towards the language, and the importance of age-appropriate teaching (Copland & Garton, 2014). As Nikolov and Mihaljević Djigunović convincingly summarised several years ago:

> Early language learning and teaching has become one of the key areas in applied linguistics and language pedagogy characterized by multiple research methods [...] Studies have moved away from a narrow focus on language gains or other discrete aspects of second language acquisition; many current inquiries involve various stakeholders and apply mixed methods thus documenting the complexity of issues far beyond the-earlier-the-better standpoint. (2011, p. 96)

When researching Young Learners, it is vital to define from the outset which age category is considered to be Young Learners for a given study, as the actual range of ages that is considered "young" varies considerably and thus has the potential to create confusion if not adequately defined. A working group of EU member states (see Edelenbos, Johnstone, & Kubanek, 2006; Nikolov & Mihaljević Djigunović, 2011) agreed that children from 3 to 7 years old would be called Very Young Learners, while primary school children from 7 to 12 years old would be called Young Learners. However, Nikolov and Mihaljević Djigunović pointed out that "in certain contexts even 14-year-olds are included in the YLs' group" (2011, p. 96). Legally, as we are reminded by Ellis (2014), YLs could be any age under 18. Ellis argued that the term Young Learner was

> too vague to be useful as it creates a tendency to refer to learners with a varying range of characteristics as if they form a homogenous group. The term can lead to confusion and "sloppy" thinking and writing unless age groups are specified more narrowly and the needs and capacities of such learners are assessed more critically. (2014, p. 76)

Ellis further argued it was important to clearly define the age group that is to be referred to as Young Learners, not only because the group is at the centre of the younger-the-better debate, which I will discuss further below, but also because

of the range of different needs particular age groups will have when it comes to teaching:

> Each age range of "young learners" has its own specific requirements with regard to teaching methodology, course structure, materials, learning environment, and appropriately qualified teachers. Teaching a pre-literate four-year-old requires a very different set of specialized skills and teaching approaches to teaching a 14-year-old in order to create the optimal conditions that are conducive to learning. (2014, p. 76)

Ellis proposed that researchers and policy makers distinguish between five age groups: early years/pre-primary, primary, early secondary, upper secondary, and university/further education. Within these groups, the most important distinction to be made is between learners younger and older than 11–12 years due to the considerable differences in "physical, psychological, social, emotional, conceptual and cognitive development" (Ellis, 2014, p. 75). Copland and Garton (2014), in their special issue on Young Learners, called for a focus on these younger two age groups, observing that

> most research to date has focused on the older age group of secondary-school learners. Moreover, the rapid and comprehensive lowering of the age at which English is introduced to children in many countries, together with the spread of preschool English, means it is timely to focus on these younger age groups. (p. 224)

Brumen similarly argued that research on these two age groups, and specifically their motivation, has been difficult to find (Brumen, 2011).

3.6.2 Policies on teaching Young Learners.

As I mentioned above, teaching languages, and English in particular, to Younger Learners has recently become extremely widespread (Enever, Moon, & Raman, 2009; Nikolov, 2010; Nikolov & Curtain, 2000). Indeed, in the words of Nikolov, "it may become the most important development in education

throughout the world" (2010, p. 105). Enever and Moon (2010) spoke of a global revolution when it comes to the teaching of English, while Ellis pointed out that these days "children and teenagers represent the largest group of language learners globally" (2014, p. 77).

Early language programmes are run in several languages. From an EU policy perspective, the language of choice is not important. Nikolov and Mihaljević Djigunović observed that "the Council of Europe language policy document listed several reasons why it does not matter what language YLs study" (2011, p. 96), and countries are free to devise their own policies on which language to give priority (Enever, 2014). However, as Mihaljević Djigunović and Medved Krajnovic stated in the introduction to their edited volume on Primary English, "without doubt, English is the most popular choice of the first foreign language in most contexts, as well as the most researched language from both the second language acquisition perspective and from the point of view of language teaching" (2014, p. ix). Although several other languages are offered, the dominant status of English seems to be an international trend (Nikolov & Curtain, 2000; Nikolov & Mihaljević Djigunović, 2006; Sayer & Ban, 2014; Wu, 2003).

In the Netherlands, for example, where English is taught nationally in the final two years of primary school when learners are 10 and 11 years old, those schools that introduce a foreign language before this time are classed as *Early Foreign Language Education schools*. In the 2014/2015 academic year, there were just over 1,000 of these schools in the Netherlands, over 90% of which offered English only as an Early Foreign Language. Only 9% of all schools provided a language other than English, and only just over half of those exclusively offered a language other than English as an early start FL (EP-Nuffic, 2015), as can be

seen in Table 1. These numbers reflect the international status of English, here in the specific case of the Netherlands. Internationally, the language is often seen as a form of cultural capital or even a currency equated to the US dollar (Sayer & Ban, 2014, p. 321).

Early Language Education Programmes	
Language	**Percentage**
English only	91
English and other FL	4
German	2
French	2
Spanish	1

Table 1: Early FL teaching in the Netherlands, sorted by languages offered (EP-Nuffic, 2015).

With an alleged global revolution regarding Early Language Learning, as with any revolution, there have been considerable issues. As the status of English worldwide elevated it from a mere language to a status akin to currency, English has been introduced earlier and in more schools "due to political and parental pressure [...] often without feasibility studies and appropriate teacher education" (Nikolov, 2010, p. 106). Moon (2005) argued that there are two main reasons for governments to introduce English to Young Learners, the first being the belief that younger language learning equals better

language learning. However, the *the-younger-the-better* argument is still controversial (Copland & Garton, 2014; Moon, 2005) and "very little research has been carried out on the potential benefits of such an early start to language learning" (Coyle & Gomez Gracia, 2014, p. 276). The second reason Moon put forward is the status of English as a world language. However, she argued that this does not really concern children in primary school: "The younger the children, the less likely that they have any reason or need for learning the foreign language. They may not even understand what it means to learn a language or why they are learning the language" (Moon, 2005, p. 30). Moon suggested that these main arguments in favour of introducing English earlier in school are not without controversy and should not be accepted at face value as truth. She stated that introducing English to Young Learners should be planned carefully, with attention to teacher education, age-appropriate curricula, and realistic expectations about the outcomes of such programmes. However, as Nikolov and Mihaljević Djigunović warned:

> Most countries accept the folk wisdom and findings from L2 contexts without considering questions like the amount and quality of exposure to L2, teachers' competences and motivation, classroom methodology, and continuity of programs. The trend documented in recent European statistics is typical of contexts where parents' instrumental motivation for their children to study English as a global language is strong indeed. (2006, p. 243)

This has resulted in the appearance of several problems regarding an early start in EFL learning, all of which are accompanied by potential motivational consequences. First of all, there has been a widely reported shortage of primary school English teachers (Copland & Garton, 2014; Enever et al., 2009; Enever, 2011; Enever & Moon, 2010). This has led to the common situation in which either the school's homeroom teachers are required to teach English lessons,

regardless of their level of English, or an English teacher must be brought in to teach English, regardless of their experience with the age group at hand. Nikolov and Mihaljević Djigunović added that "in other contexts, teachers do not share the enthusiasm of parents and stakeholders" (2006, p. 250). Further, there are reports indicating that teachers experience less satisfaction teaching young learners, instead wishing they could teach older learners and continue proper teaching (Nikolov, 2002; Nikolov & Mihaljević Djigunović, 2006). As teacher motivation and morale can have significant effects on learners' motivation, this issue could lead to serious motivational problems for the young learners in these environments (Bernaus & Gardner, 2009; Lamb & Wedell, 2015).

A second widespread issue has been a lack of continuity in the delivery of EFL programmes. This stems in the first instance from a lack of continuity from governmental bodies and policy makers (Enever, Moon, & Raman, 2009; Moon, 2005; Nikolov & Curtain, 2000; Nikolov & Mihaljević Djigunović, 2006): programmes will be set up and sponsored for a certain duration, but as time passes and the novelty wears off, resources are often withdrawn. As Nikolov and Curtain (2005) pointed out, this is especially the case if expectations are not fulfilled, which often results in a decrease in support. These expectations are often quite high, as is the pressure on schools and policy makers to live up to them. As Moon (2005) explained,

> when a new programme like TEYL [Teaching English to Young Learners] is launched, there are sometimes huge pressures for Ministries of Education to show what they are doing. A lot of energy and resources are often used up in public display while there is often pressure to produce some results immediately before the programme has really had time to run for a reasonable length of time. Such pressures need to be resisted as they lead to "short termism" and distract everyone from the longer term goals. (p. 32)

A second continuity issue is the discontinuity between one programme and another. A series of case studies from Italy to Bulgaria and from the US to Estonia showed that a lack of continuity proved one of the main issues surrounding English programmes for Young Learners (Nikolov & Curtain, 2000; see also Alexiou & Mattheoudakis, 2011). This is not just a recent issue: already in the early years of teaching languages to Young Learners several studies found that when early learners joined the late learners in secondary schools, the late beginners caught up to the early learners within a few years (Burstall, Jamieson, Cohen, & Hargreaves, 1974; Oiler & Nagato, 1974; Singleton, 1995). Nikolov (2001) explained that learners are often put in false beginners groups when entering a new English programme, such as at the start of secondary school; this means that they begin learning the language from scratch once again rather than continuing where the previous programme left off, thus losing the advantage gained from the initial programme in the first place (Nikolov, 2001). Again, this can prove detrimental to the motivation of these learners, who will not only be taught below their current proficiency level, but may also feel like any progress they had made previously has become of no consequence.

The third main issue with the current programmes teaching English to Young Learners concerns inequality. Not only is the English language compared to and regarded as currency, it also is affected by and affects learners' socioeconomic status (Besser & Chik, 2014; Csapó & Nikolov, 2009; Enever et al., 2009; Nikolov & Mihaljević Djigunović, 2011). Access to early English programmes can be limited, which means those of an advantaged background are more likely to gain this access. Nikolov and Mihaljević Djigunović explained this as follows:

> Socioeconomic status (SES) is a widely accepted variable contributing to school success in educational research; however, it is rarely addressed explicitly in studies on early language learning. In educational contexts where the private sector offers a range of early programs, socio-economically advantaged children's parents are more able to afford early English or other languages. Thus, issues of equity and diversity are often entangled in early language learning programs. (2011, p. 105)

Having access to an early start with English is, in turn, likely to advance an individual's career even further; in the Hungarian context, for instance, those who hold a proficiency exam certificate may receive extra bonuses at work and find themselves at an advantage when entering university (Csapó & Nikolov, 2009). In some contexts this has created a situation wherein those parents that can afford it will pay for additional English tuition for their children, but this in turn creates a problem within the schools: teachers are faced with a range of abilities even more diverse than those they normally would encounter, as is currently the case in Greece (Mattheoudakis & Alexiou, 2009).

Having discussed the issues surrounding the teaching of English to Young Learners, such as lack of qualified teachers, discontinuity within and between programmes, and inequality based on SES, it is important to note that even though this global revolution of teaching English to Young Learners faces certain issues, this is not to say that there is no benefit to an early start. However, as Nikolov and Curtain (2000), as well as Moon (2005), argued, an early start in itself is not a guarantee for successful language learning in the long run — the introduction will have to involve more careful planning than has thus far been the case in many contexts.

3.6.3. Motivation and Young Learners: Findings so far.

Although Brumen (2011) claimed that little actual research has been done on FL learning motivation in the pre-primary and primary age group, there have been several shared conclusions from the various research projects that have been undertaken.

Declining motivation.

The most widely spread conclusion is that motivation for FL learning seems to decrease with age (Carreira, 2011; Corpus, McClintic-Gilbert, & Hayenga, 2009; Enever, 2011; Lopriore, 2009). This is not an unexpected finding, although it is concerning to many researchers. Corpus and colleagues, for example, came to "the troubling conclusion that the more time children spend in our schools, the less they seem to be learning for learning's sake — a conclusion that theorists and educators have bemoaned for decades" (2009, p. 162). Corpus and colleagues presented findings from their study of students from Year 3 through Year 8 that suggested "at least some negative motivational patterns are beginning to take hold in elementary school" (2009, p. 162). Similarly, Carreira (2006, 2011) found a steady decline in motivation for learning English in third and eighth graders in Japan. However, Carreira did not attribute this decline to language learning as a subject itself:

> The pattern of decline in EFL motivation simply reflects a general developmental decline in intrinsic motivation for learning in general through these elementary school years. In other words, what happens through these years to children's EFL motivation is no different from what happens to their motivation for school learning in general. Older students tend to be less active in EFL classes as well as in other subjects. (2011, p. 100)

This trend can be observed in several countries throughout Europe. For instance, analysing YL data from the ELLiE project (Enever, 2011), a large scale European research collaboration into YL language learning, showed that while initial motivation for learning English was high, preliminary findings indicated a slow decrease in motivation (Enever, 2011; Lopriore, 2009; Mihaljević Djigunović, 2010). Croatian ELLiE data (Mihaljević Djigunović & Krevelj, 2010) suggested two possible causes for the decline in motivation and the development of negative attitudes towards L2 learning. The first of these was the less than ideal teaching situation in most European contexts. Secondly, as has also been suggested by Metallidou and Vlachou in their 2007 study of Young Learners in Greece, the decline in motivation can be explained by the overly-positive view of Young Learners at the start of their learning experience. Mihaljević Djigunović and Krevelj explained that

> children started L2 learning with overly favorable perceptions of their abilities and achievements. However, as their early language learning experience developed they soon started building their self-perceptions more realistically, and metacognition developed quite quickly with some young L2 learners. (2010, p. 151)

The learning context.

As mentioned above, Mihaljević Djigunović and Krevelj attributed Young Learners' decline in motivation to a less than ideal learning situation in the European context. This leads directly to the second shared conclusion from research into Young Learners' motivation: the importance of the learning environment. As a result of research into the Greek EFL context, Metallidou and Vlachou (2007) suggested that motivational beliefs are more sensitive to contextual differences than cognitive and regulatory aspects of self-regulated

learning (p. 12), indicating that the learning context is a vital element in shaping Young Learners' motivation.

Nikolov argued that the most important questions in Young Learner motivation centre around learning context and teacher behaviour (Nikolov, 1999), while more recently Brumen (2011), focusing on the motivation of Young Learners, concluded that "children (aged 4–6 years) are motivated by positive attitudes towards foreign language and the learning context. They want to learn foreign languages because they enjoy the activities and their comfortable environment" (p. 729). Brumen went on to argue that children perceive the need for "a learning climate that offers a pleasant, safe and supportive classroom atmosphere" (p. 729). Similarly, Wu (2003) argued that the motivation of Young Learners should be stimulated from the beginning by creating a supportive learning environment (Wu, 2003), while Jin and colleagues (Jin, Liang, Jian, Zhang, Yuan, & Xie, 2014) showed that affective factors are at the core of Young Learners' motivation.

As Mihaljević Djigunović, Ottó, and Nikolov argued, "teaching quality permeates all contextual factors" (2008, p. 435), which means an important role in the learning environment is played by the teacher. One of the most widely known studies regarding learning environment and Young Learner motivation is Nikolov's 1999 paper, entitled *Why do you like English? Because the teacher is short.* The author analysed the motivation of Young Learners, finding a "general positive attitude to the learning context, activities and task, and an intrinsic motive for participating in class [...] this is connected to the strong emotional link to the teacher, which gradually weakens" (Nikolov, 1999, p. 45). Mihaljević Djigunović (1993, 1995) similarly reported that initial motivation for Young Learners is dependant mainly on their attachment to the teacher, whereas with

increasing age, instrumental motives and attitudes towards the language gained importance in determining Young Learners' motivation. Nikolov's longitudinal study similarly demonstrated how instrumental factors only seem to emerge around the age of 11 or 12 years old, and even then they remain vague and general (Nikolov, 1999, p. 53). The importance of the teacher for learners' motivation and attitude development is not limited to the EFL classroom, however, as Evener argued:

> In the early years of pre-primary and primary schooling, the role of the teacher in the young child's socialization and the development of their attitudes to learning is crucial to the child's ability in making progress across all areas of the school curriculum. (2014, p. 231)

English as a school subject.

A third shared conclusion from the Young Learner field is that in many situations English is not just another school subject. As I mentioned above, although Nikolov found that instrumental motives for learning English stay vague and rather general, she added that "most of the children are aware that English will be useful in their adult life but not all of them give this a reason to studying it" (1999, p. 46). Similarly, in Lamb's (2004) well known study into 13-year-old students in the Indonesian context, he found that for learners of this age instrumental, intrinsic, and integrative motives blended together in general statements such as "Because English is important for our future and learning it can expand our awareness about other countries" and "Because English is the international language and if I hear people speaking it, I also want to learn it" (p. 10). The students in his study expressed a more general need for English: "a need so strong that they express pleasure in satisfying it, even though the

process itself (their lessons) may sometimes be boring" (Lamb, 2004, p. 10). Lamb suggested that:

> these students are exposed to a powerful discourse, channelled presumably through parents and schools as well as the media, which has encouraged them to develop a vision of an English-speaking, globally-involved but nationally-responsible future self, and which contributes to a high initial level of motivation to learn the language (and especially to learn to speak it). (2004, p. 16)

Lamb referenced the work of Yashima (2002, 2009) on attitudes towards the international community, or *International Posture*. International Posture includes "interest in foreign or international affairs, willingness to go overseas to stay or work, readiness to interact with intercultural partners, and, one hopes, openness or a non-ethnocentric attitude toward different cultures, among others" (Yashima, 2002, p. 57) Yashima further argued that in the Japanese EFL context, English represents "something vaguer and larger than the American community in the minds of young Japanese learners" and that for many learners the English language "symbolizes the world around Japan, something that connects them to foreign countries and foreigners (2002, p. 57). Lamb referred to this as the "world citizen identity" and argued that learning English is vital for this identity (2004, p. 16).

Although the work of Lamb and Yashima focused more on teenage rather than very young learners, it does seem that the added value placed on English develops rather early. Besser and Chik (2014) found in their study into Young Learners' identities as English students that pupils at primary school age are already well aware of the global importance of English, and that this greatly influences their L2 identity. Their study categorised learners into two groups: *cosmopolitans* and *pragmatists*. A cosmopolitan would be a learner skilled in moving between other cultures and open to new cultural experience: learners

who have a high level of international posture. The pragmatist's identity, on the other hand, was described as identity "largely shaped by parental influences and the need for English proficiency to improve in order to gain access to the schools/universities/careers that would be considered successful" (Besser & Chik, 2014, p. 304). Besser and Chik emphasised that all those learners classified as cosmopolitans came from better-off families, and warned that "the unequal distribution of resources may impact on young learners' identity development" (2014, p. 306). They concluded that by the end of primary school

> Hong Kong children are aware of the position English plays in the manifestation of a society structured by unequal access to economic capital, and this awareness plays an integral role in their developing narrative identities as English speakers. This study demonstrates the importance of considering how educational policy, cultural values, and distribution of resources may impact on young learners in similar contexts. (Besser & Chik, 2014, p. 308)

This kind of awareness is also shown in several other studies on Young Learners' attitude towards EFL. Mattheoudakis and Alexiou (2009) argued that regardless of SES, primary school children recognise the importance of language certificates in the Greek context and suggested that "it is quite possible that those children, under their parents' influence, gradually become like them: they just want to progress fast and obtain the language certificate" (p. 242). Mattheoudakis and Alexiou further found that learners from both high and low SES were rather instrumentally motivated. Similarly, in what is also referred to as the Zagreb Project, Mihaljević Djigunović (1993) summarised that the Young Learners in this study were mostly instrumentally orientated and focused on the vocational value in knowing the foreign language.

From this we can assume Young Learners' motivations and attitudes to be at least partially influenced by the seemingly ever-present narrative

emphasising the importance of English. The status of English as a *lingua franca* in the international community is expected to influence the development of Young Learners' attitudes, possibly starting as early as primary school age. However, Nikolov noted that regardless of the status of English or its economic value, many students experience it as just another school subject. Nikolov explained how classroom environment does not suddenly lose its importance to Young Learners' motivation:

> Although the importance of instrumental motivation increases with age, engagement and persistence in learning activities are not directly influenced by this factor — children will choose to pay attention to, engage and persist in learning tasks only if they find them worth the trouble. (1999, p. 53)

This seems to be especially true for Young Learners in the Primary and Early Secondary age group. Brumen argued that most of the children in her study "did not perceive the foreign language learning as an additional activity. We believe that they accepted foreign language learning as an integral part of their kindergarten situations" (2011, p. 725). Linse (2014) argued that "children do not always see the relevance or importance of a specific subject, such as Algebra, in order to do well in that subject" (p. 355). Even in Lamb's (2004) study, in which the researcher spoke of participants' strong desire to learn English — fuelled by a dominant narrative emphasising the importance of English for future success — he reported on several students for whom English, despite its status, is just another subject: "even for these two very highly motivated girls, English was not something special but just one of many challenges that would dominate their teenage years" (p. 14).

3.7 Summary.

To briefly summarise, L2 motivation research is currently an active and dynamic field of research, in which several frameworks and recurring themes, such as complex dynamic systems, the self, conglomerates, and context, are combined in various ways to cover all aspects of motivation in L2 learning. Motivation is currently considered to demonstrate stable characteristics, such as an overall high motivation for certain subjects, as well as variability on a shorter time scale, such as a fluctuating motivation within a single lesson. Furthermore, there is a growing interest in conglomerates of motivational, affective and cognitive processes and their development on various time scales in the context of learning a second or foreign language. Finally, identity and self-concept have occupied a central position in L2 motivation research and have been shown to function on different time scales, demonstrating flexibility as well as stability. It further encompasses contextual, motivational and cognitive elements. Young learner motivation faces its own challenges, such as decreasing motivation over time and a lack of continuity within and between schools that offer second or foreign language lessons.

In Chapter 4, I will analyse the L2 learning experience by focusing on the conglomerates of motivation, affect, cognition, and context that I have introduced in this chapter and in Chapter 2. As we have seen that the experience of the L2 learning context is more important for some learners, especially those in a younger age group, the differences between these conglomerates in younger and older learners will form the focus of the remainder of the chapters of this thesis.

Chapter 4. Affect, Motivation, and Cognition: Attractor States in the Classroom

4.1 Introduction.

As I argued in the literature review on motivation is SLA in Chapter 3, a dynamic approach to motivation is becoming well-established in the current landscape of Applied Linguistics. The recent focus in the field on a range of new issues and notions such as variability, stability, context, self, vision, and emotion makes for a more fully fledged representation of language learning motivation.

In this chapter, I will focus on answering the first research question posed in Chapter 1 this thesis: *How do affect and motivation interact to influence learners' behaviour in a classroom situation?* I aim to introduce a dynamic approach to researching the potential conglomerates of affect, motivation, and cognition. To begin, I will briefly situate the concept of conglomerates and attractor states in context with regard to the field of SLA motivation by means of a brief dedicated review of the relevant literature. Following this, I will provide an outline that demonstrates a promising approach to studying the interaction of emotion and motivation in language learning.

4.2 The dynamics of affect and motivation in a classroom situation.

4.2.1 Variability, stability, and attractor states.

One of the key characteristics of motivation as a dynamic system is that it displays ongoing change. Equally importantly, however, motivation as a dynamic system is also characterised by occasional states of stability. It has been demonstrated, for example, that motivation fluctuates over time (MacIntyre & Serroul, 2014) — yet despite this, it also tends to self-organise and settle into relatively stable *attractor states* (Hiver, 2014). Some elements of motivation may be more stable than others; although a student's overall motivational profile may be susceptible to change (Campbell & Storch, 2011; Koizumi & Matsuo, 1993), this change is more frequently found in short-term motivation related to the *here-and-now* of students' in-class experiences (Pawlak, 2012; Poupore, 2013). For instance, a study by Hotho (2000) demonstrated that even when students' overall motivation is stable over the course of a semester, there may still be noticeable fluctuation from week to week or day to day. Furthermore, even when a relatively stable concept, such as a student's ideal L2 self (Dörnyei, 2005; Dörnyei & Ushioda, 2009), shows signs of change, those changes are often related to classroom experiences. This has been demonstrated by Campbell and Storch (2011), who found that for learners of Chinese at an Australian university the "aspects of motivation most likely to change were those associated with the language learning environment" (p. 185).

The interaction between the different *time scales* of motivation (see de Bot, 2014) is of interest to teachers and researchers alike, particularly concerning the interaction between the episodic elements of the learning

experience and a language learner's overall motivational profile. In a recent study, Nitta (2013) has explored this interaction, concluding that "classroom experiences promote the emergence of higher order student motivation over time through the reciprocal feedback between the motivational components" (p. 268). This indicates that on a short-term time scale, a learner's repeated experiences, such as a single lesson of French, will over time shape their higher order frame of mind regarding French, and vice versa.

4.2.2 Conglomerates of affect, motivation, and cognition.

Although motivation has traditionally been labelled an affective variable in applied linguistics, the overall approach towards the topic has been mostly cognitive in nature. Recently, the fields of both psychology and applied linguistics have witnessed an increased awareness of the importance of affect in learning situations (Ainley, 2006, 2007; Hidi et al., 2004; Schutz & Pekrun, 2007; Swain, 2013). Nevertheless, the manner by which to take into account the interaction of motivation, cognition, and affect — sometimes referred to as the *trilogy of mind* (see Scherer, 1995) — has remained a largely unresolved issue, theoretically as well as in empirical investigations.

A possible solution to this problem, as I suggested in Chapter 2 of this thesis, lies in the use of *conglomerates* to refer to the integrated operation of several different forces, which in this case includes affect, cognition, and motivation. Within the context of the psychology of second language acquisition, this concept was recently proposed by Dörnyei (2009), although the complementary interrelationship of these three primary dimensions of mental functioning has been a subject of research in psychology prior to this (see Dai & Sternberg, 2004; Damasio, 2000; Lewis, 2005; Linnenbrink &

Pintrich, 2002a, 2002b, 2004; Neisser, 1963; Panksepp, 1998; Scherer, 1995; Swain, 2013; and Tucker & Derryberry, 1992). Dörnyei has proposed that conglomerates of certain learner characteristics can create salient attractor states that act as an integrated whole, thereby resulting in relative system stability. Examples of such conglomerates on a longer term time scale include the Ideal L2 Self (Dörnyei, 2009), personality traits such as extraversion and introversion (Matthews & Zeidner, 2004), and, on shorter time scales, interest (cf. Ainley, 2006; Dörnyei, 2009; Hidi et al., 2004).

4.2.3 Conglomerate attractor states.

In the context of the two themes of a dynamic perspective on motivation and the concept of conglomerates, as introduced above, we can view L2 learning experiences as representing affective-cognitive-motivational conglomerates. These conglomerate attractor states operate both on a relatively short term time scale in the overall context of a classroom as well as in learners' overall motivations for and attitudes towards certain school subjects or languages. Both transient states, as well as trait-like tendencies, are central to understanding a learner's overall engagement with and success in a foreign language.

Theoretically, a context as diverse as a classroom setting could lead to an endless variety of possible states for learners to experience. However, the self-organisation process within dynamic systems helps to provide order and consistency, shaping certain attractor states within the system. It therefore follows that we are likely to find a number of states that occur more frequently than others in educational contexts. The first step towards understanding the nature of the learning experience is identifying these recurring attractor states

towards which the system tends to gravitate. The literature usefully provides a set of possible candidates, four of which I will examine here.

Engagement is one of the states that can be classified as a conglomerate attractor state. Often mentioned as being a subset of Csikszentmihalyi's concept of *flow* (1990), engagement means that the student is immersed in and focused on a given task (Mercedes & Rodrigo, 2011). In their research into classroom states, D'Mello and Graesser (2012) combined engagement and flow into one classroom-state, using the term *engagement/flow*. However, although there is certainly an overlap between engagement and flow, it is important to note that a learner can be engaged without experiencing flow properly. For example, when engagement is accompanied by anxiousness, such as when a student is studying to avoid a negative outcome like failing an important exam, there may be no experience of proper flow on their part. During a time period in which a learner experiences flow — the culmination of concentration, interest, and enjoyment — there is an added layer of experience, namely a loss of self-consciousness and distortion of time (Shernoff et al., 2003). However, as D'Mello and Graesser pointed out, in regular language classroom learning "such intense flow experiences would be welcome, but are rare" (2012, p. 146).

Interest is a second potential classroom state and is closely related to engagement. Interest is often named a motivational variable in the educational context (Ainley, 2007; Hidi et al., 2004). It featured in Gardner's (2004) Attitude/Motivation Test Battery in the form of "interest in foreign languages", while according to Ainley (2007), it is a key component of engagement in academic tasks. In contrast, other researchers, such as Silva, have labelled interest as an emotion (2005) rather than as a motivational variable. Indeed, interest has even been placed among the first-order emotions along with fear,

disgust, enjoyment, and sadness (Izard, 2011). Its exact definition, however, is still subject to ongoing discussion. Recently, rather than classifying interest as either an affective, motivational, or cognitive variable, there has been a tendency to describe the phenomenon as a conglomerate of affective, cognitive, and motivational processes (see Ainley, 2007; Dörnyei, 2009). This approach, which has recently gained more traction, is not a completely new one, but rather has a long history: over a century ago, Dewey described interest as a "complex affective-cognitive structure" (Dewey, 1913, p. 1). Later theories depicted interest as a motivational variable that combined affective and cognitive functioning (Hidi et al., 2004). Ainley similarly suggested that interest is a combined effect of cognition, emotion, and motivation, arguing that "the general point is that there are functional combinations of affective and cognitive processes, which persist across time as organized processing structures" (2007, p. 159).

The third potential conglomerate state that occurs frequently in the SLA literature is *anxiety*, which is one of the traditional individual difference variables in applied linguistics. It is, as Dörnyei (2009) argued, a curious variable. This is, first of all, because anxiety has been treated both as a stable personality trait and as a transient state (Dewaele et al., 2008). Secondly, although anxiety has been related negatively to language learning and language processing (MacIntyre & Gardner, 1994), it has also been argued that anxiety can increase effort and thus have a positive effect in the right circumstances on learning outcomes — that is, provided that the level of arousal is not too high for the individual student (MacIntyre, 2002). Furthermore, much as interest has been studied as both a motivational and an affective variable, anxiety seems to possess affective, motivational, and cognitive components. It is related to fear,

which is considered one of the basic emotions (Izard, 2011), but it also features in theories of motivation and self-confidence (Gardner, 2004; MacIntyre et al., 1998) as well as cognitive appraisals (Pekrun et al., 2002) and worry (see Dörnyei, 2005).

A fourth possible conglomerate attractor state might be *boredom*. Although boredom may be painfully familiar to both teachers and students, it has received considerably less critical attention than the states I addressed above. Most recently, critical research into boredom has been performed by Pekrun and colleagues (Pekrun et al., 2002; Pekrun et al., 2010), who regarded it as one of the *achievement emotions*. These scholars summarise boredom as a state composed of unpleasant feelings; a lack of cognitive stimulation and low physiological arousal; a sense of time passing slower than usual; and a tendency to disengage from the activity. This description combines affective, cognitive, and motivational characteristics into one state, similar to the descriptions of engagement, interest, and anxiety I mentioned above. Some researchers have suggested that boredom is the most enduring of any state in a classroom environment. While engagement, confusion, and frustration seem to be relatively shorter-lived, boredom is more persistent, which would indicate it is a more stable attractor state, albeit an undesirable one for teachers and students alike (Mercedes & Rodrigo, 2011; D'Mello & Graesser, 2012). Boredom was originally thought to be caused by a lack of challenge: when a student's ability is high and the cognitive demands in the classroom are low, boredom would be elicited. However, further studies have suggested that the opposite is also true: students who are overwhelmed with information and feel unable to solve the task presented or cannot follow the ongoing discussion are also likely to be bored or to zone out (Pekrun et al., 2010; Lee Do & Schallert, 2004).

