Event conceptualisation and aspect in L2 English and Persian
An application of the Heidelberg–Paris model

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Academic dissertation for the Degree of Doctor of Philosophy in English at Stockholm University to be publicly defended on Friday 27 September 2019 at 11.00 in William-Olssonsalen, Geovetenskapens Hus, Stockholm University.

Abstract
The present project investigates the impact of the grammaticalised progressive on event conceptualisation in English and Persian. It applies the Heidelberg–Paris framework using single event descriptions for analysis at the sentence level and story re-narrations at the discourse level. The empirical data test the hypothesis that the progressive has an impact on information selection and discourse structuring in event conceptualisation in terms of infrequent endpoint encodings and language-specific patterns of perspective-taking in structuring discourse. Languages lacking the grammaticalised progressive clearly show different effects.

There are system-based similarities/differences in aspect between English and Persian. They have the progressive in common but differ with respect to the imperfective–perfective distinction. This difference is manifested as an increase in the use of the progressive in English. In contrast, the Persian system with two aspectual non-past forms which are possible for expressions of ongoiness leads to decreased use of the particular dāštān-progressive.

The key finding for the single, motion event descriptions is that the dāštān-progressive in Persian shows less frequent endpoint encodings, like in English, as compared to languages lacking the progressive. However, the imperfective bare mi-form is associated with frequent endpoints while English shows no such association because the progressive must always be used.

In narratives, differences emerge again due to the different typology. When the uses of the progressives in re-narrations are differentiated for clause type, the progressive in English is used equally in main and sub-clauses, though more dominantly in sub-clauses in Persian. These sub-results speak about differences in perspective-taking between these L1s.

The analysis of the complexities involved in aspect establishes that the bare mi-form in Persian can denote ongoiness in cases where the progressive is obligatory in English as it has no optional verb form. Consequently, the typological difference of the absence/presence of the imperfective–perfective categories leads to a significant increase in the use of the progressive in English, which results in a cross-linguistically different, and L1-specific, patterns of perspective-taking in the narrative discourse in English and Persian. Thus, despite the fact that the L1s have the progressive aspect, their principles of use differ as they are dependent on the relevant aspectual system.

Relating the results to linguistic relativity and cross-linguistic influence, the study shows that owing to the grammatical category of the progressive in common, event conceptualisation is similar in English and Persian in terms of infrequent endpoint encodings in single motion event descriptions, despite the overall typological difference. However, L1-related influence on the principles of use of the progressive in L2 English is considerable in the narrative discourse of the advanced L2 users of English as they seemingly proceed from the principles of use in L1 Persian towards those in L1 English.

Keywords: event conceptualisation, event construal, language production, progressivity, internal structure, conceptual transfer, L1 influence, L2 learning, L2 user, dāštān-progressive, bare mi-form, imperfective, perfective, perspective-taking, English, Persian.

Stockholm 2019
http://urn.kb.se/resolve?urn=urn:nbn:se:su:diva-171516


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Somaje Abdollahian Barough
To my mother
Acknowledgments

A flashback on the past work together with different people to successfully complete this thesis points to me clearly the persons to whom I owe my gratitude. I will always remember the kindness they have shown to me. The most difficult duty was taken on and endured by my head supervisor, Professor Emeritus Philip Shaw. I gratefully appreciate that you always, literally, had the whole project with all its details clear and on top of your mind for discussions and elaborations. This crucially developed the research content and moved the project onwards on the time line. Also, crucial for the success in the work was support and feedback from my other supervisors:— Professor Carina Jahani from Uppsala University who would read my draft during the late hours of her working day. I appreciate this consistent way of yours to support me in the work as well as persistently put me right about the subtle complexities of aspect in Persian— and Professor Maria Kuteeva from my own department who was kind and firm in pointing out gaps in my drafts and suggesting accurate ways to improve them. I am grateful to you for seeing to it that the incomplete drafts successfully turned to a complete thesis.

I had the pleasure of personally getting acquainted with the key researchers and designers of the model from Heidelberg and Paris. I want to thank Professor Christiane von Stutterheim for providing me with the complete data on L1 English narratives and for giving a talk at our department on her research. Also, special thanks to Dr. Mary Carroll, who dutifully instructed me all the details of the Heidelberg–Paris model via emails. Also, I am happy to express my gratitude to Dr. Monique Lambert, who acted as my discussant at EuroSLA 2013 in Amsterdam, for the deep discussion afterwards, and Dr. Silvia Natale, who presented her PhD work carried out within the Heidelberg–Paris model. I thank you all for the bits and pieces helping me grasp the comprehensive framework.

A very special thank you goes to Professor Emeritus Östen Dahl from the Department of Linguistics, Stockholm University, for the discussion sessions on aspect and tense in languages coupled with reading my way of putting those elaborations into words in my drafts. Also, I thank him for his permission to use Figure 2.3 from his 1985 publication.

Dr. Ghazaleh Vafaeian from the Department of Linguistics, SU — whose investigation of the progressive in Persian in her thesis provided me with invaluable information — thank you for discussing those issues with me.
Thank you, Dr Esmat Esmaeili, from Shahrud University, Iran, for going through the L1 Persian data three times with me, making sure I understood the meanings in the diverse constructions. I also want to convey many thanks to my mock discussant, Dr. Francesca Di Garbo, Helsinki University.

There are still many people whom I have the pleasure to thank for their help; foremost the staff at my department and my fellow PhD students. Thank you Anette, Charlotta and Sondos for being always so kind and flexible with my requests for adjusting the joint office time. Many people at the SU Library lent a hand with getting things right in the template. Also, I wish to thank the English, Persian and L2 English-speaking informants for their contribution. A whole lot of other people helped me in a variety of ways; Somayeh Mohammadi put staunch efforts to gloss and translate the L1 Persian data for Open Access, and Fariba Haghighi arranged the much needed workshop on NVivo.

Last, but definitely not least, I was supported to the extreme by my family, especially my mother, as always. Without your endless support this thesis would not have been possible.
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## Abbreviations

<table>
<thead>
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<th>Description</th>
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<tbody>
<tr>
<td>colloq.</td>
<td>colloquial</td>
</tr>
<tr>
<td>DEFAULT</td>
<td>unmarked present tense</td>
</tr>
<tr>
<td>En</td>
<td>English</td>
</tr>
<tr>
<td>EP</td>
<td>endpoint</td>
</tr>
<tr>
<td>H–P</td>
<td>Heidelberg–Paris</td>
</tr>
<tr>
<td>IPFV</td>
<td>imperfective</td>
</tr>
<tr>
<td>L1</td>
<td>first language/mother tongue of a speaker</td>
</tr>
<tr>
<td>L2</td>
<td>all languages learnt after the first language/mother tongue</td>
</tr>
<tr>
<td>M</td>
<td>main structure</td>
</tr>
<tr>
<td>N</td>
<td>grand total</td>
</tr>
<tr>
<td>n</td>
<td>sub-total</td>
</tr>
<tr>
<td>Pe</td>
<td>Persian</td>
</tr>
<tr>
<td>PFV</td>
<td>perfective</td>
</tr>
<tr>
<td>S</td>
<td>side structure</td>
</tr>
<tr>
<td>TSit</td>
<td>Time of situation</td>
</tr>
<tr>
<td>TT</td>
<td>Topic time</td>
</tr>
<tr>
<td>TU</td>
<td>Time of utterance</td>
</tr>
<tr>
<td>*</td>
<td>ungrammatical proposition</td>
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1 Introduction

Speakers of different languages learn to focus their attention on different information in accordance with the means provided by the grammars of the languages they speak. More specifically, the grammatical constraints both direct the speaker’s attention and scaffold the types of decisions required for organising information for verbalisation (Carroll & Lambert, 2003, p. 267). These grammatical constraints often involve a remarkable cross-linguistic variation; they also reveal language-specific speaker preferences in terms of native speakers’ propensity to use a certain construction more frequently than another similar one. More generally, this is observed as an inherent impact of the grammaticalised means on language production in first language, L1, a concept called ‘thinking for speaking’ by Slobin (1991, 1996a) which means that there is language specificity in language production which emerges from the grammaticalised means. This idea is the backbone of linguistic relativity (see section 2.4), which may lead to L1 influence on a second language, L2, often discussed in terms of cross-linguistic influence (Jarvis & Pavlenko, 2008, p. 1; Pavlenko, 2014).

Ideas about linguistic relativity were first put forward by thinkers such as Humboldt and later revived by Sapir and Whorf. Essentially, their argument was that the grammaticalised categories of language have more distinct impact on thinking in the course of language production than the lexicon does. They actually argued that the grammatical categories in L1 function to facilitate language production as the semantic concepts embedded in the grammatical morphology involve ease and frequency of use, referred to as “language habits” of the group or community of speakers (Sapir, 1951[1929], p. 162; Whorf, 1962[1939], p. 137).

Languages were observed to differ considerably in the grammatical concepts which are mandatory (Carroll & Casagrande, 1958, p. 20; Sapir, 1921, p. 108). The grammaticalised concepts have a secondary impact on language production in the L2 contexts where typologically different languages can lead to conceptual transfer from the L1 (see section 2.2).

In the mid-20th century, cross-linguistic research concerned with linguistic relativity focused on vocabulary studies (see Berlin & Kay, 1969a; Heider, 1972). This approach ushered in an inaccurate perspective on the study of linguistic relativity according to Pavlenko (2014, p. 13). For example, the fact that different languages have different words for colours may not provide evidence for different ways of thinking in language production by
speakers of different languages, as they can understand the colour nuances even though they have no words to describe them.

In the second half of the 20th century, many scholars looked at linguistic universals and similarities between languages (Chomsky, 1957; Cook, 1969) while others explored difficulties with typological differences in L2 learning (Gass, 1989; Schachter, 1989; White & Genesee, 1996). However, the theoretical work on cross-linguistic similarities in terms of language universals turned out less helpful to language learning than the learner-oriented investigation of the learning difficulties (Gass & Selinker, 2001). The latter redirected the research focus to L1 influence on L2 on typological grounds.

Research into the relationship between language and cognition has flourished since then. A recent study on linguistic relativity (Bylund & Athanasopoulos, 2017, p. 915) found that the impact of language on cognitive processing is not an either-or-phenomenon; rather, it is context dependent and dynamic in the sense of individual variation. The perceptions of time duration in languages using distance- and amount-based metaphors, i.e. long time vs. much time, showed linguistic interference for bilinguals tested in both languages to be confined to harder-to-process contexts when the distinctions were not “extreme”, and this interference could vary among individuals.

For motion verbs, Talmy (1985, 1991, 2000a, 2000b) showed that Germanic languages such as English represent manner in the verb root and direction in its satellites, whereas in Romance languages such as Spanish direction is represented in the verb root and information on manner is given in other ways. This is another instance of how languages may differ both cross-linguistically and as language families, with respect to a semantic domain.

In the wake of the typological cross-linguistic studies conducted since the 1990s, it became increasingly more evident that the different ways of “thinking” by speakers of different languages (Slobin, 1991, 1996a) are brought about by the typological differences between the L1s, in particular (von Stutterheim & Klein, 2002, p. 82), such that speakers of different L1s have different conceptions of what constitutes a reportable event in verbalisation (von Stutterheim, Nüse, & Murcia-Serra, 2002, p. 183). It was, however, established that differences in conceptualisation as a consequence of different syntactic structures do not correspond with differences in the way speakers perceive things in the world. Such strong, deterministic influence of language on thinking — which was earlier ascribed to Whorf (1962[1940a], p. 221) — was not supported by evidence (Nüse, 2003, p. 269).

Some linguists, such as Slobin (1991, 1996a) advocate non-deterministic language influences and regard them as “differences in the way in which concepts are organised at the moment of speaking”, given the fact that languages vary with respect to their systematic categorisations and structures (Murcia-Serra, 2003, p. 300). The distinction Slobin (1991, 1996a) makes from the deterministic view is embedded in his notion of ‘thinking for speaking’. This concept emerges from his studies on children’s L1 acquisition
described as learning to pay attention to specific concepts and relationships as a result of the structural patterns of their L1.

In line with Berman & Slobin (1994) a step further was taken by a group of researchers with a new design to involve advanced adult L2 learners of typologically different languages. This group was led by Christiane von Stutterheim from Heidelberg and included Mary Carroll, also from Heidelberg, and Monique Lambert from Paris, who are referred to in this study as the Heidelberg–Paris group according to the researchers’ academic affiliations. Their endeavour was to examine the possible role of language in event conceptualisation (von Stutterheim, 1999, p. 159). The question this group pursued concerned at what point in language production the L1 speakers started to differ from universal processes and become language-specific. To answer the question, the L2 context of conceptualisation was key; if advanced adult learners of an L2 conceptualise the temporal semantic notions of their L2 in the same way as L1 speakers of that language, given any typological differences in their *grammaticalisation*[^1], the process of conceptualisation is universal rather than language-specific. In contrast, if L1-related features are evidenced in L2, the level of conceptualisation may be tuned to language.

The inclusion of the L2 context of language use in the Heidelberg–Paris approach requires a thorough study of aspect and the evaluation of the impact of the different aspectual categories in the aspectual systems.

The Heidelberg–Paris group adopted a contrastive linguistic approach employing experimental methodology to generate empirical linguistic corpora in the form of samples of re-narrations of a video clip, with a view to building on the typological difference approach. Two tasks were developed to form identical stimuli basis. Given the same knowledge base (cf. Carroll, Rossdeutscher, Lambert, & von Stutterheim, 2008b, p. 175), even speakers of such closely related languages as English and German were shown to reflect differences at the conceptual level of ‘thinking for speaking’.

The tasks employed by the Heidelberg–Paris group are not communicative in nature nor is their aim to investigate L2 learner communicative competence with the focus on learner errors. Rather, these tasks aim to test transfer at the level of conceptualisation. Thus, the level of analysis is not linguistic transfer where grammar errors may appear but a level beyond, where the L2 grammar is not “wrong” but may reflect conceptual transfer: the language produced by L2 learners may show grammatically possible but pragmatically unusual patterns that may sound non-English to the native speaker of English, since the patterns of language use in L2 are driven by the respective L1. Thus, the central notion of conceptual transfer, which was first applied to lexicalised categories, is extended by the Heidelberg–Paris model to the highly abstract level of conceptualising information for expression (for transfer see section 2.3; cf. Pavlenko, 2011, p. 246).

[^1]: Terminology appearing in italics is defined in Appendix A.
Since the 1990s, empirical studies on the impact of the notion of ongoingness have been on the increase within the model. Languages are said to cluster in terms of the so-called aspect versus non-aspect distinction (Carroll & von Stutterheim, 2003, p. 395; Carroll, von Stutterheim, & Nüse, 2004, pp. 201–202; Schmiedtová, von Stutterheim, & Carroll, 2011, p. 96; von Stutterheim, Andermann, Carroll, Flecken, & Schmiedtová, 2012a). However, this cross-linguistic aspectual distinction is not well defined as Dutch, for example, appears to have the category of ongoingness but discourse findings for Dutch do not cluster with those for English despite considerable typological similarity. In contrast, Czech which has a grammaticalised category of ongoingness does not cluster with Russian with the equivalent category (Schmiedtová & Flecken, 2008).

A more complete understanding of the complexities in aspect is needed. Thus far, mainly European languages have been investigated. While previous studies typically involve the contrast of an aspect and non-aspect language, such as German and English, they do not focus on the concept of aspect (von Stutterheim, Carroll, & Klein, 2009, pp. 199, 214) but on its impact on various discourse features such as temporal framing, topic assignment and topic maintenance. Thus, the complexities involved in aspect per se have gone unnoticed.

The present investigation into a new language, Persian, draws on the cognitive theories and terminology as used in this framework to empirically gain insights into language processing mechanisms, in both language-specific and cross-linguistic contexts. The central concern is aspect and related complexities across the two languages, English and Persian, which provide a new grammatical setting for a deeper study of aspect, with a particular focus on the grammaticalised progressive. With a global goal to increase our understanding of event conceptualisation on a language-specific level, this thesis attempts to attain four local goals on the basis of the differing grammatical setting of a new language:

- to explore the complexities in aspectual systems cross-linguistically;
- to test the predictions of the model applied;
- to make relevant cross-linguistic comparisons;
- to provide transparent criteria of analysis for more languages to be investigated within the same model.

These local goals are closely linked to the following five gaps in this research area. To begin with, although a language such as Arabic has been investigated as a non-Indo-European aspect language, there is a substantial gap in the variety of aspectual systems studied. A larger number of typologically different languages can give deeper insights into the complexities in aspect. A study of Persian and English would contribute to filling this gap.
The second gap concerns the need to explore the complexities in aspectual systems cross-linguistically in order to gain insights into variation within the grammaticalised category of aspect. The L2 context in this model necessitates a profound elaboration of aspect. The need also exists because the concept of “aspect” language has not been fully defined within the model. It is crucial to identify differences within “aspect” languages to ensure not to try to fit languages into certain categories on the basis of their classificatory labels used in grammar descriptions while the category common to particular languages may differ internally. The grammatical categories in Persian and English differ; while English lacks the grammaticalised imperfective–perfective distinction, IPFV–PFV, but has fully grammaticalised progressive, Persian has the imperfective–perfective aspectual contrast and the separate progressive.

For the first time, two languages with the particular aspectual similarities/differences, i.e. they have the progressive in common but also a considerable difference in the absence/presence of the categories IPFV–PFV, are contrastively examined within the Heidelberg–Paris model by employing two experiments reflecting sentence and discourse levels of language use. Languages which have an aspectual system very close to that of Persian, such as Italian and Spanish, have been investigated, though only at the sentence level of analysis. The novelty of the inclusion of English and Persian with the grammaticalised progressive is in the fact that the study of event construal at sentence and discourse levels in line with the model provides an insight into the impact of the overall aspectual system on the progressives in them. This contributes to an adequate definition of what constitutes an aspect language, which is crucially more important than mere identification of the aspectual categories as found in grammar descriptions.

The third gap relates to the fact that while the previous studies within this model have been distinctly learner-oriented in directing their concern to learning difficulties due to the conceptualisation transfer in the particular grammatical settings of the languages involved, they have not focused on testing the claims about the underlying theoretical considerations. The results of the previous studies have allowed causal inferences in the context of individual languages. However, the viability of the theory in terms of comparability and generalisability of the findings to any language (its external validity), has not been approached to date. There has not been discussion on whether the findings from European languages with aspect apply to any other language in the same fashion.

The fourth gap is the lack of sufficient transparency of the criteria used for the analysis of the elicited discourse. In this project an effort is made to present the criteria in utmost detail in the main body of the text. The criteria need to be made transparent for future studies so that any novice researcher can conduct the study on new languages in the same manner. Close liaison with the Heidelberg–Paris group has been crucial in this work.
Finally, the fifth gap concerns study design. In the earlier studies such as those on Italian (Natale, 2009) and Spanish (Bylund, 2009, 2011), one task is employed so the picture of conceptualisation underlying event verbalisation is not comprehensive. This project uses two stimuli. Since the experimental tasks provide two kinds of data and are thus not straightforwardly comparable, the innovation in this study lies in adopting a variety of parameters to combine the results of those experiments for discussion.

The present project investigates the relationships between event conceptualisation patterns in discourse by native speakers of the two languages with the grammaticalised progressive. An apparent difference in their use may tie in to a difference in the underlying principles of use of this aspect (see section 2.6.5). Evidence for this is obtained from Persian L2 English speakers. The empirical data enable us to answer the following three overarching research questions:

1. Is the role of the progressive aspect the same in L1 English, L1 Persian, and Persian L2 English, given the single events and narratives?

2. Is there any difference in event construal between L1 English, L1 Persian, and Persian L2 English, given the single events and narratives?

3. Is language production by Persian L2 English speakers conceptually-driven by their L1?

The project is organised as follows: Chapter 2 introduces the theoretical background. Chapter 3 deals with the method used. Chapter 4 presents the results obtained. Chapters 5 and 6 discuss the results and conclude the study.

The collected data and instruments used in the data collection, i.e. Appendices B–D, are available Open Access at: http….
2 Theoretical background

2.1 Locating the present project in the research arena

In narrating events in language, the speaker makes use of the grammatical and lexical means provided by the language. In this task the speaker is free to choose what to say (see section 2.2) but is, in actuality, confined to these means. The grammatical features act as constraints in language production in allowing information structure relevant to the language system.

In the last three decades new research has been carried out into the role of the grammatical constraints on the selection of information, giving evidence that does not conform to what has been postulated by the well-known models of language production such as Levelt (1989). He introduces the blueprint of human language production, depicting systematic language production processes at macro and micro levels of the conceptualiser. In his view, the language-based processes affect only the micro level, defined as the final stage of the preverbal message. The Heidelberg–Paris model draws on Levelt’s theory of language production but adopts the term conceptual structure, also called conceptual representation, with respect to the macro level processes in the conceptualiser regarded as tuned to language (von Stutterheim, 1999, p. 164).

Slobin’s work (1991, 1996b) on motion events in line with Talmy (1985, 1991), as well as on the progressive aspect in individual languages, led him to claim that when the speaker’s native language has the grammaticalised progressive, the speaker’s attention is focused, in L1 acquisition, on the on-goingness of the activity. To exemplify, little children who learn English as L1 produce their first expressions with the ongoing aspect as in I am walking. This means that early on in their L1 acquisition English-speaking children learn to distinguish verbally between ongoing and intermediate events. They learn that there is a fundamental distinction they have to mark in language use; I am walking and I walk. In Berman & Slobin’s (1994, p. 9) terms, the marked distinction relates to experiences being filtered into verbalised events through the speaker’s choice of perspective (see section 2.8) and the set of options provided by the particular language.

Whereas the very early use of the progressive by these children indicates their paying attention to the ongoingness of an event, German-speaking children do not learn to pay attention, primarily, to this quality of reality because they are not exposed to such a grammatical distinction by the linguistic
means provided by their L1 (von Stutterheim, 1999, p. 172). Instead, they learn to distinguish other features of events such as its termination (Slobin, 1991, p. 16). Thus, speakers of different languages learn to focus attention on different features of, i.e. different information about, situations in line with the means provided by their grammars.

The phenomenon described by Slobin (1991, 1996a, p. 89) as speakers being “guided by the set of grammaticised distinctions” in their L1 “to attend to those dimensions of experience that are grammatically embedded” was investigated by Berman & Slobin (1994) in a large-scale cross-linguistic developmental study involving four age groups of children and an adult subject group from five typologically different languages. The study builds on a process model, by Trabasso and Suh (1993, p. 30), with the notion that “what is verbalised mirrors the information that is in the focus of attention”. In this notion the issue of focusing attention on particular features of an event relates to the overall matter of conceptualisation, i.e. the speaker’s L1 steers the conceptualisation of reality according to the linguistic resources.

Other researchers such as Choi & Bowerman (1991), Bowerman (1996), and Bowerman & Choi (2001, 2003) similarly show the child becoming oriented to particular event dimensions encoded in the native language. It appears that languages and, therefore, speakers of different languages categorise reality and information about it in different ways (rather than actually perceiving the world in accordance with the linguistic means). As a result, the question as to how diversely language influences thinking is ultimately on the agenda of studies on linguistic relativity (see section 2.4). In this respect, Athanasopoulos & Bylund (2013, p. 304) rephrase Whorf’s view on language–thought relation as that of languages highlighting different patterns of thinking rather than confining thinking (Whorf, 1962[1941] p. 239).

The Heidelberg–Paris group agree that, at one level, the grammatical constraints direct the speaker’s attention in speaking, “to the dimensions of experience that are enshrined in grammatical categories”, as Slobin (1996a, p. 71) puts it. However, the group argues that they do more: at a deeper level, they also cluster to influence the macro structure, which embraces the initial stages of the preverbal message, producing a variety of principles and language-specific guidelines that lead the speaker to narrate, select and organise the narration in ways characteristic to the particular language (von Stutterheim, Halm, & Carroll, 2012b, p. 568).

An issue of interest to this research group is whether there are language-based processes at work at the macro level, i.e. the initial stages of the preverbal message, and whether they are L1- or L2-related in L2 use. In their view, L1 influence is manifested, particularly, in the fact that advanced L2 speakers of typologically different languages may produce language more similar in certain respects to their L1 than the L2, despite their good skills in the L2 grammar.
Included in the idea of L1- or L2-related influence is a distinction between early bilinguals as distinct from adult L2 learners, as the processes taking place in the speaker’s mind may depend on the language learning trajectory (Pavlenko, 2011, p. 246). Findings contrary to those by the Heidelberg–Paris group report that late bilinguals living in their L2 environment with long L2 exposure show L2 influence on the L1 (Bylund, 2011). The finding has an implication for studies of language influence necessitating the consideration of the learner histories, as suggested by Pavlenko (2011, p. 21) as the early and late L2 learners can differ in conceptualisation patterns.

The Heidelberg–Paris framework was designed to probe into the underlying rules and principles of L2 language production driven by grammaticalised means and operating at the macro-structural level when advancing the story line (cf. Carroll et al., 2008b, pp. 175–176). At the early level of discourse production, the speaker has to process a multitude of principles and rules to produce coherent and easily understandable language (see section 2.8.1.3). These are understood to cluster as a web of rules related to specific grammaticalised categories, which highly influence thinking and cognitive processes. This relates to coherence in text structure.

This clustering as a web of rules involves, ultimately, a sort of language-specific knowledge that is not the lexicon or grammar but knowledge of language-specific principles of information organisation, also described as modes of speaker-made choices of perspective-taking, whose function is to provide guidelines for the selection and structuring for verbalisation in L1. Von Stutterheim (1999, p. 162) associates the level of linguistic knowledge embraced by adults’ linguistic competence with the notion of text competence interpreted in the sense of pragmatic competence, i.e. the speaker knowledge about relation between linguistic form, on the one hand, and social context, speech act, and situational context, on the other hand. Their acquisition continues until puberty, while the linguistic system in the narrow sense is acquired by the age of about 5. In adult L2 acquisition, the macro-structural planning develops along with the knowledge of L1, so the conceptualiser is already tuned to those guidelines in L2 use (von Stutterheim & Nüse, 2003, p. 877).

Based on Slobin’s findings, the Heidelberg–Paris group launched a series of cross-linguistic studies with the leading assumption that the grammatical constraints determine the course of utterance development, embedding “their implications for information organisation, which requires the integration of syntactic, semantic and pragmatic knowledge” (von Stutterheim et al., 2012b, p. 581). Accordingly, the studies within this framework take an interest in the L2 learners’ challenge grounded in the language-specific cluster of principles of language production different in their L1 and L2 (see e.g. von Stutterheim & Lambert, 2005).

Some of the early works carried out within the Heidelberg–Paris model are studies on second language production, information organisation, direc-
tion of attention, and temporal and spatial schemas in English and German (Carroll, 1993; Carroll, 1997; Carroll & von Stutterheim, 1993; see von Stutterheim, 1986, 1997). The later studies focused on themes such as temporal frames of reference, information segmentation and granularity, information selection along with sub-clauses and passivation as downgrading operations, and topic introduction and management, as different modes of perspectivation in language production dependent on the means provided (see section 2.2; Carroll et al., 2008b, pp. 162–165; von Stutterheim et al., 2009, p. 199).