The aim of this first research study is first and foremost to identify the main attractor states, or conglomerate attractor states, that make up the learning experiences in a learning situation. In the second phase of this study, I will then explore one of these states to determine which factors contribute to the creation of this attractor state. I will address the following two research questions:

1. What are the main conglomerate attractor states that make up the learning experience?
2. What are the main forces forming the attractor basin of these conglomerate attractor states?

Based on the review of the literature on motivation and learning experience as laid out above, I would suggest the following two hypotheses:

1. The conglomerate attractor states are expected to include engagement, interest, anxiety, and boredom, with variations or combinations thereof.
2. These conglomerate states are most likely caused by a combination of motivational, cognitive, and affective elements.

4.2 Methodology.

4.2.1 Complex Dynamic Systems and methodology.

The research design of this study is geared towards identifying attractor states in the participants' past learning experiences. Starting from the assumption that a few primary attractor states dominate the learning experience, we can expect these attractor states to be salient and therefore surface repeatedly in the data (see Dörnyei & Ushioda, 2011). Thus, through a content analysis of a good sample of focused qualitative interviews, we might expect to be able to identify the conglomerate attractor states that make up the majority of the learning experience. In order to increase the effectiveness of this procedure, I have

deliberately kept the interviews short, as it is reasonable to assume that a sufficiently dominant attractor state will emerge in the first few minutes of an interview. Furthermore, if such an attractor state is sufficiently powerful, it is likely to be experienced across boundaries of age, gender, or culture, although idiosyncratic nuances may characterise certain groups of people. Therefore, the research design involved a sampling approach aimed at generating a heterogeneous group of interviewees (for details, see below under the various phases of the project).

4.2.2 Phase 1: Attractor states.

In the first phase of the study, I focused primarily on eliciting the different states that students experienced in a learning environment. Participants for this study were recruited in two phases: the first half of the participants was recruited from students attending a first year linguistics module at a UK Russell Group university. The mean age of these participants was 19 year old. In order to achieve a varied sample of different ages, nationalities, occupations, and educational backgrounds, the second half of the participants was recruited through paper advertising in the university, local libraries and supermarkets. Despite recruiting participants outside of a university setting, the majority of these participants had attended Higher Education. Overall, the age range of these participants was more varied, ranging from 16 to 80. The total number of participants for the first phase of the interview was 56, with an average age of 22 years old.

I gathered the relevant data by means of short, semi-structured interviews. I informed participants that the study focused on classroom experience and asked each participant to list as many states they remembered

experiencing in classroom settings in their past and present learning environments. In order to prevent biased answers, I decided to provide no examples of such states; the words affect, cognition, and motivation, as well as their equivalents feeling, thinking, and wanting, were avoided in all of the interview questions. Some participants struggled with the term *state*, indicating that they were uncertain as to its meaning. However, in the end, only two participants were unable to answer the question without being given specific examples of possible states such as bored and interested. These two participants were excluded from the data prior to the analysis.

In those cases where participants indicated they had experienced different types of states in different phases of education — for example, in secondary school and university education — I encouraged the participants to list their recurring states for these two phases separately and to discuss any possible causes for the differences between the types of state in the two stages of education.

I digitally recorded each interview and then transcribed them. All the references to conglomerate attractor states were extracted from the transcripts and listed in a separate file before being categorised. As part of the analysis, I assigned codes to each of the different states that participants had mentioned. States such as happy and pleased were then assigned the same code, as well as states such as nervous and anxious, angry and frustrated, and calm and relaxed. Secondly, I grouped these codes into larger clusters according to the similarity of their concept domains (for example, nervous and anxious were grouped together with confused and with frustrated.). These final evaluations were notably similar to the dimensions used in the dimensional models (Arnold, 1960; Wundt, 1905) that I discussed in Chapter 2: one of activation (i.e. active

and passive) and one of value (i.e. positive negative). This process of classification resulted in four different, broad categories that covered all of the diverse states that participants brought forward in their interviews. A sample interview transcript of this phase of study is included in Appendix I.

4.2.3 Phase 2: Attractor basins.

I included a second phase in the research design in order to follow up on the most frequently recurring state: interest. In this second phase of the study, I focused on the different factors in the attractor basin that might contribute to the construction of a student's interest.

The participant recruitment process was identical to Phase 1. The first half of the participants was recruited from students attending a first year linguistics module at a UK Russell Group university. The second half of the participants was recruited through paper advertising in and around the university as well as various public spaces such as libraries and supermarkets. Those participants that had taken part in the first phase of this study did not take part in Phase 2. The total number of participants for the first phase of the interview was 45, with an average age of 26 years old.

I asked participants to elaborate on their interest in school and classroom situations, be it short- or long-term, and to explain how this interest first emerged, how it further developed, and which factors played a key role in this development. These interviews were somewhat longer than the interviews in the first study, as they varied from seven to nineteen minutes in length. I continued to interview more participants until I noticed data saturation had been reached, and no new data was added with additional interviews. I processed the interview data by using the same content analytical approach as I

used in the first phase of the study: I extracted all factors participants discussed from the transcripts and listed them in a separate file. I grouped identical factors together in one category (e.g. teacher behaviour, aptitude). I then grouped categories that fell under the same broad concept together (e.g. teacher behaviour and classroom atmosphere). As with Phase 1, this classification resulted in four separate categories. A sample interview transcript of this phase of study is included in Appendix I.

4.3 Results.

4.3.1 Phase 1.

In this first phase of the study, participants used a total of 89 different terms to describe the diversity of states they had experienced in a classroom setting. However, many of these terms overlapped in terms of content. From the aforementioned content analysis of these states, four distinct categories of conglomerate attractor states emerged: *interest*, *boredom*, *neutral attention*, and *anxiety*. As can be seen in Table 2, interest and boredom were both mentioned by the majority of the participants. Although anxiety and neutral attention were less common, both states were still present in a significant percentage of the participants. I will discuss these four states further in the following paragraphs, illustrating each of them with quotes from several participants.

Conglomerate Attractor States	
State	Percentage
Interest	80.35
Boredom	78.57
Neutral Attention	41.07
Anxiety	39.28

Table 2: Percentage of participants describing conglomerate attractor states

Interest.

This first category is formed from a combination of the following descriptions: interested, engaged, curious, active, and enjoyment. These terms were often mentioned together, and participants often used one to explain or to elaborate on another. Various forms and aspects of interest were brought up by 80% of the participants. Based on these data, the concept of interest can be summarised as a combination of active engagement and enjoyment that led to further active participation in the ongoing learning activities. The following three quotes demonstrate some of the ways in which enjoyment, interest, and active attention can merge together in a classroom situation:

> I would be really focusing on what the teacher says, get really immersed in the content, being interested and following what's going on. (Participant 3)

> Yeah, I felt engaged most of the time in the classroom I really enjoyed school so I was always happy to be there, felt motivated, content as well. Eager to learn. (Participant 30)

> If it was something that I'd enjoy then I'd be more interested and more willing to participate and that sort of thing. If it's something that I'm not interested in I'm not really paying a lot of attention. (Participant 25)

The connection between interest and attention is a familiar one: in his 1913 book on interest in education, Dewey drew attention to the importance of interest and, specifically, to the relation between interest and attention. Dewey's argument on this connection is surprisingly similar to the above quote by Participant 25:

> If we can secure interest in a given set of facts or ideas, we may be perfectly sure that the pupil will direct his energies toward mastering them; [...] if we have not secured interest, we have no safeguard as to what will be done in any given case. (Dewey, 1913, p. 1)

As a frequently recurring state, interest is a potentially important attractor state in the learning experience. Its significance is due not only to its overall frequency, but also to its connection to learners' active engagement in the classroom.

Boredom.

A second conglomerate state mentioned by nearly 80% of the participants was *boredom* or some variation on it. Frequently given descriptions included zoning out, being distracted, being sleepy, and not paying attention. Interestingly, only one participant reported experiencing the classic notion of boredom, in which it is caused by a lack of challenge. For most other participants, boredom seemed to embody a lack of interest and attention. In many ways, boredom seems to be the polar opposite of interest. While interest revolves around active

participation and positive affect, boredom, as expressed by the participants in this study, is instead passive and has no direct positive affective dimension. An example of a participant's elaboration on boredom can be seen in the following extract: "day-dreaming, going off a tangent and going into my own world, you know, forgetting what's going on, you're not really there" (Participant 3). Several participants described similar instances of boredom in which they were not necessarily bored with the subject, but were certainly not paying attention: "Quite a lot of the time, like not boredom but you know when your mind just flicks out of what is going on, quite a lot of that" (Participant 43).

Participants further explained how their levels of boredom and interest varied from subject to subject, with some subjects being perceived as boring whereas others were regarded as interesting:

> I think sometimes I was quite bored. I think I enjoyed some lessons very much, but for some subjects I just I used to scribble on the pages. It depends. (Participant 12).

> It definitely varied how bored I was, certain subjects like maths and stuff that was really boring and I'd watch the clock tick by, while with English when we were reading a book and you'd get absorbed in the book and often there'd be a lot of work that you were meant to have done and often I hadn't so that was the overwhelming, sort of "aaah". (Participant 34)

These and similar quotes indicate a fairly settled state of boredom or, alternatively, interest, for a particular subject. However, in accordance with the characteristics of complex dynamic systems, even within these stable phases we find variation. Several participants described their transition from being interested to being bored within a lesson. This indicates that their attractor states are still susceptible to change within a lesson, even though some subjects may be more interesting than others:

> Erm, probably when I first go in, [...] I'm quite eager to learn and then as the lesson progresses you sort of get distracted especially

> when people are talking, it gets to the point of just sitting there and just boredom because the teachers seem to be talking at you and you're not interacting or anything. (Participant 21)

> Usually, in the beginning, I'm interested. Then it depends on what kind of class, but usually I start being tired, bored and then sleepy. Depends on the subject I think. (Participant 11)

These findings regarding the frequency of boredom are consistent with findings reported in the literature. Along with interested and neutral, boredom is among the most commonly reported states in on-task measurements of emotions (Ainley, 2007) and has been linked negatively to academic achievement and classroom engagement (Baker et al., 2010; Dewaele, 2011; Pekrun et al., 2010).

Neutral Attention.

A third conglomerate state that a significant number of participants mentioned experiencing was neither boredom nor interest, surprisingly, but rather a state somewhere in between the two: neutral, or passive, attention. A little over 40% of the participants in this study described variations of this state in their interviews. Neutral attention can be described as the type of situation in which a student is still paying attention in class, but is not necessarily actively engaging with the material; when this state is being experienced, the student does not have any particularly intense affective reaction to the situation, either. This is exemplified in the two quotes below:

> Mainly just, you're just there, listening like, you pay attention to the stuff you absolutely need to, the rest you just ignore, well, don't ignore it but you kind of zone out. (Participant 5)

> I think during lectures the tendency is just to sit there and sort of scribble down as much as I can hear and see on the PowerPoint. So that's a sort of reduced state of being, you're like passive, while in seminars you will actively pay attention to what your classmates and your tutors are saying, you're much more energised in seminars. (Participant 14)

The above explanation by Participant 5 demonstrates the difference between neutral attention and boredom; in the case of neutral attention, a learner is still paying attention to the lesson and the material. In contrast, when students are bored they frequently report zoning out and not paying attention to what is happening in the classroom. Furthermore, the second quote by Participant 14 shows the fine line between neutral attention and interest; in the case of neutral attention, a learner might be paying attention, but they will not process as much or engage as actively as compared to a state of interest, where the student is more actively involved and engaged in the ongoing task or discussion.

However, not all participants reported neutral attention as lacking positive affect. As shown in the following quote, a state of neutral attention can still include a positive disposition without mentioning any of the active engagement that is associated with interest: "but most of the time I was just quite neutral; I was just quite happy and pleasantly sitting there learning" (Participant 43).

Although this third state was not among the conglomerate attractor states I initially hypothesised in the introduction to this chapter, neutral attention is not a foreign concept in the SLA or education literature. A neutral state was argued to be one of the most frequently reported states in academic tasks in Ainley's (2007) study, and Baker et al. (2010) similarly found that a neutral state was the most frequently observed state in some learning environments.

Anxiety.

The fourth and final conglomerate attractor state that participants experienced is anxiety and variations of this state. This state was mentioned by 40% of the participants and includes descriptions such as nervous, inferior, stressed, and, on one occasion, even terror. Although from this study it appears that anxiety occurs less frequently than boredom, this fourth state has the potential to be more detrimental to the learning experience. A classic example of this anxiety can be seen in the two quotes below:

> Mathematics I found impossible because I couldn't understand it and I got very anxious and panicky about it. If I couldn't understand I would mentally beat myself up for not understanding. (Participant 2)

> Well, much depended on the teacher but usually, it was quite tense. Some teachers had surprise test or interrogations so it was quite, I can remember quite a fear. A situation of fear almost. Tension, I was anxious, maybe this was also me not just, but seldom it was a relaxed environment. (Participant 12)

Another element of this particular state is confusion that stems from not understanding the material, as well as frustration from this lack of understanding. For example:

> where the discussion is something that you don't understand but you're too nervous to just say, so you're just like sitting there not participating and a bit confused. (Participant 27)

> Frustration to an extent, erm, kind of annoyed, I think, that I didn't understand. (Participant 30)

Nervousness, anxiety, confusion, and frustration were consistently mentioned together in the data; participants would often use one to explain the other, hence their appearance in the same attractor state category. Similar to engagement and boredom, participants indicated that there were some subjects for which anxiety was almost a default state, indicating a stable level of anxiety.

For others, anxiety seemed to wax and wane during lessons, for instance, when a participant had to present something in front of a group:

> I absolutely hate standing up in front of a group of people and having to talk to a large group of people and I was forced to do that on a lot of occasions in my master's degree and my undergraduate degree. And standing up in front of a lot of people and doing that still frightens me more than anything else. (Participant 6)

Summary.

To summarise the result of this first phase, students' learning experiences can be categorised into four different types of conglomerate states: interest, boredom, neutral attention, and anxiety. These categories call to mind the dimensional models discussed in Chapter 2 on emotion theory (Arnold, 1960; Linnenbrink, 2007) in which emotions are evaluated by their position on two (or more) dimensions. The four different states relate to the categories created by one of the first dimensional models, with an active/passive quadrant and a positive/negative quadrant. In terms of the findings in this study: interest/engagement would be an active and positive state, whereas neutral attention would be a passive and positive state. Anxiety would be an active and negative state, whereas boredom would be a passive and negative state

These four states display stability and variability on a short time scale, such as within a single lesson, as well as on a larger time scale, during which an individual might make such decisions as, for instance, which subjects to take on at A-level or university. I will analyse the most promising of these states, interest, in the second phase of this study.

4.3.2 Phase 2.

In this phase, I further analysed interest, which was one of the most frequently occurring attractor states from the first phase of this study. My decision to focus on interest stemmed, firstly, from its frequent occurrence in the interview data. This decision was also made due to the fact that interest is vital to a positive learning experience, as it has been shown to be significantly related to the quality of classroom experiences (Schiefele & Csikszentmihalyi, 1994). Through the content analysis of the interview data, I categorised four broad clusters of factors that contributed to the creation and maintenance of a student's interest, as I have listed in Table 3. These four categories are related to *cognitive*, *motivational*, *affective*, and *contextual* factors.

Factors Contributing to Conglomerate States	
Category	Percentage
Cognitive	60.00
Motivational	30.33
Affective	51.11
Contextual	46.66

Table 3: Factors contributing to conglomerate attractor states

Cognitive factors.

No less than 60% of the participants in this second phase of the study discussed cognitive factors in their interviews on interest. Cognitive elements are represented mainly by the students' experiences of being good at a certain subject. The majority of the participants mentioned this as a main factor for the initial generation and subsequent growth of interest:

> I always had a really good grasp of kind of vocab and grammar without necessarily learning it just because I'd come into contact with it by reading, so I guess I found it easier than some other people. When you're learning about stuff, and when you're good at something you do enjoy it more I think. So I guess that factors into it. (Participant 26).

Similarly, a perceived lack of competence can potentially have the opposite effect, making the student lose interest in a subject altogether:

> [I wasn't interested] because I couldn't do it. I wasn't good at it. I struggled to get a 40. I found doing languages miserable, I mean, I liked learning a new language or culture, but it cost me too much effort. The output that I got was not proportional to my input. I put in lots of effort and didn't get results. (Participant 29)

In terms of causality, the data from this study indicates that the relationship between interest and cognition is very much a two-way influence; perceived competence increases interest, which then is likely to increase a student's willingness to spend time and effort on the subject, and thus makes it more likely that their competence in this subject will further increase. According to the interview data, this is not a simple cause-effect relationship in which aptitude causes interest. Some students indicated that they are simply better at subjects they find interesting, as it is easier to remember interesting information (Participant 33). In contrast, some students argued that they became interested in a subject or field because they found they were naturally good at it (Participant 30).

> It doesn't really have my interest that much, so I don't remember it well. I find it difficult to look for things in a law-book or erm, I find that difficult. It's not my material, it doesn't stick. If I find something interesting then I retain it more as well. (Participant 33)

> Well, it wasn't because I had a good teacher because I definitely didn't have that… It was because, and I've always found that very funny, it was because I was the best. Because I had played the recorder before, so when I started with the sax I was the best, I was way ahead of everyone because they were all struggling with the notes and I could already do that. It was just very easy at the start so I became the best, and then it was supercool to practice for that. And it was also really nice that- then you are appreciated. I was always struggling with social things, and the people in saxophone class they really admired me, and they told me that I was the best. Then you feel valued so you get a kind of positive trigger in your brain: if you play sax you are appreciated, that's how that happened. (Participant 30)

A final interesting point is made by Participant 37, who mentioned that a student's decision to invest in a certain topic in order to become better at it can be a conscious one: "This is gonna sound like I really up myself, but I was very good at everything in school, so, erm, so it was more about I suppose picking the thing that I *wanted* to be good at" (Participant 37).

Motivational factors.

Secondly, over 33% of the participants in this phase of the study indicated that motivational factors influenced the start of their interest in a certain subject or activity. Similarly to what I highlighted above with regards to the cognitive factors contributing to interest, the interaction between motivational factors and interest is a bidirectional one. Some participants explained that they became interested in a certain topic because of a pre-existing goal that they associated with the subject:

> I used to love chemistry erm and biology and Spanish. Chemistry and biology because I've always *always* wanted to be a doctor since the age of five […] When I was five a family friend

> for my birthday gave me this plastic doctor's kit and gave me the promise that when I was older I would be able to chop people's legs off, haha, but the idea of becoming a doctor really just stayed with me and I really enjoy the science side of it as well as the potential to help people if I get fully qualified. (Participant 38)

In contrast, other participants argued that they started developing goal orientations associated with the subjects long after they became interested in them:

> I think that came because I wanted to do physics, so I decided physics first and then decided yeah I wanna do physics as a career. (Participant 37)

As the above quotes demonstrate, goal-specific motivational factors can have a significant impact on a student's overall interest in a certain subject. Interestingly, however, although this motivational dimension concerns long-term plans rather than short-term goals, these goals can still have a certain amount of impact on a student's more short term, transient interest levels in the classroom, as explained by Participant 7:

> I do enjoy the classes but sometimes you don't sometimes you're having a day when it's still hard work and a struggle but knowing what you want to do in the future knowing you want to go into writing or publishing knowing this is what I need to do, have to get in order to progress to that level. (Participant 7)

It is worth noting that motivational elements might not impact the interest of all students equally: several of the participants indicated that their interests were not directly related to or influenced by any future plans or goal orientation, even though they were passionate about what they did:

> I think a lot of English is more about providing a platform upon a platform, giving you the stimulus to do something else. I don't know if in this instance I find the stuff I find interesting is directly related to my future. (Participant 20).

Affective factors.

Over 50% of the participants in this study indicated that affective factors influenced the start and maintenance of their interest in a certain topic. This means that affective elements are the second most frequently mentioned factor related to interest. Interestingly, for many of the participants, it proved difficult to define the exact nature of these affective elements. From the interview data, however, it is clear that these affective elements are related to positive affective experiences such as enjoyment. The experiences described by the participants are connected to a phenomenon that Dörnyei and Kubanyiova (2014) have called *transportable identities*, a type of personal identity that is relatively independent of the situation

> - that subsumes such fundamental features as one's sex, age, race as key components as well as other central personal characteristics that the individual transports from one situation to the other (e.g. art enthusiasm, conservative worldview, high-tech geek). (p. 110)

The following interview extract demonstrates the effect that affective factors can have on a person's interest and the difficulty participants can encounter when they try to explain this effect:

Participant 1:	I have a very art brain, so my interests were music related, art related or English related, possibly history. Whereas I know people who have a science brain are more interested in science or maths.
Interviewer:	What do you mean by an art brain?
Participant 1:	Like, of the arts, more inclined towards the arts, you know, like English, languages, music kind of that type of stuff [...] erm, stuff that I enjoy doing. I don't enjoy doing an equation more than I do reading a book.
Interviewer:	Do you know why that is?
Participant 1:	I don't know, maybe when I was younger, I've always been doing reading when I was young so maybe that just carried on, it's just what I prefer I think. I played the piano when I was young so maybe that helped with

> how I enjoy, and kind of the leisure activities that I enjoy link with more art stuff, I don't kind of really enjoy doing experiments in my own time I like to go to the theatre or to see a concert, and that's kind of linked I suppose or read a book

In contrast to the above example, when a certain subject does not link to anything the student enjoys or to which they can relate, there is likely to be little to no interest. An example of this negative interaction of affect and interest can be seen in the following interview extract:

> I was totally disinterested in stuff like chemistry. I just found them [humanities] far more relatable to like your life, personal experiences, whereas I didn't see any point in me studying chemistry, I didn't see any point to it, I didn't see what I would, obviously I would learn those you know the periodic table or the specific things but I wouldn't see how I could use it to further myself. (…) And in general, because my mind doesn't really work with numbers, stuff like that I just don't find them interesting. (Participant 3)

In addition to the clear divide between those academic subjects that connect to a student's transportable identity and those subjects that do not, there is also variation within a subject. The degree to which affective elements contribute to a student's interest for a certain topic can change dramatically over time. The following extract describes an occasion where a student's interest was no longer supported by affective factors after a change in topic:

> *Participant 35*: At the beginning [of secondary school] I found history mega-interesting, and I was quite good at it […]. In the final year, I didn't enjoy history at all anymore, I didn't care about it at all. We were constantly repeating World War 2 stuff, Vietnam. And in year one we got like ancient history, which I really enjoyed. That last bit, I didn't enjoy it at all, what do I care about the Golden Age?!
> *Interviewer*: Why didn't you?
> *Participant 35*: Well that last bit it is less long ago, and just lots of years and names to remember and lots of political structures, but I really enjoy digging things up and archaeology and stuff.

Interviewer: Why was that?

Participant 35: I don't know, I always wanted to be an archaeologist in primary school and in my first year.

Interviewer: What made you want to be an archaeologist?

Participant 35: At primary school, I really enjoyed history, digging sites, bog bodies, that kind of things. I always really enjoyed prehistory things back then, as in, that book, the bog witch,[1] it was super interesting to see how things were back then. And it was always like, for example, my great great grandfather he found two of those bog bodies,[2] I found that really interesting. And otherwise, I've always been interested in how people used to live, not necessarily prehistorically, but always like the Archeon,[3] that was fantastic. But with history, in the end, it was no longer how people lived, but just war and politics, and I didn't enjoy it at all.

In addition to the excerpt above, the rest of this interview further confirmed the impression that history was an integral part of this participant's transportable identity. Her family regularly visited museums and historical sites during holidays, and her grandfather, whom she greatly admired, was a history enthusiast who had several fossils displayed in his house and was an avid storyteller: "Most of grandpa's stories began with 'When I lived with the nomads five hundred years ago!'" (Participant 35). When she started attending secondary school, history as a subject — with its focus on early history and daily life — clearly tied in with this particular transportable identity. However, when the content started to diverge from this familiar domain, her initial interest did not continue. In her final year, this student failed the subject in her exams, scoring just 4½ out of 10.

[1] A book given to the participant at age 10, telling the story of a famous bog-body dug up in her region and displayed in the local museum.
[2] Two famous bog bodies from the Iron Age displayed in the same museum.
[3] A history-themed park where life through the ages is represented and re-enacted. She visited this park at age 11.

Contextual Factors.

The fourth set of factors contributing to the construction of interest in students is the context in which the learning takes place. The behaviour of the teacher, the dynamics of the group, and even the time of day are but a few of the relevant factors that participants brought up in their interviews. Over 45% of the participants attributed the development of their interest to one or several contextual variables. The following quote by Participant 16 highlights the teacher's impact on developing a student's interest, including the teacher's classroom management, their teaching methods, and even their tone of voice:

> I think when I judge if a class is interesting or not I will pay more attention to the lecturer. If the teacher has a very particular method of teaching I will pay more attention. Most of it depends on the teacher. [...] I think many parts can constitute to the teacher, like the accent, I'm really bored in one of my classes because the teacher's accent is so slow and no pitch and erm, so I can't pay my attention to him. And the second I think is the method. One of my teachers in the business course, his method is very new and interesting, and we should not pay attention more on the books he has his own methods so that's really interesting. He really has his own method of teaching and his class is really interesting. (Participant 16)

The following interview extract further demonstrates how various contextual factors, when they are sufficiently strong, can trigger the development of a whole new and previously unexplored interest for a student:

> Basically so I eh when I went to my secondary school I went into this sort of massive environment and I went into a new course I'd never really done before: art. I'd never really done it, I'd never really shown any interest in it, I wasn't, I wasn't very good at it. We go in and there are paintings on the wall that are unbelievable, they sort of caught my eye. So we had our first class and the teachers there were unbelievable: they'd look after you, they'd really focus on you on a one to one level they'd say "This is what you're doing wrong, improve this way", and they were just so inspiring you know, they'd say 'These are the artists of the past, learn from them' and they'd teach us and they'd really sort of inspire you to work. And I enjoyed that class

> because I felt like I really, like I wanted to do it because I enjoyed their company in a sort of like a very almost a friendly way. I wanted to go to the art room and I looked forward to it. Whereas going to another class where I was berated by another teacher you know it wasn't, it was "oh I've got to go to politics now" rather than "can't wait to get to art", so that was different I think. I think the way teachers interact with you I think is a really important thing. (Participant 19)

The importance of a positive and facilitating context for the short-term development and subsequent maintenance of interest comes through clearly in the data. However, the influence of the environment stretches further than the here and now of a particular classroom. Contextual factors can shape a student's interest beyond the scope of the direct classroom context, as demonstrated by the following example: "I had a maths teacher I didn't like so that affected it as well, and a physics teacher I didn't like, and that affected the, erm, past teachers I've had affected how I paid attention in future lessons" (Participant 7).

In addition to the influence of a teacher, various contextual factors can influence the development of a student's interest. These factors can manifest as anything from classroom dynamics — the way a task was presented and the enthusiasm of fellow students — to the set-up of the room, in either neat rows of three or in circles. An interesting spin on this issue is offered by Participant 22:

> And I think if you've got negative experiences in a certain environment that gets stuck in the back of your head, so when you're next in that environment you'll have those past experiences affecting how you think about it, for example, if I say I enjoy English, because I enjoy that subject, and let's say we move classroom, and we were in a science lab because of the experience I've had were negative in that environment before, they would make the English in that environment less enjoyable. I think your experiences- if you have negative experiences in a certain area or environment, I think that sticks in the back of your mind and will be relevant whenever you're back in that

> environment, so it's a kind of a contextual factor. (Participant 22).

Summary.

To summarise the results, the data collected in this second phase of the study revealed that the three factors earlier referred to as key parts of effective conglomerates — cognition, affect, and motivation — were all mentioned consistently as factors that could influence the participants' development of interest. These three factors frequently work in combination with one another and with the immediate learning context. The immediate learning context is the final factor that contributes to students' interest in a certain subjects or activities. The exact combination and relative importance of cognitive, affective, motivational, and contextual factors can differ from one learner to another. While some participants reported strong affective and motivational elements at the base of their interest, others indicated that contextual factors alone were sufficient to sustain it. Some participants mentioned the importance of all four factors at some point during the development of interest. It is important to note that not all of these forces need to be a part of the attractor basin for interest to develop as an attractor state. However, the more factors that work together, the more *momentum* a learner's interest is likely to have and the less likely it is to disappear completely when one of the factors diminishes in strength or is no longer present at all.

There are several ways to visualise these four forces in the attractor basin at work. One possibility is depicted in Figure 1: Context, affect, motivation and cognition are four separate forces moving in the attractor basin, pushing and pulling a student's state into a certain position within this attractor basin. Certain combinations of forces will then push the state into an attractor,

creating an attractor state such as interest, or boredom. The movements of one of the forces would most probably affect the movement of the other forces, so although they are depicted as relatively separate forces, they are not fully independent of one another. There is a mutual influence between these factors, as was also described by many participants in the study above.

A second potential visualisation of the four forces in the attractor basin is depicted in Figure 2. As it has been argued that we cannot treat context simply as a separate factor within Complex Dynamic Systems theory (Henry, 2014) this second visualization treats context as an ever present factor that influences cognitive, affective and motivational forces individually. In this conceptualisation, context is not simply a fourth factor, a background if you will, but an ever present force that permeates all elements that bring shape a learner's state. I would argue this second concept does more justice to the complexity that is the effect of context on a student's classroom experience.