As an initial step, language production in German in which the progressive aspect is not a grammatical constraint was compared with respect to such themes to English, where the progressive is a fully grammaticalised feature, indicating distinct conceptual differences in language use in L1. In the next step, possible conceptually-driven L1 effects on the relevant L2 were analysed in the relevant theme.

Other European languages from among the Germanic, Romance, and Slavic languages were subsequently investigated. Typically, English in combination with German, plus one or more typologically contrasting L1s, were examined, such as Arabic (von Stutterheim & Nüse, 2003), French (Carroll & Lambert, 2006), Norwegian (von Stutterheim & Carroll, 2006), and Spanish (von Stutterheim et al., 2002).

Evidence from the experimental tasks used typically shows various conceptually-driven L1-related effects in L2 English. Other languages such as Chinese, Czech, and Russian have also been examined (Behrens, Flecken, & Carroll, 2013, p. 98; von Stutterheim et al., 2002, p. 181 fn. 2; cf. also a study on Spanish and Swedish by Montero-Melis, 2017). The ten or so languages investigated so far form the bulk of the languages across which the comparisons, referred to as cross-linguistic, are conducted.

However, not all of the languages studied within the model were examined at the same level of analysis using two experimental tasks with non-linguistic stimuli to elicit text at sentence and discourse levels. The works on languages such as Dutch and German (Flecken, 2010; von Stutterheim et al., 2009), Italian (Natale, 2009), Norwegian (Behrens et al., 2013), and Spanish (Bylund, 2009) only studied unrelated single events designed to describe the aspectual system of the relevant language, excluding the additional task designed to elicit re-narrations of long sequences of events.

The two tasks have not been used systematically together for a deep insight into conceptually-driven effects in language production. A dissertation on L1 and L2 Dutch and English by van Ierland (2010) is the only study that uses both types of experiments. In evaluating use of the progressive, mention of resultant state, and choice of clause type and event types in these three parameters, it did some of what the present project undertakes to do. Yet, the study by van Ierland (2010) is conducted on a pair of very closely related languages.
Finally, even though the aspectual contrast has been central in the cross-linguistic studies, none of them prioritise the complexities of aspect and the conceptual differences due to the progressive in the two aspect systems (cf. von Stutterheim & Nüse, 2003, p. 878 fn. 9). This project aims to discuss this issue in light of event construal along with phasal decomposition associated with the progressive (see section 2.9.1.2), and overall information organisation, contrasting them against the background of the absence/presence of the progressive in the languages previously studied.

This section located the background to the present project in the research arena. Chapter 2 also includes the following sub-sections. In section 2.2, an overview of the recent relevant theories of language production is given. Subsequently, section 2.3 depicts transfer at the formal level with respect to the relevant developing attitudes. Section 2.4 looks at the issue of linguistic relativity. Section 2.5 describes the methods by which linguistic relativity can be examined. While section 2.6 gives an account of the concept of aspect in general, section 2.7 outlines the aspect systems in English and Persian, in particular. Section 2.8 presents the Heidelberg–Paris model. Section 2.9 sketches the empirical methods of investigating language influence. Finally, section 2.10 is devoted to the research questions formulated for the study.

2.2 Language production theories

A central issue in empirical analysis of language production is the information structure of produced utterances, which von Stutterheim & Carroll (2006, p. 41) define as follows:

[T]o convey meaning through language, speakers have not only acquired a set of lexicogrammatical elements, they also have discovered the principles whereby representations of states of affairs typically are paired with certain lexicogrammatical structures that languages provide. The principles in question allow speakers to organize and shape the flow of information in context with respect to a given communicative goal. Language users learn to establish a conceptual framework that guides the kind of decisions required in anchoring what is to be expressed in the domain of discourse. In particular, this framework means setting up the required viewpoints from which the material at issue will be presented for expression – for example, specification of a spatiotemporal frame, segmentation, topic focus assignment, or selection of a linearization principle. In this sense, the information at issue is transformed into units that can be expressed in a given context.

Given the fact that information structure is language dependent in the sense that it correlates with the specific system of grammaticalised means in the language, the rules of information structure are likely to be related tightly to the means provided by the language system for language production at the
level of the conceptualiser. To exemplify, since German does not have the grammaticalised progressive, information structure in sentences conforms to the use of the simple forms and the related rules.

Information structure is a feature of texts while information organisation is a conceptual process in the conceptualiser, to prepare information for verbalisation, which includes the speaker’s decisions, made in perspective-taking according to the principles scaffolded by the grammatical structure of the language. The result of the principled planning processes involved is an information structure rich enough to allow for the retrieval of specific linguistic forms in the process of encoding (von Stutterheim et al., 2002, p. 182). The process of encoding in the formulator follows the principles underlying information organisation, which are perspective driven and are linked to patterns of grammaticalisation in the respective language (von Stutterheim & Carroll, 2006, p. 41). Native speakers of a language may, thus, fully conform to the structural principles in decision-making in the perspective-taking and organise information accordingly while L2 users of the same language may vary in their language use for a variety of reasons such as L1 influence and level of proficiency of the L2 as well as their cultural and social habits (von Stutterheim et al., 2009, p. 196).

In this very task of mapping information on a situation into sentences, the speaker has to decide on the content. The decisions on the content differ depending on the communicative goal such as descriptions of routes and places such as rooms as in *How can I get to x?*, or *What is the layout of your room?*, or narrative story retelling as in *what happened*. The choice of a discourse type makes the communicative intention recognisable to the hearer, and the dominant pattern of *temporal structure* is established (von Stutterheim, 1991, p. 391). The result of this conceptual preparation to answer the question is referred to as a message. It is the conceptual entity the speaker expresses in language in formulating the conceptual representation verbally.

In terms of conceptual preparation and considering what to say, the processes relate to macroplanning. In addition, there is microplanning, where the speaker’s decisions with respect to how to say the message have to tune the message to the intended target language and the momentary informational needs of the addressee. The Heidelberg–Paris model adopts the macro and micro levels of language production processes from Levelt (1989). In contrast to Levelt (1989), the processes at the macro level of the conceptualiser are regarded as language specific (von Stutterheim, 1999, p. 160).

Levelt’s (1989, 1999) blueprint outlines his view of the processes at work in speech production, explicating it from the initial stage of intention to the final stage of articulation. In this blueprint of the speaker, four independent main components are distinguished. First is the conceptualiser, in which the message is planned in terms of its substance. The outcome of the conceptualiser is the preverbal message, i.e. the conceptual structure of the message intended for verbalisation. Second is the formulator, in which the process of
lexical selection is located, syntactic and morphological forms are selected and passed through the third component of phonological encoding, involving separate stages within the formulator. This level is followed by the fourth component, the articulator, in which the message is phonetically produced.

The innovation by the Heidelberg–Paris team is relating Levelt’s theory of language production to language influence in L2 context. The contrasts manifested in linguistic form across languages are linked to contrasts in the way information is processed for verbalisation (von Stutterheim et al., 2002, pp. 179–180). All information is understood to go through the components mentioned, and the multidimensional decisions leading to coherent verbalisation of the information are made in the conceptualiser. This means that even the most salient features of a language, such as the Progressive in English (Ranta, 2006), are involved in the processes in the conceptualiser prior to the formulator as all the aspects of a coherent discourse need to be organised in relation to the principles and rules related to the grammaticalised means. This is referred to in the Heidelberg–Paris model as the conceptualiser being tuned to language.

The web of cognitive processes of the conceptualiser involved in information organisation is further modelled as having different interacting phases by Habel & Tappe (1999, p. 122). First is segmentation which restricts the entire mental representation on the basis of factors such as the communicative goal, i.e. the planning of ‘what to say’ (for the domains of reference and the relevant shift see section 2.8.1.4; for segmentation see point B in section 2.9.3). In decisions about ‘what to say’ with respect to event construal, complex dynamic situations are broken down into smaller event units, events or processes, and decisions about granularity are made, i.e. the speaker’s choice as to whether each single event should be given a lengthy and detailed or only a general brief account of the relevant events (cf. Talmy, 1991). Granularity is measured in the number of the propositions produced.

Second is the selection of the event units the speaker wishes to verbalise from larger event units along with the components comprising time, space, properties, events and entities, i.e. persons and things (see section 2.8.1.3), by which the single segmented events are represented. Thus, segmentation is closely followed by selection of event components in deciding ‘what to say’. Perspective-taking leads to a specific form of interrelation between principles that guide the selection of components at the microstructural level and principles of information flow at the macrostructural level (von Stutterheim & Nüse, 2003, pp. 865–866). To exemplify, temporally segmented event substances require decisions about their ongoingness or completeness. For the latter, the language may provide verb types with either inherent endpoints or separate adjuncts. Perspective-taking, thus, implies perspectivation involving the speaker’s choices, while perspectivation as such denotes the dependency of perspective-taking of the language structure. They are part of information organisation.
Third is structuring in the conceptualiser which involves a multitude of processes such as perspectivation of the event components selected in accordance with spatial and temporal reference frames. Further, different predicate types and argument roles, as for instance those involved in sell/buy or send/receive events, are established. In addition, in perspective-taking which relates to presenting events from different viewpoints (von Stutterheim & Klein, 2002, p. 60), the presentation of the speaker’s temporal/aspectual viewpoint on the specific event is a choice constrained by the aspectual system of the language in question. Thus, perspective-taking is grammatically driven with respect to the form and the underlying principles. Speaker choices also observe the lexicon and context (ibid. p. 61).

Fourth, the conceptualiser includes linearisation, i.e. the process putting the sub-events of situations into a reportable sequence and in accordance with the syntactic rules and principles of the particular language.

At the conceptual level, the following three components relevant to event construal are central in temporal structuring in the conceptualiser: the event, the timeline and the speaker/observer. The event substance can be decomposed into a beginning, a course, and an end. The timeline denotes an abstract sequence of temporal intervals. The speaker/observer is the conceptualiser, who has to select an anchor point for event substance for each utterance, while the speaker has to decide how the events relate to each other (von Stutterheim & Nüse, 2003, p. 865).

The contrast between the language production theory, as presented by Habel & Tappe (1999, p. 123), and the Heidelberg–Paris model lies in the role of the linguistic structure; while the theory regards the multimodal representations as integrated into coherent structures bearing structural similarity to the states of affairs they represent, as if reflecting the outer world, the model views the linguistic structures as correlating with patterns of event conceptualisation, as if reflecting the inward processes (von Stutterheim & Nüse, 2003, p. 856).

Although these language production processes in the conceptualiser, as presented by Levelt (1989), are generally acknowledged, the degree of the influence of language-specific principles in them is seen differently. In other words, theorists have different views as to the role of language in the process of language production. A radical position, as represented by Jackendoff (1990) and Bierwisch & Schreuder (1992), stipulates that the processes in the conceptualiser are both universal and language-free (see section 2.4.3). Thoughts are put into sentence structures in accordance with the particular communicative need by formulating the conceptual content onto linguistic form. Lucy (1992a, 1996) and Levinson (1996) adopt the opposite radical position, i.e. language determines thought, in regarding the processes in the conceptualiser as language-based and distinctly determined by language-specific principles. This is the so-called Whorfian view, which is treated in more detail in section 2.4.4 on linguistic relativity.
By contrast, Levelt’s (1989, 1996, 1999) moderate position posits that there is an interrelation between language and conceptualisation in a defined way. His theory is different from the radical views with respect to the role of language and language-specific principles. In his view, text generation is initially language independent at macro level, then tuned to language at the final, micro level of conceptualisation where the processes do not any longer affect the content of the message. Thus, language specificity concerns only how the processed content is packaged for verbalisation in the formulator.

In line with Levelt (1989), Slobin’s (1996a) position is moderate. Yet in contrast to Levelt, he emphasises the role of language in the non-final phases of the conceptualiser. In his thinking-for-speaking hypothesis Slobin argues for conceptualisation as a component of language production being based on language-specific principles, both at the macro and micro level of message generation, as discussed in Slobin (1991, 1996a, 2003).

Slobin’s studies on early/child L1 acquisition and, particularly, on the kind of thinking that is carried out in the process of speaking established cross-linguistic differences between typologically different L1s. On the basis of the results from his empirical studies, Slobin argues that the speaker picks the characteristics of objects and events that are easily encodable in language. Language directs speakers to attend, while thinking, to those dimensions of experience that are grammatically embedded in a given language (Slobin, 1996a, p. 91). Such directed attention grounded in codability, i.e. grammaticalised concepts/meanings, is key in thinking-for-speaking which interacts to influence the speaker’s selection of information for verbalisation. In Slobin’s view, the mind is trained to think in a particular language-specific way, which is passed through first language acquisition and, therefore, difficult to be retrained and restructured.

The Heidelberg–Paris model builds on the findings and theorising by Slobin (1996a) with respect to two central issues. Firstly, it is the grammaticalised categories that encode semantic notions making them easily available for the speaker to use in language production, and secondly, the human mind cannot easily restructure the L1 grammatical categories, which is evidenced as conceptual transfer in terms of L1 influence on L2.

2.3 Transfer at the formal level: developing attitudes

This section outlines the type of L1 influence which was early on regarded as influence of the L1 form on L2. Linguistic transfer was first seen at the level of form and examined as the principal type of L1 influence. It was regarded as transfer in its own right prior to the notion of conceptual transfer.

Early on, traces of L1 in L2 users were observed in multilingual contexts. This leads to the area of transfer which was adapted from the behaviouristic,
cumulative and stimuli-based approach to learning, generally, and became a central concept of characterising second language learning in the second half of the 20th century. Even though most investigations were pursued at that time at the formal rather than the cognitive level, they could build on this psychological process where “earlier learning is carried over to a new learning situation” (Gass & Selinker, 2001, p. 66). Formal transfer from L1 to L2 was seen as mirroring the language habits L2 speakers had gathered.

Whorf, who discussed language habits in L1 context as a concept of what is habitually said and thought, had observed that languages could differ considerably in the grammatical concepts, which form the mandatory part of language use. In contrast, the behaviouristic habit-based view on L2 learning interpreted the language habits as a burden on the L2 learner. Observation of erroneous L2 forms led to efforts to define the phenomenon of L2 learning mentally; in the context of less successful learning when the learners are not able to acquire the new settings of the target language, they were observed to draw on the settings of their mother tongue — the burden on L2 learning. Transfer from L1 shows, then, as negative transfer in incorrect language forms. Such errors emerge due to interference, i.e. native language influence (Gass & Selinker 2001, p. 67). In linguistic tasks where the rules of use of the grammatical features clearly differ, L1 influence shows as negative transfer, whereas transfer is positive when the principles of the use of the grammatical features are close in the speaker’s L1 and the L2.

The incorrect linguistic forms were investigated in a variety of ways. Since structural differences between languages were regarded as the ground for learners’ errors at the linguistic level, the behaviouristic language theory aimed to explain the learner errors by comparing them to their native language, which was done within the framework called Contrastive Analysis, CA. In the early stages of second language studies in the 1950s and 1960s, it was hoped that the method would provide deeper insights into transfer from L1 (Gass & Selinker 2001, p. 71). However, despite the a posteriori explanatory, and a priori predictive power ascribed to CA in its strong version, it did not meet the expectations as empirical research in the 1970s convincingly showed that the cross-linguistic differences did not satisfactorily explain the learning difficulties (Gass & Selinker 2001, p. 73, Brown 1994, p. 206). CA both overpredicted the learning difficulties in identifying errors that did not show in learner language despite certain cross-linguistic differences, and it underpredicted errors because they arose on grounds other than transfer from the first language (McLaughlin, 1989, p. 212).

Linguistic approaches to examining linguistic form in L2 production later made use of morpheme studies in which acquisition sequences were probed, on the one hand, and Error Analysis, EA, comprising linguistic comparisons of languages and examination of learners’ errors, on the other hand. Given the inefficiencies of the predictive power of CA, EA was built on the weak version of CA and was applied as a more suitable way of unveiling the com-
plexities of acquisition behaviours, reflected in spoken and written L2, by way of examining errors attributable to any source, not only L1 (H. D. Brown, 2007, p. 259). The level of the focus on transfer was still linguistic.

Later, the learner errors were found to be characteristically part of the process of learning a second language, and rather unavoidable (Odlin, 1989, p. 17). In contrast to the solid linguistic approach, a minor shift towards a cognitive perspective on inconsistencies in language learners’ performance took place. It identified the learner language, termed interlanguage by Selinker (1972), as grounded in “an underlying rule-governed system” even though it did not fully conform to the norms of the target language (Gass & Selinker, 2001, p. 78). Language learning was described as “active rule formation” subjected to structured rules (Gass & Selinker, 2001, p. 73). The rule-based system of interlanguage benchmarked the step to cognitive approach.

Despite the new trend in viewing performance errors as manifestations of learners’ systems, the level of analysis of the errors was, still, linguistic. A variety of errors from different sources were identified. To mention a few, there were the product-oriented transfer errors due to interference from the mother tongue, which were re-labelled as interlingual errors to avoid the connotations to the behaviouristic view. Further, there were intralingual errors, those related to the target language towards which learners develop their L2 skills. In addition, errors related to the sociolinguistic context of communication, and to psycholinguistic and cognitive strategies were some of the major categories (H. D. Brown, 2007, p. 256, 259). The product-oriented EA had flaws because it did not bring to the light the learner strategy-based errors such as avoidance of using particular structures likely to lead to an error, as pointed out by Schachter (1974). However, as EA contrasted the learner errors to the target language reflecting the influence of the second language instead of the first language, a substantial proportion of the errors were observed to conform to those that monolingual children make when acquiring their mother tongue (McLaughlin, 1987, p. 67). Such were classified as emerging due to developmental processes as they appear in both L1 and L2 acquisition with learners with different first languages (McLaughlin, 1989, p. 212). Initially, the cognitive rule-governed system of interlanguage was characterised in terms of learning strategies and types of linguistic errors.

Language learning environment per se was also seen as an important impact factor. Students in elementary and less advanced classes in the target language environment, and students who learn the new language in class through formal instruction in the native language environment, make more errors of the interlingual type due to interference from their mother tongue. By contrast, the students of more advanced level in an L2 environment make more intralingual, i.e. developmental, errors (Odlin, 1989, p. 33).
Eventually, the initial behaviouristic, product-oriented linguistic approach to L2 brought about the new process-oriented approach, with the interlanguage theory as the pivotal point to investigating inconsistencies in the linguistic form in learner language (McLaughlin, 1989, p. 214). The cognitive approach drawing on the study of the role of cognitive processes in L2 performance launched a new wave of research viewing the learner’s task as the acquisition of a complex cognitive skill (Hulstijn & Hulstijn, 1984; McLaughlin, Rossman, & McLeod, 1983). Questions as to whether speakers of languages conceptualise and think about the world in line with the categories they speak by became central. Such ideas about language influencing thinking were formulated as the hypothesis of linguistic relativity. This hypothesis is taken up in the next section.

2.4 Linguistic relativity

2.4.1 Types of relativity

Not until the last decade of the 20th century was the nature of linguistic relativity fully recognised. It was clearly a major issue before Sapir and Whorf but was not really understood by the scholars of the time. Gumperz & Levinson (1996, p. 7) define the linguistic relativity theory as being primarily about:

[the nature of meaning [which is] the classic view focusing on the lexical and grammatical coding of language-specific distinctions. In this theory, two languages may “code” the same state of affairs utilizing semantic concepts or distinctions peculiar to each language; as a result the two linguistic descriptions reflect different construals of the same bit of reality. These semantic distinctions are held to reflect cultural distinctions and at the same time to influence cognitive categorizations[.]

An important step was taken by Lucy (1992a, 1992b, 1996, p. 38, 52, 1997, p. 292, 2000, pp. ix–x) in differentiating three domains most outstandingly present in the literature on research into potential influence of language on thought. First, semiotic relativity, which pertains to the specific code that a natural language has in contrast to the lack of such code as, for instance, with other species’ signalling systems, or other signalling systems such as pictures. Thus, human language has the elevated status of being the prerequisite of the existence of the language–thought relation. Second, linguistic relativity, which relates to the structural level of language constituted in both lexical and grammatical structures carrying meaning and, specifically, how different languages with different morphosyntactic structures of meaning affect thinking. Third, discursive relativity, which concerns, at the functional
level, different uses of language not only with distinct purposes and goals, such as schooled or scientific language use, but also diversity in the ways of language use in terms of social dialects within a single language, or with differences in contexts of speaking such as formal discourse, and differences in cultural patterns of usage existing in diverse linguistic communities. The inquiry at this level concerns whether verbal discursive practices affect forms of thought either directly, such as scientific language use accompanying scientific thinking, or by way of channelling any effects due to linguistic structure (Lucy, 1996, p. 52). However, discursive relativity does not look directly at the cognitive effects of language use, but the concern is, rather, the effect of culture on language, which involves the problem that since different cultural groups use language in distinctive ways, it is hard for comparisons to isolate structural effects (Lucy, 1992a, p. 105).

The three sorts of relativity notions are interwoven in the way that while linguistic relativity can lead to discoursal difference cross-linguistically, thought, i.e. conceptualisation in L1, is influenced by the L1 discourse patterns as well as the semiotic structures of the ‘native culture’. Even though linguistic relativity can be observed to operate on the lexical, syntactic, and discursive levels, it affects language use independently of discourse relativity. This means that discourse is affected by both culture and language code (for the relevant aspect of the Sapir–Whorf hypothesis, see section 2.4.4).

The present project is concerned with the question whether conceptualisation in L2 is influenced by language patterns in L1. This effect on L2 is grounded in the fact that the grammaticalised categories in languages differ in different ways. This work focuses on such structural differences. In contrast, cultural influence on language production (see section 2.5.1) can be rejected if the differences/similarities between languages from two culturally different areas turn out to be linguistic.

2.4.2 Language-specific differences in lexis, syntax and phonology

Another significant language-specific variation to be taken into consideration is the commonality of structural differences in languages (Levinson, 2003). Generally, patterns for expression of individual concepts such as time, space, or any matter (see section 2.8.1.3) can show considerable language-specific variation. European languages may have many similar or common features (for Standard Average European, SAE, see Whorf, 1962[1939], p. 138) but variation across the whole world is much wider. Probing complex spatial thinking, studies such as Levinson (2003), which illustrates the level of lexicon, indicate that people who speak a language with a predominant absolute frame of reference based on a particular coordinate system, tend to think in terms of the co-ordinate system. Unlike in
English, utterances produced in accordance with the cardinal directions make speakers observe situations in absolute terms as in *The cat is north of the truck* (ibid. p. 3). Speakers producing an utterance in accordance with the relative frame of reference, which defines the position of a thing relative to the position of other things present, observe the situation differently as in *The cat is in front of the truck*.

Linguistic diversities such as these are reflected in cognitive diversity. Such extreme differences in linguistic categories correlate with, and may even determine, other aspects of cognition such as spatial memory, inference, navigation, way-finding, and gesturing, as Levinson (2003) reports.

While linguistic diversities in lexicon have been investigated in terms of their cognitive effects, sufficient research is lacking on many common structural linguistic differences in syntax as, for instance, the influence of differences in aspectual systems on conceptualisation. To give a well-known example, the Perfect in German (Klein, 2000; Thieroff, 1994) is known to be different from the same category in English and Swedish. The elaboration of these categories in the languages is only given at the level of grammar description while the cognitive effects have remained unexamined.

Finally, there is the phonological level to be mentioned where linguistic relativity also operates very powerfully perceptually so that speakers cannot hear the sounds and sound distinctions that are not in their first language because they are trained not to hear them. Simply, they cannot hear the sounds that do not belong to their language. Similarly, the fact that the phonological features of speakers’ first language can often be distinguished in the speakers’ L2 indicates that the phonological features of the speakers’ first language are difficult to change in adult L2 learning.

Taken together, in phonology adult L2 learners are seemingly confined by their L1. At the level of syntax, they seem to be restricted with respect to thinking, while in the domain of lexis they are less so because they can learn new words if it is necessary to start making new lexical distinctions.

### 2.4.3 Different views on language – thought relation

Languages are internally structured in different ways, all of which are seen to bring about formal completeness so that languages are characteristically complete although different, but not deficient systems (Lucy, 1992a, p. 17). Languages can differ both at the level of lexicon, in their classification systems, and at the level of syntax, in their grammatical categories. Theories of linguistic relativity have been put forward by thinkers explicating the language and thought relation as detailed below.

Given the different levels where language exerts influence on thought, theorists in linguistics have made different claims regarding the influence relation between language and thought with differing emphasis on whether there is any influence relation between them, and if there is, which influ-
ences which and how strongly. The relation is usually presented either as a strong or weak opposition. One claim is put forward in Jackendoff’s (1990; cf. section 2.2) extreme formulation stating that language does not constrain or influence thought or its expression. Anyone can express anything they like. Similarly, all languages are able to express any thought. There is no restriction from language on expressing thought. The bottom line in Jackendoff’s claim is that the types of language influence shown in various studies are probabilistic. The issue is not that you cannot segment events in a certain way. It is that speakers of language A are more likely to do so than those of language B. Thus, Jackendoff’s claim is not controversial: you can say anything you like, but you tend to think as imposed by your L1. What is more controversial is the opposite claim – that you cannot think outside your linguistic box, as discussed below.

Another claim maintains conversely that thought affects language so that language is formed by the forms of thought. In other words, language is in a certain way because the people think that way, whereas if another language lacks those same words, it may be because the speakers of the language do not need them for particular reasons. This claim involves the effect of thinking on language. To exemplify, one may take the Pullum (1989) cliché that Eskimos have abundant words for snow. This particular example has been basically disproved, but it is an example of the sort of reasoning that may arise. The fact that a language provides different words for a particular object matter, which relates to the lexis of the language, enables the speakers to make distinctions. In turn, this enables the speaker to think differently about, for instance, the functional features or other relevant properties.

Further, the influence of thought on language is claimed to constrain the expression of thought, which itself is free. Thus, cross-linguistic differences may appear in the lexicon in domains such as time. By way of exemplification, a language may not lexicalise the cyclically recurring time notions, such as dygn in Swedish, which refers to the twenty-four-hour period of a day, and has no equivalent in, for example, English.

This claim of the influence of thought on language establishes that thought as well as culture and environment constrain language, and language is affected in its development by the development of thought in the sense that as thought develops, language develops. To exemplify, education and advances in sciences pave the way for language change as scientists invent words to be able to talk about new concepts in the developing sciences.

To illustrate further the effect of thinking on language related to the syntactic categories, Baćzkowska (2011, pp. 184–185) reports on the concept of present time across cultures incurring varying degrees of importance to speakers of certain languages. There are languages in which the present tense is seen to obtain increased significance simply due to environmental conditions the speakers live in. In other languages, the speakers may ascribe
great importance to the cumulative effects of historical events rendering the present time less salient.