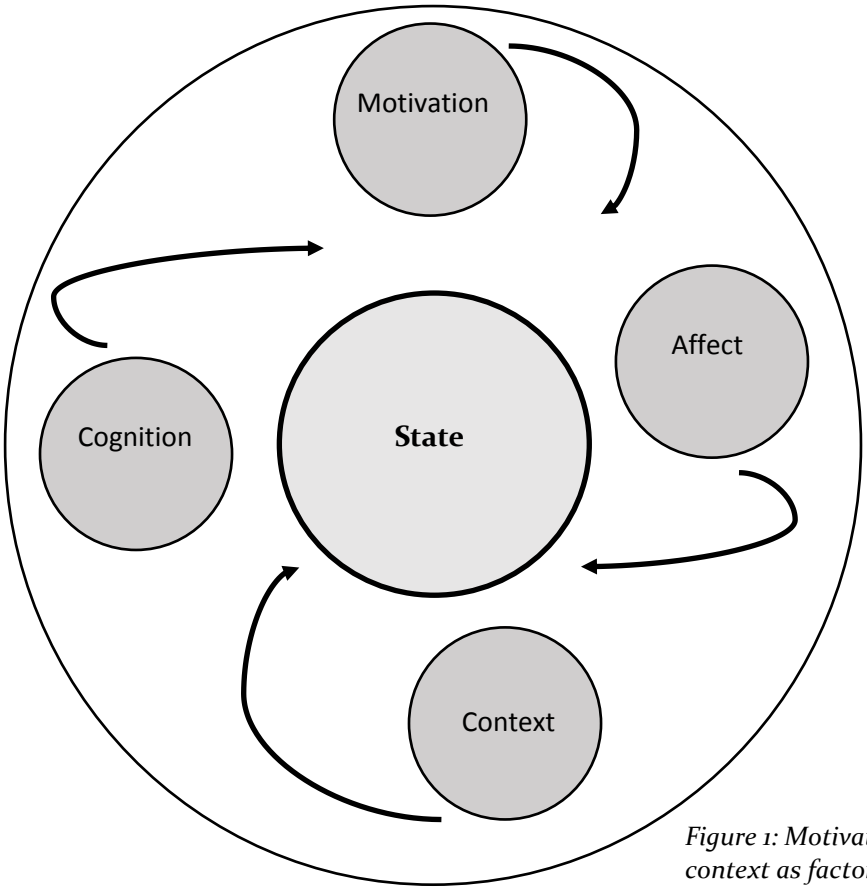


Figure 1: Motivation, affect, cognition and context as factors in an attractor basin

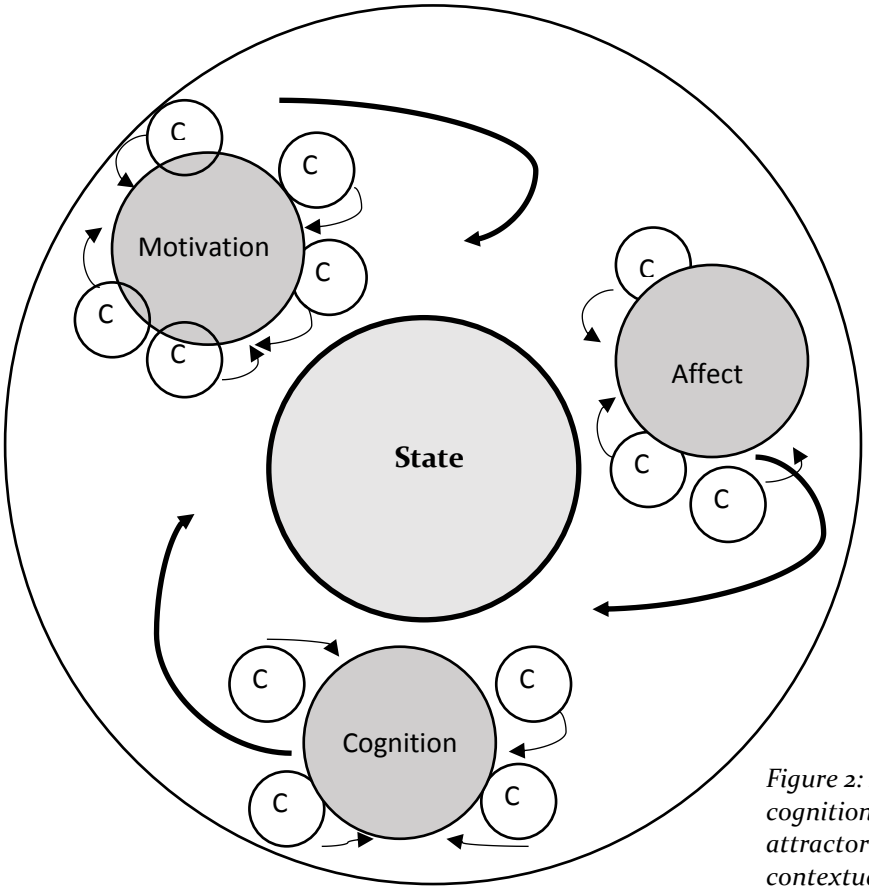


Figure 2: Motivation, affect and cognition as factors within an attractor basin, influenced by contextual factors

From the data, it seems that interest can be initially triggered by any of the four different forces. For example, Participant 30 indicated her interest in music had started after she discovered she was good at playing the saxophone, while Participant 19's interest in art was prompted by the positive context he encountered in art class. This initial factor is then often joined by other forces, such as, in the case of Participant 30, the decision to want to do a music degree, which thus added a motivational element to her interest development. Similarly, Participant 19 discovered that he was really good at art, thereby combining cognitive and contextual elements and leading to further strengthening of his interest in art as a school subject and activity.

4.5 Discussion and conclusion.

In this study, I have, first of all, demonstrated that something as seemingly multi-faceted and unpredictable as the learning experience can, in fact, be studied systematically using a relatively simple dynamic systems–based research design. By focusing on identifying attractor states that are expected to emerge in a self-organising system, I have narrowed down the variation in students' learning experiences to four main categories: interest, boredom, neutral attention, and anxiety. These conglomerate attractor states are frequently mentioned in the literature regarding educational psychology and SLA, although they have mostly been treated from an individual differences perspective, rather than a dynamic systems perspective.

The first research question posed in Chapter 1 of this thesis asked the following: *How do affect and motivation interact to influence learners' behaviour*

in a classroom situation? The results from this mixed methods study indicate that affect and motivation join forces with cognitive and contextual factors to construct a learner's conglomerate attractor state in the classroom. Depending on the interaction of the four factors, the learner's state will resolve into one of the aforementioned states — the attractor state, in CDST terminology.

Some learners report that they may alter between states, changing from one attractor state to another within a single lesson; this is indicative of variability on a short term time scale. However, there is also consistent data that points to the existence of relatively stable default states that would characterise certain subjects. This is reflected, for instance, in learners' comments on the fact that they were always interested in French, or that they were always really bored in English classes. This combination of stability and variability is a typical characteristic of a dynamic system, as I mentioned in Chapter 3.

The underlying attractor basin that causes the occurrence of a certain attractor state is a combination of cognitive, motivational, affective, and contextual elements. Although I have discussed these different factors separately throughout this chapter, an important finding that I highlighted in the analysis of learners' narratives above is the almost inseparable nature of cognition, motivation, affect, and context (see Ushioda, 2014). The various combinations of factors often surface together in the learners' accounts, supporting or undermining a student's interest by the way in which they interact with and reinforce one another, thereby making it difficult to separate their influence and pinpoint any straightforward causality. This finding is in accordance with the observations of other researchers who have emphasised the inseparability of emotion and cognition (for instance, Lewis, 2005; Swain,

2013), or of motivation, emotion, and cognition (for example, Dai & Sternberg, 2004).

The results of this study confirm the potential of a new way of bringing affect into the SLA equation, as suggested by Dörnyei (2009). Rather than studying the influence of emotions or moods on language learning in isolation, it would be promising to focus instead on the results of the interaction of affect with motivation, cognition, and context. Further study into the way in which these states come into being and, most importantly, what can be done by teachers and trainers alike to influence their growth and development offers a promising approach to the study of emotion and motivation in language learning environments.

Further research into the interaction of motivation, cognition, affect, and context might uncover attractor patterns in the learning experience in general and interest specifically. A potentially promising strand of research would be the situated longitudinal micro-mapping of different states within the learning environment (see, for instance, Nitta, 2013; Pawlak, 2012; Waninge, Dörnyei, & De Bot, 2014) as a means of analysing the variability of the learning experience, its relation to the context, and its implications for the overall learner experience on a larger time scale.

Regarding the second research question posed in the first chapter of this thesis — *how does the interaction of emotion and motivation differ for younger and older language learners* —one of the differences between older and younger learners might be the different types and relative strength of the different factors that are shape a student's conglomerate state. To younger learners, the different factors would not necessarily be identifiable as individual components; there would simply be the experience of the classroom state. For

these younger learners, it would therefore be much more difficult to explain or analyse their reasons for being positive about a certain school subject. Older learners, on the other hand, will have developed sufficient meta-cognitive awareness to be able to phenomenologically distinguish between the different forces that construct their classroom state for a certain subject.

Furthermore, the most important factor in the attractor basin for younger learners would likely be affective elements such as enjoyment and contextual elements such as the teacher and classroom tasks (see also Nikolov, 1999; Brumen, 2011). For older learners, however, the classroom states will likely be constructed differently than for the younger learners, with a more prominent role for motivational elements rather than the predominantly affect-based attractor basin that I would expect for younger learners.

In the following research chapter, I will focus on what could potentially change in a learner's conglomerate attractor state when the composition of the attractor basin changes. If a student's interest in French is mainly dependent on contextual elements such as the positive atmosphere in class, a pleasant teacher, or an enjoyment of the tasks, the learner would face a great challenge to keep their interest from disappearing if faced with a new, less favoured teacher or a negative change in classroom atmosphere. In the following chapter, I will focus on factors in the attractor basin that will ensure a positive conglomerate state can be maintained when one or multiple factors in the attractor basin are no longer supporting either neutral attention or interest.

Chapter 5. Study Into Self-Regulation

5.1 Introduction.

In the previous chapter, I discussed the interaction of affect and motivation in students' classroom experiences. I argued that affective and motivational elements interact with one another, as well as with cognitive and contextual factors that are present in the attractor basin. These factors can together construct a learner's *conglomerate attractor state* in the classroom.

Following this analysis of the construction of conglomerate states, questions arose concerning the longer term stability of such states. The main question centred on the potential disturbances to the attractor states when one or more of the aforementioned factors diminished or disappeared entirely. An event such as the arrival of a new teacher, for example, could alter the learning context to such an extent that the contextual factors would no longer support the attractor state. Similarly, a move towards a new and more difficult topic in maths class, or the addition of the subjunctive in Spanish, might cause a formerly confident student to feel out of their depth, removing an essential factor that contributed to their interest in the subject.

I initially began this second study as a pilot study into self-regulatory strategies that students might use to continue spending time and effort on a specific task, or on a target language in general, when their interest in that task diminished. The strategies elicited in this pilot study would then form the basis of a broader study into self-regulatory strategies and diminishing interest, a

practical continuation from the theoretical structure laid out by the first study, in Chapter 4. However, the interviews I conducted yielded only very few practical strategies. This was potentially due to the fact that the interview brief focused on motivation, and participants may therefore have been more likely to remember and discuss the underlying motivational elements of the strategies they applied. Furthermore, using relatively long semi-structured interviews may not have been the best choice of methodology for the original aim of the study.

Rather than discarding the data, I decided to change the focus of the analysis of the data from self-regulatory strategies to the participants' goals and goal-orientations relating to the target language. However, as the study did not start out with a focus on goal-orientation, the theoretical framework for this chapter is somewhat limited, especially in comparison to the extensive theoretical backgrounds provided for emotion theory and motivation in Chapters 2 and 3. This is particularly noticeable with regards to goal-orientation, a concept used frequently in this chapter, which has a much broader meaning than the one adopted in this chapter. Unfortunately, I have had to opt for a more limited definition of the concept than would have been the case if this study had been focused on goal-orientation from the very beginning.

In this chapter, I will focus on the changing contribution of different factors to a given learner's interest by analysing the stories of ten language learners. Some of these individuals decided to stop learning a language, while others managed to persist in continuing to learn their target language despite changes in their circumstances that affected the different elements supporting their interest. As several elements of self-regulation are essential for the interpretation of the results of this small-scale study, I will begin this chapter

with a brief summary of key themes in self-regulation, drawn from educational psychology and SLA literature.

5.2 Self-regulation.

Self-regulation has been described in a wide range of ways across many different fields of study (see Boekaerts, Pintrich, & Zeidner, 2005, for an overview), but at its very core, it is widely regarded a method of managing conflicting desires or motivations (Baumeister, 2016; Baumeister & Vohs, 2007; Macklem, 2008). When this principle is applied to learning situations, particularly to classroom settings, it is referred to as *self-regulated learning*, which has been described as a vital element of learners' success (Macklem, 2015; Pintrich, 2005), and very closely related to students' interest (Hidi & Ainley, 2008).

Self-regulation contains elements of cognitive, affective, and motivational regulation (Boekaerts, 2010). The first of these, cognitive elements of self-regulation, include target goal setting, metacognitive monitoring — such as selecting the right learning strategy — and comprehension monitoring. Historically, the emphasis within self-regulation research has focused on these cognitive elements of self-regulation, as argued by Boekaerts and colleagues (2005). This has led to a certain difficulty when it comes to distinguishing self-regulation from metacognition. *Metacognition*, a term that first began to gain momentum in the 1970s, is, in very basic terms, "thinking about thinking" (Keachie, 2005, p. xxiv). To phrase it more eloquently, metacognition is "the awareness individuals have of their personal resources in relation to the demands of a particular task, along with the knowledge they possess on how to

regulate their engagement in tasks to optimise goal related processes and outcomes" (Boekaerts et al., 2005, p. 752). Self-regulation, on the other hand, can be regarded as a "more comprehensive term, embracing both metacognitive knowledge and skills, as well as motivational, emotional, and behavioral monitoring and control processes" (Boekaerts et al., 2005, p. 752). Zimmerman similarly argued that important as metacognition may be, "self-regulation also depends on self-beliefs and affective reactions, such as doubts and fears" (2005, p. 14).

What such comments from Boekaerts and colleagues and Zimmerman made clear is that although cognitive elements are an essential part of self-regulation, they are not sufficient. Instead, there is a general consensus that not only are motivational processes vital to self-regulated learning, they should be included in models of self-regulation and achievement at all times (Pintrich, 2005; Pintrich & Zusho, 2007). Indeed, as Pintrich and Zusho made clear:

> From both empirical and anecdotal evidence, it is clear that knowing what strategies to use and knowing how to use them is not enough. Students must want to use them and must maintain that desire throughout the learning task. To use cognitive learning strategies effectively, students must be able to manage the amount and direction of their effort, must be motivated to engage in the task, and must be volitional in their use of strategies. (2007, p. 732)

Motivational beliefs, goal orientation, and effort regulation are recurring features in research into and theories regarding motivational self-regulation. Macklem (2015) described motivational regulation as the strategies used when learning, and argued that in this context, "motivational beliefs and attitudes must be turned into effort and persistence" (p. 65). Sansone similarly assigned a central role in self-regulation to willpower, arguing that "willpower, or the motivation to persist at something even when one is tired, bored, stressed, and

so on, is clearly an important attribute of successful self-regulation" (2008, p. 18).

Further to the cognitive and motivational elements of self-regulation, there are two central themes within self-regulation literature that are often seen as essential to self-regulation: *goal orientation* and *internalisation.*

5.2.1 Internalisation.

Internalisation concerns the degree to which the motivation for certain behaviour — such as studying for an exam, revising homework, or taking up a new language — is interpreted as coming from within the learners themselves. It focuses on *extrinsically motivated behaviour*, which was one of the phenomena at the core of a 2000 article on attribution theory from Ryan and Deci. The article covered "the continuum between amotivation and intrinsic motivation, varying in the extent to which their regulation is autonomous" (Ryan & Deci, 2000, p. 72). Connell and Ryan (1984) described internalisation as transforming extrinsic motivation "not into intrinsic motivation, but into what we refer to as different forms of self-regulation" (Connell & Ryan, 1984, p. 68). There are four self-regulatory styles: *extrinsic*, *introjected*, *identified*, and *integrated* (Connell & Ryan, 1984; Lichtinger & Kaplan, 2015; Ryan & Deci, 2000). The first of these, extrinsic self-regulation, is considered to be the earliest in terms of an individual's development of non-spontaneous behaviour. It is the least autonomous set of behaviours and is performed as the result of being demanded by an external source or — alternatively — in order to receive a reward. This external regulation is often experienced as the most alien, and it is the type of motivation that has been "typically contrasted with intrinsic motivation in early laboratory and field studies" (Ryan & Deci, 2000, p. 72). An

example of extrinsic self-regulation in a learning situation would be a learner behaving in a certain way, such as regularly preparing their homework for class, in order to gain approval or avoid disapproval from the teacher.

Introjected self-regulation is the next developmental step in self-regulation. It involves "taking in a regulation but not fully accepting it as one's own" (Deci & Ryan, 2000, p. 72). Connell and Ryan described it as being rather similar to external regulation, "except that now the approving and disapproving voice is in the child's skin, if you will, rather than in the external, interpersonal environment. It has been internalised" (1984, p. 69). In these cases, behaviours are performed in order to avoid guilt or anxiety or to attain pride and increase self-esteem (Deci & Ryan, 1995). An example of introjected self-regulation in a learning situation would be a student who puts effort into learning a new language because they feel like this is something that they ought to do.

Identification is the third developmental stage of self-regulation, in which the regulation that was previously experienced as external is now seen as in service of one's own values or goals and "not necessarily linked to another person's approval or to their own feelings of self-worth" (Connell & Ryan, 1984, p. 69). An example of identification as a self-regulatory style in a learning situation would be a student behaving in a certain way, such as putting effort into learning a certain language, because they know it is important for them to master this language.

The most autonomous form of extrinsic motivation is what Deci and Ryan called *integrated regulation*. As they explained, "integration occurs when identified regulations are fully assimilated to the self, which means they have been evaluated and brought into congruence with one's other values and needs" (Deci & Ryan, 2000, p. 72). An example of integrated self-regulation in a

learning situation would be a student who puts effort into learning a certain language because they would consider being fluent in this language a part of who they are as a person. Although integrated regulated behaviour is rather similar to behaviour prompted by intrinsic motivation, it is important to keep in mind that it is still considered extrinsic because the behaviour is performed in order to attain specific outcomes, rather than for the inherent enjoyment it brings.

5.2.2 Goal orientation.

In addition to the degree of internalisation, researchers have discussed at length the notion of *achievement goal theory* in self-regulation (Lichtinger & Kaplan, 2015; Miller & Brickman, 2004; Pintrich, 2005; Pintrich & Zusho, 2007). The core premise of achievement goal theory is the question of why an individual pursues something or engages with a task (Pintrich, 2005). Pintrich and Zusho (2007) described two broad categories within achievement goal theory. First of all, they described *target goals* or task-specific goals, which "represent the specific outcome the individual is attempting to accomplish" (p. 274). An example of a target goal in a learning situation might be a student wanting to score a first on an exam. The second category Pintrich and Zusho described is referred to as purpose goals or *goal orientations*. These are more general reasons as to why an individual might take on a certain task. An example of a goal orientation in a learning context would be the reason behind a student wanting to score a first on their exam. These general goals, or goal orientations, are the goals of key importance in the majority of achievement motivation research (see Pintrich & Zusho, 2007).

These goal orientations can be helpful for different time scales. Concrete and relatively short-term goals can be particularly useful for self-regulation. Bandura, for instance, argued that "people have to create for themselves proximal guides and self-motivators for courses of action that lead to distal attainments" (1986, p. 336). Miller and Brickman (2004), in contrast, described more long-term goals, which they referred to as *future goals:* these are higher order goal orientations that are fully integrated and "regulate behaviour through self-identification with the goals" (Miller & Brickman, 2004, p. 14). These future goals are similar to the *self-determined goals* proposed by Deci and Ryan (2000) and *possible selves* proposed by Markus and Nurius (1986). As Miller and Brickman stated,

> These goals include, but are not limited to, important personal aspirations such as getting an education, striving for a career or job, developing intimate personal relationships, and making a contribution to society. They are future-oriented in that successful performance on the current task does not, in itself, produce the desired consequence. In fact, some goals, such as becoming an educated person or making a contribution to society, may have open-ended futures in which the ultimate goals are never fully reached. Rather, they are continuous pursuits. (2004, p. 14)

Miller and Brickman further argued that students need to be able to connect a target goal, such as passing an exam or doing well on a project, to the their future goal, suggesting that "students are unlikely to pursue learning goals in contexts where the learning tasks are thought to be unrelated to attaining valued future goals" (2004, p. 19). In other words, the learner must be able to connect a short-term or target goal to a valued future goal or possible self in order for the student to consciously and effectively regulate their learning.

However, having such future goal orientations or possible selves is no guarantee of successful self-regulation. Future goals may be perceived by a

student as too far away or too general to regulate their learning behaviour successfully in the present. Miller and Brickman reiterated Bandura's message by pointing out that in order to effectively self-regulate, learners need to create smaller goals — sub-goals — that are not set as distantly in the future. Keeping a future goal active in the present is a vital element for successfully attaining a distant future goal (Miller & Brickman, 2014; Markus & Nurius, 1986; Markus & Ruvolo, 1989).

Finally, Sansone (2008) commented that although goal orientation and internalisation are important elements of self-regulated learning, successful self-regulation will always be a balancing act between goal orientation and experience-motivation. This is even more the case when it comes to goals that are not as fully internalised or personal as the future goals advocated by Miller and Brickman (2004).

> In conclusion, effective self-regulation involves the regulation of both goals defined and experience defined motivation. Willpower is important for maintaining motivation to perform important and valued activities. It is necessary, therefore, but may not be sufficient, particularly for activities that are maintained over the long term. Conversely, having an interest in what we do can be a powerful motivator, but even interesting activities can become boring over time and with repetition. (Sansone, 2008, p. 19)

To summarise, self-regulated learning concerns the regulation of will power, effort, and persistence in achieving both short-term tasks and long-term goals. Self-regulation depends on cognitive, motivational, and affective self-regulation processes, as well as the types and degree of internalisation of these goals that a student is trying to achieve. In the following study, I will analyse how these different elements contribute to the successful or unsuccessful self-regulation of ten language learners from various backgrounds.

5.3. Methodology.

This study consisted of ten semi-structured interviews with ten language learners ranging from 12 to 28 years old. The length of the interviews varied from 10 to 50 minutes, depending on the participants' answers to the following basic questions:

1. When did you start learning this language?
2. Why did you start learning this language?
3. What do you enjoy about learning this language?
4. Are there times you do not enjoy learning this language or do not feel motivated?
5. If this is the case, what do you do then?
6. Did you ever stop learning this language? Why?

I recruited participants for this second study through paper notices in and around a Russel Group university, church groups and local libraries. If participants indicated they knew more people who would potentially be interested in taking part in an interview, they were asked to pass on my details. In addition, I contacted several people I knew personally that had extensive experience in language learning. The average age of participants in this study was 22.4. Half of the participants was British, the other half was European. Similar to the first study, higher educated participants were overrepresented in this sample, all but one of the interviewees had either completed or started Higher Education, and the younger participant was on track to start university in a few years.

Interviews were digitally recorded and then transcribed. As I discussed above, the initial aim of this study was to elicit different self-regulatory strategies that learners would apply as part of their self-regulated learning. However, the participants in this study discussed very little information regarding this particular topic. When they were asked how they motivated

themselves or what techniques they would apply to continue studying, the answers tended to be “I just keep going” and “I simply make myself do my homework”.

Instead of the expected self-regulatory strategies, the data I gathered in these interviews highlighted the differences in motivational factors between both the participants and different languages within a participant. I entered all data relating to the participants’ background in a dedicated table, listing name, age, country of origin, first language, and information regarding the languages they had learned or were learning at the time. I constructed a time-line of their language learning journey: when they started with their first language, when they stopped, switched to or added another language, and where they hoped to use these languages at present or at a point later in life. Based on these tables and time-lines, I drew up a learner profile for each participant, which highlighted the effect of different degrees of internalisation and different types of goal orientation on the success of learners’ self-regulation. I then contacted the participants three years after the original interview had taken place to inquire if and how they had continued to study or use their target language. Over two-thirds of the participants replied to the request for additional information. A sample interview transcript is included in Appendix I.

5.4 Learning profiles and analysis.

5.4.1 Annelies.

Learner profile.

Annelies is a 14-year-old secondary school student from the Netherlands who is learning English, German, and French in school. English was her favourite language, as this was the language in which she was the most proficient. She recalled that her primary school used to have a really nice method for teaching English, which made her enjoy the classes, and therefore the language, a lot.

German and French were sometimes rather difficult for Annelies, but she liked the teachers and enjoyed being able to speak other languages. French was especially interesting to her, since no one in her family had mastered this language, and therefore speaking French made her unique in that respect.

She sometimes felt overwhelmed with all the homework and tests and did not always feel motivated to study at home. She tried to motivate herself by using online resources to assist with vocabulary learning and by giving herself regular breaks when she was doing her homework. Her main motivation for studying for all three languages was the fact that her homework was part of her lessons and she could get into trouble with teachers if she did not prepare for classes or receive lower grades if she did not study for tests.

Currently, almost three years after the original interview, English is still Annelies' favourite subject in school. She has taken up creative writing and is active within her online writers' community. As this takes place on an international forum, English is the shared language in her online creative writing community. She uses English almost daily in her writing and communication with followers and fellow writers.

Analysis.

Annelies' self-regulation at the time of the original interview can be seen as entirely external with regards to the internalisation of her motivation. Her motivation for studying stemmed mainly from the need to avoid negative consequences in class — and on her report card — if she did not prepare for classes. In terms of goal orientations, aside from the target goals of attaining good grades on tests, she seemed to be motivated specifically for French by a desire to be unique within her family.

After three years, Annelies' self-regulation style for English has shifted most significantly compared to the other two languages of French and German. For both German and French, her main motivation is still the enjoyment she gets from classes and the desire to have good grades. For English, however, Annelies has moved from a fully external self-regulation to an identification style of self-regulation, desiring to learn the language because it is important to her, as she uses it on a daily basis in her creative writing community.

5.4.2 Caroline.

Learner profile.

Caroline is a 21-year-old student of English and French at a British University. She studied French throughout secondary school and always wanted to learn the language, ever since she was very young. Her father taught her a few words when she was seven years old, after which French became their "secret language". Learning the language never came easily to her, and Caroline indicated that even at university she found it quite difficult and frustrating. Her

struggles with the language led to a dislike of French teachers and classes in school.

Despite her struggles with the language, Caroline continued to study French in school and later at university, as she really wanted to be able to speak a foreign language. She believed she did not really have any other talents, and that therefore possessing a skill like speaking another language would be very valuable to her in the future. Besides the personal value she placed on learning French, she indicated that being bilingual would make her more employable and that it would open up to her the possibility of working in journalism in France after she graduated.

Caroline continued to struggle with French in her modules at university. She missed the structure previously provided by the school environment; the shift to university meant that seminars and lectures were not always compulsory, and as a result she found she was less motivated to attend French classes, prepare work, or do the assigned reading for her classes. She wished she would study more, but mostly put effort into French just before exams. She hoped studying abroad in France would boost her motivation and allow her to practise her French conversation skills more extensively.

Currently, three years after the initial interview, Caroline is about to finish her degree in English and French. She says her time spent working and studying in France has been the highlight of her life so far. She continues to use French as much as possible after returning from her work experience abroad, including, for example, setting all her devices — such as her mobile phone and computer — to use French as the operating language.

Analysis.

Caroline's self-regulation has been mostly an identification style of self-regulation with some characteristics of introjected regulation. Learning French was something she wanted for herself, as it would give her a clear advantage in terms of employment. In addition to this, the introjected regulation stemmed from her feelings about not having many talents, and thus feeling the need to speak a foreign language in order to stand out. Her goal of potentially working in France, combined with the personal value she attached to the language and its association with her father, would further help her to self-regulate her learning efforts.

It is very likely that the strong goal orientation and the level of internalisation of her motivation are the only reasons Caroline did not stop learning French over the years. Learning the language has never come easily to her and she did not enjoy her French lessons in secondary school, and she has said she struggled to make progress at university due to the lack of pressure from teachers or mandatory seminars.

5.4.3 Ellie.

Learner profile.

Ellie is a 24-year-old graduate of History and German at a British university. She studied German in school at both GCSE and A-level. She combined history and German at university because she felt it would make her more employable if she was fluent in both English and German when she graduated. In addition to this, she stated that the entry requirements for her course of choice (history) were more flexible if applicants applied for a combined history and language degree.

Ellie described her first German teacher as very motivating and an excellent teacher. Although she really enjoyed the content of the language classes in school and loved the language itself, learning German grammar — especially the dreaded cases — was very frustrating and difficult to master. She kept herself motivated by focusing on the noticeable progress she made and seeking the help of a German family friend who was keen to tutor her and help her to practise her speaking and grammar skills.

Towards the end of her studies at university, Ellie's motivation centred on wanting to be fluent in German by the end of her degree, coupled with the realisation that she wanted to get the most out of her expensive degree as she could. If she struggled to get started on assignments, she sought out other students from her course to work together or promised herself rewards for completing an assignment. Ellie also observed the differences in the ways in which students are motivated in school compared to at university:

> In school teachers would have to make the lessons interesting using songs and games and role-plays you know, because not everyone is going to be interested. At university, it is more about self-motivation. Students want to be there for other reasons than the lessons being nice or enjoyable. (Ellie)

Currently, three years after the initial interview, Ellie is studying for a PhD at the same university. She does not use German frequently in her everyday life, although she is currently studying Latin to help with her PhD studies. She did, however, visit Germany on holiday for the past few years, and is still relatively fluent.

Analysis.

Ellie's style of self-regulation would, like Caroline's, be an example of an identification style. Her motivation for studying German, first at school and

later at university, was not solely externally driven. Learning German was, in terms of goal orientation, a means to an end, something that would make her more employable and help her studies further. Her study of Latin is similar in this respect, as it is a language that will be useful for her PhD thesis.

5.4.4 James.

Learner profile.

James is a 28-year-old student of Spanish and French at a British university. He hoped to become a language teacher after completing his final modules. James had previously studied French at school, even though he indicated he was never very interested in the language before his GCSE years. He became interested in French after he visited France on a family holiday and made several French friends. It was then that he realised what it would mean if he were able to speak the language. French soon became his favourite subject, and James spent about 40% of his time outside of school studying the language. He sought out French magazines and used dictionaries to "unlock" the articles he tried to read. James' interest in Spanish similarly started after his parents bought a house in Spain. When he realised he could not communicate with the local community, he started learning Spanish at home after school with the help of books, magazines, verb drills, and translations.

When James started his university studies in both French and Spanish, he immediately noticed an element of "work" about it that had not been there during his self-studies. He suddenly had to push himself more to complete tasks that he found less interesting or difficult. He described the assignments and reading materials as a means to an end, neither boring nor interesting. He

continued studying more advanced modules and did not stop learning either language.

Besides studying French and Spanish, James also took up a module of Mandarin at university. However, he stopped learning this language quite quickly following this one module, as he found it very difficult and was not particularly interested or motivated to learn Mandarin:

> It's just I was never really trying for that, I was working at the same time and I was just doing the assignments, I was never actually really trying how to learn it, I was just doing the assignments, just for the sake of getting the credits. So I never really learned Mandarin at all. (James)

Currently, three years after the original interview, James is working for a hotel in the UK where he is using his languages more than ever. He has continued to study both Spanish and French to advanced degree level and has started to learn several other foreign languages. At present, he speaks Italian, Portuguese, and German at intermediate level and has just begun to learn Dutch. Spanish is still his favourite language, and it is the language in which he is by far the most fluent.

Analysis.

For both French and Spanish, James started out with an identification style of self-regulation, as there was little to no external pressure for him to study either language. He wanted to study these languages in order to expand his horizons and communicate with more people when he was travelling. Three years later, this has shifted to integrated self-regulation: speaking and learning foreign languages is now part of who James is. It has become second nature to him. It is interesting to see how this differs from his self-regulation and goal orientation with regards to Mandarin. He started learning this language to gain extra

credits for his degree, which would be a characteristic of fully external self-regulation. Furthermore, he did not have any specific goals associated with this specific language and never had the intention of mastering the language beyond passing his exams. When James finished the one module, he never took up Mandarin again. The difference in James' success in Mandarin, on the one hand, and French and Spanish, on the other, demonstrates the importance of a sufficient degree of internalisation of motivation and a relevant and salient goal.