Finally, there is a third, deterministic claim about language, maintaining that language constrains thought in absolute terms, meaning that we cannot think things that our language prevents us from thinking, meaning that we cannot think outside our linguistic box. In contrast, the claim in its weak formulation postulates that language affects thought, which is nevertheless free. The strong and weak claims are explicated next.

2.4.4 Linguistic relativity — strong and weak claims

The linguistic relativity concept has a long history. Its modern history starts with von Humboldt. As reported by 20th-century linguists such as R.L. Brown (1967), Gumperz & Levinson (1996) and Slobin (1996a), in his late work from around 1836, Humboldt points sometimes to mutual effects between thought and language, which is the weak form of linguistic relativity, and other times to the stronger linguistic determinism where language decisively influences the individual’s thinking. In modern theorising these terms are not understood in the exclusive sense of what cannot be said cannot be thought. Rather, there is some causal effect from language categories to non-verbal cognition at the level of conceptualising information for expression.

In the weak form, Humboldt describes language as necessary to accompany thought because it plays a decisive part in the organisation of sense experiences, conceptualisation and all intellectual mental activity. Despite the very close dependence relation between thought and language, he sees an important distinction between the activities of thinking and speaking, i.e. the forms of thought and forms of language are not identical. This is evident from the discrepancies in terms of additions and alterations of thought which arise in the transition between what is thought and what is subsequently said. Even though some of the discrepancies in the transformation from thought to language may well be intentional in the sense that thought is independent of language as a tool in the speaker’s mind, language confines the speaker by way of its grammatical structure exerting influence on what can be said, i.e. what is reportable — the most appropriate formulation grammatically and pragmatically. In Humboldt’s view, the very fact that language gets restrained when thought gets altered in the transition entails that thought, too, is to the same extent restricted. Despite the weak reciprocal restrictive effects at work between thought and language, their dependence relation is remarkable, which Humboldt does not refrain from emphasising. In terms of the reciprocal influence of thought and language, Humboldt seems to support the weak view of linguistic relativity, which is that language does not determine the way of thinking.

On another level of theorising, however, Humboldt depicts his conception of linguistic relativity in a way that makes him known as the first to formu-
late the strong version of the notion. In this regard, he describes the language and thought relation in a distinctly deterministic sense in claiming that the structure of a language has a determining influence on thought and perceptual processes. This means that language is the medium through which, and by which, the external world is perceived and thought about. Although Humboldt observes that the linguistic structures are different cross-linguistically, they resist any change individuals might attempt to bring about because the language already exists as an established medium. The stable language structures, both lexical and grammatical, seem to exert a decisive influence on the speakers’ thinking, and this influence results in different world-views for the speaker, putting a deterministic tone on the impact of language on thought.

The general evolution of sciences around the beginning of the 20th century was favourable for further inquiry into the theory of language and thought relation worked on by Humboldt a whole century earlier. Cross-disciplinary investigations started to flourish in psychology grounded in philosophy and physiology while language, culture, and cognition were viewed within anthropology. Research on the diversity of human language construction and its influence on the mental development of the human species attracted the early 20th-century American researchers Franz Boas (1858–1942), Edward Sapir (1884–1939), and Benjamin Lee Whorf (1897–1941) (Gumperz & Levinson, 1996, pp. 3–4; Levinson, 2012, p. xv; Lucy, 1996, p. 42). In showing that every language represents a language-specific classification of experience, Boas and Sapir paved the way for the concept of linguistic relativity (Gumperz & Levinson, 1996, p. 25; cf. Carroll, 1962, p. 27). Yet, Whorf probed, more systematically than Boas and Sapir, into the less evident morphological categories of language revealing its full classificatory nature, which he displayed as the ground of the interactions of language with thought. Like Humboldt, Whorf was concerned with the stable language structures because of their particular impact:

[U]sers of markedly different grammars are pointed by their grammars towards different types of observations and different evaluations of externally similar acts of observation, and hence are not equivalent as observers but must arrive at somewhat different views of the world (Whorf, 1962[1940a], p. 221).

According to Gumperz & Levinson (1996, p. 2), embedded in this original idea language, thought and culture are deeply interlocked so that each language can be claimed to have associated with it a distinctive world-view. Whorf formulated his central concern as the necessity to probe into the large-scale linguistic patterns, pervasive language patterns, and grammatical classifications, where grammatical patterns were more in focus than lexical ones. The grammatical structures have more persistent influence on thinking than lexical structures. Unlike lexical meanings that are readily in any
speaker’s awareness, the patterned grammatical meanings have to be examined.

Whorf sought to elaborate on the issue that language use is affected by both culture and language code (Whorf, 1962[1939], p. 147). Although he used lexical examples in his elaborations, it was mainly to give simple examples of the point he discussed (Levinson, 2012, p. x; Whorf, 1962[1939], p. 135). Whorf was an anthropologist rather than a linguist. He observed phenomena in his living environment rather than performed linguistic experiments. He realised that a word pair such as full–empty in English could erroneously establish habitual thinking such that an empty gasoil drum was rather thought of as completely empty even though it, in actual fact, could be full of dangerous fumes. This practical example of how language can influence habitual thought is grounded in the lexicon, as is also Whorf’s observation of the ways how different languages can refer to the concepts of colour, time and space using cross-linguistically different expressions (Whorf, 1962[1939], p. 144–145). However, he had a more solid idea about the impact of the grammatical features on language use (Levinson, 2012, p. x).

Owing to his interest in the complex grammatical structures, Whorf emphasised the importance of recognising the general grammatical types in the world’s languages. By way of his detailed case studies, Whorf was able to show how some minor differences in the classifications indicated general, and even outstanding, underlying differences in the linguistic representation of reality, which he identified as different fashions of speaking. Thus, for instance, looking at Hopi, spoken by the Hopi tribe in north-eastern Arizona, US, made him realise what he terms as objectification, i.e. a pattern of treating some imaginary entities such as length of time as if they were concrete objects. Thus, English and other Standard Average European, SAE languages — a term used by Whorf — objectified processes and expressed them by nouns which could be counted and quantified while Hopi would use verbs for many of them (Whorf, 1962[1939], p. 139–140).

Further, he observed that Hopi did not have tense categories for the time notion, like in English, yet the speakers of the language manage talking about time although with a different conception of it (Whorf, 1962[1939], p. 158). Put differently, Whorf discussed what is today referred to as different conceptual representations which users of different languages have in their minds due to differing linguistic categorisation through which they interpret experience and reality.

This, then, illustrates what Whorf observed about some language-specific differences, i.e. they are so profoundly semantically integrated in a particular language that they form patterns of differences operating across the entire system. On the other hand, Whorf stressed that other minor differences may cumulate to become structurally pervasive as they operate and appear in multiple structural environments. Thus, the different fashions of speaking that Whorf recognised relate to the differences in linguistic classifications.
ranging across all the morpholexical and syntactic structures of the languages (Whorf, 1962[1939]).

Regardless of the fact that Whorf basically discussed linguistic relativity in its weak form, some traits of the strong deterministic view such as his reference to “our linguistically determined thought world” (see Whorf, 1962[1939], p. 154) can be discerned in his elaborations of thought world of the Hopi people. In the deterministic vein, he may also have had an idea about language as a classificatory medium that could, in his view, cut up nature or break down people’s experiences. He only formulated such ideas in a minor section of his texts (Whorf, 1962[1940b], p. 213).

There has been criticism of Whorf’s ideas in which his own position on the ‘weak’ vs. ‘strong’ determinacy of language on thought is said to be ambiguous. His view was generally understood to be rather strong by the 20th-century linguists, which is why his views were then opposed. However, the opponents were often misreading Whorf because they merely focused on examining lexis for evidence for linguistic relativity (Pavlenko, 2014; cf. also Brown, 1958, Ch. 7). The misinterpretations arouse because Whorf did not explain his ideas in detail in his publications.

2.4.5 Work and thoughts inspired by linguistic relativity

As explained above, linguistic relativity can operate on different levels, i.e. lexical, syntactic and discursive. In the first wave of research on the effect of language on thought, the influence of the grammatical categories was basically ignored. In Pavlenko’s (2014, p. 13) view, the foremost thing which redirected linguists’ research focus away from syntax was the transformation of Sapir and Whorf’s ideas into testable hypothesis in Brown & Lenneberg (1954), in particular. According to Pavlenko, the unfortunate thing was the resulting twofold shift, in both research focus and method, from Whorf’s interest in syntactical patterns that could form habitual thought studied through conventional fieldwork by anthropologists, to lexis and psychological processes studied through artificial tasks by the linguists and psycholinguists (Pavlenko, 2014, p. 13). Other linguists started to follow the wave of the vocabulary studies Brown (1958) had apprised taking the psychologists’ interpretation of Whorf’s writings for granted (Pavlenko, 2014, pp. 14–15).

In discussing the criticisms expressed towards Whorf’s ideas in his published writings, Pavlenko (2011, p. 13) mentions two further issues in the Brown and Lenneberg bias on the framework Whorf had introduced. Firstly, the focus of inquiry changed as the interpretive categories of thought or concepts referred to by Whorf were ignored, and perception, memory and domains of colour were introduced as central. Secondly, inquiry into habitual thought and what is habitually said shifted to thought potential in the sense of what can be said (ibid.). Pavlenko (2014, p. 13) traces the first reference to Whorf’s ideas as deterministic in R. Brown (1958, p. 260):
Linguistic relativity holds that where there are differences of language there will also be differences of thought, that language and thought covary. Determinism goes beyond this to require that the prior existence of some language pattern is either necessary or sufficient to produce some thought pattern.

The strong interpretation that language determines thought was read into Whorf’s linguistic relativity hypothesis, as Pavlenko (2014, p. 15) points out. The weak version embraces the concept that the structure of human language influences the manner in which he understands reality and behaves with respect to it (Whorf, 1962[1939]). Contemporary researchers tend to subscribe to the weak interpretation of the Sapir–Whorf formulation believing that Whorf put forward a theory of the influence of language on our habitual thought and habitual behaviour, which means that language exerts influence on the way we usually think and behave, rather than deterministically influences the way to think and behave (cf. Whorf, 1962[1939]).

Taken together, the Sapir–Whorf hypothesis was initially misinterpreted as deterministic and, then, abandoned completely by the 1970s. In this respect, Gumperz & Levinson (1996, pp. 28, 34 fn. 23) refer to a little bulk, of merely four publications, of systematic investigation looking at the possible cognitive influence of semantic categories of specific languages. There were other contributing reasons, though, such as the developments in science, in general, and the rise of the cognitive sciences in the 1960s introducing a new focus for linguistic research that emphasised the universality of human cognition grounded in the inherent human properties, in particular (Gumperz & Levinson, 1996, p. 3). Chomsky, who worked on language universals and structural similarities between languages, as well as his proponents such as Fodor (1983) and Wason & Johnson-Laird (1977), opposed Whorf’s ideas in conceiving them as deterministic (Gumperz & Levinson, 1996, p. 23). Some linguists such as Pinker (1994) still wrote critically in the 1990s when research into linguistic relativity and focus on differences between language systems had already re-awakened (cf. P. Brown & Levinson, 1993).

After the shift back to investigating structural differences between languages in the 1990s, much due to developments in the theory and methods of first and second language acquisition studies, Whorf’s hypotheses and research were re-evaluated. During the 21st century the study of the influence of complex structural relations on thought that Whorf had started to articulate a century earlier revived in terms of new research methods and numerous research topics. The present project identifies itself with the linguistic, i.e. structural, relativity using the methodology of the Heidelberg–Paris model.

The next section elaborates on some of the methods applied in the new wave of research.
2.5 On improved research methods

2.5.1 Linguistic and discursive relativity

This section elaborates on the necessity to differentiate linguistic relativity from the other types of relativity outlined by Lucy (cf. section 2.4.1). It delineates the fields related to language in which relative variation appears and are important to be made clear in research into linguistic relativity.

From among semiotic, linguistic, and discursive relativity, which Lucy delineates on the basis of availability in the research literature, semiotic relativity is not language related while linguistic and discursive relativity are language based. Lucy (1997, p. 294) finds the general research focus to lie, fundamentally, on the following three elements: language, thinking, and reality, which are embedded in the shared claim that “certain properties of a given language have consequences for patterns of thinking about reality” (original italics) (ibid.). He reports that variation appears in properties of thinking, patterns of language, and world/reality, and each of them is connected by two relations such that “language embodies an interpretation of reality”, and “language can influence thought about that reality” (ibid.). Lucy, thus, stresses that part of the focus of the inquiry into linguistic relativity is in these elements and the relations they are in.

Apart from differentiating linguistic from discursive relativity with reference to the three core elements of language, thinking and reality as the focus of the studies on linguistic relativity, Lucy (2000, p. xi; cf. Lucy 1992a) establishes how to go about researching Whorf’s hypothesis. He points out that any evaluation of linguistic relativity inquiries necessarily “requires both articulating the contrasting interpretations of reality latent in different languages and assessing their broader influence on, or relationship to, the cognitive interpretation of reality.” In line with Lucy’s explication, the studies in focus here examine the effects of the categories of a language (the lexical and grammatical structures and morphosyntax used in discourse) on its speakers’ cognition as manifested in preferred structural patterns (such as mention of the endpoint of verbs of motion, or the granularity of event re-narrations). Following Lucy’s explication, the investigation of such an effect is empirically doable in the present project as data from the two languages involved are first analysed for “the contrasting interpretations of reality“ on the basis of the same stimuli which forms identical knowledge base. Subsequently, the language structures’ broader influence is assessed on the basis of the same knowledge base of the relevant L2 speakers.

An example of a study of linguistic, rather than discoursal difference which relates the difference to extra-linguistic reality, is found in a study of temperature words with an approach to linguistic aspects of temperature conceptualisation across over fifty languages. Koptjevskaja-Tamm (2015)
investigated the lexicalisation of the temperature concepts and categorisation of the temperature domain. As part of the study of the languages involved, the conceptualisation of the temperature domain in them is then probed both universally and locally with respect to particular extra-linguistic conditions such as environmental, socio-cultural, areal and genetic. While the study shows that languages have different ways of talking about heat, it does not investigate whether it means people have different cognition about heat.

As noted earlier, the structural, linguistic issues have to be distinguished clearly both from possible discourse relativity in the sense of discourse patterns determining cognition, and from culturally specific discourse, where a particular culture leads to preferred discursoidal patterns, usually on a larger scale. By way of illustration, Chafe’s (1980) work on Pear stories in a number of languages investigates discourse relativity looking at how speakers of different languages go about the task of retelling the Pear story. They found differences at the functional discourse level because narrative traditions vary in conventionalised uses of evaluation strategies (Pavlenko, 2006, p. 110). The linguistic means used and differences involved in them were not focused on in Chafe’s study since they were not considered to be relevant to discourse relativity when recalls of the same elicitation stimulus, the Pear story, were compared (Tannen, 1980). Experiments at the functional discourse level such as Chafe (1980) can suitably illustrate two different aspects of influence relations; one is the way how linguistic relativity can lead to discursoidal differences, the other is that the individual thought is influenced by discursoidal patterns and “culture” (cf. section 2.4.1).

The present project takes distance from the investigation of the cultural effects in language use because they are examined at a level different from structural, linguistic relativity due to the particular function to describe culture-related differences in discourse in L1 purposing to highlight the relevant effects across languages. To illustrate, Koutlaki (2002) and Sharifian (2010) discuss their observations of culture-specific effects in the Persian system of politeness and the Persian folk concept of face. They describe this culture-specific language use as very different from English.

In summary, even though linguistic relativity is closely related to discursive relativity, it is possible to differentiate between them in order to investigate them in their own right.

2.5.2 Importance of methods

The Sapir–Whorf hypothesis was derived, in a bottom-up fashion, from note-takings of observations of the influence of language on speakers’ thought. However, it is only recently that the related theories as well as methods have been well defined so that hypotheses about the influence could be tested. This section exemplifies some of the methods used to pursue research on structure-related relativity and cross-linguistic differences.
Linguistic tasks administered to groups of subjects in control and experimental conditions can, generally, be manipulated in various ways to obtain a design that appropriately elicits the effects of language on thinking. However, possible flaws in the design, such as those pointed out in Lucy (1997) about the well-known task of labelling colour chips in Berlin & Kay (1969), need to be carefully considered.

Successful design manipulation led to new results in Bylund (2011) who administered a research task to the L2 speakers in both their L1 and L2, eliminating factors other than language of expression. The experiment includes late bilinguals living in the L2 environment whose L2 proficiency may exceed the level of “no formal errors”. The constellation introduces a new aspect into the Heidelberg–Paris model, namely, bilinguals who were more active in their L2 than L1 did the same test task in their L1 and L2, giving evidence of L2 influence on L1. Thus, language influence patterns are not necessarily only directed from L1 to L2. Such patterns different from late/adult L2 learners emerge in L2 learners whose language learning history (see Pavlenko, 2011, p. 21) involves immersion in the L2 environment, counter-acting the L1 dependency with late/adult L2 learners. Thus, the observation underlines the need to also observe differences between the language learning histories in cross-linguistic comparisons. Drawing on Ervin & Osgood (1954), Pavlenko (2011, p. 21) suggests recognition of the classification in which cognitive concept formation is heavily dependent on the language environment. Thus, the roles of the L1 and L2 environments vary in different ways; L2 learning can be coordinate, compound and subordinate in the sense that the language learning environment can comprise either, two distinct environments and two languages learnt, or a single environment where two languages are learnt, or a single environment where an additional language is learnt on the basis of the L1, respectively.

Similarly, Neuser (2017) found that at a lower level of L2 proficiency the L1 is the more activated language in the speakers’ mind while at higher proficiency levels as, for instance, young bilinguals who have grown up in the L2 environment exhibit L2 influence on their L1.

Research results are dependent on methods, and these have improved today as compared to the beginning of the 20th century. This can be demonstrated by examining an older and a modern study which made use of retelling. Although these studies were not concerned with linguistic relativity because the cross-linguistic perspective was not taken, they are relevant here as the present study used the same retelling task. Bartlett (1932) designed a study where the subjects were asked to read a folktale and write what they could remember of it. Inevitably, the written form primed the subjects significantly and impacted what they could remember of the tale. This effect is demonstrated by Strömqvist (2009, pp. 81–82) who studies the effect of language from the first linguistic task on memory measured in terms of lexical diversity in language production in the subsequent linguistic task.
The method used in Strömqvist’s (2009) study was partly adopted from Alves’ (2002) study on Portuguese which was also used in the Frog story experiment in Berman & Slobin’s (1994) presented in section 2.1. The research was designed as follows: the picture retelling task based on a non-linguistic task in the form of a picture story was given twice in particular turns in Strömqvist’s (2009) study: the first round of the retelling task, i.e. the control condition produced the Frog story as both an oral and written narration, as half of each age group did either of them as their first task. In the second round, i.e. the experimental condition, the tasks were complemented to produce task orders required by the experiment.

The method applied by Bartlett (1932) shows that inappropriate priming must be avoided ahead of the experimental task. However, priming was efficiently used in a manipulated method by Strömqvist. Also, Montero-Melis, Jaeger & Bylund (2016, p. 655) used priming efficiently in an event similarity arrangement task; a group of L1 Swedish subjects who had read out loud, in their L2 Spanish, sentences that highlighted either path or manner of motion events modulated the L2 users’ reliance on these components in a subsequent non-verbal task, in arranging events on the screen according to their similarity. Their findings support the view that conceptual representations of events are not static, and conceptual restructuring takes place in bilinguals. These studies illustrate how new methods can straighten the flaws in earlier methods and complement them to be applied to new research issues and models.

The method applied by Strömqvist (2009) points even to a new model presenting a different aspect in the inquiry into the interrelation between language and cognition. Thinking for speaking does not only involve selection, as Slobin (1996a, p. 84) claims, it brings about not only structure for the thoughts as the speakers must order their thoughts in a linear structure in deciding what to mention first, and what next but also the way how thoughts change in the process of language production. In other words, new methods can also lead to improved models as in the case of Strömqvist’s (2009) study; the model enabled a more sophisticated description of the interrelation between language and cognition not possible to experience directly. Notably, a method’s relation to a model is distinct, as a tool used in a model. A method draws on an interesting observation and the related research question for more information about the observation, and a relevant hypothesis for a scientific experiment with an analysis and eventual conclusions.

The method applied in the present project employs two experiments of single event descriptions and re-narration of a film clip where these linguistic tasks on the non-linguistic stimuli are used to establish two independent sets of identical knowledge base for analyses on the influence of the progressive aspect on event conceptualisation. There are also other levels of analysis deployed to complement the queries in the Heidelberg–Paris model, not used here; eye-tracking examining ‘seeing for speaking’ and showing patterns of
visual attention that confirm findings from tests on empirical data (Schmiedtová, Carroll, & von Stutterheim, 2007; von Stutterheim et al., 2012a; von Stutterheim et al., 2009) and speech onset time analyses (von Stutterheim & Carroll, 2006; von Stutterheim et al., 2002), combined with experiments with memory tasks.

Working within the Heidelberg–Paris model, Nüse (2003) used a non-verbal task to compare the results from a task conducted verbally. Contrary to those results showing speakers of L1 English and German differing significantly in the frequency of the mention of endpoints with motion events, Nüse (2003, p. 267) found that the differences reduced to a non-significant level in performing non-verbally; L1 English and German did not differ in the number of times the button was pressed to indicate the end of the relevant events. Rather, in the verbal task speaking includes a special way of segmenting event sequences in both English and German subjects, indicating that conceptualising for speaking is language-specific (Nüse, 2003, p. 273).

This section showed how new methods not only give new results but also confirm earlier findings and refine old theories. The importance of the research methods lies in the fact that appropriate research methods yield accurate results, while inappropriate methods may yield only vaguely suggestive or inaccurate results. The next section elaborates on the main features of aspect in languages, in general, then focusing on aspect in English and Persian, in particular.

2.6 Aspect in general

Previous studies have taken the term aspect for granted and not thought about the difference between aspects with similar names in different languages. Empirical evidence from the cross-linguistic studies within the Heidelberg–Paris framework shows that the structural property affecting patterns of event construal is verbal aspect leading to differences in perspective-taking across languages (von Stutterheim et al., 2002, p. 184, cf. section 2.1 fn. 2). Despite this finding, the focus of the studies within the Heidelberg–Paris model has been on the possible challenges the L2 learner may encounter in terms of the ways a particular L2 system confines language production differently from an L1. In this project, the concept of aspect and the differences it may involve are regarded as more central while challenges of the L2 learner are also important.

2.6.1 Grammaticalisation

This examination of aspect starts with an elaboration of grammaticalisation. To begin with a broad view on grammaticalisation, there is a three-level
conception of grammatical notions that relate to syntax rather than lexicon. First, at the semantic level, tense and aspect are seen as abstract universal notions shared by languages generally. The notions seemingly exist in all languages even though they are not always grammaticalised. For example, in English the notions of imperfectivity and perfectivity are present in language use although the system does not mark them with specific morphology.

Second, at the level of syntax these notions may be realised either lexically or in morphologically marked forms as a grammaticalised feature, which means that both tense and aspect may, or may not, be grammaticalised features of language. By way of exemplification, tense is grammaticalised in a majority of languages but not in Chinese, where temporal particles are used. Aspect is a grammaticalised feature in Russian, though not in German in which the imperfective and perfective distinction, IPFV–PFV, is missing.

The examples illustrate two things: on the one hand, this type of cross-linguistic difference can be grammatical, i.e. related to the syntax. A feature shared at the notional level can show in morphological form, or not, being thus a grammaticalised feature, or alternatively a lexical feature. See below for criteria of a grammaticalised feature being grammatical, i.e. part of the syntax. On the other hand, the particular grammaticalised feature of the IPFV–PFV distinction appears in the system as an all-or-nothing feature at the syntactic level because these categories form one complete whole comprising the binary, incomplete–complete categories.

Third, at the pragmatic, language-specific level, a grammaticalised category such as the progressive may appear as frequent in one language though less frequent in another. The reasons behind may be various such as different degrees of grammaticalisation which is to be understood as the different internal structures of the progressive categories, showing up as a different frequency of use. For example, the Progressive in English is used in a vast range of contexts while the uses of the Progressive in Dutch do not cover the same scope but can only be employed in restricted cases (see Figure 2.1).

Yet another reason may be the character of the overall grammaticalised aspectual system. By way of exemplification, the Progressive in English has extended uses such as denoting habituality as in He is working on his book every day (Bybee & Dahl, 1989, p. 82). The progressive in other languages may not normally convey habituality. Important is the fact that once the progressive aspect is a grammaticalised feature of a language, the varying degrees of its grammaticalisation do not show up explicitly in the form but implicitly in the principles of its use, referred to as different internal structures, at the pragmatic level. This also indicates that the frequency of use

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2 Conventionally, German is considered as a non-aspect language. If, however, the perfect is considered as aspect, German has grammaticalised aspect, though not grammaticalised progressive aspect (see Thieroff, 1994; Klein, 2000).
cannot be a criterion per se for degree of grammaticalisation in the sense that more frequently used progressives would be more fully grammaticalised.

Looking at the usage in the literature, grammaticalisation can be characterised by a group of distinguishing features: lack of referential content, expression by semantically bleached or empty markers, potential obligatoriness, and relatively wide range of contexts of use. Among these only the first two are necessary but the other two are very common (Traugott, 2003).

Thus, relating to the first two criteria for something which is grammaticalised at the pragmatic level, the morphology can evolve from lexical items with referential content which is later lost. These processes take a long time. In some cases they may involve loss of meaning of a lexeme, referred to as semantic bleaching. An example of grammaticalisation, where a full adverb has become a grammatical prefix is the imperfective marking *mi*-prefix in Persian which developed from around the 10\textsuperscript{th} to 15\textsuperscript{th} century from the word *hamé- or hamév- ‘always’, to denote the imperfective meanings (Jeremiás, 2003, p. 439; Lenepveu-Hotz, 2014, p. 239; see section 2.6.7).

When there exists particular morphology, it appears in forms typical of it. It can be an ending or copula. However, there are typically no lexical items with preserved referential content at the level of syntax, even though the grammaticalised category may be represented by a lexical item at the level of lexicon. To exemplify, the IPFV–PFV categories are not morphologically marked in English, though they are represented by lexical items such as *every day* and *completely*.

Further, the morphology can appear in a varying range of occurrence. Some grammaticalised features may be frequent while others are infrequent in a language; grammaticalisation does not imply that, for example, the progressive necessarily always increases the set of uses because the overall aspectual system can be assumed to exert an impact on the increased use of the progressive as in English but may be quite the contrary in other languages.