5.4.5 Emma.

Learner profile.

Emma is a 21-year-old student of Korean and Business at a British university. She started studying the language at 16 after becoming interested in a Korean pop group through a friend from Korea. She began self-studying with books bought online, in combination with listening to Korean pop music. However, self-study soon became frustrating due to a perceived lack of progress and the ineffectiveness of what she described as "playing around listening to music".

Around the same time, Emma finished her French exams at GCSE level. As French was a subject that she quite enjoyed, she wanted to continue with it at A-level. She added that having any language at A-level would make her more employable in the future. However, in the new academic year, Emma clashed horribly with her new French teacher. As a result, she became frustrated with the language, lost all interest, and dropped French as a subject in school. Instead, she tried to find a tutor to help her with her Korean studies. When this proved difficult, Emma chose to start learning Mandarin at a nearby language school, so that she would have at least one foreign language on her CV when

she came to apply to business courses after graduation. Mandarin, however, was difficult and frustrating for Emma, so she decided to attend a summer school in Beijing to boost her motivation. Unfortunately, she still felt frustrated and overwhelmed by the language throughout the summer school. When she then received news from her Korean friend informing her that they had found her a Korean tutor, she decided to stop learning Mandarin after the summer and focus on Korean only.

Working with her new tutor gave Emma the structure she needed, and she looked forward to their weekly sessions. Although this initial enthusiasm faded after a while and her homework became a chore, she continued to learn the language. When she felt frustrated by her lack of progress, she joined a local Korean church to practice the language and learn more about Korean culture, which she described as being incredibly difficult and frustrating at times. This time, however, she channelled this frustration into more studying and practising. She applied for courses in Korean and Business at university level and hoped that in the future she would be able to live in Korea for an extended period of time.

When Emma was asked about dips in motivation or enjoyment, she argued that this was unavoidable in any learning situation:

> I do have to push myself to do anything at home that is school related or uni related, but it is something that I do want to learn and that I like to do. I enjoy doing it. So of course when I sit down with my translation to do and it's three pages, I feel dreadful after two paragraphs and I'm on Facebook and then go back to it. But, it is enjoyable to me, I don't hate it. I don't have this feeling that 'oh god I have to do this' like I have with other subjects, like I've had with other subjects [...] Even if it's something you love, there's times you wish you were still in bed, everyone has those days and I do not apologise for having them. (Emma)

Currently, three years after the original interview, Emma lives in Seoul, South Korea. She works as an English language preschool teacher and is active at a local dance academy. She continued to learn Korean actively until she graduated a few months ago and has since taken a break from studying. She uses Korean regularly in her daily life and has become the unofficial translator for her dance academy, providing simultaneous translation for reporters or international students and written translation of any international emails or press releases about the school.

> It has inspired me to want to improve my Korean writing, so I'm sneaking copies of the spelling test prep sheets home from work, and using a textbook by myself. I'm thinking about switching to translation and looking into what qualifications I would need to work here. (Emma)

Analysis.

Emma's Korean language learning is an example of an integrated style of self-regulation. Learning Korean became part of her identity quite early on in the learning process. She started studying the language out of an interest in Korean culture. She could imagine herself living in Korea, and as a result she sought out a Korean environment in her daily life. Her goal orientation could be described as a future goal, as mastering Korean became part of her imagined future.

In contrast, Emma's self-regulation for French seemed to be supported only by the enjoyment she experienced from the learning experience itself, in combination with the perceived need to study any foreign language in order to improve her chances of being accepted into business courses at university. When the learning context changed and her enjoyment of learning the language in school decreased significantly as a consequence, she stopped studying the language. She then started learning Mandarin, but only because she was not able to find a suitable Korean tutor. For Mandarin, her self-

regulation depended solely on the need to study any foreign language in order to be more successful in university applications. When learning the language proved frustrating and the opportunity to study Korean presented itself, Emma immediately stopped learning Mandarin. This, much like James' profile above, again demonstrates the importance of sufficient internalisation of students' motivation and a relevant goals — or even a future goal — for successful self-regulation in the face of decreased enjoyment or interest in the language learning process.

5.4.6 Nina.

Learner profile.

Nina is a 21-year-old Polish student of Russian at a British university. She started learning Russian in school three years prior to attending university. Initially, she studied both Russian and French, but due to a scheduling error, she had to give up one of the languages. She continued Russian instead of French, as she loved the language very much. Nina enjoyed learning languages, as it was the one thing she had always been very good at when she was younger; she learned English very quickly when she was a child and loved reading and writing. She took up creative writing and joined a mostly online creative writing community in which Russian culture and history played a central part, which led to her interest in Russian in school.

When Nina took Russian in school she did not do well in classes and exams, as she was very anxious around her Russian teacher:

> So reading I was good at but every time I would speak I would get terrified, start shaking, couldn't find the word, I wasn't able to stand up and speak because my legs were shaking so badly, that was really surprising, because in particular me, I don't get stressed. (Nina)

After one year of unsuccessful Russian language classes at school, Nina decided that she was determined to learn the language one way or another and consequently took action in order to achieve this goal. She started attending Russian lessons at a local language school in addition to her regular classes at school. When exams neared, her school teacher discouraged her from taking an extra exam by suggesting that she might not pass. Nina took a mock exam at the language school and surprised everyone — including herself — by receiving a top mark. This made her realise that she could receive a similar result on her school exam, which was one of the conditions for entrance into a UK university. In order to prepare for this exam, she spent the summer with her grandmother, a retired Russian teacher:

> So during that time I went to my grandmother and went to her every day and we studied Russian for six hours at the time, to get me prepared for that exam. Which was... that was kinda intense, I hated Russian then. (Nina)

Nina continued to study intensely for her exams and, as a result, graduated top of her class and subsequently applied to study abroad. At the time of the original interview, she was training to become a simultaneous translator.

Nina indicated that she did and still does get bored in class sometimes. She tried to keep engaged by working ahead, circling difficult words, and preparing questions. She did not mind studying independently for Russian, although this had been a problem for other school subjects in the past. She attributed this to the fact she could see herself progressing significantly.

Currently, three years after the initial interview, Nina is looking to finish her studies with a first class degree. She has participated in an exchange programme in New Zealand and has spent a year abroad in Russia. She has also

taken up both French and Serbian in the past two years and hopes to continue on a Master's degree in Conference Interpreting and Translation at a UK university.

Analysis.

Nina shows characteristics of different self-regulatory styles with regards to learning Russian. The language was personally important to her as it was part of her creative writing community, much the same as English was for Annelies. Furthermore, learning languages was something she enjoyed and had always been good at, which would suggest an integrated style of self-regulation in which learning languages and using Russian was something that was part of her identity. When she found out she could potentially do well in her Russian exam she also had a very specific goal to work towards: entry into a UK university.

As Nina did not enjoy lessons or perform well in Russian as a school subject, it is very likely that she would have stopped learning the language earlier if she had not internalised her motivation for learning Russian. Instead, she decided to attend extra classes in a different learning environment in order to make more progress. Similarly, without the specific goal of attending a university abroad, she might not have persisted with her rigorous exam preparations, as she reported hating Russian at times during these preparations.

5.4.7 Ines.

Learner profile.

Ines is a 23-year-old dentist from Spain. She moved to the Netherlands three months before the initial interview and would soon start working as a dentist in

Rotterdam. She was learning Dutch both by self-study and with the help of a language tutor at a local polytechnic. She had also started working part-time as a dentist's assistant in a Dutch clinic. Nina spent approximately eight hours per day studying Dutch and was very keen to master the language in order to communicate with her clients. When she was asked if she was ever frustrated or bored while learning Dutch, she indicated that this had not happened yet. She had received very positive feedback from both her clients at the dentist practice and her language tutor and was looking forward to practising as an independent dentist as soon as she was fluent in Dutch.

Currently, three years after the initial interview, Ines still lives in Rotterdam. She continued to take Dutch conversation lessons until a few months ago, when the lessons only stopped because Ines no longer had the time for private lessons. She works full time as a dentist in a local practice and lives with her Dutch partner. Her Dutch has improved significantly, but writing is still a challenge. She continues to improve daily as she works in a fully Dutch-language environment.

Analysis.

By moving to a different country and needing to speak the language to practice her profession, Ines made learning Dutch a significant future goal, as mastering the language influenced essentially every element of her life. She has moved towards integrated self-regulation over the years, in which learning Dutch has become something she does by default as the language has become an integral part of both her family life and professional life.

5.4.8 Emily.

Learner profile.

Emily is a 19-year-old French student of English at a French university. At the time of the initial interview, she was studying English, Tamil, and Italian. She started learning English when she was eleven years old. At the time it was her favourite school subject; she found the lessons engaging and could clearly see the usefulness of the language in her everyday life. In addition to learning the language in school, she would ask her parents for more English books and listen to English music in her free time. Beginning when she was fourteen, her goal was to become an English teacher at a French school in India. Unfortunately, she lost some of her enthusiasm for English in school during her final year, when her English teacher was less engaging and "worse than the previous ones by far". However, Emily still wanted to learn the language due to its importance as a world language and its value to her future career. In addition to studying English in school, she started spending more time on learning English outside of school and even attended a language summer school in London to improve her speaking skills.

During her time in secondary school, Emily also took up studying Tamil to prepare for a volunteer project in India. She studied the language for two years at a local language school prior to her two month long visits to India, where she worked in an orphanage and used Tamil to communicate with the children. She loved learning to read and write in a new alphabet and learning the new sounds of Tamil. Initially, she worried about the speed of the classes and asked the teacher for some extra guidance. On her first visit to India, Emily had some trouble adapting from written to spoken Tamil, which caused her to become frustrated and upset at the difficulties this caused in her

communication with the children. She studied in the evenings to understand the difference between written and spoken Tamil, and once she mastered this communication became much easier. At the time of the interview, she was still in touch with her friends and teachers from India and had a language book to try and maintain her Tamil skills. However, Emily had to give up studying Tamil when she started her English degree due to time constraints. If she ever planned another trip to India, she would immediately take up the language again.

Emily was also taking an extra module in Italian at university. She started learning Italian in the final year of secondary school. At the time she had just lost most of her enjoyment in English class, and Italian was available as another language at school. She loved the sound of the language but had no plans to visit Italy. She explained that she had *a thing for languages*, and always wanted to understand as many as possible, ever since her parents used to use a second language as a code language between the two of them. She was aiming to be fluent in seven languages in her lifetime and saw learning a language as a way to learn more about people and culture.

Unfortunately, I was unable to contact Emily more recently. As such I cannot present more recent data on her language development and persistence in learning Tamil, English, or Italian.

Analysis.

As Emily very clearly stated, language learning was an important part of her identity, which would indicate an integrated style of self-regulation. She wanted to learn as many languages as possible, which was a goal in itself rather than a desire to speak those languages for a specific purpose. However, her desire to

learn Tamil was clearly fuelled by a more specific goal: to communicate with a specific group of people during her work as a volunteer in India. Similarly, her desire to learn English stemmed from her future goal of becoming a teacher of English in an international school. Without either this goal or the degree of internalisation she described for language learning in general, Emily might not have continued her English studies as enthusiastically as she did when English as a school subject lost its appeal in her final year.

5.4.9 Tom.

Learner profile.

At the time of the initial interview, Tom, a 25-year-old student from the UK, had recently been learning both Mandarin and German. He started learning German in order to be able to communicate with his father-in-law's partner, who was German and lived in Berlin. He studied the language on his own with the help of course books from the library and language learning apps such as DuoLingo. He started learning when he and his partner booked a trip to Berlin.

After their family visit to Germany, Tom started planning a research trip to China for his work. He took up a Mandarin course for one evening a week and put German on hold while he focused on Mandarin. He did not particularly enjoy the classes, as there was a lot of repetition within and between the lessons. In addition to this, he did not have enough time to study the assigned vocabulary outside of the classes, which caused him to fall behind. He stopped learning Mandarin after attending the course for only a few months.

When he stopped learning Mandarin, Tom did not start learning German again, as there was no obvious reason or outside pressure at all to

continue studying it. Tom explained how it is much harder to learn a language if there is no pressure in the form of a requirement to speak the language:

> It was easier to motivate myself to learn German when I knew there was this definite time I would need to use it, in Germany. Same goes for Mandarin really, as soon as this research visit is planned if we get the funding for it I will definitely pick up the Mandarin course again. (Tom)

Tom added he felt somewhat guilty for not knowing more languages generally. He felt as though he ought to be fluent in at least one foreign language, given that he works on bilingualism professionally. German and Mandarin were the two languages he would have liked to learn. On the one hand, he explained that he would not necessarily want to learn these because of their usefulness, but for the idea of speaking another language and being able to speak in the relevant language when visiting other countries. However, on the other hand, Tom indicated his main problem with motivation for learning another language was the lack of a clearly defined reason to speak any language other than English:

> It's just hard to have a reason to speak a foreign language because everyone speaks English. Like there's no justification for having to speak the language other than wanting to be polite. (Tom)

Currently, three years after the original interview, Tom has not tried to learning Mandarin again and, since stopping his studies three years ago, has never again used the language. He visits his partner's parents in Berlin every Easter and says he tries to re-learn German between January and March each year, "which means I never really get any further as all I'm doing is revisiting old ground" (Tom).

Analysis.

Tom's self-regulation style for learning languages, in general, could be described as introjected regulation: he feels he ought to speak a foreign language, even though he does not see a direct need for it, being a native speaker of English. Even when he has a specific goal for learning German and later Mandarin, this is not sufficient to sustain his efforts, as he still perceives learning another language as a polite addition to a visit abroad rather than a necessity for him personally. This lack of a well-developed goal orientation or future goal and the marginal degree of internalisation of his motivation are likely the main reasons Tom did not continue his studies of either language when he was faced with slow progress or problems with time management.

5.4.10 Wendy.

Learner profile.

Wendy is a 28-year-old teacher of Dutch for adult learners in The Hague. She started learning Spanish when she attended a language school in Salamanca for a few months after she finished secondary school. She fell in love with the language and started studying French and Spanish at a Dutch university, where she was introduced to Spanish music and cinema. She had no specific career plan in mind, only that it would somehow have to involve Spanish.

She never got bored of learning the language, although she did often worry about her Spanish not being proficient enough and was frustrated when she could not see herself progressing. She made sure to study harder to ensure she was at the right level. Towards the end of her bachelor's degree, she struggled to write her thesis in Spanish. Fortunately, it was relatively easy to motivate herself because she was very interested in her thesis topic, which was

related to Spanish music and dance. If she had difficulties getting started on an assignment, she would arrange to meet up with her study friends and would make sure that she set herself feasible short-term goals. During her degree, Wendy spent one semester in Spain and a year in Mexico to improve her fluency and immerse herself in the different cultures.

She did not really master French, her secondary language during her course. She attributed this to the low frequency of the classes: there were only a couple of hours of French class each week, which mean that even though she enjoyed the lessons, there were not enough of them for her to make significant progress.

Since finishing her degree, Wendy has worked in Cuba, Switzerland, and the Netherlands as a teacher of Dutch as a second language to Spanish speakers.

Analysis.

Wendy started learning Spanish as she enjoyed and admired the culture she had experienced in Spain. Spanish became an important part of her life after her initial introduction to the language, and although she did not have a specific goal she wanted to reach, she knew she wanted to use Spanish somehow. All of this indicates an integrated style of self-regulation. She did not have the same degree of internalisation for French, which, combined with the limited number of contact hours, explains why she never became fully fluent in this language, even though she enjoyed learning the language itself.

5.5 Discussion.

In this study, I looked at the changing contribution of different factors to learners' interest in language learning. I have analysed the stories of ten language learners, some of which were successful and others which were less so. From the data presented above, it is clear that changes in affective, motivational, cognitive, and contextual factors can influence a student's conglomerate state. This can lead to a loss of interest and potentially cause a student to stop learning their target language. Several language learners, like Emily and Ellie, explained how a change in teacher influenced their interest in a language, while from Nina's experience in learning Russian it is clear that a perceived lack of aptitude can be problematic for a student's interest in their target language. Furthermore, with the exception of only one individual, all participants indicated that, regardless of their strong interest in the language at hand, there were times that learning the language became a chore.

In all of the analyses that I have presented above there are two frequently recurring themes. These themes determine a student's ability to successfully self-regulate and invest time and effort in their target language. The above analyses emphasise, first of all, the importance of a clear and tangible goal orientation or future goal and, secondly, a significant degree of internalisation of the student's motivation. Without these motivational factors, students are less likely to effectively self-regulate their learning or maintain a positive conglomerate state such as interest.

These findings, as presented above, provide further insight into the answer to the first research question, as stated in Chapter 1: *How do affect and motivation interact to influence learners' behaviour in a classroom situation?*

This chapter indicates that for a positive attractor state such as interest to be constructed, it is essential that the student experiences the right combination of affective, motivational, cognitive, and contextual elements in the attractor basin. Although the optimal combination of factors can differ by learner and language, one of the key findings from this chapter concerns the interaction of motivational, contextual, and affective factors. When a positive contextual element — such as a pleasant group atmosphere or a good teacher — is absent from the start of the learning process or disappears partway through, it is essential that there is a strong motivational element present in the attractor basin to maintain a positive conglomerate state such as interest. If this element is sufficiently robust (for example, when a motivational element or goal orientation is sufficiently internalised, or when it is particularly relevant for the individual), then it is still possible to maintain a positive state regarding the subject, even when other factors are no longer able to contribute to a learner's interest.

These motivational elements truly make a difference in students' language learning by enabling conscious self-regulation. All but one of the participants interviewed for this study indicated that there was a point in the learning process at which learning their target language was not simply enjoyable in itself. They described how they needed to "make themselves do the work" by providing themselves with rewards for completing a task or by seeking out ways to make learning easier or more enjoyable, such as consulting relevant books or using online tools. This process requires conscious self-regulation in order to invest effort into a language, despite not enjoying the tasks or in fact enjoying the learning of the language itself.

For a language learner to consciously self-regulate — ranging from finishing their homework to making the decision to continue studying a language — the student would need to be able to analyse their reasons for doing so. They would need to "pick apart" their conglomerate state and analyse their reasons for wishing to continue learning the language. As I speculated in Chapter 4, this would be much less likely to be possible for younger learners, as compared to the older learners, although for the latter this should not be much easier. If a student's state is an indistinguishable single experience of "I like Spanish" for younger language learners, then it would follow that they would be less capable of analysing their reasons for continuing to learn a certain language beyond general affective and contextual elements such as "I like the games in class" or "I like the teacher" (see Nikolov, 1999).

With this in mind, we can speculate with regards to the answer to the second research question posed at the beginning of this thesis: *How does the interaction of emotion and motivation differ for younger and older language learners?* Using the results from the initial study into conglomerate states and the above study to theorise, it would seem that the composition of the conglomerate states is potentially different for younger and older learners, with the younger learners relying more on affective and contextual factors for a positive learning experience state while being relatively unaware of the different elements interacting to form this state. Older learners, however, would be able to rely on motivational elements in the construction of their states in addition to affective and contextual factors. For older learners, this will then likely allow for successful self-regulation, even if there are little to no affective or contextual elements supporting a student's conglomerate state. Whether this self-regulation is successful would then depend on the type of goal orientation that

forms the majority of the motivational factors and the degree to which this motivation has been internalised.

In the following chapter, I will focus on these differences between older and younger learners by considering two groups studying English as a foreign language in the Netherlands. This next study will focus on the type of factors mentioned by participants of both age categories and on the degree of internalisation of motivational factors by means of an analysis of explicit and implicit attitudes of both groups towards English as a school subject.

Chapter 6. Implicit and Explicit Attitudes Towards English

6.1 Introduction.

As I mentioned in Chapter 5, in this chapter I will focus on my second research question, which I originally posed in Chapter 1 of this thesis: *How does the interaction of emotion and motivation differ for younger and older language learners?*

The research report in this chapter will be preceded by a dedicated literature review in which I identify existing research into implicit attitudes. The main study addressed in this chapter compares two groups of learners, one at the start of their English language education in primary school and one nearing the final years of formal English language education in secondary school. I will discuss the implicit and explicit attitudes of both groups in the study and analyse how these two attitudes relate to one another within the two groups. I will then consider what this might mean in light of the preceding chapters, particularly examining how this research fits in with the suggested framework of conglomerate states in the learning experience, as discussed in Chapter 4, as well as the importance of goal orientations and internalisation highlighted in Chapter 5.

6.2 Implicit attitudes: An overview of the literature.

In researching motivation — a field in which introspection, interviews, and questionnaires are a researcher's most prominent methods of gathering information — there is no choice but to trust the participants to relay their "real" thoughts, attitudes, and ideas regarding the topic at hand. The issue of socially desirable answers is not a new one and has been discussed at length (see Dörnyei, 2007, 2010), and there are interview techniques and questionnaire structures available that are typically applied to remedy the possible untruths in participants' data. However, these solutions operate on the assumption that when reporting on attitudes and motivation, people know their own minds, inside and out. However, this is not necessarily the case: as Ryan and Legate stated in their concluding comments to their 2012 motivation anthology, there is a consistent call for

> more study on the distinctions and relations between automatic, or implicit, and deliberative, or explicit, goals. The fact that this interest emerged in so many papers reflects motivation researchers' renewed interest in nonconscious processes and the motivated behaviour they can organize. (p. 563)

The unconscious element of human motivation is one that can contribute greatly to our understanding of the development of interest and other states discussed above. In their recent book *Blind Spot*, Banaji and Greenwald (2013) explore this notion, arguing there are limits to our conscious knowledge and suggesting that the degree of control people have over their associations is more limited than we would assume. Over the years Greenwald, Banaji, and colleagues have introduced several new techniques to assess attitudes and associations, arguing that "as psychologists have come to grips with the limits of the mind, there has been an increased interest in measuring aspects of

thinking and feeling that may not be easily accessed or available to consciousness" (Banaji & Greenwald, 2013, p. xiv).

One of the tests developed for measuring these aspects that has been particularly prevalent has been the Implicit Attitude Test, or the IAT. This is a test first developed in 1998 by Greenwald, McGhee, and Schwartz (1998). It operates on the assumption that the relative strength of a person's implicit associations will result in a relatively faster reaction time when they are performing a timed sorting task. This chapter's brief literature review will explain the theoretical background of the IAT, the main components of an IAT, and some of the controversy surrounding its use.

6.2.1 Implicit and explicit attitudes explained.

The arguments proposed by the developers of the IAT rest on the assumption that, when discussing human behaviour and decision making, researchers ought to be aware that there is more at work than explicit thought processes. I have already referred to this element of consciousness in the earlier chapter in this thesis on emotion (see Chapter 2). In this earlier discussion, I highlighted the idea that there are elements of emotion that are not necessarily consciously experienced. Several researchers have discussed the difference between explicitly experienced emotions and automatic instinctive reaction emotions, of which someone is not necessarily conscious (Ainley, 2007; Izard, 2011; Scherer, 1995, 2002). There has been a similar ongoing discussion in the field of attitude research, in which several models for the explicit/implicit or conscious/unconscious dichotomy have been proposed (see Bargh, 2007, and Al-Hoorie, 2014).

One of the earliest sources referenced by Nosek, Greenwald, and Banaji (2007) was Simon (1955), who suggested that human behaviour and decision making are based on more than just rational thought. He stated that "psychologists have certainly been concerned with rational behaviour, particularly in their interest in learning phenomena" (Simon, 1955, p. 99) and further argued that "recent developments in economic and particularly in the theory of the business firm have raised great doubts as to whether this schematized model of the economic man provides a suitable foundation on which to erect a theory" (p. 99). In other words, according to Simon, rational (explicit) thought is not the sole driving force behind human behaviours such as learning and decision making.

In a similar vein, Nisbett and Wilson argued in their 1977 publication that there may be limited direct introspective access to higher order cognitive processes. Subjects can be unaware of a stimulus that influenced their response; unaware the response even exists; or unaware that the stimulus influenced the response. Nisbett and Wilson suggested that there is evidence that "we may have no direct access to higher order mental processes such as those involved in evaluation, judgment, problem-solving and the initiation of behaviour" (1977, p. 231).

Based on these arguments, which refer specifically to the unconscious part of our decision making process, we can make a distinction between explicit and implicit thoughts and attitudes. Research into the domain of Implicit Social Cognition defines attitudes based on the type of cognitive processes involved in their formation: implicit attitudes are defined as a person's automatic, immediate reactions to an attitude object based on pre-existing stereotypes and cognitive connections, whereas explicit attitudes are defined as reactions

formed through additional controlled cognitive processing (Wittenbrink & Schwarz, 2007). Implicit Social Cognition suggests in part that social judgment and behaviour are the results both of an individual's implicit attitudes (immediate reactions) and explicit attitudes (thoughtful reactions). Implicit and explicit attitudes can be held simultaneously and both can affect behaviour and judgment (Greenwald & Banaji, 1995; Perkins & Forehand, 2010). However, while explicit attitudes are more easily assessed using prevalent introspective methods such as self-report questionnaires and interviews, implicit attitudes are, by definition, less accessible to the individual, and thus difficult to assess using the traditional methods that often form the core of language attitude studies (Perkins, 2012).

One example of a well-regarded theory within the domain of attitudes that deals with the premises of implicit and explicit cognition is the *Dual Attitude Hypothesis* by Wilson, Lindsey, and Schooler (2000). They argued that when an individual develops a new attitude towards a certain concept, this does not replace their old attitude entirely. Instead, the older attitudes are likely to reappear under some circumstances. In establishing this argument, Wilson and colleagues traced the roots of theories on implicit and explicit attitudes back to the work of Lecky, who already in 1891 had written: "The conceptions of childhood will long remain latent in the mind, to reappear in every hour of weakness, when the tension of reason is relaxed and the power of old associations is supreme" (Lecky, 1891, p. 96, as cited in Wilson et al., 2000, p. 101). In the interpretation by Wilson, these conceptions of childhood, or "habitual evaluations" (Wilson et al., 2000, p. 102), might be overruled by newly constructed evaluations but remain present nevertheless. As a result, people

might have more than one evaluation of the same object, albeit with different levels of accessibility.

The dual attitude hypothesis proposed the following three basic assumptions toward attitude. Firstly, explicit and implicit attitudes towards the same attitude object can coexist in memory. In this case, the implicit attitude is activated automatically, whereas the explicit attitude requires more cognitive capacity and motivation for retrieval from an individual's memory. When the explicit attitude is able to be retrieved, it can then override the implicit attitude, and a participant's self-report will reflect the explicit attitude. When the participant does not have the cognitive capacity or motivation to retrieve the explicit attitude, their self-report will reflect their implicit attitude. It is important to note that even if someone can retrieve the explicit attitude from memory, the implicit attitude can influence uncontrollable responses, such as some nonverbal behaviour. The second assumption is that while explicit attitudes can change relatively easily, implicit attitudes change more slowly, and techniques used to change an individual's attitude work in the case of explicit, but not of implicit, attitudes. The third and final proposition in the dual attitude hypothesis claims that people will report on the attitude that is most accessible when asked to report on their attitude towards a certain construct (Wilson et al., 2000).

Out of these propositions, the issues raised by Wilson and colleagues regarding the stability and variability dichotomy are rather similar to some of the recent discussions that have appeared in the field of motivation research. These issues/discussions were also mentioned earlier, in Chapter 2's consideration of emotion and Chapter 3's consideration of motivation. Wilson and colleagues based their dual attitude hypothesis on two main strands of

research. The first indicated attitudes are stable evaluation constructs that are automatically activated, while another line of research focused on the context-sensitive and changeable nature of attitudes. Similar to the arguments laid out earlier in this thesis regarding the stability and variability of motivation and emotion, the idea of dual attitudes is based on the existence of related yet distinct constructs coexisting on different levels.

In order to assess a person's attitude wholly, it is necessary to take into account not only the possibility of socially desirable answers but also the possibility that the participant might not be aware of some automatic associations that drive their attitudes and that may therefore potentially influence their decision making. As a result, a means of measuring both implicit and explicit association is necessary. A measure of implicit attitude would complete a participant's introspective data on their attitudes towards a certain topic, similar to the way a skill test completes a self-rating of perceived competence.

6.2.2 The Implicit Attitude Test.

Over the last two decades, one particular measure, the IAT, has caught the attention of researchers, journalists, experts, and non-experts alike. The IAT first appeared in a 1998 article written by Greenwald and colleagues; following this, Project Implicit was set up to spread awareness of and collect data on implicit attitudes. The website (https://implicit.harvard.edu/implicit) has since garnered considerable attention, particularly following its appearance on the *Oprah Winfrey Show* ("Overcoming Prejudice", 2005) and featuring in the *Washington Post* (Vedantam, 2005). Since its initial appearance, the IAT has been developed into a reliable measurement of implicit attitude. The main

premise of the IAT is that an individual's implicit attitudes are reflected in the association between concepts and attributes. An often used example to explain the IAT uses flowers and insects: if an individual has a more positive implicit attitude towards flowers than towards insects, there will be a stronger association between positive words and flowers than positive words and insects.

The IAT is a computer-based sorting task that measures the strength of these associations by means of relative reaction times. If an association is well established (for example, flowers and positive words), a participant is likely to respond quicker and more accurately than when an association is not as common (insects and positive words) (Pantos & Perkins, 2012). The test goes through several blocks of associative pairs — as I will discuss in greater detail below — and results in a score that indicates the relative strength of one association over another, implying a more positive or negative implicit attitude towards one of the concepts in question.

The IAT consists of four blocks. In the first block, participants are introduced to the Target, or the concept in question. In the case of the aforementioned example, the Target would be Flowers and Insects. On a computer screen, the participants are presented with pictures and asked to decide to which category these belong: Flowers or Insects. If the image is a Flower, the picture should be sorted towards the left side of the screen, while Insects should be sorted towards the right side of the screen.

In Block 2, participants are introduced to the Attributes. To continue with the same example, in this instance the attributes are Positive and Negative. The participants are presented with a word and asked to decide whether each category belongs to Positive or Negative. If it is Positive, the words should be

sorted towards the left side of the screen, whereas Negative words should be sorted towards the right side of the screen.

In Block 3, participants are presented with both Target prompts (Flowers and Insects) and Attribute prompts (Positive and Negative words). In this block, the Flowers and Positive prompts are to be sorted towards the left side of the screen, while the Insects and Negative prompts are moved to the right side of the screen. This is referred to as *congruent testing.* Block 3 includes a practice session as well as an actual test session.

In Block 4, the participants are once again presented with both Target prompts and Attribute prompts. This time, however, the Targets (Flowers and Insects) swap sides. The Insects and Positive prompts are to be sorted towards the left side, and the Flowers and Negative prompts are moved to the right side of the screen. This is called *incongruent testing.* Block 4 also includes a practice session as well as an actual test session.