As for the criteria, a particular construction is regarded as grammaticalised when there is a particular morphology for it which is systematically used. The occurrence of morphology can be viewed from two perspectives: obligatoriness and range of contexts. Grammaticalised morphology tends to be obligatory in at least one context; the more contexts it is obligatory in, the more grammaticalised it is (Flecken, 2010, p. 53). Then something that is grammaticalised can be called more or less grammaticalised according to the range of contexts it is usable in (Bybee, Perkins, & Pagliuca, 1994). Bybee & Dahl (1989, p. 65) point out that in generalising their uses, there is no particular point at which a gram becomes obligatory. Note that obligatoriness is not necessary for grammaticalised status (see Heine, 2003; Traugott, 2003) because obligatoriness may sometimes depend on the lack of an alternative form in the system. This is the case with the use of the Progressive in English to denote ongoingness as the only verb form available.
Further, aspect is described as grammaticalised in Russian on the grounds that there is particular morphology that has to be used, and speakers always have to decide what aspect to put the verb in. The feature is obligatory because all verbs with a few exceptions exhibit aspectual distinctions.

A different type of grammaticalisation process is the kind of diachronic usage whereby a lexical item becomes a grammatical one, as in the adjectives pure and mere becoming adverbials (cf. Vandewinkel, forthcoming). Notably, this type of grammaticalisation is not to be confused with grammaticalised means expressed by a grammatical morpheme, not a lexical item.

Grammaticalisation may lead to language-specific differences in the categories, relevant to the overall grammaticalised system, which also means that the morphology of the grammaticalisation of tense and aspect may vary. The feature may be morphologically either zero marked in a system, or marked with affixes on the verb, or the verb form is periphrastic when it has a separate auxiliary in other systems. To exemplify, reference to the future time is a grammaticalised feature but is not marked morphologically in the so-called binary tense systems that have the past and non-past distinction for tense (Binnick, 1991, pp. 138, 250) as in English and Persian. Instead, in English, the future is expressed by the modals will and shall, that is, not by a morphological but by a periphrastic structure. Also, the future meaning is latent in the present tense form as it can convey reference to future. In Persian, future is normally denoted by the non-past form, although a modal verb xāstan equivalent to ‘will’ also forms periphrastic modal structures for future reference. Yet, other languages can have the past, present and future tenses grammaticalised in distinct affixed morphology as in Lithuanian (Binnick, 1991, p. 252). In the Russian system, the prefixed present tense forms are present perfectives denoting future time. This involves yet another type of cross-linguistic difference as it accommodates the future to the perfectly marked category.

In many languages the grammaticalised progressive aspect appears in periphrastic forms. Similarly, in many languages this periphrastic form has not advanced so far in the grammaticalisation process reflecting a developmental difference from the verb features marked by affixation (Bybee & Dahl, 1989). Persian is a good example of such old and recent developmental traits in the bare mi-form and the dāštan-progressive, as shown in section 2.7.4.

The affixed forms also involve aspect- and tense-prominence as languages may have more either of aspectual or temporal morphology depending on how their tense–aspect systems have developed. By way of exemplification, English has a lot of morphology for tense and is thus tense-prominent, even though it is regarded in the Heidelberg–Paris model as an

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3 The imperfective mi-prefixed form of the main verb is referred to as the bare mi-form in this project to keep it distinct from the progressive form which consists of the dāštan ‘to have’ auxiliary along with the mi-prefixed form, referred to as the dāštan-progressive in this project.
aspect language by virtue of the grammaticalised progressive aspect. German is regarded as a tense-prominent language. It has grammaticalised perfect, which is regarded as more like tense than aspect (cf. Klein, 2000).

Unlike German and many other Germanic languages, Persian is rich in aspectual categories in the sense that the IPFV–PFV distinction exists in addition to the separate category of the dāštān-progressive, but marks aspect as a secondary feature. This is because the Persian verb system has two different stems for verbs, in which the past and non-past tenses are encoded as a primary feature, making it odd to call Persian aspect-prominent. Seemingly, the classification of languages as either tense- or aspect-prominent is not clear-cut even though tense-prominence applies well to many of the European Germanic languages as they only have grammaticalised tense. However, the amount of aspectual or temporal morphology is not the only way to regard a language as displaying tense or aspect prominence. Rather, other parameters, such as the tense distinction at the level of the verb stem, need to be taken into consideration.

While languages are known to be in a state of change, in general, language change is difficult to observe except long after the fact. Studies in historical linguistics, such as Smitterberg (2005), describe language change and the grammaticalisation of the Progressive in English which has taken place over 500 years.

Flecken (2010) gives evidence of synchronic language change indicating that the Progressive in Dutch may be on the way to grammaticalisation. Her work within the Heidelberg–Paris model presents the different stages of grammaticalisation of the progressive. They are employed in this project as the method of defining the degree of grammaticalisation of the Progressive in Persian, as compared to English and Dutch. Flecken (2010, p. 64) takes grammaticalisation to mean “expansion of the range of contexts in which a particular construction is applied”, which is illustrated in Figure 2.1. Grammaticalisation starts in the use of a particular construction in a prototypical lexical environment inherently linked to a specific meaning of the grammatical feature. It slowly spreads out to less prototypical uses (Bybee et al., 1994; Comrie, 1976). The stages of grammaticalisation of the Progressive in Dutch and English are shown in Figure 2.1.

<table>
<thead>
<tr>
<th>Stages</th>
<th>Prototypical event types</th>
<th>Example of verbs</th>
<th>Languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>1-state verbs</td>
<td>clean, walk</td>
<td>Dutch, English</td>
</tr>
<tr>
<td>Stage 2</td>
<td>2-state verbs with duration</td>
<td>change, dissolve</td>
<td>(Dutch), English</td>
</tr>
<tr>
<td>Stage 3</td>
<td>2-state verbs with punctual events</td>
<td>break, open</td>
<td>English</td>
</tr>
<tr>
<td>Stage 4</td>
<td>statives</td>
<td>enjoy, live</td>
<td>English</td>
</tr>
</tbody>
</table>

Figure 2.1. Stages of grammaticalisation of the progressive
Citing Bybee et al. (1994), Flecken (2010, pp. 65–66) reports that in the first phase of grammaticalisation the prototypical event type to take the progressive is activities as in *walk, swim, read a book, and clean the table*. In the prototypical phase, the prerequisite for using the *aan het*-construction in Dutch is the possibility of defocusing boundaries (Flecken, 2010, p. 66). These are agentive activities formed with 1-state verbs without any defined endpoint; the activity ends when the actor stops it. For the purposes of the present project, the progressive is termed as Stage-1 progressive when the language system mainly allows the progressive construction with agentive activities.

In the second phase, the progressive is taken by 2-state verbs denoting prolonged temporal duration as in *change*. Such event verbs denote situations that reach an endpoint after a process of some duration, i.e. accomplishments, referred to as Stage-2 progressive.

In the third phase, the progressive expands its uses and is later taken by 2-state verbs with short, punctual time intervals, i.e. achievements, as in *break*, termed here as Stage-3 progressive.

Finally, Flecken (2010, p. 66) posits that the final stage of the expansion of grammaticalisation is attained when the progressive occurs with statives, renamed here as Stage-4 progressive.

Since Bybee et al. (1994) do not provide a very clear presentation of the different stages of the use of the progressive, this project refers to Tommola (2000, pp. 676–677) who also cites Bybee et al. (1994), reporting as follows:

> [W]e can assume that the situations becoming possible [for the application of the progressive] in the process of grammaticalization follow the pattern: progressive → “processive” → continuous → stative (or: activities → processes → “durations” → states).

Flecken (2010, p. 66) reports on the results of an acceptability judgement task establishing that the Dutch system shows the following ranking of the use of the progressive construction indicating its grammaticalisation: agentive activities such as *read, draw, paint* and *play the piano* take more readily the progressive than 2-state verbs with long duration such as *do the dishes*. Then, 2-state verbs with short duration such as *break, explode, and fall* take the construction. Statives and motion verbs do not admit it in Dutch. This ranking is developed further in terms of a hypothetical order of grammaticalisation of the progressive, presented in section 2.9.1.1.

In this project, these stages of grammaticalisation are taken to represent general development in the grammaticalisation of the progressive with various event types. Motion events such as *go to the park* are not taken up in the stages of grammaticalisation in Bybee et al. (1994). They seem to be very different from true agentive activities that prototypically take the progressive. Motion events are activities expressed by durative 1-state verbs com-
bined with an additional endpoint adjunct. They take the Progressive in Dutch infrequently (Flecken, 2010). In this project, use of the progressive with motion events is equalled with Stage-2 progressive, typical of the progressive with accomplishments such as change and dissolve in which both the process and resultant state are involved.

Regarding the definition of grammaticalisation, the project also draws on Tommola (2000, p. 680):

To say that [a specific] meaning has grammaticalized in a language implies that there is a particular verbal form (periphrastic construction) which the predicate takes when it denotes [such a meaning].

Thus, when certain verb types systematically admit the particular morphology expressing ongoingness, the progressive has become grammaticalised in the particular semantic domain described above as the different stages.

In line with Tommola (2000) and Bertinetto, Ebert & de Groot (2000, p. 527), the present project regards the progressive as referring to specialised morphosyntactic devices. Unlike Bertinetto et al. (2000), it is not considered that in languages such as English the progressive has reached a status of complete grammaticalisation which they seem to equate with the fact that it is “the only tool available to express the notion of progressivity”. It is conceived in this project that language systems that have grammaticalised more tools, i.e. progressive and imperfective, can have fully grammaticalised progressive. Notably, the present project regards grammaticalisation of the progressive as consisting in different stages through which the grammaticalisation expands to new semantic domains, though this does not happen in a strict sense as each language determines how its uses expand (Comrie, 1976). This means that, like in Dutch, the progressive can be used predominantly with verbs making up Stage-1 and considerably frequently with verbs making up Stage-2 but infrequently with Stage-3 and never with motion events with endpoints and Stage-4 verbs (Flecken, 2010, pp. 66, 119, 148). Grammaticalisation of the progressive can be claimed to have occurred in the particular semantic domain when the specific morphological tool is used systematically.

The scope of uses, i.e. the internal structure, of the grammaticalised progressive apparently depends on the relevant overall system; in the process of becoming fully grammaticalised, progressives do not necessarily develop

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4 Behrens et al. (2013, p. 117) used the same video clips as those in the present study. The distribution of the use of the Progressive in Dutch is as follows: agentive activities 65.81%, causatives with effected objects 62.15%, causatives with affected objects 52.5%, non-agentive activities 11.88%, motion events without endpoints 1.82%, and motion events with endpoints 0%. Observe that these percentages refer to the overall use of the Progressive in Dutch which is at the level of 27.52% of the tested cases, i.e. the percentage of speakers who chose to use the aan het-progressive construction.
towards becoming the only device to express ongoingness. Rather, grammaticalisation takes place within, and in relation to, the relevant system. In the English system the progressive has become the only tool to convey progressivity — a system-specific feature as a consequence of grammaticalisation.

This section discussed the criteria and distinguishing features of grammaticalisation of the Progressive along with its outstanding stages. The next section probes into tense and aspect as presented in the reference grammars.

2.6.2 Reference grammars and tense–aspect theories

The major reference grammars of English (see the sub-sections under 2.7.3) and Persian (see top of section 2.7.4) consulted, i.e. descriptive grammars in a general sense that are not intended for second language learning but describe the language from the inside concisely, are comprehensive but do not offer any general cross-linguistic or comparative description of aspect for a clear contrastive picture of the tense–aspect system constellations. Neither do they present any theory of aspect necessary for this cross-linguistic study. They simply do not aim to produce either general or language-specific tense–aspect paradigms to outline the system. Also, pedagogical reference grammars, typically, only describe the categories and general use of aspect, or tense for that matter, which then from the learners’ perspective implies that they have to figure out, and align, the conglomerate of the relations and categories of the new aspectual system in the course of learning the L2. The descriptive and pedagogical reference grammars are insufficient for the L2 research and learning contexts because they are not contrastive.

In learning an L2, foreign language learners traditionally resort to pedagogical reference grammars, whereas native speakers fundamentally rely on the correctness of their L1 knowledge by intuition. Thus, Persian learners of L2 English involved in the present project have consulted pedagogical reference grammars of English, whereas the native speakers of English and Persian have the language knowledge natively. Due to the substantial drawback for this study of both the comprehensive and language-internal descriptions in ignoring the universal basis of the tense–aspect notion, they are not fully helpful for the cross-linguistic examination of aspect pursued in this section. Research into cross-linguistic differences in the use of aspect cannot merely be built on reference grammars as language-specific descriptions are less useful for comparative studies where a language-independent view of aspect is needed to refer to.

In this effort to describe aspect in general, though inevitably not exhaustively, the present study draws on the works used by the Heidelberg–Paris model. Even though they are not the latest ones, they are major work to date on aspect in languages on a good number of languages constituting a comprehensive framework for this project; Comrie’s (1976) work on aspect forms the semantic basis of aspect, Dahl (1985) defines the relevant uniform
concepts for the vast cross-linguistic context, Klein (1994) synchronises the domains of tense and aspect and elaborates on the role of the unified domain in discourse, and Bybee et al. (1994) depicts the historical course of the development of aspect.

More precisely, Comrie’s (1976) work is rich with useful cross-linguistic evidence, though it presents the conventional view of aspect in considering progressive as a sub-category, along with the habitual and generic, of the imperfective. According to Dahl (1985), this conventional view can only apply to the semantic level, but not the syntactic level. Comrie (1976, p. 25) also adopts a simple two-level approach for the paradigm of aspect at the semantic level in languages and makes use of the category continuous, though this is redundant in his paradigm according to Bybee et al. (1994, pp. 139, 174) as the languages they studied do not display such morphology. Many studies since Comrie (1976) are based on his work, which draws on his and other scholars’ previous traditional works on aspect in English, Russian, Bulgarian, French, Spanish and Greek (Comrie, 1976, pp. 123–124).

Dahl (1985) and Bybee et al. (1994) shed new light on aspect by presenting findings of their empirical studies of aspect in a number of the world’s languages. They examine languages for cross-linguistic tense, aspect and modality features in terms of the concept gram-type applied in Dahl (1989, p. 52). As opposed to gram-types, which refer to grammatical categories as uniform cross-linguistic categories, language-specific grams denote concepts such as the grammaticalised category of aspect in individual languages which are not only typologically different but also delimit aspect differently. This language-specificity, i.e. the fact that aspect is, typically, differently delimited in languages, which implies language-specific rules of use, is captured in grams. In his typological study, Dahl (1985) used a questionnaire to elicit data in the form of grammatically representative sentences from 64 languages around the world.

Bybee et al. (1994), whose work draws on Comrie (1976), collected empirical data from 76 languages on the basis of reference grammars, i.e. those representing the traditional typological sense of description of a language for documentation purposes — at least when it comes to randomly selected languages of their study many of which are spoken by minor populations. Bybee et al. (1994) focuses on describing the historical development of the grammaticalised forms for tense, aspect and mood in languages depicting the dynamic and rather regular tendencies of language development, in general.

While Bybee et al. (1994) is an account of aspect diachronically, Klein (1994) presents a tense–aspect theory, defining these notions as temporal relations with respect to three points of time on the time axis. In contrast to Comrie (1976, p. 12), who not only considers tense and aspect as two different domains but also investigates them traditionally in individual sentences, Klein’s (1994) theory views them within one temporal domain and, importantly, shifts the scope of investigation from the single sentence level to
discourse level making the theory applicable to language use across languages.

This section presented that the current project adopts the reference grammars used in the Heidelberg–Paris framework. The project needs a comprehensive framework so the references used may not be the latest or most technical. The next section elaborates on Klein’s (1994) views on temporality.

2.6.3 Klein’s theory of aspect and tense

Klein’s (1994) theory of aspect conforms to the conventional classification of verbs, firstly, into situations they describe, i.e. events and states and, secondly, their specific temporal quality, i.e. dynamic and stative. This is illustrated in Figure 2.2, adapted from Quirk et al. (1973).

<table>
<thead>
<tr>
<th>Situations</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>States</td>
<td>Events</td>
</tr>
<tr>
<td>Stative verbs</td>
<td>Dynamic verbs</td>
</tr>
<tr>
<td>Two and two</td>
<td>The sun <em>sets</em> in the west</td>
</tr>
<tr>
<td><em>make</em> four</td>
<td>Generic Universal Time</td>
</tr>
<tr>
<td>John <em>knows</em> the answer</td>
<td>We <em>cycle</em> to work every day</td>
</tr>
<tr>
<td></td>
<td>Habitual, Non-generic Time</td>
</tr>
<tr>
<td></td>
<td><em>John sings</em> well</td>
</tr>
<tr>
<td></td>
<td><em>Joan studies</em> hard</td>
</tr>
</tbody>
</table>

Figure 2.2 Classification of types of situations

Events are characteristically dynamic and are described by dynamic verbs such as *cycle*, as presented by Quirk et al. (1973, pp. 85, 93). States, which can either be generic or non-generic, are situations described by stative verbs such as *know*.

Most fundamentally, study on aspect is based on situations underlying any event and state, as presented in Klein (1994, p. 3). Situations, such as *<the light be on>*>, are infinite, INF. They have a finite, FIN, counterpart in an assertion such as *The light is on*. Assertions are understood as truth-based statements of the relevant situations.

Situations are selective in the way that the speaker freely selects what to mention in doing an oral task such as re-narrating an event and what types of verbs to use. The point/span of time of the situation the speaker makes an assertion about is termed topic time, TT. In Klein’s (1994) theory, it falls into a distinct topic time contrast, TT-contrast, in relation to any other TT, i.e. any other point/span of time on the time axis. These temporal notions define the relevant verb type. Accordingly, a type of TT-contrast is, first, one that is external in relation to the assertion time, TT, as in *The book was on*
the table (Klein, 1994, p. 4). Such temporary situations manifest one change contrasting to the outside of, and not inside, the TT.

In the present project in which only events described by event verbs, and not statives, are in focus, the term 1-state event is applied to activity verbs, e.g. run as an event type with this TT-contrast. Second, situations can comprise two types of TT-contrast inside the assertion time, TT, and are then termed 2-state events as in She took the book from the table, which describes the dynamic situation of taking the book from the table, i.e. it was first on the table and then not, which describes the whole situation (Klein, 1994). Finally, situations that prevail forever do not have any TT-contrast with any other TT on the time line. They are termed 0-states by Klein (1994, p. 6) but are commonly known as states as in Two plus two equals four and are different from events as in The light is on which involves a TT-contrast, which is external in relation to the relevant assertion time. Importantly, the existence of a TT-contrast is said to be the condition for the use of the progressive, excluding generic and habitual assertions from use of this aspectual form as they hold at any topic time.

In Klein’s theory of aspect and tense, the notions of topic time and, in particular, TT-contrast, which is a temporal contrast, plays a crucial role in identifying verb types. 1-state and 2-state verbs are referred to again in discussing boundedness in section 2.6.9.

Importantly, Klein’s definition of aspect builds on a temporal relation. Such a relation is understood to arise between time of situation and topic time, i.e. TSit and TT, which are different concepts of time defining a single event. They can be illustrated as follows. If the entire time of situation of the event The book was on the table is an interval of two hours, it is conceived as a mere point when its time interval is related to a specific span of time of another situation as in (1).

(1)
The book was on the table when I went into the room

The assertion does not refer to the whole TSit of the book being on the table but only a sub-section of it, TT.

Conventionally, the aspectual relation is explained for the progressive, in particular. The same relation of TSit and TT of an event, as illustrated in (1), is involved in expressions of ongoing events as in (2).

(2)
She was reading a book when I wrote my letter

If the entire TSit of the reading is two hours, the assertion made refers to a sub-interval of it, during which the letter was finished. (2) illustrates also that topic time is not punctual or instantaneous but the time interval is ex-
tended in both events at issue. Importantly, Klein’s theory of aspect makes clear that temporal relations are involved in all kinds of assertions, not only those in the progressive.

Tense is a slightly different temporal relation of a single event, the one between topic time and Time of utterance, i.e. TT and TU (Klein, 1994). Traditionally, this relation has been described as one between TSit and TU in reference grammars and theories of aspect such as Comrie (1976) where the distinction between TSit and TT was made. However, it does not describe precisely the temporal relation involved, as illustrated in Comrie’s (1976, p. 2) example *John is singing* which, in Klein’s (1994) view, denotes only a sub-interval of the whole time of situation.

This section presented Klein’s (1994) temporal notions used to describe tense and aspect in different types of assertions. The next section outlines Dahl’s (1985) model of grammaticalised tense–aspect categories.

### 2.6.4 Dahl’s model

The present project adopts some of Bybee & Dahl’s (1989) concepts to present the different cross-linguistic notions within the tense and aspect systems involved in the study. Bybee & Dahl (1989, p. 55) employ the language-specific notion of *gram* as a label for units that build up the tense–aspect–mood systems, i.e. TAM-systems, in languages with the benefit that the individual elements of those systems can, in grams, be studied as separate entities. Thus, notions that are traditionally known to be grouped under a label, as for instance the generic and habitual notions that are understood to be embedded in the imperfective aspect, are not viewed as a cluster in grams. This means that grams not only comprise, and differentiate between, the existing notions of tense and aspect but also the relevant language-specific scope. Thus, the fact that, for instance, the progressive has habitual uses in English, which is not a norm across languages, is captured in Dahl’s theory involving grams. In other words, while a specific gram represents a form with meaning attached to it (see also Bybee et al., 1994, p. 138), grams with the same name can have different scopes in different languages.

Unlike grams, which are language-specific, gram-types represent the prototype of particular grammaticalised notions such as tense and aspect. Thus, gram-types play the important role of a common denominator for tense and aspect in the world’s languages. Since gram-types are tools for cross-linguistic comparison, they allow us to view the cross-linguistic grammaticalised notions independently of the language-specific differences grounded in the varying forms and meanings of their temporal and aspectual markers (Dahl, 1985).

Taken together, grams are capable of denoting language-specificity when applied to languages exhibiting a difference from the prototypical gram-type. A good example is the gram PASTi standing for the Past Imperfective in
Persian, marking its language-specific difference between the more common cross-linguistic gram-type PAST. The label denotes that the gram is relevant only for past imperfective contexts (Dahl, 1985, pp. ix, 110).

Dahl (1985) applies the term categories to denote the cross-linguistic categories he introduces. These gram-types are referred to as gram-type in Bybee & Dahl (1989). To denote that they mean the same, the present project applies the term gram-type category to the cross-linguistic, language-independent categories. The following is an inventory of the cross-linguistic gram-type categories with their acronyms (Bybee & Dahl, 1989, p. 55) pertinent to this study on aspect:

- Perfective, PFV
- Imperfective, IPFV
- Progressive, PROG

Bybee & Dahl’s (1989, p. 55) definition of these gram-type categories based on boundedness along with values introduced as divergent from boundedness significantly highlights the existing differences between them: Perfective indicates that a situation is viewed as “bounded”, imperfective, in turn, denotes it is viewed as “not bounded”, and finally, progressive conveys the situation “in progress at reference time”. Dahl labels the present tense as DEFAULT because it is typically not marked.

In developing earlier work on aspect, Dahl (1985) extends the characterisation of the semantico-notional categories as well as grammatical categories into a three-level description; notion, gram-type and gram. Dahl’s (1985) fusion into a gram-type category of the semantic and grammatical categories can be exemplified by what is traditionally labelled as past denoting the cross-linguistic tense, mood and aspect category in the grammar of many languages. He re-introduces it in the upper case, PAST, which then represents the cross-linguistic, language-independent gram-type category. This cross-linguistic gram-type value originates from the underlying dimension of conceptuo-semantic space at the notional level which is presented in single quotes, ‘past’. This notional value may play a dual role, on the one hand in a cross-linguistic gram-type category with the same name, i.e. PAST and, on the other hand, as a feature of the cross-linguistic category PERFECTIVE (Dahl, 1985, p. 34). Dahl’s (1985) language-specific grammatical categories follow the common convention in having their initials capitalised. Dahl’s three-level approach can be rephrased as the identification of the level of universal notional categories or category types as well as the dual level of dimensions of conceptual space.

Importantly, the traditional labels, which have formerly played a role merely on the semantic and grammatical levels, are incapable of highlighting the existence of the subtleties at the notional and cross-linguistic levels ob-
served by way of the three-level approach. Dahl’s (1985) work has introduced accuracy and clarity regarding the tense–aspect categories.

The main point elaborated on in this section is the difference between gram-type and gram, i.e. language-independent notional similarities at the conceptual level and language-dependent differences at the grammatical level. The next section explores some of the cross-linguistic differences in tense–aspect systems, which relates the section to the notion of grams.

2.6.5 Differences between language-specific features of some tense—aspect systems

The discussion in this section revolves around the idea that the conceptual domain of tense and aspect is fundamentally universal even though there are languages with different typological morphology that have no tense or aspect inflection and may have no inflection at all (Bybee & Dahl, 1989, p. 99). Generally, the cross-linguistic grammaticalised temporal categories may involve differences shown as language-specific features of the particular verbal systems. Some of these features are pointed out here.

- First, the grammaticalised notions of tense and aspect use different morphology, as mentioned in section 2.6.1, i.e. verb forms are either marked or unmarked for tense and aspect in different language systems. On the basis of the differences between such affixed tense–aspect morphology on the verb (Dahl, 1985), and disregarding the periphrastic verb forms, languages can be classified into three types of systems with respect to whether, and how, they have grammaticalised tense and aspect onto verb forms, which then reflect different lines of diachronic development: first, grammaticalised zero-aspect systems, as in English, with simple, morphologically marked present and past tense forms, lacking morphological aspect; second, inflectional aspect systems, as in Persian, that are tripartite with present and past tense morphologically marked as imperfective with perfective forms with zero marking; third, derivational aspect systems, as in Russian, with morphologically unmarked imperfective and morphologically marked perfective in both the present and past tense (Bybee et al., 1994). Notice, however, that imperfective verb forms

5 A tripartite system has the three grammaticalised verb forms of present imperfective, past imperfective, and past perfective. The type of tripartite system in Persian is less common across languages than the tripartite system presented by Dahl (1985, p. 82). For the difference between the system Dahl describes and the Persian one, see section 2.6.7.

6 The Perfective aspect in Russian is produced by verbal prefixes. There are around 20 prefixes, e.g. po- expresses that the action lasted a short period of time, pro- expresses longer duration of an action, and za- conveys ingressive meaning (Binnick, 1991, p. 145).
are not always morphologically unmarked and perfective verb forms are not always morphologically marked in Russian (cf. Dahl, 1985, p. 84).

- Second, differing degrees of grammaticalisation can lead to different principles of use of the grammatical category. Whereas the Progressive is fully grammaticalised in English, the Progressive in Dutch is a less-developed category. Thus, the principles of use of the progressive are different in these languages due to the limitation of its use to certain event types (Flecken, 2010, p. 20; cf. section 2.6.1).

- Third, grammaticalisation does not imply that the progressive necessarily always increases the set of uses; the reasons underlying the principles of use vary in many ways affecting the frequency of their occurrence. The progressive is observed to admit numerous uses in a language such as English. There are various underlying reasons such as admitting certain sets of meanings such as focalised, i.e. taking place at the time of speaking, and temporally extended meanings, or varying environments of use such as sub-clauses rather than main clauses. Also, the Progressive in English may denote actionality, i.e. Aktionsart, such as iterativity (see section 2.6.8). To further exemplify variation within this category, the progressive in Italian used to convey both the pure focalised and actional durative meanings but developed to have merely the focalised one, denoting events taking place at the reference time not admitting contexts of duration, such as the context of for a long time (Squartini, 1998, p. 75).

- Fourth, the necessity to distinguish between the grammatical and semantic entities, as advocated by Dahl (1985, p. 34), applies not only within a language as, for instance, when the grammaticalised present tense can project to both the present and future meanings in a language system, but necessarily also across languages. As the grammatical and semantic categories may be differently delimited in the syntax of languages, there is not always a one-to-one relation between them cross-linguistically. Owing to the lack of cross-linguistic uniformity, the semantico-syntactic differences may involve one semantic category realised as two different grammatical categories in two languages. Thus, a semantic category can be imperfective in a language but perfective in another. By way of exemplification, the ingressive in Russian is expressed by perfective verb forms as the ingressive prefix za-, once added to the imperfective form *plakat*, ‘cry’, makes the verb perfective *zaplakat*, ‘start to cry’ (see section 2.6.8). In English, in contrast, the ingressive is imperfective by virtue of the progressive as in *She is launching/instigating a charity campaign* as one of the uses of the Progressive in English is to describe ingressivity (see section 2.6.8). Due to differences between languages such as this, it is impossible to provide any exact language-independent definition of the notions of imperfectivity and perfectivity, i.e. what each of
them exactly are (Östen Dahl, personal communication; for cross-linguistic differences between the simple present and the imperfective present, see section 2.7.1).

- Fifth, the fact that languages may be similar with respect to some of their grammaticalised categories does not entail similarity of all their categories. Thus, while languages with the grammaticalised morphologically marked imperfective category also obligatorily have the perfective category as in Persian and Russian, the grammaticalised periphrastic progressive is a less obligatory category in language: Persian has it as a separate category, while Russian does not. Conversely, languages that may be different with respect to some main categories may have a grammaticalised category in common. Thus, a language such as English lacking the grammaticalised imperfective–perfective distinction and an aspect language such as Persian having the distinction may, identically, have grammaticalised periphrastic progressive.

- Sixth, languages such Russian and Persian illustrate that even though the domain of the progressive is included in that of the Imperfective in Russian, it is independent of, and non-complementary to, the imperfective and can appear alone, as in English. Yet, it exists alongside the Imperfective in Persian. The particular domain inclusion of the progressive in that of the Imperfective in Russian and the interplay of the notional imperfective and morphologically marked progressive in English and the morphologically marked categories of the Imperfective and Progressive in Persian bring about a subtlety of cross-linguistic differences between the aspectual forms and meaning (see section 2.6.6).

- Finally, verb systems may be primarily tense prominent as in German, English and Persian (cf. section 2.6.1). Yet, the conspicuously aspectual morphology is more dominant in Persian than in German and English.

This section illuminated some of the differences between language-specific features in aspectual systems. The next section explores the progressive and imperfective.

2.6.6 Progressive and imperfective

Dahl (1985, p. 90) found the PROG gram-type to be represented in 28 out of the 64 languages selected for his study. The gram PROG grants progressive an independent status without tying it to the grammatical and semantic status of IPFV. Despite the fact that the two grammatical categories of the periphrastic progressive and imperfective are instances of the imperfective notion at the semantic level, they are distinct in several ways at the level of syntax, as pointed out by Dahl (1985, pp. 92–93; cf. section 2.6.4).
First, whereas the present tense clearly correlates with the non-progressive imperfective aspect, the periphrastic progressive is independent of the time categories and occurs with all tenses.

Second, the progressive is typically periphrastic in languages having thus an analytic structure, while the imperfective has typically affixed, bound morphology on the verb, characterised as a synthetic structure.

Third, although the progressive is ordinarily used of dynamic situations represented by event verbs, it is not used in their habitual meanings across languages, which are imperfective. Neither are stative and generic events likely to take the progressive. English, however, illustrates partly extended use of the progressive with stative verbs and habitual meanings denoting, for instance, contingency as in *We were living in London* (Dahl, 1985, p. 92), and specific effects as in *I am loving what you are telling me* (Binnick, 1991, p. 282), and temporary habits and activities characteristic of a certain time frame as in *He is studying Chaucer* (Bybee & Dahl, 1989, p. 82). In English, generalisation of its use has taken place from its prototypical use about activities at a specified reference time to contexts in which the activity in not literally in progress but the reference time is merely included (Bybee & Dahl, 1989, p. 82). The broad use of the Progressive in English manifests the cross-linguistic difference that each language system freely decides what verbs may take the progressive, as noted by Comrie (1976). Despite the reference to the relevance of the progressive to the verb type, Comrie does not make the point that the extensive use of the progressive in a system may be influenced by the nature of the overall aspectual system (see section 2.7.5).

To clarify point one above, Bybee et al. (1994, pp. 151–152) elaborate on the similarities and differences between the simple present, imperfective and progressive, which illustrates the role of these categories in English, Russian and Persian. The aspectual types of the present are generic, habitual, stative and progressive. Despite the fact that they are distinct categories in grammar descriptions, the meanings involved may be very close to each other. To exemplify, generic statements may differ from habitual ones only in terms of generic/specific subject as in *Dogs pant to cool off / My dog pants to cool off*. Similarly, the difference between habitual and stative can be minimal; the present habitual reading of dynamic events implies many instances of the same situation, as in *He walks to work every summer*, while the present stative may cover one continuous situation involving a considerable duration, as in *School children are on holidays in summer*. Both of these aspectual types may include, though they are not necessarily confined to, the present moment.

In contrast, the progressive, which typically has a verb form different from the non-progressive form and describes an agent actively involved in
an overt activity, indicates that the particular part of present meaning is distinct from generic/habitual/stative meanings. Thus, Bybee et al. (1994, p. 152) describe these latter meanings as the default aspectual readings of the present, establishing also that present tense is the same as imperfective present (p. 151).

Importantly, the description applies similarly to English, Persian, and Russian although these systems involve different types of aspectual constellations. The point of interest is that English and Persian have separate progressives while in Russian the diverse imperfective meanings are captured in one imperfective form. According to Bybee et al. (1994, p. 151), the progressive, which developed in languages to “cut out part of an originally more general present” leaving the imperfective meanings as a default reading, shows how the generic/habitual/stative meanings obtained their own grammatical category and encoding. However, in the later course of development, the Progressive in English has been generalising and taking over some of the functions of the present.

Seemingly, the different types of language systems have led to use of different concepts, such as Aktionsart (section 2.6.8) in English and continuity in Persian, in discussing some of the aspectual phenomena in these systems. Apart from the well-known incomplete–complete distinction, the aspectuo-temporal issues relevant particularly to the simple present, as in English, are discussed in terms of Aktionsart. This is obviously because explicit aspectual values are not involved in the simple verb forms, so the temporal properties of the event verb, i.e. Aktionsart, have become dominant in the descriptions.

In contrast, in Persian the particular domain of the imperfective is referred to in terms of continuity which denotes the whole aspectual domain of the imperfective; the meaning of the bare mi-form is equated with the general ongoing nature of an event (Hojatollah Taleghani, 2006, p. 28). The generic/habitual/stative denotations of the mi-prefx are captured by the term, which conveys the idea that the imperfective meanings involve morphologically marked continuity. The term continuity seems more readily to include the sense of events going on and states always holding rather than imperfective incompleteness, even though both terms adequately describe imperfectivity. Simply, the semantics of the mi-prefix denotes continuity rather than incompleteness.

To illustrate, grammarians may describe the imperfective meanings in English using terms such as durativity which describes actionality/Aktionsart though the term continuity is not used because it denotes the whole imperfective aspect and is thus irrelevant in those descriptions. The concept of the imperfective/progressive is rather referred to by using other terms such as epistemic contingency (Wit & Brisard, 2014, p. 50). The use of different terms to refer to the same imperfective notion illustrates the lack of transpar-

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7 Recall that the words in italics are explained in Appendix A on Terminology.
ency of the terminology on aspectual properties in grammar descriptions. Notably, then, grammar descriptions need to observe the inherent relativity in grammar systems. The notion of imperfective may be grammaticalised in different syntactic categories. Conversely, the notion of the progressive may be labelled as the syntactic category progressive in many languages. Across languages, at the syntactic level these notions may differ a lot internally.

As an unfortunate consequence, discussing the aspectuo-temporal issues mainly in terms of continuity in Persian has led Persian grammarians to pay less attention to the significance of Aktionsart in the context of the aspectually marked categories. Similarly, the focus on Aktionsart has diverted attention from aspect in English as the simple verb forms are not explicitly referred to as zero-marked for aspect. The main difference between continuity and Aktionsart is in the fact that the *mi*-prefix denotes the entire category of the imperfective while Aktionsart describes each event verb in relation to the sentence it is in (Comrie, 1976, pp. 42–43). Both concepts are observed in this project in discussing the imperfective aspect in relation to verb types.

The meanings of the imperfective can be said to have the common denominator of continuity that is not confined to the time of speaking in the sense of focality but is continuous in the sense of being generic, habitual, stative, and progressive, according to Bybee et al. (1994, p. 141). They also report that the imperfective meanings are close to each other (p. 140–141), as follows:

Present situations may be viewed as progressive activities that are ongoing at the moment of speech. Habitually occurring situations may be viewed as simultaneous with the moment of speech if the moment of speech is included in the period of time (...) of the habitual situation. States may be described as in effect during the moment of speech. Generic or gnomic situations are often regarded as timeless because they hold for all time, but they still can be regarded as in effect at the moment of speech. (...) [B]oth present and imperfective meaning include the possibility of describing a situation as progressive (...).

The quote defines the notion of continuity, i.e. situations holding for all time including the time of speech, though not necessarily. Thus, there is a subtle contrast between the aspe\-ctual systems in English and Persian; in English the imperfective meanings of the generic/habitual/stative compose the default reading of the present while the progressive in English has, as if, carved out from that originally more general present, while in the aspe\-ctual system in Persian the default present is formed more comprehensively, i.e. by the generic / habitual / stative / meanings of continuity holding for all time, and an additional, separate progressive. These involve two views: what is sensed as aspe\-ctual continuity in Persian is present tense in English.

Meanings that are close to one another may be interchangeable. Obviously, the meanings of the Simple and Progressive Present in English cannot be
interchangeable in decontextualised uses because the simple forms do not have any aspectual value inherently. However, in Persian the meanings of the Imperfective and Progressive Present are close to one another because they embed the denotation of continuity at and around the moment of speech. In general, the progressives develop to denote ongoingness and temporariness (cf. Bybee et al., 1994, p. 295).

Some of the particularities of the differences at the system level were pointed out about the imperfective and the progressive above. Further points can be made about these categories being distinct semantically.

- First, the imperfective non-progressive habitual and generic meaning contexts describing recurring events and permanently existing states not only build up two categories which nearly overlap semantically but also refer to the events and states as holistic situations. These meanings are aspectually unmarked in English but take the mi-prefix in Persian. In contrast, the periphrastic progressive denotes the perspective the speaker takes on the event at reference time. It typically refers to a phase of the event, which is the speaker’s perspective on only a section of the whole ongoing event not focusing on its completion (Comrie, 1976). In the progressive the endpoints become naturally defocused giving the sense of only a phase of an event.

- Second, the progressive readily combines with past perfective clauses as a temporaliser as in I was working in the hospital when the accident happened whereas there are semantic restrictions for non-progressive imperfective and perfective verb forms to combine as in *I used to work in the hospital when the accident happened.

- Third, progressive does not change the perfective meaning into imperfective. Perfective progressive forms exist along with imperfective progressive forms in languages such as Spanish where the Preterite Progressive and the Imperfect Progressive co-exist showing that the progressive applies to another aspect. This indicates that the semantics of aspectual categories is not just to dichotomise some universe of possible situations; rather, they operate on one type of entities to yield another. Thus, for instance, the two aspectual layers in the Spanish system are possible (Östen Dahl, personal communication). To exemplify, the Imperfect Progressive in Spanish is used with definite time points, i.e. in focalised contexts, as in A las cinco Pilar estaba hablando con Manuel ‘At five o'clock Pilar was talking to Manuel’ while the uses of the Perfective Progressive prefer durative contexts as in Estuvo escribiendo hasta después del alba ‘He was writing until after dawn’ (Squartini, 1998, pp. 38, 71). ‘After dawn’ specifies the endpoint.

- Fourth, the progressive operates on the actional content at the lexical level, Aktionsart, to give a new meaning to the verb as well as at the sen-

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8 For discussion on boundedness and endpoints, see sections 2.6.9 and 2.8.2.
Apart from these differences between the imperfective and progressive, a point of similarity has been recognised in their developments. Progressives can develop into imperfective taking on imperfective meanings as in Hindi/Urdu and Punjabi where a new progressive gram has been developing and the older progressives have extended to general imperfective usage (Bybee & Dahl, 1989, p. 77; Bybee et al., 1994, p. 141; Dahl, 1985, p. 92), or take on imperfective meanings as, for example, in its habitual uses in the present-day English (Bybee et al., 1994, pp. 141, 144; Comrie, 1976, p. 101). Conversely, imperfectives can develop into progressives. Although attested less frequently, Bybee et al. (1994) hypothesise that morpheme reduplications in some languages, observed with originally cyclic single events such as shoot denote iteration of the short event cycle. As the application of this iterative meaning expands over time to verbs such as think, it incurs continuative reading as in keep on doing eventually signalling that a situation is in progress. This illustrates development from iterative to continuative and progressive meanings, as observed in the Pangasinan language in which the morpheme generalises to denote the continuative meaning: manbása ‘(will) read’; manbásabása ‘read anything and everything’. Last but not least, imperfective and progressive do not typically shift into perfective, diachronically (ibid. pp. 169–170).

This section has explicated some general system-related and semantic differences between the progressive and imperfective. The next section highlights some characteristic features of the perfective and imperfective.

2.6.7 Perfective and imperfective

This outline of the features of the perfective and imperfective as grammatical categories is based on the secondary sources closely introduced in sections 2.6.3 and 2.6.4. Comrie’s (1976, p. 25) two-level approach relies on the opposition between imperfective and perfective, showing that what is not perfective belongs to the imperfective. In Johanson’s (2000) terms, the category imperfective includes only the progressive (pp. 76–77) while he discusses the habitual and generic categories in his intraterminal categories. In contrast, Dahl presents the imperfective aspect as comprising the habitual, generic and progressive meanings, at the semantic level, as notions that lack the boundedness value. Progressive is distinct from them at the syntactic level. In this sense the progressive is part of the imperfective meaning but makes a distinct syntactic category (Bybee & Dahl, 1989, p. 55).

Common to the theories of aspect examined is that situations can be viewed in different ways as the speaker can either take a perfective or imperfective perspective on events in re-narrating them (Bybee et al., 1994). Con-
ventionally, the difference between the perfective and imperfective aspect in discourse, as depicted by Klein (1994, p. 27), is as follows. First, events can be viewed from outside versus inside; second, as completed versus non-completed; third, as bounded versus unbounded. These metaphoric descriptions are meant to describe the principal functions of aspect, although Klein indicates that the metaphoric way of description is not accurate. However, aspect is the means for the speakers to locate themselves or the subject to view the situation holistically from the outside or situation-internally from the inside as if being “in the middle of an activity in progress” (Bybee et al., 1994, p. 137; Comrie, 1976, p. 3). Further, the speaker may view an event as complete and, therefore, as a mere point or a complete whole with no internal temporal structure. The event is then seen in totality creating the sense that it has completed and reached its end boundary, which is where it, by virtue of being perfective, overlaps in function with the past tense (Bybee et al., 1994).

In arguing against the inaccurate metaphoric description of perfectivity and its overlap with the past tense, Dahl (1985, p. 74) points out that if perfectivity is fundamentally defined as viewing an event in its totality, the definition does not apply across languages. He elaborates on the fact that the notions of perfectivity and imperfectivity are not grammaticalised in the same aspectual categories across languages and, as a consequence, it is not obvious that a language-independent definition of what perfective and imperfective aspects exactly mean can be provided. The notion is simply not identical in languages. In Russian ‘He wrote letters’ rather takes imperfective aspect as the activity is unbounded because it can go on indefinitely if the object of the activity is not delimited, while the bounded ‘He wrote a letter’ takes perfective aspect. Dahl (1985, p. 75) emphasises that the notion of boundedness is crucial to the notion of perfective in Russian. The totality view of an event has to fulfil two conditions in Russian, i.e. the past tense and boundedness of the relevant entity. In other words, the aspectually marked verb forms associate bounded activities with the perfective and unbounded ones with the imperfective aspect. The aspectually unmarked verb forms in English do not make such a distinction. Speakers of languages lacking the distinction may not pay any attention to the issue because it is not a grammaticalised feature. L2 speakers of languages with this typological distinction may encounter a challenge.

In presenting their independent investigations of tense and aspect in languages (Bybee, 1985; Dahl, 1985), Bybee & Dahl (1989, p. 88) report that one-fourth of the languages that had the overall IPFV–PFV distinction, i.e. the notable majority of that one-fourth involved the Slavic languages, used the imperfective in the contexts such as ‘He wrote letters’. In contrast, two-thirds of the languages with the non-Slavic-type tripartite aspectual system (see below) used the perfective in answers as to questions for how long an event took place, while many Slavic languages used the imperfective.
Dahl (1985, p. 82) presents a structure of a rather common tense–aspect system across languages. It is a representation of a configuration showing up in a number of the world’s languages. It shows how in this subset of languages the grams are related to each other and how they bear meaning. Although the configuration does not apply universally to languages nor is it a complete representation of any system, the particular point it presents is that those languages have a paradigm with the perfective gram by itself and they have an imperfective gram which comes in both the past and non-past. Significantly, the following diagram of aspect shows a distinct perfective and an imperfective verb stem. From the imperfective stem the present tense is formed. The past imperfective is obtained by combining a past tense element with the imperfective present form, as is the case in Arabic, Greek and Romance. On the whole, the constellation of the aspectual system presented by Dahl (1985, p. 82) is a kind of prototype of the systems appearing in a good number of languages where the stem encodes aspect.

![Diagram of Tense–Aspect System](image)

Figure 2.3. *Structure of a tense–aspect system in languages* (Dahl, 1985, p. 82)

In contrast to this aspectual system, Persian has a system that is rather less common among languages (Östen Dahl, personal communication). Although the Persian system encodes tense rather than aspect in the verb stem, a similarity to Dahl’s tense–aspect system is that Persian has, first, a past stem by itself but it encodes perfectivity with zero-marking, and, second, a separate present stem. It is different in that there is a general marker of imperfectivity, the prefix *mi*-, which denotes the imperfective aspect both in the past and non-past. Thus, from the present stem the imperfective present is formed with the *mi*-prefix. From the past stem the past imperfective is constructed, looking like the perfective form but it has the *mi*-prefix on it, which makes the contrast to Arabic, Greek and Romance. Overall, the Persian diagram looks structurally exactly like Dahl’s diagram in Figure 2.3 for Arabic, Greek and Romance though it includes the language-specific particularities that the imperfective in the present has the *mi*-prefix and the present stem
while the imperfective in the past has the *mi*-prefix and the past stem. This means, specifically, that such a configuration does not have the present perfective. In contrast, Russian has a different constellation as it has the imperfective–perfective distinction in both present and past.

In Old Persian, present tense forms prevailed rather intact. In the past tense, language change led to the verb root to be initially expanded by adding -ta as a marker of the past participle. The root to which -ta was added belonged seemingly to the forms that were past in nature. On this form the more explicit past stem was then constructed. As the verb forms of Aorist and Perfect later disappeared from the Old Persian verbal system, the past participle with the -ta ending took on the perfective meanings of the past.

By the end of the 15th century, the word *ha(mē)*, i.e. ‘continuously’, ‘always’, had developed into the imperfective marker, *mi*-prefix, fusing in it not only the original values of the present habitual and present frequentative (i.e. habitual events) but also the past habitual and past counterfactual values, earlier suffixed as –ē, as observed in texts between the 10th and 15th centuries. Classical Persian had already made extensive use of the prefix *mi*-. The *mi*-prefix took on all the imperfective past and present meanings (Lenepveu-Hotz, 2014, pp. 236, 249). Lenepveu-Hotz’ study based on a selection of texts from the 10th–16th centuries gives evidence for the disappearance, and in a text from 1733 the old suffix –ē does not occur at all (p. 259). She interprets the change as causal: the diverse imperfective meanings conveyed by the *mi*-prefix weakened it. Since the *mi*-prefix was unable to convey focality in a number of contexts, a new periphrastic modal construction with *dāštan* ‘have’ as its auxiliary emerged (p. 249).

As to the aspectual systems in English and Persian, both first had a general past while they had no past imperfective. In Persian, the present-day *mi*-prefixed past imperfective, which is constructed on the past perfective stem, shows further that the past perfective form must have been there in the system (Östen Dahl, personal communication).

Evidently, a general prefix, *mi*-, to mark imperfectivity suits well the Persian system with the present-past distinction in the verbal stems. By contrast, the system in Arabic has developed contrastive imperfective–perfective morphology, constructing the past imperfective with a past tense element. Persian and Arabic make a good example of how the notions of aspect and tense co-occur in a system and may be morphologically distinct in different elements. In the simple verb forms in English, aspect is left for interpretation.

This section elaborated on the morphologically marked grammaticalised categories of the imperfective and perfective, in general. To complete the outline of general aspectual features in language systems, an overview of Aktionsart and boundedness is presented next.
2.6.8 Aktionsart

Aktionsart is a notion introduced by Agrell (1908). The German term denotes a particular lexical aspectual meaning, also called inherent lexical meaning by Comrie (1976). At the interface of semantics and syntax, the inherent lexical meaning of event verbs such as eat and eat up illustrates Aktionsart in the way that eat up implies through its morphology a definite limit or end-state of the process, in contrast to eat (Bybee & Dahl, 1989, p. 86). The endpoint marking particle is a perfectivisation device in some languages, and a substantial part of the aspectual system in Slavic languages (Bybee & Dahl, 1989, p. 86).

There are slightly varying views on this notion with regard to aspect. Smith (1991) describes aspect as having separate components of viewpoint and situation aspect emphasising there to be a difference between them, whereas Comrie (1976) and Dahl (1985) rather see these two as different levels of aspect, which is the view that has been around for a long time. Smith’s (1991) viewpoint aspect corresponds to what Comrie (1976) and Dahl (1985) term as aspect, and her situation aspect refers to the more widespread label of Aktionsart.

This notion, termed as actionality by Johanson (2000), is the type of temporal constituency of an event that the verb independently describes, yet also involving the overall sentential context it appears in (see below). Thus, different Aktionsart distinctions are conventionally categorised as oppositions between punctual–durative, telic–atelic, and static–dynamic (Bertinetto & Delfitto, 2000, p. 190). Actionality/Aktionsart values such as temporary, ingressive and iterative are known from the uses of the Progressive in English. In Russian, the actionality/Aktionsart values expressed in the verbal prefixes are different: ingressive za-, terminative do-, totalising pro-, comitative pod- (Binnick, 1991, p. 145). In Spanish, the opposition between the imperfective and perfective auxiliary of the progressive indicates interaction between aspect and actionality/Aktionsart rather than between imperfectivity and perfectivity (Squartini, 1998, p. 36; cf. section 2.6.6).

Notably, even though grammars classify the values of progressivity and habituality as aspectual values appearing in inflectional morphology (Bertinetto & Delfitto, 2000, p. 190), and actionality/Aktionsart features as part of the lexicon, they seem to be in interplay in conveying aspectual/functional values. Thus, systems with different aspectual categories such as English, Persian, and Russian do not show full overlap in the actionality/Aktionsart values. The inherent lexical meaning is affected by the Progressive in English, prefixes in Russian, and Progressive/Imperfective in Persian. Further research is needed to elaborate on the differences involved.

While aspectual values affect actionality (Johanson, 2000, pp. 28, 30), their interplay is subtle and may depend on the context and the way the specific language system delimits aspect leading to further cross-linguistic dif-
ferences. To exemplify, the Progressive in English denotes, among other things, iterativity with semelfactive verbs as in *is chopping, is hitting, and is jumping.* Thus, when the Aktionsart of the verb is distinctly iterative as in *to chop,* the progressive denotes ongoingness of this iterative event. In contrast, *to hit* and *to jump* are punctual, so they become iterative in the progressive; the progressive has the effect of iterativity on punctual verbs (Comrie, 1976, p. 42). Another example of iterativity is *He is touching the sheets of paper,* in which the action is iterative due to the plural object and iterativity along with ongoingness emerge at the sentence level. The examples illustrate how the progressive affects actionality/Aktionsart, which is exactly where it is possible to observe that it has taken on imperfective meanings, as it gives the imperfective iterative meaning to the punctual verb.

Bybee & Dahl (1989, pp. 86–87) present two different ways in which Aktionsart appears cross-linguistically; derivational, such as the perfectivising prefixes in Russian (cf. section 2.6.5), and inflectional, such as meaning nuances that the tense-aspect system in languages such as Georgian and Bulgarian produce in taking the Perfective with, and the Imperfective without, endpoint markers with event verbs.

In Persian, in contrast, iterativity of an event is denoted by the verbal prefix *mi-.* It marks general imperfectivity and captures all kinds of imperfective meanings, apart from what is denoted as being in progress at a defined point of time by the dāštan-progressive. Built on the non-past stem of a verbal noun (see section 2.7.4, fn. 11) such as zad-an, ‘to hit’ which represents the infinitive in Persian, the verbal meaning obtains imperfective value with the prefix *mi-.* To illustrate, the *mi-* prefixed form of the punctual verb zad-an, ‘to hit’ conveys iterativity in *mi-zan-ad* ‘s/he hits / s/he is hitting’, whereas general truths with the *mi-*prefix give the meaning that they continue holding eternally.

Then, the dāštan-progressive, which is constructed on the bare *mi-*form along with the auxiliary dāštan, ‘have’, adds focality to the iterative meaning of *mi-zan-ad* ‘s/he hits / s/he is hitting’ implying that the iterative action is in progress at the reference time, i.e. dār-e mi-zan-e⁹. Note that the non-past stem is *zan-,* while the past stem, inherent in the verbal noun, is *zad-.*

Importantly, a cross-linguistic difference is involved in imperfectivity/progressivity between English and Persian; while the Persian Imperfective always denotes ongoingness/continuity of an action in the *mi-*prefixed form (see section 2.7.4; cf. Vafaeian, 2018, p. 118), the dāštan-progressive adds the particular meaning which the form has developed; ongoingness at the time of speech, i.e. focality. In English, the Progressive adds imperfective meanings such as progressivity, ongoingness, and iterativity to the simple verb forms. This shows that meaning is more context-sensitive in English.