The score obtained from an IAT is based on the reaction times from the test, mainly those in Blocks 3 and 4. If the reaction times for a certain block are quicker, the Target and Attribute that are sorted towards the same side of the screen during this block are reasoned to be more closely associated in the participant's mind than the combinations of the other block. For example, if a participant shows quicker reaction times in Block 3 than in Block 4, it can be argued that it is easier for them to sort Flowers and Positive words together; this would suggest a stronger association between Flowers and Positive words than between Flowers and Negative words.

The best known and tested scoring unit for the IAT is the D-score (see Greenwald, Nosek, & Banaji, 2003; Nosek, Bar-Anan, Sriram, Axt, & Greenwald, 2014). This scoring algorithm presents each participant with a score between -2

and +2. The higher the score, the stronger the association of the congruent pair (the pairing tested in Block 3). The lower the score, the stronger the association of the incongruent pair (the pairing tested in Block 4). In the example above, a score of +1.5 would indicate a strong automatic preference for Flowers over Insects, while a neutral score would imply no automatic preference of one concept over the other. A score of -1.5, however, would indicate a strong automatic preference for Insects over Flowers.

The D-score was recommended as an algorithm for calculating the IAT results by Greenwald et al. (2003) and has since proven to have several benefits over other conventional scoring procedures, such as the initial IAT score found in Greenwald et al. in 1998 (see also Back, Schmukle, & Egloff, 2005; Cai, Sriram, Greenwald, & McFarland, 2004; Nosek et al., 2007). One of the biggest advantages to using the D-score rather than the original scoring method is the fact that this controls for the effect of cognitive fluency (i.e., general ability to carry out similar sorting tasks). When the original scoring algorithm is used, older learners show larger IAT effects, which are most likely related to greater cognitive fluency (Greenwald & Nosek, 2001; Hummert, Garstka, O'Brien, Greenwald, & Mellott, 2002). Using the D-score "reduces this relationship between age and IAT scores" (Nosek et al., 2007, p. 272) as well as the differences between learners who are much faster or slower at completing the task. By now the IAT has been more widely accepted as a reliable measure of implicit attitude; as Nosek and colleagues have suggested, "part of the IAT's acceptance as an implicit measure may be attributable to its achieving greater reliability than other latency-based implicit measures" (Nosek et al., 2007, p. 274).

6.2.3 Controversy surrounding the IAT.

As widely accepted as the IAT may be, the measure is not without some controversy. There are several areas worth discussion regarding the IAT, its reliability, and, most importantly, the relationship between implicit and explicit attitudes.

Reliability.

The first of the frequently highlighted issues with regards to the IAT is its reliability. In particular, there is a question regarding how researchers can be certain that participants are not "faking" their responses or manipulating the outcome in order to make their implicit attitudes match their explicit attitudes. Fortunately, as Nosek et al. explained, research into IAT *fakeability* across multiple content domains, "including shyness, extraversion, moral identity, attitudes toward flowers versus insects, attitudes toward sexual orientation, and attitudes toward racial groups, collectively suggest that the IAT is much less fakeable than self-report" (2007, p. 275). There are certain instances in which it is more likely that the participant will be able to manipulate the outcome of their IAT; these include when they either have extensive previous experience with the IAT or are given explicit instructions regarding how to influence the outcome of the test (Asendorpf, Banse, & Mucke, 2002; Banse, Seise, & Zerbes, 2001; Kim, 2003; Steffens, 2004).

Interestingly, although conscious faking of an IAT is not accomplished particularly easily, a much greater effect on IAT results seems to be accomplished by a different kind of manipulation. This occurs when the circumstances of the test are manipulated. When participants were asked to fool the IAT software by faking their attitude (e.g., towards race), no differences

were found between these participants and the control group (Kim, 2003). This was not the case, however, when the race of the experimenter has been varied; this has been proven to greatly influence the outcome of an IAT on race (Lowery, Hardin, & Sinclair, 2001). One study in particular by Foroni and May (2005) dealt with implicit attitudes towards flowers and insects, similar to the example used above. Participants completed the IAT two times. Although the first instance was straightforward and occurred after reading a story about the positive characteristics of flowers, the second instance took place after one of three sets of instructions had been provided: a) the participant was asked to read a story about dangerous flowers and useful insects after a nuclear war; b) the participant was told they needed to manipulate the outcome of the test and were instructed to associate flowers with positive words and insects with negative words; or c) the participant was told that the IAT is a lie detector and they should lie to it by pretending to like insects and dislike flowers. Only the first set of instructions — reading a story about dangerous flowers and great and wonderful insects — had an effect on the outcomes, with those participants showing a less positive implicit attitude towards flowers than the control group. The other two sets of instructions, b) and c), did not influence the outcome of the IAT. These studies indicated that although it is unlikely that a participant can deliberately alter the outcome of their IAT by faking their answers or deliberately trying to achieve a certain outcome, it is, on the other hand, relatively easy to influence a participant's implicit attitude itself. In the example above this was achieved by reading a short story with the aim of making connections between positive words and a category that would normally be associated more strongly with negative words, in this case insects: Nosek and colleagues (2007) argue that "this demonstration underscores the malleability

of automatic cognition, and suggests limitations of the involvement of deliberative processes in producing that malleability" (p. 280).

Interpretation.

Secondly, other than the manipulability of the test itself, its interpretation has also proven to be a topic subject to extensive discussion, especially concerning agreement or disagreement between explicit measures of attitude (e.g., self-report) and implicit measures of attitude (i.e., the IAT). Earlier IAT-based research found limited correlations between the IAT and self-report (Greenwald et al., 1998), but other research did find that in some cases the IAT and self-report can be strongly related (Greenwald et al., 2003; Hoffmann, Gawronski, Gschwendner, Le, & Schmitt, 2005; Nosek, Banaji, & Greenwald, 2002; Nosek, 2005). For example, this could be seen in the case of an online IAT measuring both implicit and explicit attitude towards Al Gore and George W. Bush (Greenwald et al., 2003), in which the two measures showed strong correlations (p. 86). Several reviews of the IAT-based research report a positive correlation between implicit and explicit measurements of attitude, such as an average of .24 found by Hofmann and colleagues (2005) and .37 by Nosek (2005).

Of course, regardless of whether the measures of implicit and explicit attitude correlate positively or not, there are multiple questions raised. Firstly: if the IAT and self-rating measures are indeed related, are we measuring distinct constructs at all, or are they just different ways of measuring the same construct? Recent research (Nosek & Smyth, 2007; Cunningham, Nezlek, & Banaji, 2004) showed that the IAT and self-report are best described as "related but distinct constructs, rather than as a single attitude construct" (Nosek et al., 2007, p. 278). Similarly, Pantos and Perkins (2012) argued that their research

seemed to suggest that explicit and implicit attitudes are separable constructs emerging from distinct mental processes. They added that "language attitude research, which has traditionally measured only explicit attitudes, would benefit by incorporating indirect measures" (Pantos & Perkins, 2012, p. 3). In their study into attitude towards accented and unaccented speech, Pantos and Perkins' results indicated that "consistent with the Implicit Social Cognition's conceptual framework [...] listeners' implicit and explicit attitudes are distinct attitude constructs, both *with potential behavioural consequences*" (2012, p. 14, emphasis added).

A second question to be raised regarding the relationship between implicit and explicit measures of attitudes is the matter of interpreting conflicting scores for these two measures. When dealing with preferences, prejudices, and stereotypes, the interpretation of an implicit attitude measure may cause some difficulties when the score does not coincide with an individual's explicit attitude. If someone takes an IAT on race, one of the earliest examples of the IAT, and is presented with a result that implies a relative preference for white over black people, the test-taker's first reaction may very well be one of denial and assertions such as "I don't really think that!", followed by frustration with their own test results. These experiences have been very frequent during the years in which the IAT has been used, as exemplified by Banaji (Banaji & Greenwald, 2013), who discovered that she had a relatively more positive implicit attitude towards white people compared to black people. As she explained:

> I can't say if I was more personally distressed or scientifically elated to discover something inside my head that I had no previous knowledge of. [...] Then I asked myself what any social psychologist would: is this something that affects my behaviour in relation to African Americans whom I regularly encounter —

> especially students in my classes? Do I act as I feel less positive towards them than toward white student? (Banaji & Greenwald, 2013, p. 45)

When a participant is confronted with implicit attitudes that conflict with their explicit attitudes, their gut reaction, similar to the example noted above, is often something to the effect of "that is not what I really think!" It comes as no surprise then, that the Frequently Asked Questions sections of the Project Implicit website answer questions such as: "If my IAT shows that I have an implicit preference for one group over another, does that mean I am prejudiced?" and "What can I do about an implicit preference that I don't want?"

From a research perspective, this presents the question of which of these attitude measures report on the "real attitude" of a participant. Unfortunately, in this case, it is often not a simple matter of real attitudes and fake attitudes. Instead, both are valid attitudes. As Pantos and Perkins (2012) explained, "while explicit self-report tasks measure an individual's accessible, thoughtful reactions to a stimulus object, the IAT is thought to measure an individual's immediate affective reaction based on pre-existing cognitive associations" (p. 5).

This means that both "real" and "fake" attitudes are valid measures, representing two different yet related constructs that, as mentioned before, can coexist. There are several reasons as to why the implicit and explicit measures might result in conflicting outcomes. First of all, the participant may be unaware of the associations measured by the IAT and therefore does not report on them in the explicit measure based on introspection, which results in two different outcomes. A second possible source of conflict between the implicit and explicit measure is that the participant is aware of the associations

measured by the IAT but actively rejects them because they do not fit with their explicit beliefs. This could be the case in the example of the racial-bias IAT from the earlier example: the researcher was aware of the automatic associations that could possibly exist towards the topic, yet knew them to be different from her explicit attitudes on the topic. In this case, seeing her implicit attitudes confirmed as directly opposing her explicit opinion was, if not a complete surprise, more than a little uncomfortable. A third possible source of conflict between both attitude measures happens when the participant is aware of the implicit associations they hold but will report a different attitude in the introspective measures because they worry about the social acceptability of an alternative response. In this third case alone we could speak of "real attitude" and "fake attitude", and as Nosek and colleagues explained: "In all three cases, implicit and explicit assessments may have separate predictive utility, which would indicate that both are 'real' measures" (2007, p. 82).

This, of course, begs the question: if both implicit and explicit attitudes are valid measures, which of the two attitude constructs has the most predictive validity when it comes to judgment and action? In other words, which of the two is most likely to influence a participant's behaviour? According to Wilson and colleagues (2000), the type of attitude most likely to affect report or behaviour will be the one that is most accessible for an individual in the circumstances. Depending on the individual's cognitive capacities at the time and their motivation for overriding automatic responses based on implicit attitudes, this may change from one moment to the next. Greenwald, Poehlman, Uhlmann, and Banaji (2009) recently reviewed 122 studies to analyse the predictive validity of the IAT and reported that the measures of implicit and explicit attitudes each have their domains of superior predictive validity. One of

their findings was that when an attitude measure is related to some measure of discrimination towards a group or person, both explicit and implicit measures can predict behaviour, but the implicit measure predicts behaviour more accurately. However, in studies that measure attitudes related to brand preferences or political preferences, the explicit measure predicts subsequent behaviour more accurately.

As a final remark regarding the IAT and the controversy surrounding its interpretation, it is vital to remember that even though a certain D-score may indicate a positive implicit attitude towards a certain construct, this is not to say that a participant's attitude towards this construct is positive in and of itself. It is essential to remember that we are dealing with a test that measures relative implicit attitude towards one construct as compared to the other. A positive D-score simply means that the participant associated construct A more strongly with positive attributes than construct B. Likewise, a positive D-score for construct A does not imply a negative attitude towards construct B. It only implies that the participant's implicit attitude is more positive towards construct A relative to their attitude towards construct B. For example, if a participant takes the by now well-known example IAT with flowers and insects resulting in a D-score of 1.2, this means their attitude towards flowers is more positive than their attitude towards insects. It does not mean that they love flowers, nor does it mean they dislike insects. Although both may be true, this is not what the IAT measures. When interpreting the outcomes of this measure, it is important to keep in mind the relative nature of the IAT, especially when dealing with more sensitive topics such as attitudes towards groups of people.

6.3 Methodology.

6.3.1. Study design.

For this study, I interviewed two groups of students in the interest of gathering data, firstly, on the topic of their attitudes towards English as a school subject and, secondly, their reasons for learning the language. As I have mentioned in the preceding chapters, I hypothesised that younger learners would struggle to analyse the motivational, affective, cognitive, and contextual elements that form the basis of their conglomerate state, whereas for older learners these elements would be more phenomenologically distinguishable. It was therefore expected that younger learners, who in the case of this study were aged 4–5, would mention very few — if any — motivation-related elements linked to studying English in school. On the other hand, older learners — who in the case of this study were aged 16–18 — would be expected to refer predominantly to motivation-related elements, such as goal orientation, connected to their study of English. For younger learners, it is more likely that English would be viewed as just another activity at school and consequently would not hold greater significance or positive associations than other activities. For older learners, in contrast, it is likely that English would carry extra significance due to the goal orientations potentially associated with its status as a world language.

In addition to the interview, each participant completed an IAT to identify any discrepancies between their implicit attitude and the attitude they conveyed in the interview, consequently highlighting potential differences. It was expected that younger learners would demonstrate a relatively neutral implicit attitude that would correspond with the explicit attitude they conveyed

in the interviews, whereas it was expected that the older learners might have an implicit attitude that differed from the attitude conveyed in their interview. The difference in this latter case may potentially be due to the perceived higher importance of English given its status as a world language. The explicit attitudes of the older learners may therefore be skewed towards the more positive side as compared to the explicit attitude of the younger learners.

6.3.2 Participants.

Thirty Dutch primary school pupils aged 4 to 5 (M = 4.5) and thirty secondary school pupils aged 16 to 18 (M = 16.9) participated in the study. In the Netherlands, the number of students in primary schools is typically smaller than the number of students in secondary schools; as a result, the primary school pupils were recruited from two different schools, while the secondary school students were drawn from different cohorts attending the same secondary school.

I recruited the schools for this final study by contacting over 50 schools by email, briefly explaining the goal of the study and the processes involved. The primary schools on this email list were selected from a list of schools providing early English language education, provided by Nuffic (the Dutch organization for educational internationalization, see www.nuffic.nl). From this list I contacted all schools that started teaching English in Year 1. Several schools replied, indicating they were interested and happy to take part in the study. I then sent out more detailed information regarding the research process before meeting at the school prior to the study to run through the procedures.

After confirming the primary schools participating in the study, I contacted secondary schools in the surrounding areas. Firstly, to make sure the

student population was as similar as possible, and secondly to reduce travel time during data collection.

For the final study, the younger group consisted of 30 primary school pupils in the first and second year of primary school. It is common in The Netherlands to have a combined class of two cohorts of pupils, especially in the first two years of primary school before reading and writing is taught. The pupils were all between 4 and 6 years old, from the north of the Netherlands

Since the ages of the children in the primary school group were under sixteen, parental approval was required for participation. Parent(s), guardian(s), and carer(s) were informed that there was a study taking place in the school and were asked to give permission in order for their child to participate. If the parent(s) approved and returned a signed consent form to the child's teacher prior to the start of the study, the child was then asked directly if they wanted to participate. Only children who were enthusiastic and wanted to take part in the study were selected. Children who did not wish to participate, despite the permission of their parents, or children who wanted to participate but had not obtained their parents' permission, did not participate in the study.

The older group consisted of 30 secondary school pupils in the fifth year of secondary school. Secondary education is divided into several levels: a four year long trajectory, preparing pupils for further study at vocational level, a five year long trajectory preparing pupils for further study at polytechnic institutes, and a six year long trajectory preparing pupils for further study at university. The students from this group were from the fifth year of the latter two levels, as these were the two levels being taught at this particular location of the school group that had agreed to take part in the research. English was taught at a standard aiming at level B1 in the Common European Framework of Reference.

The pupils were 16 and 17 years old, attending a school in the north of the Netherlands.

In agreement with the school's manager and the English teachers of the school, I visited several English lessons and spent the first five minutes recruiting participants, making sure to emphasise the voluntary basis of the study. Students signed up for a time slot later in the same week and received a reminder email a day before the study took place. Prior to starting the IAT, I explained the procedure and asked the participant to sign a consent form, once again emphasising that the study was voluntary and could be stopped at any time if the student wished.

6.3.3 Instruments.

Implicit Attitude Test (IAT).

In order to measure the learner's implicit attitude towards English as a school subject, each participant was asked to complete an IAT. This particular IAT measured the relative preference for English over other school subjects and activities. As explained in more detail in the literature review of this chapter, the IAT is a reaction-timed sorting task that consists of several blocks. Participants press the red button, as seen in Figure 3, to proceed to the next block.

Block 1: In Block 1, participants are introduced to the Target. In this case, the targets are English and Other Activities. The participants see a picture on the screen and are asked to decide if this is an English or Other Activity. If they classify it as English, it goes to the left side of the screen; if they decide it is an Other Activity, it goes to the right side of the screen. In the example seen in

Figure 3, the participant would press the yellow button to sort the picture to the left side of the screen.

Block 2: In Block 2, participants are introduced to the Attribute. In this case, the attributes are identified as Good and Bad. The participants see (secondary



Figure 1: Block 1

school) or hear (primary school) a word and are asked to decide if this is a Good word or a Bad word. If it is Good, it is sorted to the left side of the screen; if it is Bad, it goes to the right side of the screen. In the example seen in Figure 4, the participant would press the yellow button to sort the word to the left side of the screen.

Block 3: In Block 3, participants are presented with both Target prompts



Figure 2: Block 2



Figure 5: Block 3

(English vs. Other Activities) and Attribute prompts (Good vs. Bad). The English and Good prompts go to the left side; the Other Activities and Bad prompts go to the right side of the screen. In the example seen in Figure 5, the participant would press the yellow button to sort the picture to the left side of

the screen, while a positive word would similarly go to the same side. Block 3 includes a practice session and an actual test session.

Block 4: In Block 4, participants are again presented with both Target prompts

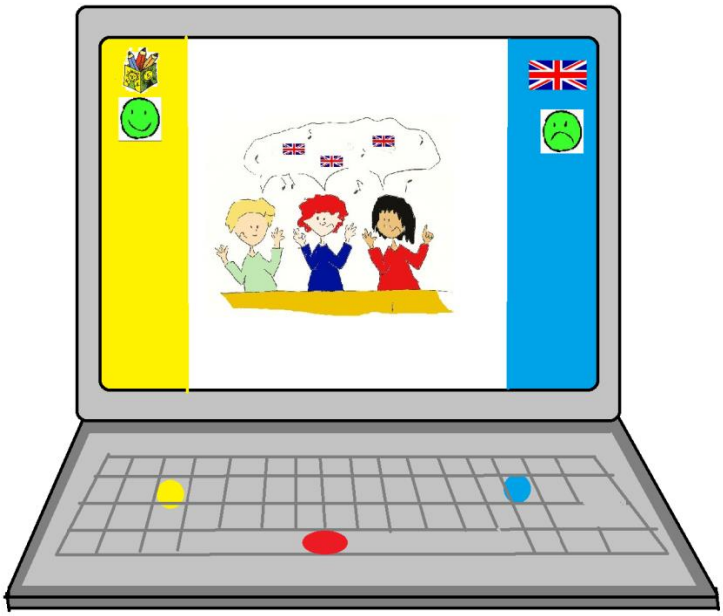


Figure 6: Block 4

and Attribute prompts. This time, however, the Targets (English and Other Activities) swap sides. The Other Activities and Good are sorted to the left side of the screen, while the English and Bad go to the right side of the screen. In the example seen in Figure 6, the participant would press the blue button to sort the picture to the right side of the screen. A negative word would similarly be sorted to the right side. Block 4 includes a practice session and an actual test session.

The IAT measure is based on reaction times, mainly those times measured in Blocks 3 and 4. If reaction times for a certain block are shorter, the Target and Attribute of that block are reasoned to be associated more closely than the combinations of the other block. For example, if a participant consistently

shows faster reaction times in Block 3 than in Block 4, it can be argued that it is apparently easier for them to sort "English" and "Good" together than to sort "Other Activities" and "Good" together. This would suggest an automatically stronger association with English and positive words than Other Activities and positive words.

IAT design primary school.

For the primary school group, the IAT was based on Baron and Banaji's (2006) Child-IAT. The main deviation from the standard IAT is the use of sounds rather than written words for the attributes. It is arguable that it would be better to have targets and attributes both presented visually, as is the standard practice, but as the participants in this group could not read, this option was not available.

For the Child-IAT, four pictures were created for each Target. English lessons in primary school in the Netherlands tend to include elements of everyday activities (e.g., reading a book, singing a song, circle time). As a result, the difference between specifically English activities and other activities can be difficult to spot in a picture. The solution to this problem presented itself during a visit to the participating schools, in which it was discovered that every classroom used the British flag as a symbol to indicate English-time. The British flag was simply inserted into the relevant places in the pictures (e.g., on the cover of a book or in a text-cloud) to make sure participants could correctly identify these pictures as English activities. The four pictures for the Target *English* were reading a story in English, singing an English song, speaking English with a group, and speaking in English to a puppet. These were all activities that were familiar to the participants. The four pictures for the Target

Other Activities were solving a puzzle, cutting and pasting, throwing a ball outside, and learning to count. These pictures were all printed out and presented to the participants prior to commencing the study. The participants were asked to sort these pictures into two piles: English Activities and Other Activities. All participants were able to immediately understand the pictures, describe what they saw, and sort them into the correct piles.

The words for the Attribute category were chosen after talking to the teachers at the participating schools, and they were all words that the teachers used regularly in lessons. The positive words were "well done", "very good", "beautiful", and "nice". The negative words were "wrong", "not good", "not beautiful", and "too bad". It is important to note not only that these words have been translated from Dutch for the purpose of this thesis, but that some of them — including too bad, wrong, and well done — unfortunately, do not carry the exact same meaning in English.

IAT design secondary school.

For the secondary school group, the IAT was based on Sriram & Greenwald's (2009) Brief-IAT. The test was adapted in order to make it as similar as possible to the Child-IAT in length. However, instead of using sounds for the Attribute categories, words were presented in writing on the screen rather than using audio.

Similar to the Child-IAT, four pictures were created for each target. The style of the pictures was similar to that of the Child-IAT pictures. The difference between English and Other Activities was easier to indicate due to the fact that subjects in secondary school are more clearly distinguishable than in primary school. However, in order to keep the test as similar as possible to the Child-

IAT, where relevant the pictures for the English target all contained a small British flag. The four pictures for the Target English were using an English dictionary, a group discussion in English, a grammar lesson, and writing an English letter. These are all regular occurrences in the participating schools. The four pictures for the target Other Activities were French, geography, mathematics, and chemistry. These four subjects feature activities from the four main profiles offered in the Dutch secondary education system. Students choose one of the following profiles after Year 3: Culture & Society (represented by French), Economy & Society (represented by geography), Nature & Health (represented by mathematics), or Nature & Technique (represented by chemistry). English is a core subject taught in all four profiles.

The words for the Attribute category were chosen after talking to the teachers of the participating schools, with the selected words considered to be the more grown-up or sophisticated versions of the words used in the Child-IAT. The positive words were, therefore, "well done", "exceptional", "success", and "passed". The negative words were "poorly done", "failed", "didn't pass", and "disappointing". As I have mentioned before, these words have been translated from the original Dutch and many do not carry quite the same meaning in English.

Structured interview.

The IAT was followed by a brief structured interview. All participants were asked the following questions:

1. What are your (up to three) favourite subjects/activities in school?
2. What are your least favourite subjects/activities in school?
3. Why are these (Q1) your favourites?
4. Why are these (Q2) your least favourites?

5. Would you pursue these subjects elsewhere if you were not taught them in school? Why (not)?
6. Where does English rank in this list?
7. How do you feel about English lessons in school? Why is that?
8. Why are you learning English?
9. Would you pursue English elsewhere if you were not taught English in school? Why (not)?
10. How important is English compared to other subjects/activities? (*only if participants mentioned the importance of English in answer 7/8)*

Questions 1 and 2 elicited the students' explicit preferences for different activities in school. These questions also presented the opportunity to explicitly rank English as a favourite or least favourite activity. Questions 3 and 4 elicited different reasons for preferring certain activities or subjects, and it is here that the second group — the older participants — were expected to mention motivation-related elements contributing to their conglomerate state as reasons for their aforementioned preferences. Question 5 was designed as a way of expanding on Questions 3 and 4 and determining whether these subjects were taken into account beyond the immediate school context, allowing the participant to elaborate on possible goal orientation. For Question 7, participants were presented with a 5 point Likert scale and asked to attribute a number to English, with 1 being the least positive ranking and 5 being the most positive ranking. This, together with Question 6, provided a quantifiable measure of the participants' explicit attitude towards English. Questions 7–9 elicited explicit attitudes towards English and were designed to be asked if the participants had not already addressed these questions earlier on in the interview. Question 10 was only asked if the participant mentioned the importance of English in their answers to Questions 8 and 9. As with Question 7, participants were presented with a 5 point Likert scale and asked to attribute

a number to the importance of English, with 1 being not important and 5 being very important.

All interviews were conducted in Dutch, as this was the first language of both the participants and the researcher. A brief pilot seemed to indicate that younger learners became nervous if a recorder was used. In order to reduce participant nervousness, the interviews with the younger group were therefore recorded by the researcher taking notes during the interview. This caused no problems for recording the data as these younger participants tended to give relatively brief answers. In contrast, the older participants tended to give more elaborate answers but were unfazed by the presence of the recorder, meaning that their interviews could be recorded without any problems and later transcribed. A sample interview for both primary and secondary school participants is included in appendix I.

6.3.4 Procedures and data analysis.

Data collection primary school.

As I mentioned in the discussion of the participants section, parental permission was secured before starting the study. I set up a laptop in a separate, empty classroom so the interview and IAT would not be interrupted by the ongoing classroom activities and vice versa. At the beginning of each session, I explained the process of the game and gave each participant a brief warm-up task — sorting the printed pictures from the IAT into two different piles — before starting the IAT itself. I then explained that the game was similar to the warming up task, only this time the task was on a computer. The participant was then introduced to the IAT screen on the computer and I asked a few questions ("So where would an English picture go?", "And which button would

you click for that?") to verify that they had understood the task. After each block of the IAT, I asked the participant if they thought the task had been difficult or easy or a bit of both, and checked to see if they wanted to continue. In a standard IAT, the instructions would be presented on the screen at the start of each block, but as the participants could not read any written instructions, I explained each following block.

After completing the IAT, the participants could ask any questions they wanted about the game. I conducted the brief constructed interview, taking notes on the participants' answers and asking follow-up questions wherever relevant. After the interview, the participant was brought back to the classroom. In several instances, the participant did not wish to continue — once after Block 2, once after Block 3, and once halfway through Block 4. One participant's data had to be excluded from analysis as fewer than 50% of their answers were correct.

Data collection secondary school.

As I mentioned in the 'participants' section, participants signed up for a slot earlier in the week that had been scheduled for the test. I explained the procedure of the study to the participants and asked each one to sign a consent form before introducing them to the IAT. The instructions were presented in text blocks between the four blocks. Participants were encouraged to ask questions whenever instructions were unclear. One participant asked a clarification question at the start; the others understood enough to complete the IAT without any assistance from me. Participants were encouraged to take breaks between blocks if they felt overwhelmed by the test. One student

indicated they felt pressured and asked to pause after Block 1. They finished the test after a short break.

The interview procedures were similar to those of the primary school setting, with the addition of a recorder during the interview, provided participants agreed to this. None of the participants refused to have their answers recorded. No participants had to be excluded or decided not to complete the IAT.

Data analysis.

As indicated in the literature review, the IAT results in a D-score that can range from -2 to +2. A positive D-score in this study indicates a relative implicit preference for English over other activities in school. A negative D-score indicates a relative implicit preference of other activities over English. The D-scores of the two groups were saved in Microsoft Excel and analysed in SPSS with the aim of detecting any significant differences between the two groups.

The interviews were transcribed and quantified, where possible. For each interview, data was entered into a table that indicated participants' favourite subjects, least favourite subjects, the relative ranking of English (scaled 1–5), and reasons for learning English. For each group, the reasons for learning English were categorised and the number of times each category was mentioned was counted.

As part of the data analysis I employed several nonparametric tests in SPSS to determine any significant differences between younger and older pupils in both implicit and explicit attitudes, in their ability to analyse their explicit attitudes, their awareness of goal orientation, and their likelihood of selecting English as one of their favourite subjects. Furthermore, I analysed differences in

explicit and implicit attitudes within the two age categories, based on the pupils' ability to analyse their attitudes, their awareness of goal orientation, and their likelihood of selecting English as one of their favourite subjects. I also focused on the relations between different variables within groups, such as between gender and goal orientation and goal orientation and ability to analyse explicit attitude. Finally, I have measured the correlation between implicit and explicit attitudes in both age categories.

As some of the data was not normally distributed, I have used nonparametric tests such as a Mann Whitney U test rather than the more widely used T-test, and a Spearman's rho rather than Pearson's r.

6.4 Results.

6.4.1 Explicit attitude.

Young Learners.

During their structured interviews, participants in the younger group generally reported a positive explicit attitude towards learning English in school, as can be seen in Table 4. On a 5 point Likert scale, no less than 70% of the pupils selected one of the highest scores, either a 4 or a 5, indicating a positive attitude towards English. A total of 20% of the participants in this group reported a neutral attitude towards English, and the final 10% reported a negative attitude towards English by selecting a 1 or a 2 on the 5 point scale.

Just over 13% of the young learners listed English among one of their three favourite subjects. A Mann Whitney U test indicated that the explicit attitude score was significantly greater for pupils who did list English as one of

their favourite subjects (*Mdn* = 5) as compared to those pupils who did not list English as one of their favourite subjects (*Mdn* = 3.6): $U = 10$, $p < 0.05$.

Explicit Attitude Younger Learners	
Score	Percentage
1.00	3.3
2.00	6.7
3.00	20.0
4.00	40.0
5.00	30.0

Table 4: Explicit attitude for younger learners

After rating their explicit attitude in Question 6, the majority of these younger learners were unable in Question 7 to explain or analyse their explicit attitudes towards English in school. A little over 63% of the participants in this age group could not explain why they liked or disliked learning English. The final third of the participants did provide background on their ranking of English and explained their preference by referring to the perceived difficulty or ease of English lessons (30%), sometimes combined with activities they remembered doing in lessons (6.67%). A Mann Whitney U test indicated that there was no significant difference in explicit attitude between those pupils that

could explain their explicit attitude (*Mdn* = 4) as compared to those that could not (*Mdn* = 3.6): $U = 84.5$, $p > 0.05$.

Similarly, when pupils in this group were asked in Question 8 to list any reasons why they would be learning the language in school, 66.67% of the participants were unable to provide an answer. The final 33.3% did identify a reason to study English in school, with all citing the ability to communicate with speakers of other languages as their motivation — whether such communication might be abroad (23.33%), within the Netherlands (3.33%), or both (6.66%). This was sometimes related to quite specific circumstances:

> So I can be a secret agent later, and so that you can speak English in another country, like Italy. (Josh, age 5)

> So that later I can go anywhere on my own because I speak English. Then I can go on holiday to other lands, and here I can also speak English and at work. (Jenny, age 5)

A Mann Whitney U test indicated that there was no significant difference in explicit attitude between those pupils that referred to goal orientations (*Mdn* = 4.11) and those pupils that did not (*Mdn* = 3.76): $U = 73$, $p > 0.05$.