⁹ The colloquial dāštan-progressive does not take the formal person endings to produce a formal expression as in *dār-ad mi-zan-ad.*
The overall difference between the verbal/aspectual forms in English and Persian is that in Persian the imperfective/progressive meanings are distinct and do not require interpretation while the verb forms in English require interpretation; the simple form in English is often interpreted as conveying imperfective meanings but can denote ongoingness as in re-narrations. The Progressive in English is often interpreted as conveying progressivity but can denote imperfective meanings in many contexts.

A special case of difference between the progressive and imperfective reported on by Johanson (2000, p. 57) relates to imperfective phasal verbs, on the one hand, and phasal reading of event verbs in the progressive, on the other hand. Among all the event verbs a small group of verbs, such as start, continue, and finish, is termed phasal verbs. Like ordinary dynamic event verbs, the phasal verbs can occur in the progressive; the phasal verb denotes an event of its own as in is starting, is continuing, and is finishing. The phasal verbs begin and start make the left boundary of the event explicit whereas the verb finish makes the right boundary explicit.

The ingressive phasal verbs denote a beginning of an event as in begin writing, start writing. The verb combinations of two verbs are termed catenatives denoting also that the main event of writing is an ongoing unbounded event, which has its left boundary in the bounded event begin/start. In the egressive verb finish, the final phase is explicit in the right boundary as in finish writing (Johanson, 2000, p. 57). The continuative meaning with the verb continue as in continue writing and keep writing refers to an ongoing event continuing taking place in its intermediate phase.

Apart from this group of verbs, there are dynamic 2-state event verbs that denote ingressivity/prospectivity in the progressive form, i.e. beginning events, as in the case of the verbs arise, fall asleep, leave and wake up and get, with which the progressive conveys the initial phase of the particular event; So I’m getting that way now (Biber, Johansson, Leech, Conrad, & Finegan, 1999, p. 376). In contrast, the final phase reading of the progressive emerges with a group of event verbs termed as completives with inherent endpoints such as arrive, enter, fall and reach as in She is arriving. Observe that the progressive implies a potential endpoint (see section 2.6.9). Generally, 2-state verbs in the progressive can be interpreted as prospective, taking place in immediate future (see section 2.7.5; cf. Jahani, 2017, p. 263).

Notably, however, the progressive with these 2-state verbs with an inherent endpoint provides the reading, by default, that the endpoint of the event is actually not reached as this is the effect of the progressive on event verbs with endpoints. Thus, the great majority of the dynamic event verbs denote in the progressive the intermediate phase of the event, where the right boundary becomes characteristically implicit and defocused even though it may be given, as in She is eating an apple, which does not imply that the apple will be eaten up.
This section elaborated on Aktionsart in languages illustrating how aspect operates on the actional content of verbs differently in different languages. The next section elaborates on a feature of Aktionsart, i.e. boundedness.

2.6.9 Boundedness

Aktionsart relates to boundedness in event descriptions in which the temporal constituency of the event includes the endpoint either inherently or overtly, as in return and go away, i.e. 2-state verb vs. 1-state verb with an adjunct, respectively. In contrast, the perfective aspect and the past tense are tied to the notion of boundedness in the way that past tense form can denote completion of an event in the same fashion as a perfective marking on a verb does (cf. section 2.6.7). Obviously, boundedness can relate to two different notions; encoded lexically, tied to Aktionsart, i.e. telicity, denoting situations with inherent endpoints as in make a chair vs. the past tense of e.g. atelic situations that lack an inherent endpoint as in went (Comrie, 1976, p. 44).

While the grammaticalised boundedness is tied to tense–aspect morphology of the past tense, the present tense does not typically have perfective verb forms. The imperfective present meanings are unbounded and incomplete as this grammatical aspect is in opposition to the perfective aspect. The following example illustrates a lexically bounded and grammatically incomplete event I drink a cup of coffee every morning. Telicity does not entail perfectivity but it can co-occur with aspect and tense markers (Dahl, 1985).

The present project, which draws on the Heidelberg–Paris model, takes a bounded event to mean that the event is represented in its entirety e.g. She opens the door, which relates to Aktionsart. Whether this actually reaches completion is not explicitly encoded in the verb forms of the present tense in many languages such as English, and particularly if the aspektual form is the present progressive, the action is only potentially completed. Thus, the model takes all sentences in the progressive form to be unbounded, which is different from the notion of telicity as telic situations are those that involve “both a process leading up to the terminal point as well as the terminal point” (Comrie, 1976, p. 47). Thus, situations such as John is singing a song are telic due to the process and endpoint involved (Comrie, 1976, p. 45). In contrast, the verb forms of the past tense encode completion as in English, e.g. She opened the door. This model employs the concept of boundedness in which endpoints can be encoded by adjuncts on, for example, motion events.

This section outlined boundedness as a lexically marked feature of telicity and grammatically marked event completion. The concept is grounded in Aktionsart and explicitly marked with adjuncts, and perfective and past tense morphology. The next section looks at the temporal notion of aspect in English and Persian discussing the differences between the relevant categories.
2.7 Overview of the aspect system in English and Persian

Section 2.6.1 outlined some major aspectual cross-linguistic differences in syntactic categories viewing them from diachronic and synchronic perspectives. The present-day systems in English and Persian were classified as tense-prominent with the past and non-past distinction. On the surface, the systems today consist of the following verb forms: The English temporal aspectual system in the non-past has four forms of the Simple Present, the Present Progressive, the Present Perfect, and the Present Perfect Progressive. There are four past tense forms: the Simple Past, the Past Progressive, the Past Perfect, and the Past Perfect Progressive, as shown in Figure 2.4.

<table>
<thead>
<tr>
<th>Verbal forms in English</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-past</td>
</tr>
<tr>
<td>Simple Present</td>
</tr>
<tr>
<td>Present Progressive</td>
</tr>
<tr>
<td>Present Perfect</td>
</tr>
<tr>
<td>Present Perfect Progressive</td>
</tr>
<tr>
<td>past</td>
</tr>
<tr>
<td>Simple Past</td>
</tr>
<tr>
<td>Past Progressive</td>
</tr>
<tr>
<td>Past Perfect</td>
</tr>
<tr>
<td>Past Perfect Progressive</td>
</tr>
</tbody>
</table>

Figure 2.4. Tense–aspect forms in English

In Persian, the tense–aspect forms have categories different from those in English. There are five forms in the non-past: The Present Imperfective, the Present Progressive, the Present Perfect Imperfective, the Present Perfect Progressive and the Present Perfect. The forms in the past tense are also five: the Past Imperfective, the Past Progressive, the Past Perfective (i.e. Aorist), the Past Perfect and the Double Past Perfect. Persian can encode more aspectual distinctions than English. The forms are shown in Figure 2.5.

<table>
<thead>
<tr>
<th>Verbal forms in Persian</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-past</td>
</tr>
<tr>
<td>Pr Impf:ve mikonad/mikone (coll.)</td>
</tr>
<tr>
<td>Pr Prog:ve dāre mikone (coll.)</td>
</tr>
<tr>
<td>Pr Perf:t Impf:ve mikarde</td>
</tr>
<tr>
<td>Pr Perf:t Prog:ve dāste mikarde (coll.)</td>
</tr>
<tr>
<td>Pr Perf:t karde ast</td>
</tr>
<tr>
<td>past</td>
</tr>
<tr>
<td>Pt Impf:ve mikard</td>
</tr>
<tr>
<td>Pt Prog:ve dāšt mikard (coll.)</td>
</tr>
<tr>
<td>Pt Perf:ve, (i.e. Aorist) kard</td>
</tr>
<tr>
<td>Pt Perf:t karde bud</td>
</tr>
<tr>
<td>Double Pt Perf:t karde bude ast</td>
</tr>
</tbody>
</table>

Figure 2.5. Tense–aspect forms in Persian

Figure 2.5. includes the forms of the colloquial (coll.) spoken language (e.g. Present Progressive dāre mikone ‘is doing’) and those of the written language (e.g. Present Perfect karde ast ‘has done’). Since spoken language is subjected to investigation in this project, the existing verb forms are regarded as important to be observed within the overall aspectual system.
The *dāštān*-progressive construction in the present, past and present perfect are colloquial. In analogy, the verb form of the Present Imperfective, such as *mikone* ‘do’, can appear in a colloquial form on its own.

To follow Dahl (1985, pp. 92–93), English gives evidence of language change building on periphrastic analytic categories, though they are few in number, e.g. the progressive. English has relatively little aspectual morphology as it only has the gram-type categories of the Progressive, PROG, and the Perfect, PFCT, according to Dahl (1985, p. 166).

However, Persian has headed towards a rich periphrastic and analytic aspectual system in diachronic linguistic development; apart from the bare *mi*-prefixed verb forms, all the marked aspectual categories are periphrastic. Persian has the categories of the Progressive, PROG; the Perfective, PFV; the Imperfective, IPFV; and the Perfect, PFCT. Apart from the periphrastic categories, the zero-affixed gram-type PFV for the Past Perfective has its past counterpart in the *mi*-prefixed Past Imperfective, PASTi.

Thus, the categories in Persian capture a tripartite PFV: PASTi: IPFV system what Dahl (1985, pp. 168–169) describes as “a peculiar realisation” of the cross-linguistically more “common tripartite PFV: PASTi: DEFAULT system”, as the imperfective differs from the perfective by having a *mi*-prefix to mark imperfectivity in both the present and past in Persian and the present is not a DEFAULT, unmarked form (cf. section 2.6.7).

Bybee & Dahl (1989) describe the tripartite systems having the gram with the meaning ‘perfective past’ as being opposed to the rest of the categories in the sense that the PFV is there opposing the IPFV, which also has the past and non-past distinction, PASTi: IPFV. In contrast to other tripartite systems, the difference in the system in Persian is that the PASTi denotes that this past time reference is restricted to the imperfective. Moreover, underlying the PASTi in Persian is, also, its association with the past verb forms which have past tense marking in the verb stems. IPFV denotes the marked present while DEFAULT is the unmarked present tense. These are regarded as tripartite systems even though the system may have other tense and aspect grams such as progressive and perfect (p. 83).

Taken together, the aspectual systems in English and Persian can be described to differ in the way that English has the progressive but not a morphologically marked aspectual distinction of the imperfective and perfective, whereas Persian has both the aspectual distinction and separate progressive. The categories of the aspectual distinction appear in full in the past tense while the imperfective category comes in the present tense because the completed meanings of the perfective cannot appear in the present. Apart from the fact that the progressive is part of the imperfective domain and makes a distinct syntactic category (Bybee & Dahl, 1989, p. 55), the existence of one of them in a language system does not entail the necessity of the other.
2.7.1 The present, the past and aspectual meanings

This section points out cross-linguistic differences between the aspectual meanings conveyed by tense forms in languages involving the notion that the present tense is the same as the present imperfective, as stated by Bybee et al. (1994, p. 151). It pursues the more general issue that form and function are often not a one-to-one relation cross-linguistically in the sense that a category such as the imperfective may not be similarly delineated in two languages.

To begin with, as pointed out in section 2.6.6, the simple verb forms in English are commonly known not to carry morphologically the aspectual values of either incomplete imperfective or complete perfective. Generic, habitual and stative are the default aspectual meanings of the present (Bybee et al., 1994, p. 151), while the perfective meaning in an event’s completion is formally denoted by the past tense. These aspectual values are understood to be notional, embedded in the simple verb forms in relevant contexts in English.

However, the view Bybee et al. (1994) present is very general, and rather prototypical, as it is possible to perceive cross-linguistic differences because language systems delineate the relevant categories differently. More specifically, the imperfective in a language such as Russian denotes the focalised meaning of the progressive in addition to the imperfective meanings because it does not have a separate progressive category. In contrast, languages such as English and Persian which have grammaticalised separate progressives do not have imperfectives similar to that in Russian. Notably, also, the imperfective meanings conveyed by the Simple Present in English are not the same as the Imperfective in Persian because many of the imperfective meanings are conveyed by the Present Progressive in English (cf. section 2.6.8).

Thus, the event in Be varaq-hā dast mi-zan-e ‘He is touching the sheets of paper’ depicts an iterative event ongoing at the moment of speech. Iterativity and ongoingness are denoted in it by the bare mi-form. The bare mi-form covers all the possible imperfective meanings including ongoingness, whereas the dāštan-progressive has developed to denote focality and contingency, in particular (see sections 2.7.4 and 2.7.5).

Illustrating the aspectual meanings in the simple verb forms, Huddleston (1988, p. 71) reports on the past tense as serving straightforwardly to locate the situation categorically in the past time exclusive of the present time as in Kim lived in Berlin. Yet, he claims that static/habitual situations like the one in the example may, in reality, extend beyond the time at which they are said to obtain. Therefore, it does not have to follow from the given example that Kim no longer lives in Berlin. This means that both the complete, perfective meaning and the incomplete imperfective meanings denoting permanent habit can be read into the simple past of this stative verb. The meaning dis-
tinction is not morphologically marked but only semantically read into the simple verb form in the relevant contexts in English.

Moreover, dynamic situations can accommodate even longer situations than the salient single situation, so that in a sentence such as Kim washed her hair with Zoom shampoo, the single hair wash is at least as possible as the static/habitual reading Kim always washed her hair with Zoom shampoo (Huddleston, 1988, p. 71). Huddleston illustrates that the verb wash with Aktionsart involving a rather short time interval can be interpreted as one single event, in which case it is ongoing, incomplete and imperfective or the single event is conceptualised as complete and perfective due to the past, or the single event denotes repeated occasions conceptualised as a habit. The distinction between events related to the frequency of the occasions is termed as uni- and pluri-occasional (Johanson, 2000). Slobin (1996a, p. 89) points out the fact that each native language trains its speakers to pay different kinds of attention to events and experiences when talking about them. This implies that since English verb forms do not accommodate aspectual meanings by way of morphology, native speakers of English do not pay attention to them in speaking. They need not decide for each verb about the aspectual meaning.

As for the past tense, it was pointed out that it overlaps with the perfective (Bybee & Dahl, 1989, p. 95; Bybee et al., 1994). However, Huddleston’s illustration implies that the perfective does not cover the whole past as he also illustrates the past imperfective meanings. In English, the IPFV–PFV categories are notional and semantic. Bybee & Dahl (1989, p. 84) distinguish between the notional perfectivity and the gram’s perfective aspect as sharing the prototypical properties even though the temporal properties are dominant in the syntactic categories of notional perfectivity, as in English, while the aspectual properties are more dominant relative to its temporal properties in a language such as Persian. Bybee & Dahl (ibid.) describe the prototypical perfective as follows:

A perfective will typically denote a single event, seen as an unanalyzed whole, with a well-defined result or end-state, located in the past. More often than not, the event will be punctual or at least, will be seen as a single transition from one state to its opposite, the duration of which can be disregarded.

Consequently, the meanings that are equivalent to the past imperfective in the tripartite systems are often denoted by the Simple Past verb forms in English but can also be denoted by the progressive. Sentences such as He broke a window exemplifies the perfective meaning while the past imperfective is conveyed in sentences as in She (used to) read in a book every day / She was reading in a book every day. Further, sentences as in She reads in a book every day / She is reading in a book every day represent the present imperfective meanings. With regard to the notions of the PFV and IPFV in
the past in English, this system that lacks the morphological marking forces
there to be the lexical elements such as “used to” to distinguish between the
PFV and IPFV readings of the verb in the past, in those cases when the pro-
gressive form is not used to denote the imperfective meanings. In the non-
past, the imperfective meaning readily denotes the present (Bybee et al.,

Cross-linguistic differences such as these may make it difficult for L2
learners to notice the linguistic difference between morphologically marked
and semantically implied aspectual distinction. L1 speakers of Persian may
possess a special awareness of the imperfective–perfective distinction and
even think in those terms in verbalising events, which they may transfer to
L2 English. In contrast, L2 Persian learners may find it difficult to acquire
such awareness and way of thinking. It has been found difficult for English
L2 Persian learners to use the grammatical distinctions in their TL, Persian,
as observed by Abe Soheili (personal communication). This implies that
even though they are central aspectual meanings in languages and may be
implicitly conveyed by simple verb forms as in English, it may be difficult to
learn to mark them explicitly by morphology.

This section considered cross-linguistically the concept that the simple
verb form in English conceals, semantically, various aspectual values of the
imperfective and perfective. These concepts are core meanings in language
and are, seemingly, present in all utterances but can be expressed differently
such as morphologically and semantically. Next, the Progressive in English
and Persian, their main features, history are outlined.

2.7.2 Progressive in English: Main features and history

The Progressive in English is constructed with the auxiliary ‘to be’+ the
present participle form of the main verb in which the auxiliary of the struc-
ture makes the relevant tense explicit (Biber et al., 1999, p. 460). It became
fully grammaticalised around the middle of the 19th century (Smitterberg,
2005, p. 54). Its semantic and syntactic development from late Middle En-
glish forms had lasted around 500 years (Smitterberg, 2005, p. 56). Since the
middle of the 19th century it has continuously increased its scope of use to
more situations with imperfective meanings such as habituals and iteratives
(Bybee et al., 1994). In contemporary English the progressive is an obligato-
ry and fully grammaticalised category in the sense that in some conditions it
has to be used, such as conveying dynamic events ongoing at a point of time
as in It is raining (Comrie, 1976, p. 35). In other conditions it cannot be used
such as expressing generic dynamic events as in The sun rises in the east.

However, the domain of habituals seems to allow both the simple and
progressive forms. On the one hand, dynamic events, either “protracted suf-
ciently in time, or iterated a sufficient number of times over a long enough
period” are habituals expressed with the simple verb form (Comrie, 1976, p.
30) as in *She studies English and writes poems*. On the other hand, Bybee et al. (1994, p. 137) illustrate the habitual use of the progressive in describing that an activity can be ongoing in an extended sense being simply characteristic of a time period, rather than actually in progress at the moment as in *I’m writing a book about poltergeists*.

However, a pluri-occasional habitual event in the Simple Present form, as in *I have a cup/three cups of coffee every morning*, denotes the difference between a single event versus a repeated series of the same habitual event. Contingency of habitual events is then conveyed by the progressive form.

Finally, in statements of habitually ongoing events, the simple and progressive are used even when no time limits normally required by the progressive are evident as in *The spacecraft is orbiting the planet*. The simple form is used to characterise a situation in which the time limit is not central as in carrier topics such as *He studies Chaucer* (Bybee & Dahl, 1989, p. 82).

In this section, general uses of the Progressive in English were illustrated. The next section examines its use in some reference grammars of English.

### 2.7.3 Uses

In what follows, the language-specific aspectual uses of the Progressive in English are explicated, building on three contemporary descriptive grammars of English, i.e. Quirk et al. (Quirk et al., 1973; 1985), Carter & McCarthy (2006) (henceforth C&McC), and Biber et al. (1999). Three sources are used because none of them alone describes the uses of the progressive in full. First, reference is made to Quirk et al. (1973, 1985) as it is the clearest one of the three. From here on the non-past tense is focused on. The English language this section illustrates belongs to the register described in Biber et al. (1999) which is based on a large collection of spoken and written texts.

#### 2.7.3.1 Quirk et al. (1973, 1985)

The approach used in each of the reference grammars consulted is describe, initially, the aspectual progressive meaning and then illustrate the uses of both the simple and progressive verb forms in a contrastive manner. The order of their presentation follows the idea of first telling what the uses of the progressive are not, then making explicit what they are. In fact, the description of one is not independent of the other. Such a contrastive view is beneficially employed in the present outline, as well.

Figure 2.6 extended from Quirk et al. (1973, p. 85) gives a semi-tabulated presentation of the core uses of the Simple Present forms in English.
Figure 2.6 shows that both stative and dynamic event verbs are used to convey generic and habitual events. The simple form of dynamic event verbs imply reference to habitual pluri-occasional events, both those that are grounded in the cyclic, daily or occasional repetition of the event, as illustrated by the utterances with the verbs set, cycle, and sing, and in the degrees of temporal protraction of a habit as exemplified by study and produce.

Quirk et al. (1973, p. 85) report on the use of the simple form of dynamic event verbs signifying situations simultaneous with the present moment as in commentaries (Moore passes the ball to Charlton), demonstrations (I now place the turkey in the oven), exclamations (Here comes the winner!), and performatives (We acknowledge your letter).

Two additional uses of the simple present are given; one in its use in future time reference, on the one hand, with explicit time expressions as in The plane leaves for Chicago at eight o’clock and, on the other hand, in conditional and temporal clauses as in He’ll do it if you pay him. The other additional use is in past time reference as in John tells me that you have been abroad (Quirk et al., 1973, p. 86).

Quirk et al. (1973, p. 93) present a brief overview of the uses of the progressive consisting in three types of contrasts between the use of the progressive and simple verb forms. First, the progressive denotes temporariness of a habitual activity in contrast to the same activity being permanently habitual as in John is playing the banjo vs. John plays the banjo. Second, characteristic activity with idiosyncratic, emotional load created by adverbs such as always and continually is contrasted with a characteristic habitual activity as in John’s always coming late vs. John always comes late. Third, non-completion of an activity is contrasted with its completion as in I was reading a book that evening vs. I read a book that evening.

A couple of other uses are given by Quirk et al. (1985, p. 199) who define the progressive as having duration, and not having come to an end as in The train was approaching. Owing to the implication of duration, the progressive is typically used for any present event that are not definitely instantaneous as in What is Mary doing at this moment (ibid.). Other situation types incur different meaning nuances in the progressive. To exemplify, semelfactives

<table>
<thead>
<tr>
<th>Stative verbs</th>
<th>Dynamic verbs</th>
<th>Habitual Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two and two make four</td>
<td>The sun sets in the west</td>
<td>Generic Universal Time</td>
</tr>
<tr>
<td>John knows the answer</td>
<td>We cycle to work every day</td>
<td></td>
</tr>
<tr>
<td>John sings well</td>
<td>Joan studies hard</td>
<td></td>
</tr>
<tr>
<td>The factory produces cars</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2.6. Uses of the Simple Present forms in English
with the progressive suggest that the event is repeated and continuous as in *The referee is blowing his whistle* (ibid.).

### 2.7.3.2 Carter & McCarthy (2006)

C&McC (2006, p. 604) give a wider variety of examples of the core uses of the progressive. In highlighting the meaning of the simple forms as opposed to the aspectual meanings of the progressive, C&McC (2006, p. 616) point out that non-progressive simple forms are “typically confined to single, completed events with definite point of time”. Thus, also punctual events such as inchoative *begin, start*, and terminative verbs such as *finish, complete*, that do not have duration, typically appear in the simple form (ibid.). In contrast, the present progressive makes one perceive time “in terms of its unfolding at the moment of speaking”. It takes a perspective on actions and events from within as they are “ongoing” and “in progress” so that the progressive aspect, generally, relates to “the speaker’s perspective on the time of an event” (p. 411).

Despite the fact that regular and habitual events ordinarily appear in the simple form, they take the progressive when presented in relation to a particular time or a specified event that interrupts things as in *I am always having a shower when the newspaper comes* (p. 602). Similarly, mental process verbs that are basically stative, such as *hear, know, see, suppose, think* obtain a new reading with the progressive and are used like dynamic verbs as in *He is seeing a client at the moment* (p. 601). Events that happen at or around the moment of speaking take the progressive in describing a current process as in *Why is he smiling like that?*, and *They are travelling through Italy at the moment*, though the simple form is used when denoting events of immediate communication such as commentating competitions, and in the same fashion, immediate reactions experienced at the moment of speaking that describe responses of the senses as in *It tastes very bitter*, and *I feel sick*, or emotional responses as in *I love Dublin* (pp. 600–604).

Further, C&McC (2006, pp. 603–604) classify ongoing processes such as *have to, need, and want* as well as speech act verbs such as *appreciate, deny, promise, and swear* as not conventionally taking the progressive except in describing them as single current processes. The progressive denotes events that are or can be judged as temporary as in *Is she still swimming three times a week, You’re being silly*, and denoting politeness as in *We’re hoping that it will have some practical benefits*. Finally, the progressive conveys unplanned events of indefinite, but regular, frequency as in *I am losing my car keys* as well as gradual processes of change as in *He’s been in hospital for three weeks but is improving steadily* (p. 602).

### 2.7.3.3 Biber et al. (1999)

Biber et al. (1999) present use of the simple and progressive verb forms in different semantic domains in four different genres, i.e. conversation, fiction,
news and academic prose. Reference is here made to the use of the progressive in certain semantic domains in which use of the simple verb forms is also frequent.

Biber et al. (p. 470) report that the core meaning and use of the progressive is, firstly, to make reference to an event “in progress at a particular time, usually for a limited duration”, meaning that the time the event takes place is definite but the activity or event lasts for a restricted period of its whole duration. Secondly, events described in the progressive are “in progress or about to take place in the near future”. The progressive takes the same perspective on an event both in the present and past, i.e. being in progression.

The results extracted from their corpus-based study of verbs with respect to the progressive aspect and genre reveal, importantly, that the use of the progressive is genre-dependent in the way that around 70% of the present progressive verb phrases appear in conversation, whereas 70% of the past progressive verb phrases occur in fiction (Biber et al., p. 471). The reported figures are on genre frequency on the tense of the progressive phrases, not on the relative frequency of the progressive in general in relation to the non-progressive aspect.

Dynamic verbs belong to various semantic domains, which Biber et al. (pp. 471–472) classify as activities, physical events, and communication acts. In addition, they present a very heterogeneous classification consisting in such stative verbs that convey physical situations along with mental, perceptual, and attitudinal states, as well as activities related to these states. These particular types of stative verbs are, thus, classified as dynamic non-states, as exemplified below. Biber et al. (pp. 471–472) point out that both the dynamic and stative verbs in the different semantic domains take the progressive in a scalar fashion such that some verbs in each domain have a strong lexical association with the progressive aspect, whereas other verbs of the same semantic domain lack such association. The scalar fashion is followed in this presentation.

As the verbs are examined by the semantic domains, the most frequent occurrences of the progressive is with dynamic verbs used in conversation, such as *chase, shop, starve* belonging to the domain of activity verbs, which is also the largest semantic domain of verbs. By contrast, *attain, find,* and *frighten* in the same domain very seldom occur with the progressive. Similarly, from among activity verbs belonging to the semantic domain of communication verbs, *chat, joke,* and *kid* frequently take the progressive, while *communicate, reply,* and *thank* rarely appear in the progressive.

With respect to the dynamic non-states mentioned above, i.e. the semantic domain of mental verbs denoting states and activities related to them, verbs such as *look forward,* and *study* often take the progressive but verbs such as *agree, conclude,* and *want* avoid it. Further, in the semantic domain of perceptual states and perceptual activities, verbs such as *look, watch* and *feel*
very often appear in the progressive, whereas detect, hear and see do not often associate with this aspect.

In the domain of existence verbs denoting static\(^{10}\) prevalent physical situations, verbs such as lurk, wait, sit, stand, live and stay are frequent with the progressive (p. 472).

With respect to the use of the Progressive in English, Biber et al. (pp. 473–474) conclude that dynamic and stative actions together characterise the set of verbs that can either frequently or only seldom take the progressive. They summarise, in three points, the core features of the use and non-use of the progressive found in their corpus study. Firstly, the presence of human subject, the agent, actively controlling the action or state denoted by the verb leads to the use of the progressive such as listen, look, stare, think, watch, and wonder. However, if the human subject is experiencer that only undergoes the action or state without the possibility of control, the progressive does not occur, as with verbs appreciate, hear, know, like, see, and want. Also, they point out the link with the non-human subject with verbs that do not take the progressive as in This concerned the way in which electrons were ejected from metals; A financial estimate was based on these data.

Secondly, prolonged actions and states are in the progressive, while immediate actions are not. Thus, activity verbs, which can typically be prolonged as in I dream I’m running along the street outside the school, occur in the progressive. Similarly, actions involving a continuing process as in He was driving his van, delivering copies of First Rebel take the progressive, while immediate actions such as find, and recognise do not normally do so. Many verbs of this type, which inherently denote the endpoint of a process such as attain, dissolve, invent, and rule, are immediate owing to the reference to a time of achieving some result as in A disciplinary hearing in June ruled that Mr. Reid should be dismissed (pp. 473–474).

Thirdly, the sense of duration as with verbs live, stand, stay, and wait, are in the progressive while instantaneous actions such as shut, smash, and swallow do not have any duration and rarely occur in the progressive.

This section showed the three reference grammars employing different approaches to presenting use of the progressive. However, they did not produce any systematic picture of its use other than illustrate the diverse uses with examples. The next section investigates the Progressive in Persian.

### 2.7.4 Progressive in Persian: Main features and history

The description of the Progressive in Persian is based on a set of selected sources written in English, namely, Dehghan (1972), Jeremiás (1993), Hoja-tollah Taleghani (2006), Bonami & Samvelian (2015) and Vafaeian (2018). Grammars written in Persian are not used as the progressive has not been

\(^{10}\) i.e. relating to habitual and stative situations.
presented in sufficient detail in them. The Persian language that is described in this section is confined to colloquial Persian, as described in Vafaeian (2018). One of the distinctive features of colloquial Persian is the use of the dāšt-an-progressive. From here on the description of Persian focuses on the non-past as the experiments conducted in this project centre on the present tense. The discussion aims to show whether, and how, the dāšt-an-progressive in Persian differs from the Progressive in English.

Examining the whole array of Persian grammar descriptions from among around 2400 sources presented by Mahyar (1381/2003), Soheili (2017) presents an overview of 31 representative Persian grammar descriptions by Iranian grammarians from the 11th century onwards. Further, Soheili (2019) presents 21 representative Persian grammar descriptions by non-Iranian grammarians from the 15th century onwards. However, the Progressive in Persian is not included in his treatises because it has not been investigated in the Persian grammar descriptions. Some of the 20th-century grammar descriptions may have brief references to its existence in discussing the uses of the stative verb dāšt-an, ‘have’ which is the auxiliary in the construction (Abe Soheili, personal communication). Brief and insufficient descriptions emerge during the second half of the century.

Some few published articles such as Dehghan (1972) and Jeremiás (1993) present the aspectual form and meaning giving an overview of the most central features of the construction referred to as the dāšt-an-progressive in this project. According to Jeremiás (1993), the construction belongs to informal/colloquial spoken language. It appears in the present, past and present perfect forms. The progressive is grammaticalised in a construction with the auxiliary dāšt-an11 ‘have’ followed by the main verb (ibid. p. 100).

Generally, verbs in Persian are inflected for person and number, and the stem is marked for past and non-past tenses. The auxiliary of the progressive construction inflects for tense and person in exactly the same way as the main verb it combines with but dāšt-an appears without the mi-prefix (Jeremiás, 1993). Notably, it normally appears without the mi-prefix as a main verb. Based on the present stem, the structure of the dāšt-an-progressive for the non-past tense is shown in Figure 2.7.

---

11 The form dāšt-an with the -an ending represents the basic verb form in Persian as it is a close equivalent to the infinitive in languages, in general, and the form used as the verb entry in dictionaries. In actual fact, it is a verbal noun as it obtains nominal affixes and can be preceded by a preposition. Persian does not have any verbal infinitives (Lotfi, 2008).
Figure 2.7 shows the different parts of the Present Progressive: first the auxiliary in the non-past tense and the person suffix for the third person singular. Second, the *mi*-prefix, the non-past stem of the main verb followed by the person suffix are shown. As compared to the ordinary imperfective construction which is the unmarked construction and has the *mi*-prefix, the dāštan-progressive is the marked counterpart as it has two main elements to build the progressive construction, i.e. the dāštan-auxiliary and *mi*-prefix.

The kind of double finite aspectual constructions in the dāštan-progressive is uncommon in Indo-European languages according to Estaji & Bubenik (2007, p. 38). They report, however, on a language, Gujarati, belonging to the Indic language family with inflections on both the main verb and copula in the present tense forms. In the Semitic family, Arabic inflects both the copula auxiliary and the main verb (ibid.).

Trying to locate the progressive construction historically, Estaji & Bubenik (2007, p. 38) could not trace it to any historical texts. For a full outline of the history of the Persian Progressive, there is not sufficient information regarding the time point when it had first appeared in spoken language but it was not until during the first half of the 20th century that it first emerged in satirical writing (Dehghan, 1972, pp. 202–203). The dāštan-progressive first appeared in spoken language and then as an element of spoken form in written language reflecting a change in language use; the first appearance of this colloquial form in writing was in written dialogues depicting spoken language. According to Dehghan (1972), the construction had been mentioned in a grammar description of Persian in Žukovskij (1888, cited in Dehghan, 1972) with a reference to a popular folk song of the time.

The construction was examined in the surrounding and substratum dialects in Iran by Jeremiás (1993, p. 112). She suggests that the Persian-type construction is a common north-western Iranian isogloss taken over by Modern Persian. Shokri, Jahani & Barani (2013, pp. 21, 46–47) report on similarity in the constructional schemas between the verb *dayyen* ‘to be in place (location)’ and its present stem *dar*- of the Caspian dialects of Sari and Ziarat in Mazandaran and the present stem *dār*- of the verb dāštan in Persian (see also Shokri, (2018) for a study of verbal structures in the Caspian dialects spoken in Ramsar, Sari and Ziarat).

According to Vafaeian (2018, p. 154), who presents an extensive investigation of the progressive in the Iranian varieties, the DAR-gram family has

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12 The person suffixes in the non-past tense are marked with verb final suffixes as follows: singular 1st-3rd: -am, -i, -ad (colloq. -e); plural 1st-3rd: -im, -id (colloq. -in), -and (colloq. -an).
the same function span, the progressive, in both Mazandaran and Gilan, an area covering most of the coastal regions of the Caspian Sea. In contrast to Jeremiás (1993, p. 112), Vafaeian (2018, p. 178) found an areal grammaticalisation cline in this DAR-gram family of the progressive constructions; the distribution of the DAR-constructions shows progressives in the eastern regions (Mazandaran and Gilan) and general imperfectives in the western regions of the cline (south-eastern parts of Azerbaijan). More exactly, there are four types of constructions, all with the DAR element whose structure may change within the eastern to the western cline area “from periphrastic to inflectional, from preposed to postposed, and from functioning as progressives to marking the present or past imperfective” (Vafaeian, 2018, p. 156).

Jeremiás (1993) describes the dāštān-progressive as restricted syntactically as it only has forms for affirmative statements. It can be used in questions in the indicative, though not with a negation. Negation is, then, conveyed by clauses with the imperfective bare mi-forms. It is restricted stylistically; once used, it is the hallmark of colloquial style.

Bonami & Samvelian (2015, p. 368) report that the restriction of its use with a negation and future reference is morphosyntactic rather than semantic in nature as there is nothing incoherent with describing future events in progress. Due to those restrictions, reference to negated and/or futurate meanings can be done by other means such as the lexical copula constructions dar hāl=e budan, lit. ‘be in the mood of’ and mašqul=e budan, lit. ‘occupied by’, both conveying progressivity (Bonami & Samvelian, 2015, p. 368; cf. Dehghan, 1972, p. 205). The construction with dar hāl=e budan is more formal than the dāštān-progressive (Vafaeian, 2018, p. 39). The constructions are illustrated in L1 Persian, Clip 10, line 7 and line 15, respectively, in the data available Open Access (see page 6).

Jahani (2017, p. 263) reports on the progressive/prospective uses of the dāštān-progressive. Apart from denoting focalised ongoingness, the uses of the prospective comprise imminence of a future event. The future event is crucially grounded in individual intentions or common predictions. The full definition for prospective meanings also involves the concept that prospective event either takes place, which is called non-avertive, or does not take place, and is averted (ibid. p. 262).

Vafaeian (2018) finds the following occurrences of the dāštān-progressive as the most favourable contexts of use:

- uses with events denoting the agent being busy with an activity at the time of speech, i.e. focalised meaning. The interpretation of such focalised meaning is found to be associated with emotive effects, also mentioned by Comrie (1976, p. 37), such as degrees of complaint or irritation; or when emotive effects are not involved, the dāštān-progressive can alert the listener about an ongoing event being special to be observed (Vafaeian, 2018, p. 92).
• uses denoting proximative meanings in the context of events viewed as achievements (ibid. p. 118). Also, these meanings have the possibility of being interpreted as iterative with semelfactive event verbs (ibid. p. 115).
• uses referring to the future time, in futurate reading (cf. Jahani, 2008, p. 169).
• uses for intensifying effects. They are brought about by way of the use of the dāštān-progressive with adverbials such as repeatedly, though they are seemingly infrequent (Vafaeian, 2018, p. 101).
• uses in absentiv e readings. They are found in contexts in which the use of the dāštān-progressive merely conveys focality of an event in which the agent is engaged, while other elements in the context may denote the absence of the agent (Vafaeian, 2018, p. 117).

Vafaeian points out that the different readings of the dāštān-progressive depend on the relevant event verb; an over-arching distinction is that while the focality function of the construction arises with events viewed as activities and accomplishments, the proximative function arises with events viewed as achievements (ibid. p. 118). Recall that Stage-3 progressive relates to the use of the progressive construction with achievements (cf. section 2.6.1).

In summing up, Vafaeian (2018, p. 118) identifies three most outstanding uses of the dāštān-progressive; to convey focalised, proximative and futurate meanings.

Although Vafaeian’s (2018, pp. 90, 101) method did not enable her to capture this, my own observations suggest that uses of the dāštān-progressive can also denote gradual change and uses with statives as in:

• Har ruz dār-e havā garmtar mi-še ‘Each day it is becoming warmer’
• Dār-i az pā mi-oft-i ‘You are getting ill’

Also, expressions of temporary habit take the dāštān-progressive as in:

• Dār-e xodeš-o lus mi-kon-e ‘S/he is being silly’
• Dār-e čap o rāst xar-id mi-kon-e ‘S/he is going shopping more frequently these days’

As for the use of the progressive with statives, the expansion of the progressive seems to have taken place to this semantic domain in Persian, as shown here, though it is not frequent yet. In section 2.6.1, four semantic domains were defined as indicating four stages of the grammaticalisation of the Progressive in English. Since the same domains are observed with the dāštān-progressive, the claim that Persian has fully grammaticalised progressive is justified.
Bonami & Samvelian (2015, p. 372) describe the dāštan-progressive as entailing the following three aspect, tense and mood features: unbounded (imperfective) aspect, non-futurity, and the indicative mood. Consequently, the periphrase restricts the interpretation of an unbounded form to a progressive interpretation, barring the habitual interpretation. In their view, this is the contrast the periphrase specifies within the unbounded (imperfective) aspect.

With reference to the difference between the imperfective forms, Vafaeian (2018, p. 118) points out that even though the bare mi-form includes ongoingness, the use of the bare mi-form when denoting an ongoing event has “less emphasis on the engagement of the subject in the activity”.

Vafaeian (2018) gives further support to the fact that even though the dāštan-progressive is, due to continuity (section 2.6.6), semantically interchangeable with the imperfective bare mi-form when decontextualised, the two forms are not as straightforwardly interchangeable as that in coherent discourse, as one or the other is obligatory in such contexts due to their relevance. Even though the dāštan-progressive seems to be rather infrequent in speech overall and interchangeable at sentence level when context-free, it has obligatory uses in those cases it occurs in longer discourse. Vafaeian (2018, p. 11) presents that it has developed a number of particular uses in terms of the meanings it conveys, focality being the most prominent.

The unmarked bare mi-form has been investigated by Lazard (1992) and Windfuhr (2009, pp. 25–26). Lenepveu-Hotz (2014, pp. 241–242, 244) describes the form in language change in which the imperfective marking with the mi-prefix developed from around 10th century from the word hamé- or hamév- ‘always’, ‘incessantly’ to denote the imperfective meanings by the mi-prefix by the end of the 15th century. The Present Imperfective in Modern Persian is illustrated in Figure 2.8.

<table>
<thead>
<tr>
<th>mi-bor-ad</th>
<th>IPFV-cut.PRES-3sg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>He cuts/is cutting</strong></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2.8. Present Imperfective construction, the bare mi-form, in Persian

Figure 2.8 shows the components of the Present Imperfective construction: the mi-prefix, the present stem followed by a personal suffix. The bare mi-form is normally translated with both the simple and the progressive into English indicating that the form includes the habitual and ongoing meanings.

Hojatollah Taleghani (2006, p. 159) presents the imperfective aspect marker mi- as encoding habituality, continuity and duration. In addition, she elaborates on the dāštan-progressive in which the auxiliary verb dāštan has an aspectual function as it displays continuity of the event in the sense that it focuses on the process, i.e. the intermediate phase of the event, and defocus-
es beginning and end boundaries (p. 183). She points out that the progressive structure has two representations of continuity in the stative *dāštān* and the *mi*-prefix. The sentential structure with the *dāštān*-progressive refers semantically to one event with one subject and object even though both $V_1$ and $V_2$ take the subject agreement (p. 162) as shown in Figure 2.9.

<table>
<thead>
<tr>
<th>dār-e</th>
<th>rāh</th>
<th>mi-r-e</th>
</tr>
</thead>
<tbody>
<tr>
<td>have.AUX.PRES-3sg</td>
<td>way</td>
<td>IPFV-go.PRES-3sg</td>
</tr>
</tbody>
</table>

$S/he$ is walking

Figure 2.9. *The dāštān*-progressive in the non-past tense

As compared to catenatives, i.e. ordinary combinations consisting of two verbs in Persian, the construction of the *dāštān*-progressive with two fully inflected verb forms is different from catenatives with e.g. *begin/start, try* and modals because these inflect only the accompanying (modal) verb and the main verb is in the subjunctive.

The *mi*-prefix inherently conveys all the imperfective meanings, as it is an overall marker of imperfectivity denoting the imperfective aspect throughout the aspectual system. Hence, some of the overall meanings conveyed include eternal truths as well as habitual, stative, generic, continuous, punctual, imminental, iterative, counterfactual and ongoing events (cf. section 2.6.7).

Lazard (1992, p. 272), Hojatollah Taleghani (2006), and Estaji & Bubenik (2007, p. 40) point out that dynamic event verbs in Persian take the *dāštān*-progressive readily. In contrast, stative verbs take it only seldom. Thus, while all verbs take the imperfective *mi*-prefix, not all verbs can take the *dāštān*-progressive. By way of exemplification, the verb *know* is stative and *mi*-prefixed but does not take the progressive.

This section depicted the main features of the *dāštān*-progressive. The next section describes some similarities and differences between the progressives in English and Persian.

### 2.7.5 Similarities and differences in the progressive between English and Persian

The description in this section first summarises the general similarities in the use of the progressive in both languages. As its primary use, it has developed to denote focalised meanings in the sense that the time point is defined. (Bertinetto et al., 2000; Sasse, 2002). It is also associated with contingency. The ongoing event can be protracted in degrees.

The presentation builds on terminology from Johanson (2000), i.e. uni-occasional and pluri-occasional events. Notably, in these categories similarities are discerned in the types of uses in the non-past, rather than frequency:
Uni-occasional events are denoted by the simple/bare mi-form in the present tense, except for those marked with the progressive to convey protracted, ongoing events taking place at the time of speaking, i.e. focality; *S/he is writing a letter.*

Also, there are uses with statives in the progressive such as those denoting a gradual change; *It is getting dark.*

In contrast, ordinary event verbs take on the prospective meaning with the progressive, notably with achievements. A more language-specific use in Persian is to convey pretransformational meanings with stature verbs in the progressive such as *sit, sleep,* and *stand.* They are interpreted as continuing states in English but the use of the *dāštān*-progressive with these verbs denotes a change from a state to another; *Bačče dāre mixābe* ‘The child is falling asleep’.

Finally, the use of the progressive about an ongoing event marked as interrupted by a punctual event is the conventional candidate for its use.

Pluri-occasional, permanent, habitual events are denoted by the simple verb form/bare mi-form, except for those marked with the progressive form to encode contingency. Also, idiosyncratic emotionally-loaded interpretations of events are conveyed by the progressive denoting temporary habits.

Vafaeian (2018, pp. 18–19) presents the concept of the “core meaning” of progressives as being defined as “epistemic contingency” in De Wit & Brisard (2014, p. 70). A variety of meanings, such as ongoingness, contingency, habitual, and various types of subjective readings are included so that only generic uses are excluded. However, generic events expressed by event verbs are not void of aspect. The use of the progressive with generic events/habitual ongoingness expressed with event verbs in English indicates its aspectual value as in *The spacecraft is orbiting the planet.*

Thus, taking focality as the primary denotation of the progressive, the Progressive in Persian and, more frequently in English, can refer to any length of protracted continuity of dynamic events including the time of speaking. First is the protracted present moment as in *She is writing a letter.*

Second, in many cases of temporary habits the *dāštān*-progressive is possible as in *Dār-e čap o rāst xar-id mi-kon-e* ‘S/he is going shopping more frequently these days’. Third, in the context of generic protracted/habitual ongoingness of an event, the progressive is used in English as in *The spacecraft is orbiting the planet* while it is hard to imagine Persian using the progressive construction in this particular formal-scientific context. In contrast, the *dāštān*-progressive refers to habituality in colloquial contexts such as *Dāram zendegim rā mikonam, mozahemam našo* ‘I am living my life. Don’t bother me’. 
In line with the investigation in Vafaeian (2018), there is evidence for the uses of the Progressive in English and Persian covering the same semantic domains (cf. section 2.6.1). Drawing on Bybee et al. (1994), it is argued in this project that the degree of grammaticalisation in them relates to the Stage-4. The high degree of grammaticalisation, observed in their uses in the same semantic domains, allows us to regard the English and Persian progressives as similar. A difference is that the dāštan-progressive is used less frequently because the bare mi-form can be used when the Progressive in English is obligatory.

Consequently, the fact that the progressive is more frequent in English and less so in Persian is materialised in the concept of their having different internal structures (cf. section 2.6.1). The fact that the progressives have different internal structures equals with their different functions and principles of use. In Persian, the progressive has only a few particular uses because the imperfective bare mi-form straightforwardly conveys the imperfective meanings along with ongoingness. However, this may not be a full explanation owing to the fact that when there is an imperfective in a language, it does not necessarily restrict the use of a progressive; it may be the case that the dāštan-progressive is simply at this stage of grammaticalisation (Östen Dahl, personal communication).

The Progressive in English covers only part of the domain of the imperfective. Thus, the imperfective domain is notional in English when it has to be interpreted in the simple verb forms. Since the Simple Present form is zero-marked for aspect, there are intriguing aspectual differences and complexities involved in relation to a system consisting of the imperfective—perfective, and progressive distinctions as in Persian.

The Simple Present has to be conceived of as incapable of denoting the imperfective meanings in the same manner as the morphologically marked imperfective mi-form in Persian does. Sometimes, however, the Progressive in English denotes some of the imperfective meanings as in is hitting which expresses iterativity (cf. section 2.6.8). Other times the imperfective meanings can be read into the simple forms, as described by Huddleston (1988, p. 71 cf. section 2.7.1). Overall, in some contexts the Progressive in English conveys imperfective meanings, increasing its overall uses. However, unlike in Persian, focalised ongoingness cannot straightforwardly be conveyed by the Simple Present. The Progressive in Persian is more delimited in its uses because the bare mi-form not only denotes all the imperfective meanings described as continuity but expresses also ongoingness.

To relate the issue of the different internal structures to the theoretical framework of Levelt (1989 cf. section 2.2), it is necessary to recall that in language production the grammaticalised means and the underlying principles contribute to the separate processes of segmenting/selecting/structuring at the macro level and linearising at the micro level of language production, respectively. Levelt’s (1989) view on language-dependency in discourse
production relates to the micro level though language-dependency is regarded here as activated already at the macro level. This is evidenced by the way L2 learners characteristically approach the L2 with the syntax of their L1.

The characteristic approach to L2 speaks about rule formation about the L2 drawing on that of the L1. Since the processes of segmenting, selecting, and structuring are language-dependent and the relevant underlying principles of the grammaticalised categories differ cross-linguistically, the L2 learner has to restructure the principles and rules of the L1. Slobin (1996a) claims that L1 principles are difficult to restructure. The L2 speaker's propensity, in event conceptualisation, to associate the conceptualised event with an L1 structure more than another equivalent one comprises the notion of “habitual thinking”. This is transferred to L2 event conceptualisation in terms of the relevant structural association from L1 as well as the related event conceptualisation. However, studies such as Nüse (2003, p. 267) have shown that non-linguistic tasks do not reveal significant differences in event conceptualisation across languages such as English and German. In contrast, conceptualisation underlying verbalisation in line with the grammaticalised categories is language dependent.

To relate the issue of the progressives with different internal structures due to the absence/presence of the IPFV-PRV distinction, to different genres, obviously differences in their uses will emerge in English and Persian. Use of the Progressive in interactional conversation in English seems to be obligatory in a relatively wide range of contexts, whereas in narratives, factual texts and discourse, it is not similarly obligatory.

In contrast, the dāštan-progressive is primarily a feature of colloquial, interactional conversation in Persian. It appears in a relatively narrow range of contexts because the imperfective form, which is the conventional aspectual form of speech, can convey ongoingness. Formal texts and discourse do not seem to take the dāštan-progressive. Re-told narratives and single event descriptions are two genres that can exhibit obligatory uses of the progressives in this project.

The Heidelberg–Paris model has discussed the temporal frame of reference in different genres such as personal, descriptive and narrative texts (von Stutterheim, 1991; von Stutterheim & Klein, 1989). However, since the research by the group has not focused on investigating progressive aspect as such, the model has not discussed the differences in the frequency of its uses in the different genres. This is left open to further research.

Important to note is the obligatoriness of the use of one particular form such as the progressive in particular contexts in English. The fact that only the progressive form is used for ongoingness in English does not, by virtue of frequency, indicate the degree of its grammaticalisation. In the first place,

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13 For interactional conversation see the spoken component of the BNC, https://corpus.byu.edu/bnc/, or COLT.
obligatoriness relates to the type of overall aspectual system; the English system does not provide any other form as it lacks the grammaticalised imperfective, which is why the progressive becomes obligatory in a wide range of contexts. It is obvious from the English and Persian systems that in sharing the same semantic domains in the use of the progressive, the Progressive in English is not at a higher level of grammaticalisation than that in Persian. Simply, fully grammaticalised progressives in two different systems can have different internal structures. Thus, there are different ranges of uses involved due to the different structure of the grammaticalised aspectual systems (cf. section 2.6.1).

Also, in the context of the coherent narrative, replacement of the progressive is not possible but the uses of the progressive in narratives are obligatory because the progressive has particular functions to fill, i.e. denoting focalised meaning, which is where it contrasts the more common verb form of the narrative. Narratives, comprising the simple verb form in English and bare mi-form in Persian, make the progressive obligatory in the relevant uses in which the imperfective and progressive form aspectually loaded pairs.

In sum, this section has shown that the use of the progressives in English and Persian are both similar and different in twisted ways, even though they have the common grammaticalised category in common. The similarity is seen in the degree of the grammaticalisation as they have expanded their uses to the same semantic domains. The differences in use emerge from the overall aspectual systems bringing about the different internal structures. The next section introduces the model within which these language-specific aspectual complexities are investigated.

2.8 The Heidelberg–Paris model

The Heidelberg–Paris model is fundamentally concerned with the role of language at the macrostructural level of the conceptualiser and the issue whether grammaticalised categories guide decision making in perspective/perspective-taking and the related information organisation. There are various central questions involving information selection such as what to say, thematic continuity in terms of topic assignment and topic maintenance as well as referential framing (cf. Carroll & Lambert, 2004, p. 268). Referential framing relates to decisions about predicate–argument structures, such as buy/sell, or send/receive, and how they are anchored in overall discourse, differently in languages, with respect to times, worlds, spaces and entities. This relates to how single utterances and/or narrative discourse are structured coherently. Put simply, for a text to be coherent, one is confined to structure the information in the way guided by the grammatical means in the language (cf. section 2.1). This relates, more generally, to the cognitive pro-
cesses, i.e. segmentation, selection, structuring, and linearisation that affect the selection of linguistic features in the conceptualiser in perspective-taking which are collectively referred to as perspectivation. The present project investigates some of the related linguistic features (see section 4.3).

While information selection and structuring only partially describe the processes that take place in the conceptualiser as conceptual information organisation also takes place there (cf. section 2.2), the overall processes ultimately lead to a coherent text structure, at the level of verbalisation. Put plainly, information organisation is understood to include the speaker’s decisions and choices of perspective while it also consists in information selection and information structuring which are guided by the underlying principles provided by the grammaticalised means of the language. However, the decisions are not enforced by grammar (Nüse, 2003, p. 272). Importantly, a difference in encodability of some notion in one language as compared to another involves that of what can be said, i.e. what means the languages provide, while a difference in speaker’s choices involves that of what is said (ibid.). Thus, in a language system that has the grammaticalised progressive, any dynamic verb can be conceived as a possible candidate to take the progressive form. However, there are distinct cross-linguistic differences between what verbs are used in the progressive. Also, the difference in speaker’s choices is dependent on the relevant aspectual systems.

The two issues of the role of language in the processes at the macrostructural level of the conceptualiser and role of underlying principles in coherent discourse (see section 2.8.1.3) are explicated in the following sections. Importantly, the differences between the temporal frames of reference in English and German emerging from the typologically different categories are made clear (see sections 2.9.2.2. and 2.9.2.3). This is a prerequisite to observing the similarities/differences emerging from the category of the Progressive in English and Persian.

The next section presents some central notions of the model.