Surprisingly, the explicit attitude score for the girls (*Mdn* = 4.2) in this group was higher than the explicit attitude score for the boys (*Mdn* = 3.4). A Mann Whitney U test indicated this difference was significant: $U = 60$, $p < 0.05$.

I have summarised all relevant Mann Whitney U tests results in Table 5 below, for additional clarity. All significant differences have been flagged up with an asterisk.

Explicit Attitude Score Younger Learners

	Yes	No	Sign
English in top 3	*Mdn* = 5	*Mdn* = 3.6	$p < 0.05$*
Ability to analyse attitude	*Mdn* = 4	*Mdn* = 3.6	$p > 0.05$
Goal orientation	*Mdn* = 4.11	*Mdn* = 3.76	$p > 0.05$
Gender	**Female**	**Male**	**Sign**
	Mdn = 4.2	*Mdn* = 3.4	$p < 0.05$*

Table 5: Explicit attitude scores for young learners: Mann Whitney U results overview

I further analysed the relationships between various other variables by means of a series of chi square tests of independence. These tests indicated there were no significant relationships between either of these variables.

First of all, there was no significant relationship between the pupil's school year and any of the relevant variables, such as their ability to explain or analyse their explicit attitude: X^2 (1, N = 30) = 0.6, $p > 0.05$. Similarly, there is no significant relationship between the pupil's school year and their awareness of goal orientations: X^2 (1, N = 30) = 3.96, $p > 0.05$. Furthermore, there is no significant relationship between pupil's school year and the likelihood of them selecting English as one of their favourite subjects: X^2 (1, N = 30) = 1.15, $p > 0.05$.

Secondly, there were no significant relationships between the pupil's gender and their ability to analyse their explicit attitudes: X^2 (1, N = 30) = 1.07, p

> 0.05. Similarly, there is no significant relationship between a pupil's gender and their awareness of goal orientations: X^2 (1, N = 30) = 0.26, p > 0.05, or between their gender and the likelihood of selecting English among their favourite subjects: X^2 (1, N = 30) = 0.87, p > 0.05.

Furthermore, there was no significant relationship between a pupil's likelihood of selecting English as one of their favourite subjects and their ability to analyse their explicit attitude: X^2 (1, N = 30) = 2.3, p > 0.05, or their awareness of goal orientation: X^2 (1, N = 30) = 4.51, p > 0.05.

Finally, there was no significant relation between a pupil's ability to analyse their explicit attitude and their awareness of goal orientations: X^2 (1, N = 30) = 0.71, p > 0.05.

Older Learners.

As can be seen in Table 6, a majority of the participants from the older learner groups — over 60% — reported a positive explicit attitude towards English lessons, rating the subject with either a 4 or a 5. The remainder of the older learners displayed either a neutral (30%) or a negative attitude towards English lessons (just under 7%), rating the subject with a 3 or a 2 respectively.

Furthermore, no less than 50% of these students listed English among their three favourite subjects. A Mann Whitney U test indicated that the explicit attitude score was significantly greater for students who did list English as their one of their favourite subjects (Mdn = 4.7) as compared to those students who did not list English as one of their favourite subjects (Mdn = 3.2): U = 14, p < 0.05.

Explicit Attitude Older Learners	
Score	Percentage
2.00	6.7
3.00	30.0
4.00	23.3
5.00	40.0

Table 6: Explicit attitude for older learners

After rating their explicit attitude in Question 6, a majority of 93.3% of the older learners were able in Question 7 to explain and analyse their explicit attitudes towards English in school. Only 6.66% of the participants were unable to explain why they ranked English as they had. A Mann Whitney U test indicated that there was no significant difference in explicit attitude between those pupils that were able analyse their explicit attitudes (*Mdn* = 3.96) and those pupils that did not (*Mdn* = 4): $U = 27$, $p > 0.05$. The participants that were able to analyse the reasons for their explicit attitude mentioned the perceived ease or difficulty of English, which was brought up by 56.66% of participants; the fact they needed to use English regularly in their daily lives, both currently and in the future, which was mentioned by over 43% of participants; and a love for languages generally, or English in particular, as mentioned by 30% of the

learners in this group. A number of participants listed several reasons for their attitude towards the subject, as illustrated in Mark's comments below:

> I do like English as a subject because I think it is a really beautiful language, I mean, I'm no good at it but I love the language. I do watch films in English, without subtitles so I learn more from it, so I use it sometimes. (Mark, 17)

Furthermore, 6.67% of the participants mentioned the context of the classroom and lessons as a reason for their attitude towards the subject, citing the type of assignment given and the relationship with the teacher.

When asked in Question 8 why they would be studying the language in school, 90% of the older learners — a considerable majority — were able to analyse their reasons for studying English. All of the participants focused on the importance of the language for various aspects of their present and future lives, in four different categories. A Mann Whitney U test indicated that there was once again no significant difference in explicit attitude between those students that indicated one or more goal orientations ($Mdn = 3.96$) and those that did not ($Mdn = 4$): $U = 27$, $p > 0.05$.

One of the two the most frequently mentioned categories, brought up by just over 43% of the participants, was "English as a world language", focusing on the status of English as a *lingua franca*, and the need for fluency in English to communicate across borders:

> You cannot really do without it. That's almost impossible, we are Dutch so we speak Dutch, but no one else speaks Dutch, and English is a world language now and everyone speaks English. I think as Dutch people you are bombarded with English, that we need to speak it well, and I expect the Dutch to speak English reasonably well. (Tom, 17)

> Yeah, I think that English is really important as a means of communicating internationally. It's like the world language, internationally, English is a really important language. I mean compared to Math and Greek, like Greek is not very practical but it has some nice knowledge for some fields of study, and math,

> well that depends on what course you're going to do at uni, but English, English is everywhere. (Gerwin, age 17)

Secondly, English was equally frequently mentioned as crucial for participating in both national and international media. As with the previous category, this was brought up by just over 43% of the participants:

> I'm online a lot and then you need English, for gaming, watching videos and watching series, I need to use English a lot, as much as I use Dutch I'd say. (Janine, 16)

> Also online so many articles you read are in English, so that, articles and series and music and TV, that is all English already. (Martin, 17)

Furthermore, the three categories of "Travelling", "Further Education", and "Career Prospects" were all listed by close to 30% of the participants, in various combinations, as shown below.

> Like, you know you want to travel abroad for a bit, and then if you speak English that is really handy. If you stay in the Netherlands it isn't very useful, but if you want to leave the country then it is really good. (Amanda, 17)

> I want to study Econometrics, and that is taught completely in English (Dirk, 18)

> My degree would be partly in English, with English books, and I'd like to study abroad for a while, and with my degree, I'd have a better chance of a better job abroad, so I would need English for sure! (Annelies, 16)

As summarised in Table 7, when explicitly asked in Question 10 how they would rank the importance of English as a school subject, over 50% of the older learners would place English on the highest rank of 5. A third of the participants rank English as important but not on the top of their list, awarding a 4. A further 10% of the participants indicated English would be of average importance to them, and only 3%, which in this study amounts to a single student, said English was not very important to them.

Importance of English for Older Learners	
Score	Percentage
2.00	3.3
3.00	10
4.00	33.3
5.00	53.3

Table 7: Importance of English for older learners

Finally, in contrast with the younger learners, there was no significant difference in this group between the explicit attitude of girls (*Mdn* = 3.98) and boys (*Mdn* = 4): $U = 96$, $p > 0.05$. I have again summarised all relevant Mann Whitney U tests results in Table 8 below, for additional clarity. All significant differences have been flagged up with an asterisk.

Explicit Attitude Score Older Learners			
	Old Learners		**Sign**
Age category	*Mdn* = 3.97		$p > 0.05$
	Yes	**No**	**Sign**
English in top 3	*Mdn* = 4.7	*Mdn* = 3.2	$p < 0.05$*
Ability to analyse attitude	*Mdn* = 3.96	*Mdn* = 4	$p > 0.05$
Goal orientation	*Mdn* = 3.96	*Mdn* = 4	$p > 0.05$
Gender	**Female**	**Male**	**Sign**
	Mdn = 3.98	*Mdn* = 4	$p > 0.05$

Table 8: Explicit attitude scores for older learners: Mann Whitney U results overview

Furthermore, I conducted several chi square tests of independence to analyse the relationships between gender, ability to analyse explicit experience, awareness of goal orientation, and likelihood of having English among favourite subjects. These tests indicated that there were no significant relationships between any of the aforementioned variables.

First of all, there were no significant relationships between the students' genders and their ability to analyse their explicit attitudes: X^2 (1, N = 30) = 0.27, $p > 0.05$. Similarly, there is no significant relationship between a pupil's gender

and their awareness of goal orientations: X^2 (1, N = 30) = 0.27, p > 0.05, or between their gender and the likelihood of selecting English among their favourite subjects: X^2 (1, N = 30) = 0, p > 0.05.

Furthermore, there were no significant relationships between a pupil's likelihood of selecting English as one of their favourite subjects and their ability to analyse their explicit attitude: X^2 (1, N = 30) = 0, p > 0.05, or their awareness of goal orientation: X^2 (1, N = 30) = 2.14, p > 0.05.

Finally, there was no significant relation between a pupil's ability to analyse their explicit attitude and their awareness of goal orientations: X^2 (1, N = 30) = 0.15, p > 0.05.

Younger and older learners.

There are several similarities and differences between the younger and older learners that catch the eye. First of all, the attitude towards English in both groups is positive overall, as detailed above in Tables 4 and 6. A Mann Whitney U Test indicated that there is no statistically significant difference in explicit attitude towards English as a school subject between younger learners (*Mdn* = 3.87) and older learners (*Mdn* = 3.97): U = 431, p > 0.05.

However, the percentage of learners in both groups that list English among their three favourite languages is strikingly different: an impressive 50% of older learners placed English in their top three, compared to a mere 13% of younger learners. A chi-square test of independence was performed to examine the relation between age-category and the likelihood of listing English among favourite school subjects. The relation between these variables was significant: X^2 (2, N = 60) = 9.32, p < 0.05, with older learners being more likely to list English as one of their favourite subjects, as can be seen in Figure 7.

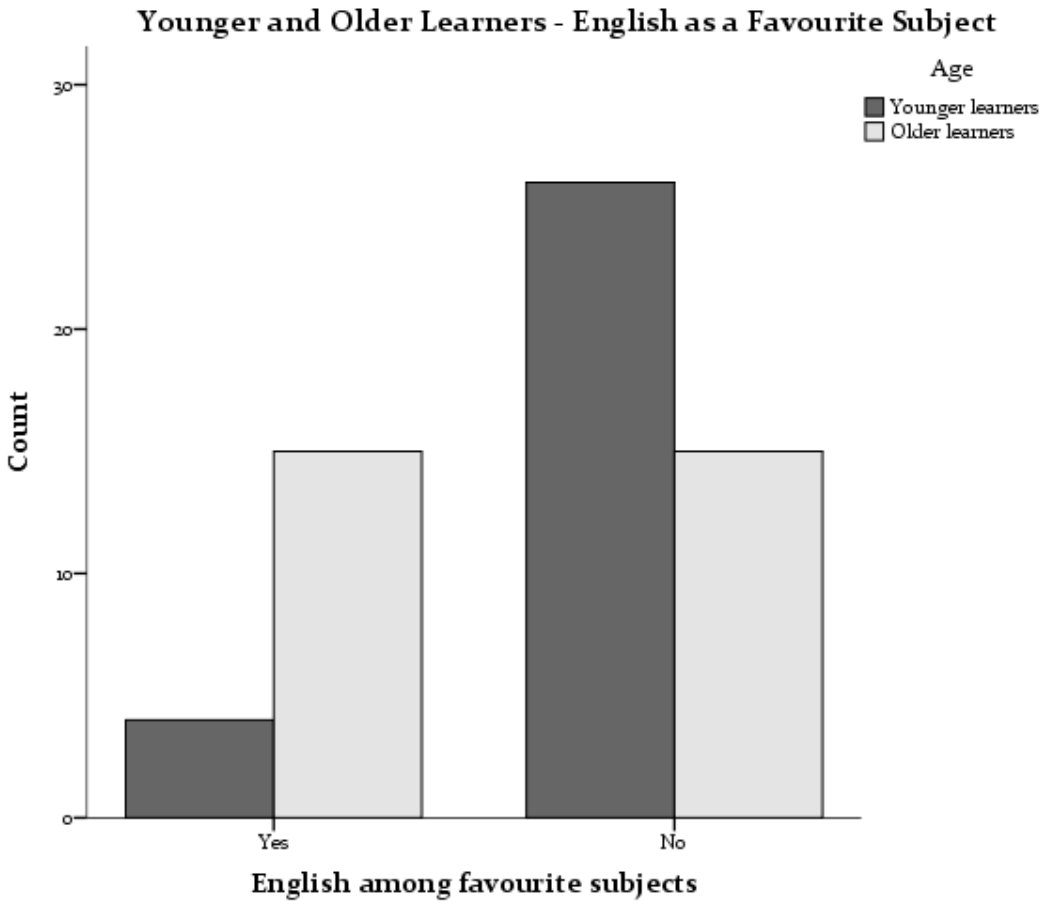


Figure 3: Age and favourite subjects

A further major difference between the two groups can be found in the explanation given for their explicit attitudes towards the language as a school subject. As can be seen in Table 9 below, the number of participants in both groups able to analyse their attitude differs considerably between the two groups; the majority of the younger learners were unable to analyse their explicit attitude, while the majority of the older learners were able to bring up one or two motivations behind their attitude towards English as a school subject.

Analysing Explicit Attitudes		
	Percentage	
	Young Learners	**Older Learners**
No answer	63.33	6.67
One answer	30	60
Two answers	6.67	30
Three answers	-	3.34

Table 9: Analysing explicit attitude frequency

A chi-square test of independence was performed to examine the relation between age-category and the ability to analyse explicit attitude. The relation between these variables was significant: X^2 (2, N = 60) = 23.25, $p < 0.05$, with older learners being more likely to be capable of analysing their explicit attitude than younger learners, as can be seen in Figure 8 below.

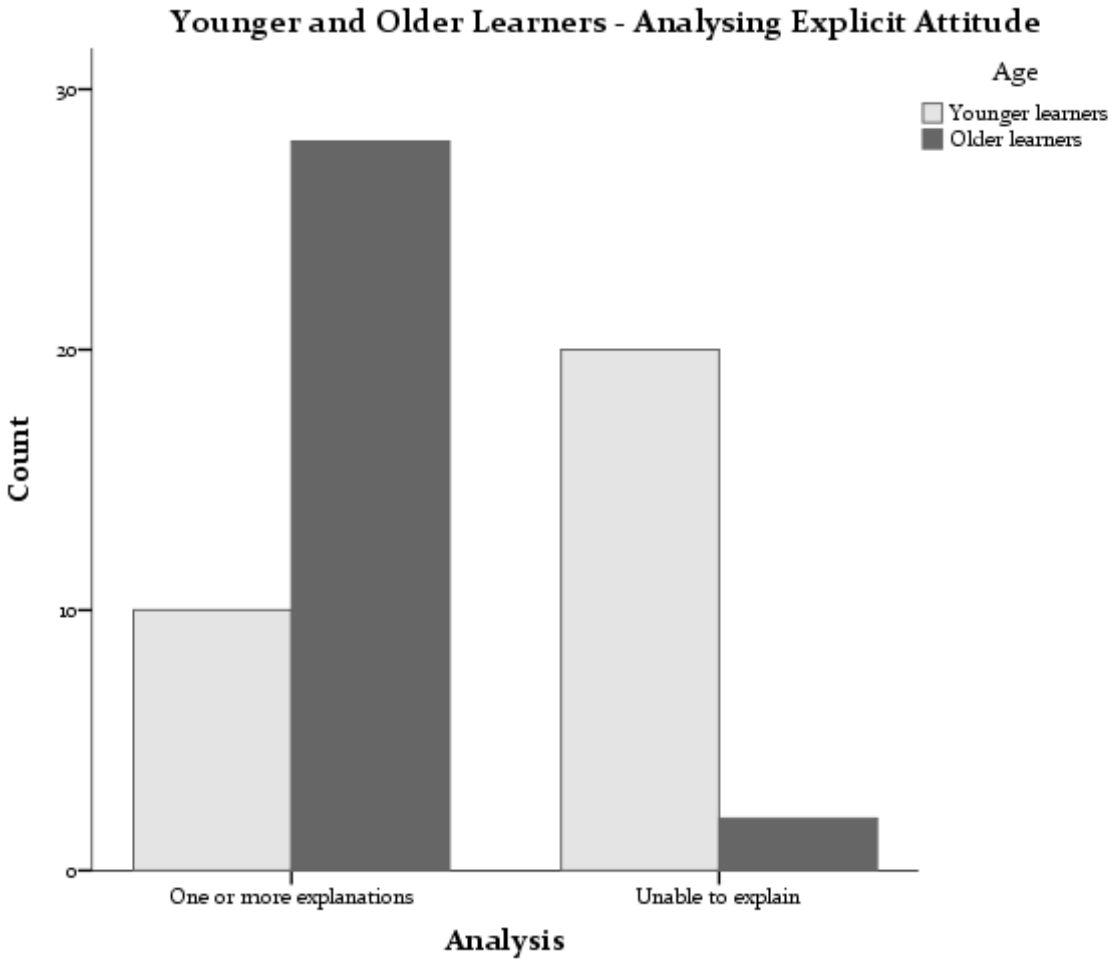


Figure 4: Age and ability to analyse attitude

A similar picture emerges when the two groups are compared with regard to their awareness of why they might be learning English in school. As can be seen below in Table 10, the number of participants who were aware of any reasons for studying the language in school differed considerably between the two groups. Again, the majority of the young learners were unable to list any reasons to be studying English, whereas the majority of the older learners were able to list at least one reason for studying the language.

Analysing Reasons for Learning English		
	Percentage	
	Young Learners	Older Learners
No answer	66.67	3.33
One answer	26.67	46.67
Two answers	6.66	33.33
Three answers	-	16.67

Table 10: Analysing goal orientation frequency

A chi-square test of independence was performed to further examine the relation between age category and the presence of goal orientation. The relation between these variables was significant: X^2 (2, N = 60) = 25.45, $p < 0.05$, with older learners being more likely to express one or more goal orientations as compared with younger learners, as can be seen in Figure 9 below.

From the data presented in Tables 9 and 10 and Figures 8 and 9, it is clear that the younger learners have more difficulty analysing their explicit attitude than the older learners. Similarly, they are less likely to be aware of any goal orientations or reasons they could have for studying the language.

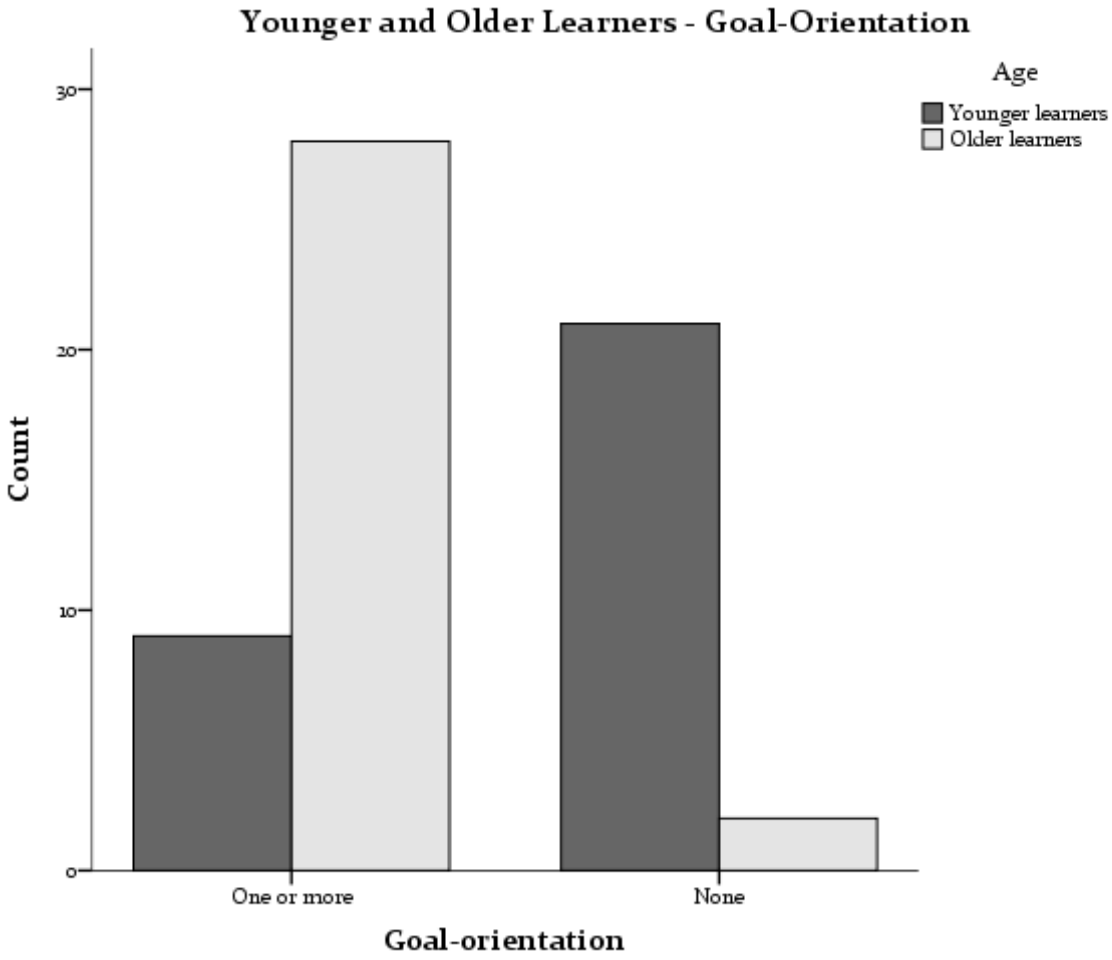


Figure 9: Age and goal orientation

6.4.2 Implicit attitude.

For the group of younger learners, the average implicit attitude measure, the D-score, was close to zero, at M = 0.0002 (SD = 0.45). As the D-score can range from -2 to +2, this would indicate a practically neutral score with a substantial standard deviation. In terms of attitude towards English as a school subject, neutral D-score would indicate no relative preference for English over other activities in school. A Mann Whitney U test indicated that there was no significant difference in the D-score between pupils in their first year of primary school (Mdn = 0.05) and second year of primary school (Mdn = -0.05): U = 90, p > 0.05.

As can be seen in Figure 10 below, there are two peaks in the distribution of the data, rather than the one that would be expected in a normal distribution. This indicates that within the younger group there is a positive and a negative side, which evens out into a score close to zero.

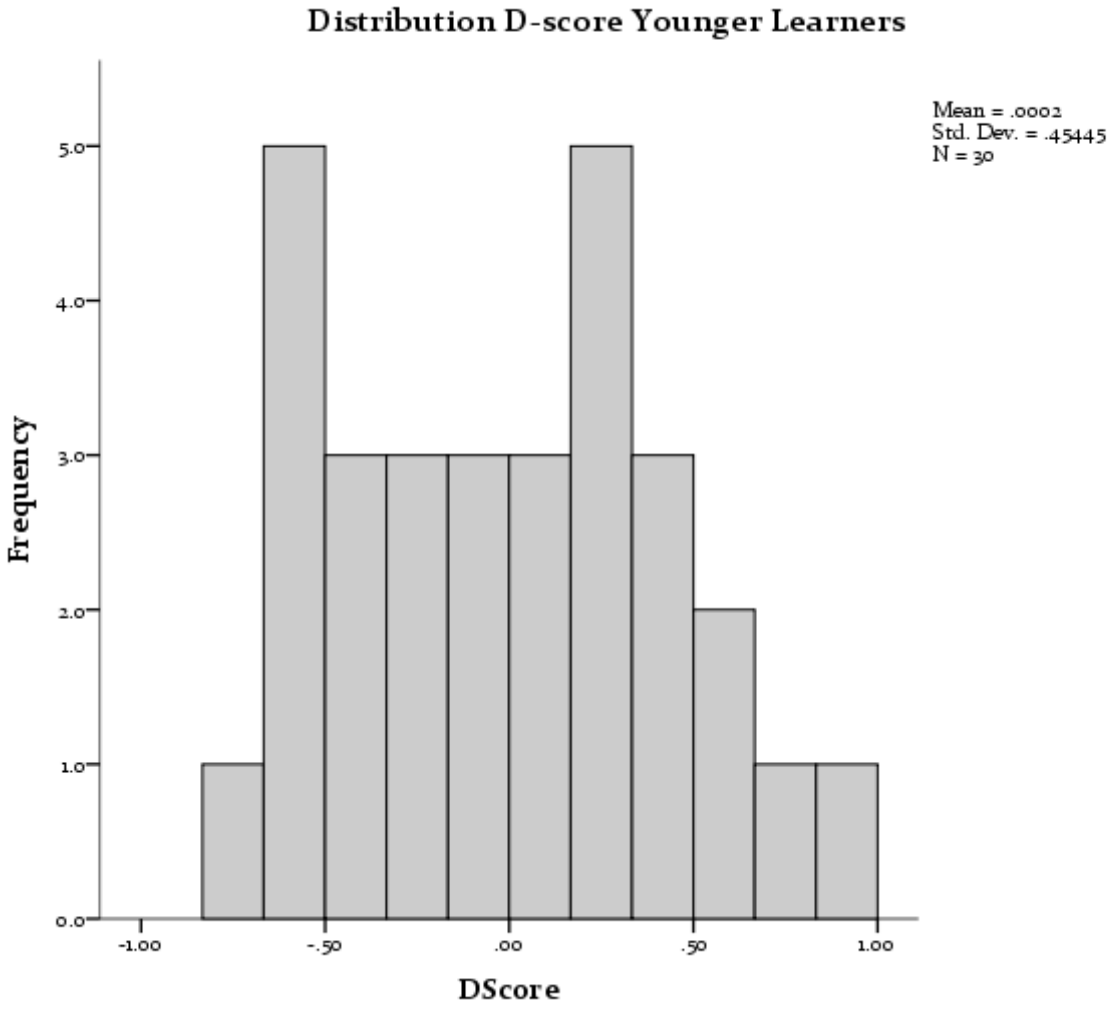


Figure 10: D-score Younger Learners

The average IAT score for the older learners group, which is composed of the secondary school students, is a moderately positive score of *M* = 0.63 (*SD* = 0.29), which would suggest a relative preference for English over other activities, and less variety in D-scores than the younger learners group. The

older group shows a more normal distribution of the data, with the resulting D-score unanimously above 0.

The most noticeable difference between the younger and the older learner groups in terms of implicit attitude is the relatively high IAT score for the older group compared to the more neutral IAT score for the younger group. Although the IAT data for the older learners showed a normal distribution, the IAT data for the younger learners was not normally distributed. Therefore a Mann Whitney U test was conducted to compare the difference in IAT scores measured in younger and older learners. The results of this test indicated that there is a significant difference between the IAT scores of the two groups, as the D-score was significantly higher for older learners (Mdn = 0.63) as compared to the younger learners (Mdn = 0.0002): $U = 14$, $p < 0.05$.

Furthermore, although the younger learners demonstrate D-scores both below and above zero with some standard deviation, indicating both negative and positive attitudes towards English relative to other activities, the older learners only vary in the degree to which they have a more positive implicit attitude towards English.

I have once again summarised the relevant Mann Whitney U test results in a table for added clarity. As can be seen in Table 11 below, the only significant difference in D-score was that between the younger learners and the older learners. Several Mann Whitney U tests indicated that there are no significant differences in the D-scores of either age group between those pupils who have listed English as favourite subjects and those who did not. Similarly, it is worth noting that there are no significant differences in the implicit attitude of either age group between those pupils who were able to analyse their explicit attitudes and those who were not, or between those pupils who referred to goal

orientations in their interviews and those who did not. Finally, as in the case of explicit attitudes, no significant differences were found between boys and girls in the above analyses.

Implicit Attitude Score						
	Younger Learners			Old Learners		Sign
Age category	*Mdn* = 0.0002			*Mdn* = 0.63		$p < 0.05$*
	Yes	**No**	**Sign**	**Yes**	**No**	**Sign**
English in top 3	*Mdn* = 0.33	*Mdn* = -0.05	$p > 0.05$	*Mdn* = 0.63	*Mdn* = 0.63	$p > 0.05$
Ability to analyse attitude	*Mdn* = -0.06	*Mdn* = 0.03	$p > 0.05$	*Mdn* = 0.63	*Mdn* = 0.59	$p > 0.05$
Goal orientation	*Mdn* = -0.01	*Mdn* = 0.01	$p > 0.05$	*Mdn* = 0.62	*Mdn* = 0.72	$p > 0.05$
Gender	**Female**	**Male**	**Sign**	**Female**	**Male**	**Sign**
	Mdn = 0.05	*Mdn* = -0.06	$p > 0.05$	*Mdn* = 0.64	*Mdn* = 0.60	$p > 0.05$

Table 11: Implicit attitudes: Mann Whitney U results overview

6.4.3 Corresponding attitudes.

The degree to which the implicit and explicit attitudes corresponded with one another has been known to vary from study to study. The two groups in this study were compared in terms of the correlation between their implicit

attitudes, as measured by their D-score, and their explicit attitudes, as measured by their rating of English on a 1–5 Likert scale.

As the data from the younger learners was not normally distributed, a Spearman's correlation test was used to determine the correlation of implicit and explicit attitudes. For the younger learners, there was a significant moderately positive correlation between these two attitudes: $r_s = .37$, $p < .05$. This means that the higher someone rates their explicit attitude towards English as a school subject, the higher their D-score is likely to be, and vice versa.

The same Spearman's correlation test was run for the older learners. For this group, there was no significant correlation between the implicit and explicit attitude measures: $r_s = -0.02$, $p > .05$. This indicates that there is no link between the participants' rating of their explicit attitude towards English as a school subject and the D-score resulting from their IAT.

6.5 Discussion.

6.5.1 Explicit attitudes.

As can be seen in the results section above, there are considerable differences between the younger and older learners. Although there is no significant difference in the actual rating of English as a school activity, to which both groups awarded positive scores overall, several interesting dissimilarities can be found in three instances in the data. First of all, there is the fact that older learners more frequently list English among their favourite subjects; 50% of the older group lists English in this way, compared to only 13% of the younger group. As I highlighted above, older learners are significantly more likely to list

English among their favourite subjects as compared to younger pupils. This difference may be partly explained by the fact that primary schools have less well-defined subjects compared to secondary school, but it may also be an indication that English potentially holds a different status when compared to other school activities for students in the older learner group. For both the older and the younger pupils, the explicit attitude ratings and the positioning of English as a school subject among their favourites are related, which is to say that the explicit attitude score is significantly higher for those pupils who listed the language among their favourite subjects. This outcome would be expected, as both of these variables measure explicit evaluation of English as a school activity.

A second notable difference between the two groups is the degree to which participants in both groups are able to analyse their explicit attitudes towards English as an activity in school. As demonstrated in the results section above, while the majority of the younger learners struggled to explain their attitude towards English in school beyond the general "it is nice", the older learners had considerably less difficulty explaining their attitude towards English as a school subject and were significantly more likely to give at least one explanation for their explicit rating of the subject. This seems to indicate that younger learners are generally less aware of the different cognitive, affective, and motivational elements that contribute to their classroom state. In other words, although for these younger pupils the elements of their conglomerate state are indistinguishable from one another, the older learners are able to analyse and highlight the different elements that contribute to their state in English lessons.

The third difference between the younger and older learners that stands out in the data presented above concerns the awareness of any goal orientations or reasons why they would be studying English in school. As can be seen in the results section above, the older learners in this study are considerably more aware of reasons for studying the language. The older learners are significantly more likely to refer to one or more types of goal orientation: nearly all of the participants in this group referred to one or more types of goal orientation in their interviews, and several participants highlighted the importance of English in their daily lives. In contrast, the goal orientations of the younger learners were not only less frequent but also tended to be less specific. Interestingly, the majority of the younger learners who did indicate an awareness of goal orientations were in their second year of primary school; they had, consequently, had more exposure to English lessons as well as more potential interactions with teachers explaining when pupils would be able to use the language. This third difference between the two groups indicates that the contribution of different elements to the conglomerate state of a student in the classroom seems to be different for learners of different age groups. The classroom state of older learners is much more likely to contain motivational elements such as goal orientation, whereas this is not likely to be a significantly contributing factor for younger learners' conglomerate states.

6.5.2 Implicit attitudes.

The most striking finding from the implicit attitude element of the study is the statistically significant difference found between the D-scores of the younger and older groups. While both positive and negative D-scores could be found in the results of the younger group, the scores of the older group were all positive.

This is especially interesting when the fact that there was no significant difference between the explicit attitudes of both groups is kept in mind.

The fact that older learners unanimously displayed a positive implicit attitude score, suggesting a slight to moderate preference for English over other activities in school, indicates that English as a school subject is implicitly viewed more favourably by older learners of English than by younger learners, for whom English is simply one subject among many. This is supported by the data presented on the explicit attitude towards the subject, which showed that older learners tended to list English among their favourite subjects much more frequently than younger learners did.

Furthermore, the fact that older learners report significantly more goal orientations when asked why they would be studying English in school supports the idea that English holds a different status than other school subjects, one that is influenced by its perceived necessity both for students' future goals and their current everyday life.

6.5.3 Corresponding attitudes.

One final difference between the younger and older participants in this study is the degree to which their implicit and explicit attitudes correspond with one another. The implicit and explicit attitudes for the younger group showed a moderately strong positive correlation, which means the more positive a pupil's explicit attitude, the higher the D-score would be expected to be. However, there was no such correlation to be found in the group of older learners, which means that there is no link between how positive these participants rate their explicit attitude towards the subject and the relative preference they show for English over other school subjects.

Again, this seems to indicate that English is simply another school activity for the younger group, while it holds a status different to that of other subjects in the minds of the older learners. The most likely cause is that these older learners have internalised their various goal orientations, as discussed in Chapter 5, to the extent that these influence their implicit attitudes towards the subject. Regardless of the learner's explicit attitude, these internalised goal orientations will have skewed their implicit attitude to such a degree that they implicitly prefer English over other subjects. This is not the case for the younger learners, whose implicit attitudes are unaffected by goal orientations in comparison with the older group.

6.6 Conclusion.

The research question posed at the beginning of this chapter asked *how does the interaction of emotion and motivation differ for younger and older language learners?* There are several conclusions to be drawn from this study that help to answer this question.

First of all, although the interaction of motivation, affect, cognition, and context are assumed to lead to a conglomerate state, and the attitudes reported by the participants in this study can be regarded as a representation of such a conglomerate, the attractor basin at the base of this state seems to be fairly elusive to the younger learners. Younger learners struggled to describe the elements contributing to their explicit attitude, as many were unable to offer an explanation other than "it is nice", "it is difficult", or "we read books". Older learners, on the other hand, are considerably more adept at analysing and describing the attractor basin, listing a variety of motivational, affective,

cognitive, and contextual elements contributing to their explicit attitude. This would confirm the hypothesis raised in Chapter 1 of this thesis, which suggested that the interaction between different elements within the learning context could likely not be separated and analysed by younger learners. Older learners, I argued, would have learned to distinguish between motivation, affect, and cognition, at least on the phenomenological level, and would be able to analyse these elements at the basis of their attitude.

Secondly, this study suggests that the combination of elements forming the attractor basin is likely to be different for language learners of different age categories. Both groups showed evidence of contextual elements (highlighting classroom activities) and cognitive elements (referring to the perceived difficulty or ease of English lessons to explain their attitude), but a striking difference can be found in the frequency of motivational elements. Younger learners are noticeably less likely to attribute their attitude to various goal orientations, whereas this is frequently mentioned by older learners as a factor contributing to their attitude towards English. As argued in Chapter 5, these motivational elements are essential for successful self-regulation in the face of negative contextual, cognitive, or affective circumstances.

This implies that for younger language learners English is likely to be just another school activity, meaning that the conglomerate state of these learners will be fully dependent on affective, cognitive, and contextual factors. This finding is supported by previous research into motivation of younger learners (Brumen, 2011; Nikolov, 1999). As I will argue further in the conclusion of this thesis, this has implications for the implementation of early language learning programmes as well as for teacher training curricula.

The final results suggest older learners have internalised certain goal orientations to the extent that they influence the learners' implicit attitudes. This results in implicit and explicit attitudes that do not correspond to one another for the older learners. As stated earlier in Chapter 5, the degree to which goal orientations are internalised can be extremely important in determining the success of self-regulation. The more a student has internalised the need to study English in school, the more likely they are to persist even in the face of negative affective, cognitive, or contextual elements in the attractor basin, such as a dislike for the language, feelings of incompetence, or an unpleasant teacher or instruction method. A sufficiently internalised and well-developed goal orientation can make the difference in the attractor basin in these cases, leading to a positive state such as neutral attention where otherwise frustration or anxiety might have dominated. For the younger learners — who are not yet aware of these goal orientations or have underdeveloped or external goal orientations — the conglomerate state will be fully dependent on the affective, contextual, and cognitive elements of the learning experience, which means that, compared to older learners, affect and context play a much more significant role for this group.

Chapter 7. Conclusion

7.1 Introduction.

In Chapter 1 of this thesis, I posed the following research questions:

- *How do affect and motivation interact to influence learners' behaviour in a classroom situation?*
- *How does the interaction of emotion and motivation differ for younger and older language learners?*

In Chapters 4, 5, and 6 of this thesis, I discussed three research studies, each of which contributed elements that aid in the answering of these two research questions. In this conclusion, I will summarise the arguments laid out previously in those three chapters and explain how these can be combined into a coherent picture of affect and motivation in language learning.

7.2 Summary.

7.2.1 Affect.

In Chapter 2, I presented an in-depth overview of emotion literature in psychology, education, and second language acquisition (SLA). I argued that when studying the impact of motivation on language development, it is essential to take into account the influence of affect on motivation. Furthermore, it is easy for researchers studying affect to become confused due

to the variety often found in the terminology applied both within and across research domains that touch upon affect. For example, the words "emotion", "feeling", and "affect" have, at times, been used interchangeably (see Scherer, 2002), while the definition of what constitutes an emotion is subject to ongoing debate. Given this often confusing context, it is useful to reiterate the meaning of affect as understood in this thesis. Affect is understood as covering the so-called "trinity of affective state", which encompasses feeling, mood, and trait: the three affective states subjectively experienced on different time scales.

This initial chapter on emotion further introduced the concept of conglomerates, which are formed of affect, motivation, and cognition and are integrated on both the neurobiological level (i.e., brain functioning) and the phenomenological level. The complementary interrelationship of these three primary dimensions of mental functioning has been a point of focus of research in psychology for some time, although it has recently experienced greater attention. As I stated in Chapter 2, this relationship between affect, motivation, and cognition has consequences for the study of affect in SLA. The relationship between these three factors means that the kind of "affect" we should expect to find in language learning situations is not affect in the pure sense; rather, it works in tandem with cognition and motivation in determining a student's state.

7.2.2 Motivation.

Research into motivation in SLA has witnessed substantial development over the last decade, as I outlined in Chapter 3. Motivation is treated as a dynamic system, functioning on various interdependent time scales — much like the various time scales highlighted in Chapter 2, which deals with emotion

research. When combined with the study of the self in relation to motivation and language development — as well as the focus on the learning context and the by-now familiar conglomerates of affect, motivation, and cognition — this paints a dynamic picture of motivation research that suggests that affect and motivation are likely to interact with each other as well as with the learning context on various time scales. The basis of the hypothesis for the first research study of this thesis was formed out of this concept of interacting elements of affect, motivation, cognition, and context, fluctuating and forming relatively stable attractor states over time.

7.2.3 The classroom state: affect, motivation, and cognition at work.

When the concept of conglomerate states addressed in the second chapter of this thesis is combined with the dynamic approach that takes central stage in the third chapter, the next logical step is the concept of a dynamics-based research into states or conglomerates. As suggested by Dörnyei in 2009, rather than studying motivation, affect, or cognition more or less in isolation in terms of their impact on language development, we can instead choose to study the amalgams formed by these three forces by means of a dynamic systems–based research methodology.

The research methodology for this first study was primarily based on the concept of attractor states: in other words, salient, relatively stable states of a dynamic system. The more transient attractor states, such as engagement or frustration — states that we would expect to encounter in the classroom — formed the focus of the study addressed in Chapter 4. Starting out with the assumption that a few primary attractor states dominate the learning

experience, I expected that these attractor states would be salient enough to surface frequently in the data.

The data from this first study demonstrated that several attractor, or conglomerate, states are experienced frequently: interest, boredom, neutral attention, and anxiety. The first and most recurrent of the conglomerate states, interest, was further explored in the second phase of the study, in which participants were asked to elaborate on their interest in certain subjects. The factors forming the attractor basin were found, as hypothesised, to be cognitive, affective, motivational, and contextual in nature. This supported the hypothesis that affect and motivation have an impact on students via the state they produce through their interaction with cognitive and contextual factors. In this first study, these four factors often surfaced together in various combinations in the learners' accounts of their interest. This interest was undermined or supported by the way in which motivational, affective, cognitive and contextual elements interacted and reinforced one another, which in turn made it difficult to separate their influence and pinpoint any straightforward causality.

The conglomerate states introduced above — interest, boredom, neutral attention, and anxiety — are experienced on different time scales. Some learners report switching from one state to the other within the span of a single lesson; this indicates variability on a short-term time scale. Others, however, report "default states", labelling certain subjects as interesting or boring. This combination of stability and variability is consistent with the characteristics of a dynamic system, as I mentioned in Chapter 3.

The attractor basin at the basis of the four conglomerate states can be formed by any combination of affective, motivational, cognitive, and contextual factors and this combination can differ greatly between learners. Not all factors

need to be part of the attractor basin for an attractor state to emerge; however, we can assume that the more of these different elements are present, the more momentum a learner's conglomerate state will have.

Furthermore, it is worth noting that it was by no means an easy task for many of the participants to describe why they were interested in a certain topic, much less to disentangle the contribution made to their interest or engagement by different factors. This finding is in accordance with the observations of other researchers who have emphasised the inseparability of affect and cognition, such as Lewis (2005) and Swain (2013), or of motivation, affect, and cognition, such as Dai and Sternberg (2004).

7.2.4 Self-regulation.

The following study focused on the interaction of affect, motivation, cognition, and context, and in particular how they contributed to sustaining the effort of, and engagement and interest in, studying a certain language in the face of adversity. In a series of in-depth, semi-structured interviews, the importance of a clear and tangible goal emerged as a significant and frequently recurring theme for explaining people's reasons for continuing or discontinuing their study of a foreign language. With only a single exception, all participants indicated that, regardless of the strength of their interest in the language they were studying, there were times when learning the language became a chore. A clear goal orientation seemed to be an essential element of their conglomerate states; in other words, this was a necessity for the learner in order for them to continue the learning process by applying different self-regulation strategies to keep studying, rather than become discouraged and give up when there was

little enjoyment to be found in, for example, repeatedly conjugating verbs or repeating conjunctions.

Those students who had a clearly defined reason for learning a foreign language were more likely to keep self-regulating successfully, meaning they were more likely to persevere when learning was no longer necessarily engaging in itself. In the context of Chapter 4, this means that a learner's attractor basin produces a stronger attractor when there are strong motivational elements present, such as a well thought–out goal orientation. Although other factors may diminish in strength due, for example, to a new teacher with whom the learner does not get along, or a new topic that is no longer enjoyable, a well-defined and sufficiently internalised goal orientation can be the key to successful self-regulation and ultimately greater success in learning the target language.

Following this chapter on goal orientations and self-regulation, further questions were raised regarding the presence of affective and motivational elements in language learners of different ages. I theorised that the composition of learners' conglomerate states could be potentially different for younger and older learners, with the younger learners relying more on affective and contextual factors for a constructive state. In contrast, I hypothesised that older learners would be able to rely on motivational elements, such as goal orientation, in addition to affective and contextual factors in the construction of their states.

7.2.5 Affect and motivation in younger and older learners.

In this final study, I analysed language learners' implicit and explicit attitudes towards English as a school subject. I combined this with the learners' ability to

analyse the factors contributing towards their conglomerate state and the presence of motivational elements (for example, goal orientation) in the attractor basin, comparing younger and older learners.

I compared two distinct age categories in this study. One group was composed of pupils at the very start of their formal English education in primary school — at 4 and 5 years old — and the other group of pupils was drawn from students towards the end of their English education in secondary school — at 17 and 18 years old. I hypothesised that the younger pupils would not show evidence of any implicit or explicit preference for English over other school activities. This, I argued, would differ from the older learners, who would be more likely to demonstrate a more positive explicit attitude towards English as compared to other school subjects due to the students being more aware of the different status of English as a world language. I further speculated that younger learners would experience greater difficulties when it came to analysing the different factors contributing to their conglomerate state. The older learners, on the other hand, would have less difficulty analysing the attractor basin. Similarly, I suggested that younger learners would be less likely to have well-developed goal orientations connected to English as a school activity, as compared to older learners.

The first outcome of this final study concerns the attractor basin leading to the conglomerate states, as I presented above. More specifically, it relates to the difference between the two groups of learners in terms of their ability to analyse the different forces in the attractor basin that play a role in the construction of their conglomerate state. Pupils in the older age category were significantly more likely to be able to analyse and describe the reasons behind their explicit attitude, as compared to younger learners. Younger pupils, by

contrast, were not only less likely to given a reason for their explicit attitude, but were also less detailed in these explanations.

The second outcome of this study once again concerns the attractor basin from which the learners' conglomerate state is constructed. This time, the primary focus is on the different factors present in the attractor basin. Younger learners are significantly less likely to show evidence of motivational factors such as goal orientations, which, as I argued in section 7.2.4, are essential for successful self-regulation. In contrast, older learners referred to motivational elements repeatedly in this study, showing considerably more awareness of goal orientations related to English as a school subject. This study shows that even young learners at the very start of their language learning journey have a basic awareness of the importance of English and the role of the language as a *lingua franca*, albeit a significantly less detailed one than the older group's awareness. While some of the older learners went into detailed explanations regarding the need for English in their day to day activities or future lives, the younger learners produced more general reasons for learning English, such as travelling to a different country and needing to be able to talk to people there.

The third finding of this study concerns the implicit attitude of younger and older learners. The older pupils hold a significantly more positive implicit attitude towards English as compared to the younger pupils, who do not show any preference for English over other school activities. In addition to this significant difference between the two groups in terms of implicit attitude, the correspondence of implicit and explicit attitudes differs for the two groups. The implicit and explicit attitudes towards English showed a significant positive correlation for the younger group, whereas there was no such correlation to be found in the older learner group. This indicates that not only do older learners

more frequently report goal orientations related to English, they have also internalised these to such a degree that they influence the learners' implicit attitude towards the language, to the extent that this no longer correlates with their explicit attitude. Regardless of what these learners report as their explicit attitude towards English, their implicit attitude will show a preference for English over other subjects. Younger pupils, on the other hand, have not yet internalised these goal orientations to the same extent as the older pupils; for them, English is just one of many activities in which they participate in at school. This explains the lack of positive bias towards English as a school activity in the younger group.

7.2.6 Conclusion.

Having summarised the conclusions drawn from the three research studies, I can now summarise the answers to the research questions posed at the very start of this thesis as follows:

How do affect and motivation interact to influence learners' behaviour in a classroom situation? Affect and motivation both interact with cognitive and contextual elements, leading the learner to experience a certain state in the classroom. Some of the most common states are interest and engagement, neutral attention, boredom, and anxiety. The development and prolongation of these states can be dependent on any combination of the aforementioned forces.

How does the interaction of emotion and motivation differ for younger and older language learners? The factors that contribute to the construction of the

aforementioned state in the classroom are different for younger and older learners. For older learners, the motivational element will play a significantly more prominent part, while for younger learners the affective, cognitive, and contextual elements are more important. Furthermore, the older learners have the ability to analyse and deconstruct their classroom state, while this is not the case for younger learners. Instead, the experience of the classroom for younger learners is made up of an indistinguishable combination of affective, cognitive, and contextual elements, which combine into an overall *feeling* of "I like it" or "It is difficult". Although this can result in the impression that a young learner's state is determined entirely by affective elements, this is not, in fact, the case; rather, these states are most likely a combination of affective, cognitive, and contextual elements.

7.2 Implications.

Based on the results gathered from the studies in this thesis, the first implication I would like to consider is the way in which affect is studied within SLA research. The first study I reported in Chapter 4 confirms the potential of a new way of bringing affect into the SLA equation, as suggested by Dörnyei (2009). Rather than studying the influence of emotions or moods on language learning in isolation, it would be promising to focus instead on the results of the interaction of affect with motivation, cognition, and context. These four forces can result in several types of states experienced by learners during the learning process. Further study into the way in which these states come into being and, most importantly, what can be done by teachers and trainers alike to

influence their growth and development, offers a promising approach to the study of emotion and motivation in language learning environments.

Secondly, this thesis demonstrates that Complex Dynamic Systems Theory can be used to conceptualise something as seemingly multi-faceted and unpredictable as the student classroom experience. By focusing on identifying conglomerate attractor states that are expected to emerge in a self-organising system, the initial hypothesis for this thesis was based firmly in CDST tradition: I visualised motivation and affect as potential factors in an attractor basin, shaping the final position of the student's classroom state as a dynamic system. This framework then informed the research methodology of the first study: CDST conceptualises systems (in this case the student's state) as moving between a few relatively stable and salient attractor states, which lead to the assumption that there would be a small number of main conglomerate attractor states. If these are truly salient attractor states, they would be sufficiently prominent that they would be discussed in the first few minutes of an interview, hence the length of the interview was kept rather brief. The interpretation of the data gathered for the second and third study in this thesis further built on the initial CDST-informed hypothesis. Particularly the first study in this thesis as described in Chapter 4 is an example of an accessible and straightforward research methodology, rooted in dynamic systems theory, which can help to expand the metaphorical "toolkit" or research methods to which dynamic systems researchers steadily have been adding over the last decade.

A third implication raised by the conclusions I have drawn in this thesis concerns the difference between younger and older learners of English. Even though some young learners in the study I reported in Chapter 6 demonstrated

that they were aware of the status of English as a world language, they are significantly less likely to possess any salient goals related to English as a school subject. Furthermore, those that do report goals have likely not fully internalised this to the extent that older learners have. This means that for these young language learners, English is just another school activity, with the result that the conglomerate state of these learners will be fully dependent on affective, cognitive, and contextual factors. This supports findings from several studies that indicate that classroom environment and positive affect are the most important factors in young learner motivation (Brumen, 2011; Nikolov, 1999). Furthermore, this implication corresponds with the claims made by Moon, who argued that although policy makers might cite the status of English as the main reason for an early introduction of the language in school, "the younger the children, the less likely that they have any reason or need for learning the foreign language. They may not even understand what it means to learn a language or why they are learning the language" (2005, p. 30). This could — and should — have implications for the implementation of early foreign language programmes. One of these implications relates to the importance of contextual elements and teacher behaviour: when the development of young learners' interest is dependent primarily on contextual elements, teacher training should be at the centre of policies that aim to promote early foreign language learning in schools. Rather than asking homeroom teachers to take on English classes without adequate training, or bringing in English teachers who do not have the training necessary for teaching very young learners, specialist English teaching training ought to be included in primary teacher education. Although this may significantly delay implementation of new FL or L2 programmes, since there have been urgent prior calls for more teacher support

and training (Copland & Garton, 2014; Enever et al., 2009; Enever, 2011; Enever & Moon, 2010; Nikolov & Mihaljević Djigunović, 2006), I would argue that, given the results of this thesis, a later start of L2 learning would be preferable over an early start without adequate resources, given the importance of learning context for young learners' interest development.

Finally, the data in Chapter 5 and 6 from the second and third studies shows that older language learners who are aware of the overall status of English as a world language will internalise the goal orientations related to the language as a school subject. As this thesis has shown, this internalisation may lead to an implicit bias to favour English over other school subjects, regardless of the students' explicit attitude towards the language. This internalisation is similar to what has been observed in relation to the ought-to self. As discussed in Chapter 3, this is a part of an envisioned future self, based on what a learner thinks they ought to become with regards to their language proficiency. This element of a person's ideal L2 self is largely influenced by expectations from family, friends, and society in general. As Magid (2009) has observed, learners will internalise the expectations of their environment to the point that this ought-to self becomes integrated in the ideal L2 self. A very similar process has seemingly occurred here, in which factors that perhaps once only influenced one's explicit attitude, have become internalised and thus become part of one's implicit attitude.

As there is evidence suggesting that the pressure to acquire English — due to its status as a world language — can affect students negatively (Moon, 2005; Nikolov, 2010), this means that teachers, parents, and policy makers must learn to walk a fine line. On the one hand, they would need to make pupils and students sufficiently aware of the advantages of learning a certain language, to

the extent that this can be sufficiently internalised and thus support the formation of a positive conglomerate state and facilitate successful self-regulation. On the other hand, there is a risk of overemphasising the status and importance of the target language, causing too high a pressure on language acquisition; this could push the attractor state towards a state of anxiety rather than interest or attention. It would be promising to see a teacher training curriculum emphasising and exploring the teachers' role in raising and fostering students' interest by means of motivational elements in older learners and affective and contextual elements in younger learners.

7.3 Limitations.

The current thesis is not without its limitations. The main issue lies within the third and final study, in which the two age groups studied were at either extreme of the educational age spectrum in the Netherlands. It would have been extremely valuable to have measurements comparing both age groups to a middle category — for instance, a group of learners at the end of primary school or a group at the start of secondary school. Unfortunately, as several schools had to withdraw their participation from the study at the last minute, the inclusion of such data was not within the scope of this thesis.

A further drawback is the fact that the distinction between subjects is much clearer in secondary school (for the older learner group) than in primary school (the younger learner group), as during the initial two years of secondary school in the Netherlands time is not divided quite as strictly into different subjects or topics. This type of distinction, including more clearly distinct subjects such as maths, history, reading, and geography, is mostly introduced in

year three. This makes it more difficult to present English and "other" activities as two distinct groups for the younger learners in this study.

Regarding the second study in this thesis, the interview-based design in Chapter 5 may not have been the best choice to elicit participants' self-regulatory strategies. In hindsight it would have been better to initially gather more data via online questionnaires prompting participants to list any strategies they used if studying became difficult, before asking participants to pick the strategies they had used from a list provided. This way I would have more effectively and accurately gathered the data I was looking for, rather than the narratives that are the result of longer interviews which, interesting as they are, were not the original aim of the second study.

Finally, the participants in the various studies in this thesis are not necessarily representative of a wider population of language learners. The participants in the first study were mostly university educated, or working towards a qualification in higher education and the participants were mostly white UK citizens. The sample is heavily skewed to represent white university educated UK students, and therefore is limited in the extent to which it can be generalised. Whereas the second study did include a significant number of non-British language learners, the majority of these participants were European citizens, educated at degree level or currently attending university, meaning they are once again not representative of the wider population of language learners. The participants in the third study were all located in the north of the Netherlands, a more rural environment, in which the overwhelming majority of both students and teachers is white. This area further has smaller schools and smaller classroom sizes than most schools in the more densely populated and multicultural Randstad (i.e. Amsterdam, Rotterdam). The schools participating

in this final study are therefore not necessarily a reflection of a wider population of Dutch students either at primary or secondary school level. In summary, the participant samples in the three studies at the core of this thesis are skewed to represent a population that is well-educated and predominantly white and/or European, and is therefore not the best basis of which to make far-reaching generalizations concerning language learning in general.

7.4 Future Directions.

Firstly, further research into the interaction of motivation, cognition, affect, and context might uncover attractor patterns in the learning experience in general and interest specifically. As the participants in this research were not necessarily representative of language learners in general, I would be interested to see if similar attractor states are as salient and frequent in different levels of education, and in different social environments. This would require the collection of more background data on the participants than was gathered in this thesis, and potentially larger samples of participants if the aim is to compare two distinct groups of learners in terms of the states that make up their learning experience.

Secondly, a longitudinal element to such the study of classroom attractor states would be very valuable, to further investigate how the frequency of such states varies over time. Given that motivation has often been reported to increase with age in primary and secondary school pupils (Carreira, 2006; Corpus, McClintic-Gilbert, & Hayenga, 2009), there are likely to be some changes in the frequency of classroom states as people develop. Time-constraints may be an issue for the researcher in this case, as it would be best to

leave a substantial gap between measurements. An alternative would be a cross-sectional approach, in which two or more groups of participants from different ages, but of otherwise similar background, participate in the study.

In addition to a longitudinal approach, a further potentially promising strand of research regarding the development of students' classroom states over time would be the situated longitudinal micro-mapping of different states within the learning environment (see, for instance, Nitta, 2013; Pawlak, 2012; Waninge, Dörnyei, & De Bot, 2014) as a means of analysing the variability of the learning experience, its relation to the context, and its implications for the overall learner experience on a larger time scale. Analysing lesson plans and classroom observations as a background to students' report on their current state as recorded during a classroom session could potentially single out contextual factors in the classroom that are supportive of or detrimental to interest and attention. This could give researchers further insight into the role that contextual factors, such as teacher behaviour and classroom activities, play in the attractor basin shaping a student's state. This could then form the basis of guidelines for teachers, aimed at optimizing the circumstances in their classroom to nurture the development of positive states such as interest. Eventually, intervention studies could potentially allow for the testing and further refining of such guidelines. Tracking states in the classroom has been done previously (e.g. D'Mello & Graesser, 2011, 2012) but holds great potential in the light of current technological possibilities: it would be ideal to design a simple mood-tracker app to replace the paper versions (Waninge, Dörnyei & De Bot, 2014) or researcher observation (D'Mello & Graesser, 2011, 2012) used to observe students' states in some previous research. This micro-mapping would allow researchers to observe the direct effect of certain contextual factors in the

classroom, and the effect it has on different students. There are several potential issues with this research design, first of all, there is the possibility that schools may be hesitant to have a research study take place in their classrooms, which may make participant recruitment particularly difficult. Furthermore, teachers may unconsciously change their behaviour with a researcher present in their lessons, and students may be distracted by the presence of a researcher.

A further promising research direction would be to examine the development of implicit and explicit attitudes towards a foreign language in different age groups longitudinally, rather than through a cross-section as was performed in this thesis, to see how these attitudes develop over time. Secondly, as with the first study in this thesis, the participants for the final study were not necessarily a representative sample. As such, it would be very valuable to gain an insight into the implicit and explicit motivational differences between participants from different socio-economic backgrounds, as well as between participants from different levels of education. Especially considering the connection between socio-economic background, parental pressure and access to early language education as discussed in Chapter 3 (Besser & Chik, 2014; Mattheoudakis & Alexiou, 2009), there may some differences between these groups, with one group having a less positive implicit attitude than the other. If there is indeed such a difference, the next step would be to research the best ways to remedy this. Alternatively, the outcomes from future research suggested above on longitudinal micro-mapping could help to develop guidelines to support these students in developing or maintaining a positive state in the classroom regarding their target language, despite the absence of certain motivational factors.

In addition to this, it would be both promising and interesting to extend this research into implicit and explicit attitudes to include a variety of target languages other than English, as the expectations and motivational factors surrounding English are likely different from those regarding other languages. As an example: it would be fascinating to see what implicit and explicit attitudes British learners of foreign languages hold towards their target language, in the absence of a widely spread narrative regarding the importance of said target language, as is often the case for learners of English as a second or foreign language.

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Appendix I. Sample interview transcripts

Study 1, phase 1

Interviewer: in a classroom situation, can you think of which state of mind you have been or are experiencing a lot?

Participant 27: Ehm… probably just thinking a lot. Like interested in peoples' discussion, trying to participate yourself.

Interviewer: and where there any other states you remember experiencing frequently?

Participant 27: someone's really like not really that engaged with the topic not really interested so might be slightly bored, or yeah, or ones were the discussion is something that you don't understand but you're too nervous to just say, so you're just like sitting there not participating and a bit confused.

Interviewer: and is this similar or different for secondary school and in university?

Participant 27: Ehm, yeah, ehm, I think people in university yeah, seem a lot more willing to talk than they seemed in secondary school because they study, well, hopefully you're studying the subject that you're interested in, and want to continue in later in your career, so people participate a lot more, the discussion I find is going a lot deeper into the topic.

Study 1, phase 2

Interviewer: in a classroom situation, can you think of which state of mind you have been or are experiencing a lot?

Participant 7: Eh, tiredness, ehm, distraction, like imagining other things.

Interviewer: hmhm, and were there any other states you remember?

Participant 7: ehm, impatience, for it to finish. If it was a good teacher, keeping our attention, eagerness to learn, interest, impatience to get to the work

Interviewer: Did anything change at all in terms of states between secondary school and university?

Participant 7: Yes, there is less distraction, because it's something I want to study, something I'm interested in, and so it's more of a stressful feeling of trying to take everything in, to get everything written down.

Interviewer: Were there any classes in which you experienced interest more than in others?

Participant 7: Ehm, English, and art, ehm, more of the creative subjects. Ehm, yeah I didn't enjoy physics because I found it difficult to understand, and boring.

Interviewer: so you enjoyed the creative subjects, could you explain why?

Participant 7: With English and things like art and history I liked the ehm creativity of art and English, ehm, liked being able to create something, I liked the way in which the subjects where taught, it was grey rather than black and white right or wrong, it was your opinion, your style, that's what kept me interested in those subjects.

Interviewer: and was there anything else that would make you more interested in these subjects?

Participant 7: ehm, in the future I'd like to do something like writing, so I've always been interested in doing something creative so it's always been in the creative subjects. I had a maths teacher I didn't like so that affected it as well, and a physics teacher I didn't like, and that affected the, past teachers I've had affected how I paid attention in future lessons.

Interviewer: so when you chose to study English at university, was that more a matter of future career prospects or your enjoyment of the subject?

Participant 7: I'd say both, I do enjoy the classes but sometimes you don't, sometimes you're having a day when it's still hard work and a struggle but knowing what you want to do in the future knowing you want to go into writing or publishing knowing this is what I need to do, have to get in order to progress to that level.

Interviewer 7: you said you like to write and create, do you remember how that started?

Participant 7: oh that was at a very young age, like in primary school, with English lessons. I always enjoyed English and liked writing poetry and fiction, I've always been a very big reader, I was always reading and it was something that came quite natural to me through high school and everything else and so it was a natural course for me to take with university.

Interviewer: okay, then one final question, what would you say is the definition of interest?

Participant 7: Ehm, something that maintains your attention, that you wish to learn more about and develop your knowledge of, ehm, yeah something like that, really

Study 2

Interviewer: When did you start learning Korean?

Emma: I've been learning it for five years now.

I: so that's before you went to uni as well?

E: yeah, so I was probably fifteen sixteen.

I: did you start learning it when you were in school?

E: I started doing it when I was in school, but I was teaching myself when I started.

I: And how why did you start with the language?

E: I met a Korean friend at school, and we started watching Korean tv ehm obviously with English subtitles for me, ehm, and eh listening to Korean pop songs, and as time went on and I was listening and watching the subtitles, but then there's only so much stuff that is subtitled. So I realized if I wanted to get more into it I'd have to start learning, so I did, and my friend taught me the alphabet, and then I got myself a textbook and tried to do it by myself but it didn't work very well 'cause it's so different to English. The basics where ok but as soon as you get outside that everything is so different that it needs explaining in a way that a textbook, just by turning the pages you can't get that information. All the context information: this grammar is used for this, ok but can I use it now, or can't I? Is it a subject the same at the start and the end, things like that, it isn't…? I got, I found, my friend found me a tutor. And I learned with her about three years. And also started going to the Korean church, to practice.

I: Hmhm

E: and nowadays a lot of my learning is through ehm just talking like this with people. I find it a lot easier to, I notice 'oh we learned that word in class', but I remember it a lot better when I have a conversation with someone.

I: This tutor, she was Korean as well?

E: yeah.

I: did it help, having classes with her?

E: yes, ehm, it helped a lot, because we found, first we had ehm a not that brilliant textbook, but we pulled through it, and tried, and it was better having her teaching me. Then we took a break and when we came back we found a new textbook and that was really good. It helped a lot having her because she could, especially with my writing which is my weakness, she could point it out, and she qualified as a teacher when she was in Korea, and then got married, and never used her teacher qualification in school but used it when she was teaching me, so it worked out really really well.

I: So you started because of the friend that was Korean?

E: through the friend, but I really got into, hehe, I got into a boy group, a Korean pop group, and my friend was into it to. So in class we'd have done all the work and go, 'did you find that video on that talkshow?' 'Yes but I couldn't find it with subtitles, what does that bit mean, what does that bit mean?'

I: brilliant! So that meant that you wanted to learn the language?

E: I started listening to Kpop, Korean pop music, and the melodies and the atmosphere of it, the feel of it, is a lot lighter than Western pop music, which can often focus on some of the darker issues, which when you listen to it, if you really like the beat to, so if you listen to that you still end up listening to the lyrics

I: which are sad?

E: yes, sad, so then I get sad. If I listen to happy things I'm happy

I: that makes sense

E: so, ehm, that's how I really got into it, and then after a while obviously you want to know what you're listening to, so I'd find the translations online, like the Korean to English translation, but there's a lot of stuff that doesn't get translated, and I'd be curious about it. So that's where the curiosity really kicked in. And if I want to know what it really is I think I'd have to learn it. So about six months after I got into Kpop I started learning Korean

I: so, when you were learning by yourself, what did you feel like when you were learning? Did you get really excited about it or did you get bored?

E: when I first started it was like 'yayyy I can finally get on with it' because it's not that easy to find Korean textbooks, so I had to order them online and they took a while to get here. So when I finally got a hold of my textbooks I go 'heeeeey!'. And then I opened them and started doing and realized that it wasn't really that useful. It was structured almost for someone who was going to move out to Korea for a month or so, so you need a bit of Korean to get along, but it's not really, the grammar explanations weren't clear.

I: was it too basic?

E: it was too basic, but you felt like it was leaving big holes in the explanation. It wasn't that it wasn't academic, but it wasn't written by a Korean who'd learned English, it was written by someone, one English person who'd learned Korean, and one Korean who'd learned English, and it was almost like in writing the grammar descriptions, what each of them wanted to say had got lost in translation. So what the Korean person thought was important to say it hadn't come out right in the English. And what the English person thought needed to be said was phrased alongside it, and the two would either contrast, and be more confusing than they were helpful, or they would kind of go together, but it was a very shallow explanation. So this grammar point does this, and that would be it, not like, which situation did you use it in.

I: so when you were very enthusiastic at first, and what effect did that book have on you?

E: it became really frustrating, because I'm putting time into it, but I'm not getting the output I want, so I think that's why I asked my friend to find me a tutor, because I tried using what I'd learned in the book with her, and it wouldn't come out- it wouldn't, compared to the time I'd spent learning using the book, it wasn't at all effective, and efficient, it was hard- I couldn't understand her, and she had a really hard time understanding me, so at that point I realized, this isn't working

I; so how long did that take, between when you got frustrated and looked for a tutor

E: well, about two or three months, because I tried to- well if you know it's not working, and you're on chapter three, it's not gonna work when you get to chapter seven, so I gave up on that textbook, I gave it a go, and it just wasn't it.

I: and when you were working with that textbook, what did you do to get yourself to still open the textbook, how did you motivate yourself, when the automatic enthusiasm had almost gone?

E: the thing is, my enthusiasm and the want to do it came from the music and the television programme, rather than, I want to complete book and have the sense of completion and fulfilment from having completed the book. So ok I want to know what that word means, can I find it in my textbook, I want to know what that grammar means I think it's in my textbook, what does the textbook say.

I: So you focused more on the music and the TV again?

E: yes.

I: so then, when you were learning with your tutor, the next step as it were. How did you- did you get the enthusiasm back, or was it still frustrating at times?

E: With my teacher, like, my teacher is Korean, and she speaks very good English, so she was able to express, the meaning to me, or explain things well to me in English, we decided to, at first when I needed that because I didn't have the Korean, and it was a bit confusing at first because there was the, I wanted to learn about the Korean culture so she said she would be more Korean with me than she normally was with English people, so at first there was the slightly confusing bit, with 'okay, new culture, how? Let's give it a go'. So at first I was a bit nervous, walking on eggshells a little bit, trying to find my feet. I read about what I should do in other books, like Korean culture books.

I: and what sort of things were different?

E: it's things like greetings and bowing and ehm there's one that if you drink alcohol in front of a social senior you should turn your head. The book failed to say that you don't have to do this with tea. So there was me doing this, and the teacher: 'is this a Chinese thing? I don't think it's English, you don't have to do it with tea'. Ehm, my Korean friends in Korea at the moment often comment that I'm very good at being in Korean culture and acting like a Korean, and my response is, 'yes that's because I made all the little mistakes before'.
She made it fun, but she also brought a lot more structure to my lesson. Because we had a timetable, we'd meet once a week, and she'd give me homework, so I'd, instead of just playing around listening to music, I was doing listening practice to conversations, and writing homework every week and reading homework.

I: And during that homework, was it still the same thrill as in the beginning? Or was it different?

E: it faded after a while.

I: It faded, so what did you do?

E: ehm, my lesson was normally on Friday morning, so I'd do the homework on Thursday night, ehehe. I mean I'd do it, but it was more, I've made an agreement with my teacher that we have a lesson and I'll do the homework as part of it, so I'm more, I think I did- it's not that I didn't want to learn it, but homework always has that sort of 'I don't want to do it' attached. So for me it was more, I'd promised her I would do it, so that was why I should do it.

I: so that was your motivation. And in the lesson itself? Was that also a bit of 'I don't want to be here', or was it that more positive?

E: it was really fun to be having lessons with her, especially as time went on. And when we moved to the new textbook we agreed that now I'd got a grasp of

basic Korean she was going to speak just Korean unless it was obvious that I couldn't understand. So from that point on it was a bit more 'okay?' a wave of Korean, washing over me, ehm, yeah, I drowned a little bit at first and then I learned to swim. Ehm, she spent quite a lot of time talking slowly at me, but it was *at me*, and I was trying to grasp it, and she could see I was trying to grasp it, but it wasn't going in yet. Because life listening and listening to a pre-made cd, that's so different. So, at that point the frustration did occur

I: but you still wanted to do it?

E: hmhm.

I: so even though it was frustrating, how did you get yourself to keep active and keep doing you r homework?

E; well, what I found worked for me is that – one of the big frustrations with Korean is because the word order is completely opposite to English, I had learned French before, and because French and English are so close, if you think, 'the French attitude is more fluent, but if you think with an English attitude and based on English grammar, French grammar will come out vaguely acceptably. But because Korean is completely opposite, if you think with an English attitude it won't come out right. If you think based on English grammar. So what I had to do was throw away the English, and establish in my head ehm a section, like a mental folder for Korean, and whereas the French folder would already have so much in it based on the similarities with the English, I made the Korean one empty and went back to being a baby in a way, and learning it how babies learn, I wanted to try it with that attitude. Cause based on English, the prior knowledge is no help with the Korean. So if that's the case why am I thinking about the English, let's get rid of it.

I: that was when you had the new book already?

E: yeah when I started with my teacher I realized that the more I think of English:

I: the more problematic-

E: yeah, so, get rid of the English.

I: and that helped

E: hmhm

I: You mentioned a Korean church too, when did you start going there?

E: ehm, I've been going there for almost, it must have been three years now, so about two years into learning Korean. Ehm, yeah, that was hard at first, it was really hard.

I: why was it hard, because of speaking Korean?

E: Everyone spoke Korean, but they also, most people could speak English. But I didn't want to go in as an outsider and just for my sake have them speak in English. Because it's not just the Korean language they're practising it's Korean culture, which is very different from English culture. And so when they're with English people in their everyday life they have to act more English, but in- when they're in Korean church it's a chance to be Korean, to be fully Korean, and I didn't want to interrupt that by making them speak English all the time just so I could understand. Ehm, and my friend also told them that I speak very good Korean while at that point my Korean was not very good. So they spoke at me, and after a while they did realize that my Korean was not that good, and started using easier words or English. Ehm, but when I couldn't understand something I tried and I got frustrated, I try to channel that frustration into studying, because ok, I can't understand that today, but I couldn't understand as much as I did a week ago, or a month ago. So if I want to understand that I have to keep studying.

I: so you used your frustration to study more

E: hmhm

I: is that why you kept coming back to the church even thought it was difficult?

E: It was very difficult at first because as well as not being able to understand everything there's the cultural thing that I had to get used to and Korean people are really warm and so generous when you get to know them, but at first it's ehm, you make a lot of polite conversation at the start, if you know what I mean.

I: I think I know what you mean

E: it's not easy to get to know people

I: Was there one thing that kept you going or was it several things?

E: ehm, well, it… I've always, since I got into Korean I've had a drive to learn it. And that keeps going. And there's times when the frustration is at a level you can use it to study. And there's times when there's too much of it. So if you, if I start studying, it just feels like ow what's the point. At that point I put it away and do something else. It's not like I have to learn it so that I can go on- a company sending me to Korea, it's not like that, I'm learning it for me. If I know that I'm not in the mood to study it today, then we do it tomorrow. And the more, if you know it's not gonna go right, and then you push it, it's like an essay, if you know you're not in the mood, but you just try to get it written so that it's done, it doesn't come out right. It's the same for me with Korean, it won't go in right, I can't learn it. But, so I think

I: do you have any techniques or strategies you use to get yourself in the mood to learn or is it something that only comes naturally?

E: I still need a bit of a push, to sit down with textbooks, but because on my own I've just finished intermediate stages, and now I'm moving in to the advanced stages, which is really good and I'm really happy that I'm learning grammar that's more complex, and express more complex ideas, but at the same time the vocabulary especially, because you only hear it on the evening news, or on politics talk shows, it's harder to learn, so you're spending more time to learn words you won't hear, you won't be able to use a lot, and I kindof see it as a little inefficient timewise. And when at the beginning and middle stages you can, what you learn you can see it being used around you straight away, but at the advanced stages it's- I have to work harder, to learn stuff that I'm gonna use less regularly. Especially for me, because a lot of people there are going to be people working in Korean offices, or wanting to do degrees at Korean universities, so they're gonna use that more, whereas I'm not.

I: so what do you do if you need a push to study, what kind of push do you give yourself.

E: I realized after a while, I realized that I do like studying with the textbook, that you put some music on or something and just do it, it's very relaxing in a way, because of the school system and stuff, you've always got a textbook and you go 'ok, nice and safe, just do it and then turn the page and there's more of it'. There's something quite comforting about it in that way. But I've always found textbooks a little limiting in how much you can learn. Because you have to find a new way to look at that. And my personality - it's not a great personality feature, but I need pressure to sit down and work solidly. Whereas I found like I need an exam coming or I need a deadline to be able to sit down and work like that. Like recently, three weeks ago I was sort of opening a book and doing a few words and a little bit, and then, 'ok, that's enough', and two days ago I had a mild panic, and sat down and did about four chapters.

I: Do you set yourself deadlines? Or do you use the ones the school gives you?

E: I have to use the ones the school gives me, 'cause I tend to, the ones I set myself tend to go a little by the wayside. Okay, I know I should have been in the shop by know, or I know I said I would be at my grandma's right now but I'm still in my pyjamas... I should have left the house half an hour ago, ah well...

I: So, when you're in language class, what kind of state are you in there?

E: Well, I have just completed a summer course in Korea, and it often depended, we had morning class from nine to one pm, and often I found that the first two lessons on the morning so from 9-10 and 10-11, were very dependent on how much sleep I'd got, and what time I went to bed. Ehm, I was really lucky with my teachers, I studied three levels there, and all three levels I

really liked my teachers, and ehm, with the textbook being made especially for that school, by the school, so they really knew how to work with it and how to use it. So it was very productive, and I found coffee generally helped.

I: anything you did to motivate yourself if you had a boring teacher or no coffee, any tricks you used?

E: things like, my- more than in class, my friends and I would try to use what we'd learned that day after class together, so when we were eating lunch together we'd try and use what we'd learned. Listening to other people using it made it easier to remember.

I: you said if you're dozing off sometimes?

E: eh, if I got sleepy, normally coffee, or phone games? I'd put my music in on one headphone, on a low level, to keep me going, and then listen to the teacher with the other ear.

I: so engage your brain at some level

E: I know, the teachers don't like it that much, but I explained to one teacher why I did it and he said it's ok, but other teachers just said no. But it keeps me awake, because there's something going on, even if it's just beats, or kind of moving a little bit, it keeps me awake. If I doodle I tend to focus on my doodle, so I try not to doodle. If I get a cold or something, if it's obvious that I'm not gonna be able to concentrate in class, then I don't really see the point of going to class. Because if I'm in class I always try and concentrate, and at times it's just boring. Even if it's something you love, there's times you wish you were still in bed, everyone has those days and I do not apologise for having them. On those occasions I tend, if I do go to class, I tend to sit there and sort of watch the board, looking actively at the board, I'm watching the board, and reading along and, but you can tell it's sort of the puppet on the strings, not actually engaging. In class motivation, ehm. I think for me the most important thing is that the teacher in the classroom is a human being and when you're not engaged with what they're saying you're being rude by ignoring them, and I don't want to be rude to someone, especially if I'm going to need that person's help, on a selfish level, I need your help, if I'm rude to you, you're not going to want to help me, and as well, it's their work environment, because I paid to be here doesn't mean I've got the right to make them feel uncomfortable in the work environment, so I think it's good manners to pay attention.

I: so you remind yourself of that and then stay awake. Anything to add?

E: I think, what I found with meeting other people who've learned Korean is when you're interested in the culture, or you're interested in something specific, as opposed to you've been sent there by your work, or you've gone there for a reason that isn't your work. They tend to have deeper understanding or be more native in their use of language.

I: they're more successful in learning the language?

E: I think so. I mean maybe the person who's gone there for work, there was one guy who was really smart, he got exams of 98, 98, 97, 97. And he'd been going to work the whole time a swell. So he was really smart, but at the same time when he's using it on a daily level, you don't feel the same depth to it, so I think if you really, if you love the culture or you want to be there, you can really feel the difference, or you can hear the difference in someone's speaking. And also, I think there's a difference between people who learn languages to take exams, and people who learn languages through using it. I'm the opposite of what people normally are for Korean, for Korean learners. Listening and speaking are my strongest, and my writing is my weakest. Most people learn to read textbooks so they find writing and reading easier because you can practice that by yourself, and then speaking and listening are harder because you haven't had the practice because they've been textbooks focused.

I: but you switched from textbook to conversation lessons quite early?

E: with my tutor we'd work a lot with the textbook, but she'd say okay this is what it says in the textbook what do you think about that, and trying to expand on the conversation a bit

I: and she would speak Korean

E: yeah. So I think that's a real difference.

I: You told me earlier that you also studied Chinese for a while, and you attended a summer school in China?

E: yes, it was so very strict. It was good, but I'd just finished my first year of a-level, and I'd gone there for a month summer course, and they were really trying to push me to study, and I had the whole of Beijing, with lots of shopping, and lots of money to spend on the shopping, and delicious things to eat, and places to go with friends. And the two combined meant that I had a more social tour than an academically constructive tour. Also I found that I had a bit of a mental block, against the characters, I could learn them, and I could remember the meaning, but I'd remember them in English

I: like there was English between it?

E: yes, instead of coming from the Chinese, to look at the picture, and then associate the pictogram with the meaning and the sound, I could get the association with the meaning, but not so well with the sound. And I found that quite a block in Chinese, because it takes so long to learn the characters, and I found that I'd learn this many characters this week and then I'd learn that many characters that week, but it was like my head only had room for one week's

worth of characters. So when I learned the new weeks' worth of characters, last weeks' worth seemed to all fall out, so I got frustrated and I stopped.

I: so, you stopped with Chinese but not with Korean?

E: with the Korean having an alphabet, it's a lot easier, so, this year we will be learning kanji, which is the Korean traditional Chinese characters. But I like with Korean that you have the choice. And you can learn it when you have the time, but you don't have to have that every day to live, you need the alphabet for every day, and these characters, if you know them that's great, but if you don't it's not like you can't eat or you can't find your way home

I: so the frustration with Chinese was just too big?

E: Not just that, it didn't want to go in my head. And yes, ok, so let's say you learn 10 characters a week, or that is a drop in the ocean, because there's over 30.000 characters you need to know to be able to live every day. And 10 characters a week that is never gonna be able to do that. And I can't remember more than 10 in a week, because I have to review the week that came before. And by then when I came back from Beijing, I found my Korean tutor. You see I'd found my Korean tutor when I was doing Chinese over there, so I had Korean which I really wanted to get into, which was my goal, and then Chinese as a filler, and the Chinese was getting too hard, and I had an opportunity to do a lot more with my Korean so I stopped Chinese.

I: do you remember why you started learning Chinese in the first place?

E: at that time I wanted to, I just gone up to A level. And I had been doing a French GCSE but I didn't get on with the French teacher at a-level, that was just a clash of personalities, and I couldn't do it. Ehm, so I stopped doing that, because I realised it's not gonna happen, and I had the opportunity to do the Chinese, so I did. And then whilst is was studying Chinese I found the Korean tutor, so I started studying with her as well. And then after I came back from Beijing, I would have had to have paid more money to keep going with the Chinese, and I just decided I wanted to focus on Korean.

I: so the, you were doing French, when you were already interested in Korean? Did you do French for a-level?

R: Yeah, I'd done French for GCSE: and you can't do a Korean a-level, so but it's really good to have a language for when you go to university, because very few people have a language so it makes you stand out and look really good, so I wanted to continue with French. And then when I got into the French class, the teacher, his personality and mine are completely the opposite. I'm quite a quiet person, and I talk about my views with people after I got to know them. I'm not the sort of person, I can't walk into a room with people I do not know, and spout my views or political leanings. Not my style, or like personal sort of things

like marriage. And for the a-level that's the kind of stuff you have to be able to do.

I: the kind of subject, the personal and political?

E: hmhm, and social life and things like that, but like, so, so I had, society and social structure. And I'd known these people two weeks or two days, 'ok tell her what you think about that' I just wasn't comfortable. And then the teacher, the way he explained things, ehm, he couldn't sit still. Very distracting. My first French teacher, she was really kind and helpful and wanted you to do well. And she understood the grammar perfectly because she was French, and she had a beautiful French accent and then I went into this French class at a-level, and he said '*bonsjoooour sjumappelll daaive'*, and this kind of sums up *daaive*. Dave and his French courses. And when he was explaining something he sat like this, and then like this, and then like this. When you've got a class of 30 or so, because there weren't enough people to have two classes so we were all together, it just wasn't comfortable. And the worksheets he gave us were really basic. I just thought, I don't want to be here, I have four a-levels, I don't need four a-levels, ahm, so I dropped the French and just carried on with the other three.

I: So in comparison, in Korean class you also got-

E: frustrated

I: yes but you continued despite the frustration.

E: yes, because I want to be able to not just watch, but also to partake in Korean culture.

I: and with French?

E: I didn't have that, I mean, you go to France for a holiday and it's nice and sunny and the food tastes good, but then you come back to England again, and the- to me, I know I will spend more time in my life in Korea and that will probably be on longer stints like six months or so, whereas if I go to France, it would be for a holiday, so to spend months and months learning a language just so you can use it two weeks out of every year, that's not practical to me, that's wasteful of time

I: when you were sitting in French class, would you still… like in Korean, still try and get yourself to pay attention, motivate yourself, drink coffee, all those things you described before?

E: I did at first, but the more I focused, the more frustrated I became, because I'm trying to focus on him, and he's here and there like a Ping-Pong ball, and he'd lose track of what he was saying, and start again, but it was all in this atrocious French accent, and he was determined to speak French and it sounded like he was trying to get the waiter to get him a glass of wine in a

French restaurant, when actually he couldn't speak French. It was kind of cringe worthy to watch. And so the more you watch the more frustrated I got, because okay what's your point? Right? You've spent five minutes, you've given me the point of the lesson, okay, so what does that mean, how do I need to achieve that point, you've got five minutes, and you're out of time, because there's no point focussing on something that never gives anything back. And yeah, so I just gave op

I: Because it wasn't worth the effort?

E: Yes, that, and I didn't need it as much. And also I then started Chinese. When I did the Chinese, it was at Notts Trent uni, and the building that the Chinese lesson's in, was right next to my college. And Wednesday afternoons ehm are sports afternoons, or activities afternoons, for lots of places and universities and schools, so on Wednesday afternoons I'd always go across to uni and do my Chinese lessons.

I: hmhm?

E: so I still had my language lessons. Instead of being French it was Chinese, and although it wasn't an a-level, it was just a university course. And still, an a-level student studying at university level, it looked good, if not better on my UCAS application for uni. Yes.

I: that makes sense. You continued with that until you started Korean lessons with your tutor, yes?

E: I did. At that point I was thinking of going into business, so if I had Chinese and Korean I'm really employable, was the thought

I: And the reason you dropped Chinese-

R: definitely the writing, not being able to keep up with the writing

I: speaking was all right then?

R: speaking was ok, I seemed to grasp that part of it quicker, there's a few phrases that if you've heard them five times, then you've learned them. I'm not sure it works for everyone, but it worked for me, so when I'm speaking and listening with people and having a conversation, then I learn it a lot faster, and a lot more concretely, than if I use it for writing and reading. Cause if I'm writing and reading I'm using my hands and my eyes, so it goes in here and goes out here. Whereas if you're listening and speaking, you're using those ones, so if you learn it by hearing I think it's easier to speak it, whereas if you learn it by reading it's easier to write it, for me. I feel more comfortable as well when I learn through listening and speaking.

Study 3, primary school

Interviewer: What is your favourite activity in school?

Participant 25: I like it when we do reading, and when I can play in the doll corner

Interviewer: hmhm, and is there anything that you don't like to do in school?

Participant 25: ehm, I don't- I don't like it when the teacher is angry

Interviewer: okay, so here we have five little faces. This little face is very happy, so that is when you do reading, and playing in the doll corner. Then this little face is not happy at all, that is when the teacher is angry, yes?

Participant 25: yes

Interviewer: and when you do English in school, can you point out which face that is?

Participant 25: [pointing out the first and most positive face] that one

Interviewer: okay, so English is nice for you?

Participant 25: yes

Interviewer: and do you know why?

Participant 25: because it is nice, it is easy.

Interviewer: okay, that's great! Do you know why you are learning English in school?

Participant 25: I don't know

Study 3, secondary school

Interviewer: What are your favourite subjects in school at the moment?

Participant 28: Ehm, that would be chemistry, English and biology

Interviewer: And your least favourite subjects?

Participant 28: I've already dropped those, but Dutch language is definitely on the bottom, because it is mandatory and I don't like it at all. Physics and maths I find really hard, but interesting.

Interviewer: Why are chemistry, English and biology your favourites?

Participant 28: Chemistry comes more naturally to me, I'm quite good at it, I like it and it is interesting to me. And English- I do a lot with it, I like speaking it, I like thinking about it and like I tutored others in English because it comes easy to me, 'cause I find it interesting. And I want to continue with biology and chemistry: I want to work in medicine or pure chemistry

Interviewer: so if you have this scale here, with 1 being very negative, 3 being neutral, and 5 being very positive, where would you place chemistry?

Participant 28: that would be a 5. And biology as well.

Interviewer: and English?

Participant 28: ehm, a 4 I think.

Interviewer: And how about Dutch, physics and maths?

Participant 28: Dutch is a 2, and physics and maths are 4 and 3.

Interviewer: would you pursue chemistry or English if you weren't taught them in school?

Participant 28: yes, I'd definitely take chemistry classes elsewhere so I can continue with that, it's really my thing. Biology I don't know, maybe less so? I mean I'm looking things up anyway, about diseases and stuff, and I talk a lot to my mum about chemistry, so yeah.

Interviewer: And how about English?

Participant 28: English I don't know, I would keep speaking it, and you can't really do without it. That's almost impossible, we are in the Netherlands, so we speak Dutch, but nobody else speaks Dutch and English is now a world language, and like, everyone speaks English, books are in English, websites are in English and yeah, if you want to look something up as well you come across English.

Interviewer: how important would you say English is compared to other subjects? If we use the same scale as before, where a 5 is most important, and a 1 is least important?

Participant 28: I think chemistry for me is a 5, as well as biology and English. So they're all important really. I think as Dutch people we are bombarded with English, that we have to speak it very well, and I almost like expect from other Dutch people that they are able to speak English reasonably well, like, it's the norm.

Appendix II. Informed consent forms

Consent form for research study 1

States in the classroom

Researcher: Frea Waninge

The purpose of these brief interviews is to explore learners' states as they appear in the classroom. The interview length may range from 5 to 10 minutes.

Please read the following information and cross out as necessary:

- I confirm that I have understood the purpose of this study

  YES/ NO
- I have had the opportunity to ask questions and they have been successfully answered.

  YES/NO
- I understand that my participation in this study is voluntary and that I am free to withdraw from the study at any time, without having to give a reason

  YES/NO
- I understand that all data are anonymous and that there will not be any connection between the personal information provided and the data

  YES/NO
- I confirm that I have read and understood the above information and that I agree to participate in this research study

  YES/NO
- I consent to my data being transcribed and wish to be referred to anonymously.

  YES/NO

Participant's age: _____

Participant's signature: _____ Date: _____

Participant's name (in block capitals): _____

Researcher's signature: _____ Date: _____

Consent form for research study 2

Motivation and Language Learning

Researcher: Frea Waninge

The purpose of these interviews is to explore language learning motivation, and any techniques used to continue studying in case of decreasing motivation. Interview length may range from 15 to 45 minutes.

Please read the following information and cross out as necessary:

- I confirm that I have understood the purpose of this study YES/ NO
- I have had the opportunity to ask questions and they have been successfully answered. YES/ NO
- I understand that my participation in this study is voluntary and that I am free to withdraw from the study at any time, without having to give a reason YES/ NO
- I understand that all data are anonymous and that there will not be any connection between the personal information provided and the data YES/ NO
- I consent to my data being transcribed and wish to be referred to anonymously YES/NO
- I confirm that I have read and understood the above information and that I agree to participate in this research study YES/NO

Participant's age: _____

Participant's signature:_____ Date: _____

Participant's name (in block capitals): _____

Researcher's signature: _____ Date:_____

Consent form for research study 3, secondary school

Implicit and explicit attitudes towards English language learning.

Researcher: Frea Waninge

The purpose of this study is to take a closer look at attitudes and motivation for English in students of different ages, we are asking several learners of English to participate in a short sorting game and a questionnaire about learning English.

You will be asked to sort pictures into two categories on a laptop, and to answer some open ended questions on learning English. If you have any questions before, during or after the experiment, don't hesitate to ask the researcher for help!

The study will take about 15 minutes, is completely anonymous and on a voluntary basis. If for any reason you want to stop doing the sorting task or questionnaire please feel free to say so.

Please, read the following information and circle a response as necessary:

- I confirm that the purpose of the study has been explained and that I have understood it. YES/ NO

- I have had the opportunity to ask questions and they have been successfully answered. YES/NO

- I understand that my participation in this study is voluntary and that I am free to withdraw from the study at any time, without giving a reason and without consequence. YES/NO

- I understand that all data are anonymous and that there will not be any connection between the personal information provided and the data. YES/NO

- I understand that there are no known risks or hazards associated with participating in this study. YES/NO

- I confirm that I have read and understood the above information and that I agree to participate in this study. YES/NO

- I consent to my data being transcribed and wish to be referred to anonymously. YES/NO

Participant's age: _____

Participant's signature: _____ Date: _____

Participant's Name (in block capitals): _____

Researcher's signature: _____ Date: _____

Consent form for research study 3, primary school

Implicit and explicit attitudes towards English language learning.

Researcher: Frea Waninge

The purpose of this study is to take a closer look at attitudes and motivation for English in students of different ages, we are asking several learners of English to participate in a short sorting game and a questionnaire about learning English.

Your child will be asked to sort pictures into two categories on a laptop, and to answer some simple open ended questions. I will explain the different steps of the study to them before the start of the test, and they will be encouraged to ask questions if anything is unclear. If you have any questions about the project now or after the project please don't hesitate to contact me at aexfw2@nottingham.ac.uk

The study will take about 15 minutes, is completely anonymous and on a voluntary basis. If for any reason your child wants to stop doing the sorting task or interview they are free to do so. I will explain this before the start of the test.

Please, read the following information and circle a response as necessary:

- I confirm that the purpose of the study has been explained and that I have understood it. YES/ NO

- I have had the opportunity to ask questions and they have been successfully answered. YES/NO

- I understand that my child's participation in this study is voluntary and that I am free to withdraw them from the study at any time, without giving a reason and without consequence. YES/NO

- I understand that all data are anonymous and that there will not be any

connection between the personal information provided and the data. YES/NO

- I understand that there are no known risks or hazards associated with participating in this study. YES/NO

- I confirm that I have read and understood the above information and that I agree for my child to participate in this study. YES/NO

- I consent to my child's data being transcribed and wish them to be referred to anonymously. YES/NO

Participant's age: _____

Parent/carer's signature: _____ Date: _____

Participant's Name (in block capitals): _____

Researcher's signature: _____ Date: _____