2.8.1 Key notions of the model

2.8.1.1 Event construal

The framework selects from the overall text structure the domain of event construal, i.e. predicate–argument structures, for analysis looking at how speakers of typologically different languages employ the different grammaticalised means available for conveying meaning, specifically temporality in the context of grammaticalised aspect, and the relevant coherence (see section 2.8.1.3) as part of pragmatic knowledge. The analysis is based on language production about single events and event sequences in a film clip. ‘Event’ is defined as a self-contained unit, i.e. whole and complete, in a conceptual representation of interrelated situations, conceptualised as a time–
substance relation which is characterised as dynamic and potentially bound-
ed. ‘Situation’ denotes what takes place in the external world (von Stutter-

The leading Heidelberg–Paris hypothesis stipulates that if cognitive pro-
cesses during language tasks are somehow shaped by the categories of the
respective native language, speakers of a second language should — depend-
ing on the level of proficiency and the specific typological profiles of the L1
and L2 — show divergent patterns from target standards with respect to the
selection and organisation (cf. section 2.2) of content for expression (Fleck-
en, von Stutterheim, & Carroll, 2013, p. 229). Hence, apart from proficiency,
the overall constraints, imposed by each language as a system consisting in
means such as the grammaticalised temporal categories and lexicon behave
as constraining language-specific factors in language production, in general.
These lexical and structural constraints can be seen in what is in the words
and how they are combined (von Stutterheim & Klein, 2002, p. 60).

To exemplify, Dutch and German speakers differ in the selection of an
aspectual distinction that explicitly represents an event as ongoing at the
time of speaking. While Dutch speakers frequently select the aan het con-
struction, German speakers use equivalent expressions rarely. This language-
specific structural difference as such leads also to further differences such as
those in clause structure, and number and types of specifications with respect
to the event; in Dutch use of adjuncts and complements are optional with the
aspectual construction, while in German adjuncts and complements need to
be used to avoid generic readings (Flecken, 2010, p. 12). This illustrates that
there are different kinds of clusters of underlying principles of organising
information in event construal in Dutch and German, which need to be ob-
served by both Dutch L2 German and German L2 Dutch learners.

The subtle ways of realisation of coherence, which belong to the referen-
tial organisation of discourse in the whole text structure, depend on the lan-
guage system in question, as discussed by von Stutterheim & Klein (1989, p.
61). The speaker’s choice of one type of means of reference within one do-
main can lead to a restriction on what can be chosen in another domain of
reference, termed chunking, which involves a cluster of different domains in
the constraint. This type of structural dependency is not at the level of
grammatical rule. These language-specific subtleties of coherence linked to
the grammaticalised features of language are uncovered and conceptualised
in the course of native language learning. Depending on the typological dif-
fences with respect to the L2 system, they may be helpful in L2 perfo-
rmance, or not.

Highly relevant for the planning of predicate–argument structures, at the
level of event construal, is the related aspectual structure that may have be-
come grammaticalised and may be used very systematically and frequently,
as compared to languages in general. Then, the underlying concept of aspect
has become a more automatised option among a set of options for perspec-
tive-taking in the processes of conceptualisation such as event construal. The grammaticalised feature determines the establishment of language-specific preferences for specific types of verbalisations of event construal, when speakers are solving complex verbal tasks (Flecken, 2010, p. 15). As utterances are assumed to reflect cognitive processes, a suitable text-type for examining this relation is narrative as it makes use of the conceptual domain of time, which is an ontological category presumably accessible to speakers of any language (von Stutterheim, 1991, pp. 387–388).

2.8.1.2 Content interpretation by the hearer

To obtain full interpretation of an utterance, the hearer refers to what the concept of coherence (see section 2.8.1.3) involves, namely, the interface of linguistic structure, contextual information, and world knowledge (von Stutterheim & Klein, 1989, pp. 45–46). In addition to the mere linguistic means, the interpretation by the hearer involves, according to von Stutterheim & Klein (1989, p. 45), two ways in which contextual information is applied to complete the spoken utterance above and beyond what is made explicit by linguistic means alone. First, the hearer can get a full interpretation of utterances, involving e.g. deixis or anaphora, through the so-called structure-based context-dependency if the linguistic meaning is integrated with the information derivable from the relevant structure and structurally dependent context (cf. Dietrich, Klein, & Noyau, 1995, p. 18). This is also termed the proposition of the utterance. Second, the hearer may make logical inferences generally related to the proposition but also varying in degrees of certainty.

Von Stutterheim & Klein (1989, p. 45) find there to be “three progressively inclusive levels of interpretation”, each of which embed the conceptual domains of time, space and entities/person: First, the linguistic meaning, which is based on the lexical context of the words or morphemes and the rules of syntax. The linguistic structure is always language-dependent. Second, the proposition, in which structurally dependent information is embedded. Third, the utterance interpretation in the form of inference, which enriches the proposition by means of inferable information of various types and depending on the hearer’s particular state of world knowledge. These three levels correlate with the lexical, structural, and contextual choices on the part of the speaker (von Stutterheim & Klein, 2002, pp. 60–61). The three levels are recognised in most models of content interpretation analysis. The present model conforms to those models.

To illustrate how the linguistic form is interpreted on the three levels if the utterance heard is *The cat sat on the mat*, the linguistic form allows the hearer to identify subject, predicate, verb tense, prepositional phrase, among other things. Then linguistic rules lead interpretation forward from the linguistic meaning to the proposition on the basis of this structural information. Finally, the utterance interpretation allows the hearer to
associate with the relevant entities of cat and mat, and what ‘sat’ means in the context of cats.

At the level of analysis, utterance is used as a term to cover all the spoken language produced. Propositions are the content of finite clauses, so that each sentence instantiates one or more propositions. Non-finite clauses lack such an independent proposition. Thus, propositions are units of meaning, not of text.

Correspondingly, each finite clause is regarded as a separate propositional unit allowing empirical analysis of information structure while utterance functions as an overarching term for what a speaker produces in speaking.

2.8.1.3 Coherence in narratives

Narrative as a text genre is depicted by von Stutterheim (1991, pp. 389–390) as a complex temporal structure having two characteristic features that the narrator typically conforms to in narrating events. They constitute part of the overall coherence as they establish the particular narrative discourse-internal structure making narratives different from other genres of discourse. First, establishing a starting point, as for example in English, the narrator anchors the overall structure of the narration in time either by specifying a time point or time span, or merely referring to generic time. Second, employing the different expressive means available in the language and adapting to them the different choices relevant to linguistic information in the process of mapping information for interpretation by the hearer (cf. section 2.8.1.2), the narrator creates the temporal relations, i.e. event–time relations, holding between the events in sequence. More plainly, the speaker specifies a temporal anchor point and orders events in sequence by way of event–time relations (Carroll & Lambert, 2006, p. 54). This illustrates the language-specific discourse-internal structure in English.

In getting the message across to the hearer, coherence plays a crucial role (von Stutterheim & Klein, 1989). Particularly important in coherence is the conceptualisation of consistent frames of reference in each relevant conceptual domain of reference, i.e. time, space, properties, events and entities, i.e. persons and things, in which the individual units are embedded and by which they are made coherent in verbalisation (von Stutterheim & Nüse, 2003, p. 865). To exemplify, anaphoric reference by means of a pronoun to a previously mentioned syntactic subject of a sentence represents coherence, though at a simple sentential level, as a general feature of languages.

In contrast, temporal coherence in, for example, English narratives, as compared to German ones, is said to conform to the language-specific principles underlying the grammaticalised means: coherence in English is based on an external temporal anchor point so that the time line with its interval structure remains in the background, while in German it builds precisely on the event–time relations on the time line (von Stutterheim & Nüse, 2003, pp. 868–869).
In both languages, the event–time relations established in a narrative sequence are language-specific in the sense that they correlate with the particular language system. Conspicuous differences are observed between the temporal frames of reference of *shift in time* and *maintenance of a temporal relation*, as described in sections 2.9.2.2 and 2.9.2.3, respectively. Thus, apart from the fact that coherence is a universal principle in discourse production and essential in discourse interpretation in any language, it is language-specific in the sense that it correlates with the particular language system, and hence a key notion in the Heidelberg–Paris model.

In summary, in language production the speaker employs complex and often implicit ways to convey a coherent piece of discourse; underlying the explicit means which the speakers use to verbalise organised information and order events in sequence coherently, there are the implicit language-specific principles that are observed automatically by native speakers. The underlying principles relate to the processes of information selection and information structuring across the conceptual domains of time, space, persons and events. Importantly, coherence requires reference by the speakers to these domains in a consistent manner in the entire course of re-narrating events (Carroll & Lambert, 2006, p. 54).

The bottom line is that the principled process of information organisation, in which the speaker’s decisions are included, is more or less equivalent to the principles of coherence, which are complex. Solving a complex narrative task is multidimensional in nature; the different levels such as the temporal anchor point specification, domains of referents, and event–time relations have to form a coherently connected web. Thus, coherence is closely linked with the underlying principles of the language-specific means used in language production; even though coherence is, at one level, investigated as a feature of discourse, it is language-specific in correlating with the particular language system. L1 speakers may automatically master the underlying principles of coherence, while L2 speakers may need to develop strategies for producing coherence in L2s.

2.8.1.4 Reference

The Heidelberg–Paris model examines the meaning in propositions, at the level of cross-linguistically varying information structure, and that of structure-based context-dependency. Probing into meaning in propositions in a language-specific context reveals cross-linguistic differences in how general principles of coherence are implemented. A general feature of the predicate–argument structures of discourse as elements of the information structure produced in languages is that they have to be referentially bound with respect to time, space, and entities at least. In order for a sequence of propositions to be coherent, these referential properties have to be related consistently across utterances (von Stutterheim, Carroll, & Klein, 2003, p. 97). This
sort of principled information organisation in the conceptual domain of time is termed temporal reference (Klein & von Stutterheim, 2006), which relates to a longer stretch of discourse. Some specific stretches of such discourse that illustrate language-specific features of temporal referencing (cf. section 2.9.2) are termed temporal frame of reference, as discussed in Carroll & von Stutterheim (2003); von Stutterheim & Lambert (2005) and Carroll & Lambert (2006).

Crucially, propositions are filled with representations from various meaning entities. Regardless of what kind the meaning entities are, i.e. either time, space, persons/objects, predicates, or modalities, they are meaning components based on linguistic meaning proper and constrained by structure-based contextual features. These meaning entities are labelled as domains of reference, each of which possesses certain morphosyntactic roles, as exemplified below (von Stutterheim & Klein, 1989, pp. 46–49). Crucial for coherence in narration is then referential movement—and a facilitating factor for the hearer in discourse interpretation—because the different conceptual domains, i.e. the temporal, spatial and personal domains, are present in any utterance.

Thus, narrowing down the wide concept of coherence to one of its subdomains, i.e. referential movement, it represents the way in which information from these domains of reference shifts from one utterance to the next (von Stutterheim & Klein, 1989, p. 47). To exemplify, the referential movement can be illustrated in the shift of the domains of reference as they are first introduced, as in the following question, then maintained, as in the following answer: How can the MP get to the airport? He can take a taxi there.

Many of the ways of the referential movement are syntactic and are described in grammar such as deixis and anaphora, of which for instance the temporal reference to the deictic time point now of the words yesterday or tomorrow, or anaphoric reference to a previously mentioned person by way of a relevant pronoun are only simple examples of creating coherence through dependency of a linguistic structure on another within the particular conceptual domains of reference. Thus, reference movement is also mirrored in the use of specific linguistic means and has an impact on, i.e. constrains, the speaker’s lexical, structural and contextual choices (von Stutterheim & Klein, 2002).

There are at least four prerequisites, according to von Stutterheim & Klein (1989, p. 41), that are required for coherence to be successful. Firstly, each main structure utterance is an answer to what is called the quaestio. The quaestio is a guiding question and all kinds of texts are viewed as following a specific quaestio, which can be either explicit or implicit (von Stutterheim, 2003, p. 184; cf. von Stutterheim & Klein, 2002, pp. 69–71). This quaestio plays a role greater than that of an expectation of an answer. Rather, it establishes a set of constraints and guides the speaker in selecting and organising information for expression.
Thus, the quaestio dictates what particular meaning components are allotted to the main structure utterance as the topic or focus of the utterance. Von Stutterheim & Klein (1989, p. 41) emphasise that topic and focus do not, in this framework, relate exactly to new and given information within an utterance, yet they may coincide. They are used in a broader sense in this model so that topic relates to the external world that provides the quaestio with all the alternatives, or experiences, there possibly exist in the world relevant to the specified point of time. From them the speaker selects, i.e. defines, a specific alternative for mention, which then is the focus. Thus, a quaestio such as *what happened to x at t₁*? relates significantly to all the possible events existing in the external world at time t₁, i.e. the topic, from which the speaker defines a particular event by mentioning it, the focus (Klein & von Stutterheim, 2006, p. 38; von Stutterheim & Klein, 1989, p. 42).

Secondly, the overall text conforms to a pattern of intertwined main and side structures (see section 2.8.2). An important practical difference between main and side structures in narrations is that main structures, but not side structures, provide the quaestio with an answer. Further, main structures advance the story line, building the story foreground, whereas side structure gives additional background information that is not directly relevant for the story line. Their pattern is grounded in the *quaestio*; a quaestio such as *what happened to x at t₁*? may conventionally lead to a narration of events while a question such as *What does the scene look like?* leads to a description in terms of states. In this fashion the quaestio establishes a set of constraints guiding the speaker in selecting and organising information for expression (von Stutterheim, 2003, p. 184).

Thirdly, each of the main structure utterances is characterised by the typical domains of reference, e.g. time, place and person. Significantly, the information structure as well as the mention of the domains of reference in the language produced is constrained — though not fully — by the quaestio¹⁴.

Fourthly, the referential movement within each particular domain takes place from one main structure utterance to the next.

This section has outlined coherence along with one of its essential sub-concepts, referential movement, in preparation for carrying out the present study on temporal referencing in line with the Heidelberg–Paris model. This cross-linguistic study aims at establishing whether the cognitive processes in language production in L2 are grammatically driven by the speakers’ L1 as...

¹⁴There are constraints on text structure other than those imposed by the quaestio such as culturally conditioned patterns of telling a story, or special cognitive "schemas", as in "story grammars" (von Stutterheim & Klein, 1989, p. 75 fn. 4). In Carroll et al. (2004, p. 210), the constraining effect of the quaestio on language production was tested by giving two different quaestioes, i.e. a. “What is happening?”, b. “What happens?”, to two different groups of L1 English speakers doing the same narrative task. The results, i.e. the use of the –ing form for a. is 100%, and for b. it is 97.3%, show that L1 English speakers “typically apply the concept of ongoingness when coding information on (...) dynamic situations".

2.8.2 Main and side structure

Main and side structure are concepts that apply at the level of the narrative. The dual distinction goes for the entire narrative. With reference to Klein & von Stutterheim (2006, p. 40), main structure denotes the events that count in determining the narrative sequence in which each event must occupy the next possible slot on the time line, as in *He gets up and starts walking*. These two events occupy their own time intervals, both of which can be conceived of as intervals rather than points on the time line. The proposition contains a bounded (cf. section 2.6.9) and an unbounded event, i.e. *get up* and *start walking*, respectively, both of which belong to main structure as each of them occupies a separate interval on the time line and answers the question what happens next (cf. von Stutterheim et al., 2003; for *start* see section 4.3.2). In this manner each bounded and unbounded proposition of main structure involves a *temporal shift* by which the story line advances. The temporal shift can be conceived of as going through the temporal sub-intervals of the total event. The time interval, \( t_i \), of each sub-event is specified and sequenced by the temporal sequence of the general quaestio depicted as what happened at \( t_1 \), what happened at \( t_2 \), what happened at \( t_3 \), and eventually, what happened at \( t_n \) (von Stutterheim & Klein, 2002, p. 73).

At the level of analysis, utterances belonging to main structure are analysed as bounded or unbounded and the utterances of side structure are analysed as state, simply. References to states are not included in the analysis. This means that what is analysed as states do not only consist in clauses with stative verbs but also involve many types of clauses: finite clauses which may express causality, conditionality, unreality, iterativity, modality, negation, progressivity and simultaneity, among other things. Thus, finite clauses that may be integrated in another event expressing e.g. causality or modality as in *He does x so that he can do y* are analysed as states. In contrast, co-ordinated finite clauses are analysed as main structure if they are not the types of clauses mentioned above.

Also, all non-finite clauses are classified as states. They can be events presented as components of other events as in *He tries to widen the crack to get to the water* illustrating the event as integrated in another event. Thus, the infinitive clause *to get to the water* is a state. Notably, even though this model does not investigate states, a type of grammaticalised feature found in side structure is of interest; the progressive. These are always unbounded.

Despite the fact that the progressive belongs to side structure and its use is investigated as such, there are a couple of cases in L1 English in which use of the progressive involves temporal shift and belongs to main structure. This is illustrated by an utterance such as *He stands up, he is walking in*
which ‘being upright’ is usually completed before ‘walking’ begins. The subsequent event *He is walking* in main structure is encoded by the speaker as unbounded (see point 2 below on unbounded progressives).

Personal communication with members of the Heidelberg–Paris group provides this project with guidelines for analysis of main and side structure. Generally, the guidelines and examples are scarce in the relevant literature. Analysis of bounded and unbounded events in main structure which are distinct from states in side structure are far more complicated at discourse level in Experiment 2 than the analysis of single sentences in Experiment 1. The different nature of the tasks also involves a restriction for direct comparison of the results to those from previous studies (see section 4.3).

Side structure is characterised as not main structure. There are utterances that occupy more than one interval on the time line and do not, therefore, provide any answer to the general quaestio *what happened at t1*. The narrative sequence can be interrupted at any point by utterances such as sequences of descriptions or merely answers to questions other than the main quaestio (von Stutterheim & Klein, 2002, p. 73). The following utterances from the data sets of this project illustrate side structure:

- Any utterance typically commenting on the setting and the events in the background, or pointing out ordinary stative situations, generic states and habitual events as in *A whirlwind of papers is approaching*.
- Utterances expressing iterativity. Thus, for instance, not only plural subjects as in *Suddenly many rocks emerge from the ground* but also plural objects as in *He touches the sheets of paper* convey iterativity.
- Simultaneity as in *While he is hitting the ground with a stone, he falls down into another world*. Simultaneity need not be explicitly marked with ‘while’. Mere overlap of events classifies the utterance as side structure as in *He looks around and thinks*, where the events of looking around and thinking take place simultaneously, not successively.
- Causal and conditional expressions such as *He jumps aside because a stone is falling on his head*.
- Prospective and past time references to events as well as rhetorical questions, elaborations of the situation at issue and utterance reformulations render utterances about events as side structure as in *Is he going to jump into the hole in the ground? The water has run into a crack in the ground and is gone*.
- Expressions of intention, modality, purpose, volition, and wishes as in *He wants to climb down the rock tower* and *He cannot believe his eyes*, do not contribute to answering to *what happened next?*
- The progressive form *per se* and its effect on the event verb account for several cases of side structure, which are elaborated on here:
1. The effect of the progressive form on, for example, semelfactive verbs such as *hit* cause a change in its Aktionsart to denote a repeated, iterative activity as in *A sheet of paper is hitting him*.

2. Utterances with the progressive such as *He is walking, He is looking around* belong to side structure as they occupy more than one time interval on the time line. Any endpoint given with the progressive verb form indicates merely a potential, not attained, endpoint as in *The stone is crumbling* and *He is falling down*.

3. Finally, the progressive in *He sees that a stone is falling on him and he quickly dodges* conveys that the falling of the rock may both precede and follow the interval specified by the event ‘he sees’. ‘Falling’ thus belongs to side structure as it does not advance the storyline by delivering a specified interval at a given point in the sequence. Similarly, in the utterances *He sees that the water is dripping from the sky and He falls down into another world. The wind is blowing*, the event in the progressive conveys that ‘the dripping’ and ‘blowing’ had apparently started at and continued until some unspecified point of time.

For the purposes of the present analysis the propositions above represent states, which are unbounded and occupy several time intervals on the time line, to keep them apart from the bounded and unbounded utterances of main structure. Finally, although these categories are supposed to have some general validity, they are normally discussed in the restricted context of re-narration.

Unlike in side structure, the specified time intervals of main structure utterances crucially relate to boundedness (cf. section 2.6.9) as the story line of a re-narration of events unfolds via its bounded and unbounded utterances. The feature of boundedness is invoked when an explicit endpoint is given, marking the end phase of the action. The speaker can choose to use either a 2-state verb where the endpoint is inherent in the verb or a 1-state verb with an additional endpoint adjunct. Unbounded events in main structure lack such an endpoint. The point at issue is that, in re-narrating a film, the speaker has to produce a sequence of events each of which occupies a single point, i.e. only one time interval, on the time line. Like bounded events, unbounded events are capable of occupying only one time interval, not stretching over several time intervals. Event verbs in the simple form as in *He thinks* and *He goes unsteadily in the sand desert* illustrate the case. In contrast, event verbs in the progressive are explicitly marked as involving more than one interval and their endpoint as not reached. This is the aspectual distinction and its effect on the narrative sequencing. Notably, present participles do not convey any ongoingness (Mary Carroll, personal communication).

Different situation types mark the end of the action differently. Causatives mark it in the object as in *make a cake* or *knit a scarf* denoting that the ac-
tivity ends when the product is there or the last stitch is done. Motion events do not, typically, have any inherent endpoint, except for verbs such as arrive, enter and reach. Freely chosen for mention by the speaker, only the explicit mention of the goal of a motion can mark the event as bounded in narratives as in He falls down\textsuperscript{15}, and He goes over to the puddle. With activity verbs such as run the event ends when the person stops the activity. Section 2.9.1 elaborates on how the situation types used in the Heidelberg–Paris model comply with the verb categories presented by Vendler (1957) and how causatives, activities and motion events are employed to test the use of the progressive by way of unrelated everyday events.

Other cases, where the marking of the end of an action is context dependent, are found among sensory verbs such as see. It does not mark the endpoint in the object noun as in He sees a pool of water, whereas the verb touch does so as in He touches the stone. Another event directly following the ‘seeing’ can, however, denote the endpoint to make the ‘seeing’ bounded as in A drop of water falls. He sees it and he runs over and When he sees a flying sheet of paper, he sits up. This exemplifies the very infrequent cases where temporal criteria can apply to determining the endpoint for the verb see, which in the majority of cases is unbounded. The sensory verb hear as in He hears water dripping nearby does not occupy an interval, or single point, on the time line and belongs to side structure. Inchoative verbs such as begin and start as in He starts digging occupy a single interval on the time line, given the specification of the point at which it commences. It is an unbounded event in main structure (for start see section 4.2.2).

Main structure is not confined to utterances with the protagonist as the subject. Utterances with other entities as the syntactic subject, such as A sheet of paper knocks him down, belong to the main structure building up the narrative sequence. Neither are main structure utterances confined to main clauses as the narrative may unfold by way of the sub-clause as in When he gets up, a rock falls right beside him.

Overall, the criteria applied to endpoints in narratives relate to space, i.e. the goal. An event is bounded merely on the condition of an explicit denotation of the goal as reached in the narrative. Thus, for example, the preposition towards as in He goes towards the water is a special case. It does not explicitly denote that the endpoint is completely reached, and does not fulfil the criteria for bounded events in the narrative (for towards in the context of decontextualised events see 2.9.1.2).

\textsuperscript{15}The verb fall has been analysed in the present project as a 1-state verb (see Vafaeian, 2018), and fall down as a 1-state verb with an endpoint. It is possible to regard fall as a 2-state having an inherent endpoint, which can also be explicitly expressed with down. In English, It is falling admits only the interpretation ‘the intermediate phase, no focus on endpoint’. However, the potential endpoint is inherent in the meaning with the progressive.
Notably, language production is built on the speakers’ free choice, both with respect to lexicon and verbal morphology, and their representations at the levels of syntax, semantics, and pragmatics, in selecting and deciding on what to mention and what means to use. Generally, languages provide not only different options, lexical or grammaticalised, but many times also different alternatives within these options. The speakers’ free decisions lie on the whole sets of options that provide the possibility to construct grammatical utterances, referred to as reportable events (von Stutterheim et al., 2009, p. 209). According to Slobin (1996a, p. 82), while the speaker is not compelled to make use of the full array of the distinctions available in verbal morphology, they “rarely make use of the options that differ from the norm”.

Thus, language use reflects speaker preferences which are, however, confined to the language-specific grammaticalised categories, indicating their close interrelation. In line with Slobin’s (1996a, p. 83) observation that the “categories that are not grammaticalised in the native language are generally ignored”, the Heidelberg–Paris group (von Stutterheim et al., 2012a, p. 833) formulate the following hypothesis adopted for the present study:

[D]irection of attention to particular parts of motion events varies to some extent with the existence of the grammaticized means to express imperfective / progressive aspect. Speakers of languages that do not have grammaticized aspect of this type are more likely to take a holistic view when talking about motion events and (...) refer to endpoints of motion events, in contrast to speakers of aspect languages.

The hypothesis on the relation between event construal and aspect establishes the distinction between aspect and non-aspect languages as important. Given the fact that grammaticalised meanings constrain language use, languages with similar patterns in the language system of mapping particular meaning should show “similar patterns of conceptualisation when preparing content for expression” (Carroll et al., 2004, p. 185). The present study involves two languages with the grammaticalised progressives.

The next section elaborates on the methods used in the current model to investigate aspect in languages and aspect-related L1 influence on L2.

2.9 Empirical methods of investigating the impact of aspect in languages in the model

To test the above hypothesis, the Heidelberg–Paris group designed a method of investigation into language production by speakers of different native languages based on the identical elicitation task of describing single events and/or retelling a narrative sequence of events. Crucially, the design creating
identical knowledge base in the speakers’ minds allows for comparison of event conceptualisation in various L1s that may differ typologically.

In line with Slobin (1996a, pp. 79–80), comparisons were carried out relevant to the progressive aspect (cf. section 2.6.6). The feature represents a substantial typological difference across languages. Since expressions of ongoing events recur in languages in lexically or morphologically encoded forms, it was seen as a suitable object of cross-linguistic study of language-specific differences in event conceptualisation. Previous contrastive studies such as von Stutterheim et al. (2012a) have shown that this difference in the encoding of ongoing events may lead to cross-linguistic differences in reference to endpoints (see sections 2.9.1.2 and 5.7). The Heidelberg–Paris model probes into the effects of the language-specific means on language production in L1 and their impact on L2 across typologically different languages.

An issue related to a gap in the previous study designs is that many elicitations of linguistic data based on either one or two tasks make use of relatively small samples with 20 informants in each speaker group involved (Carroll & Lambert, 2003, 2006; von Stutterheim et al., 2003). This is the case even in large-scale studies on more languages (Carroll et al., 2008b, 2004). Samples of only 12 subjects are observed in some sub-studies (von Stutterheim & Lambert, 2005). 20 subjects is the general norm even in the more recent studies such as Gerwien & von Stutterheim (2018, p. 229).

In addition, the numerical data on speaker preferences based on averages from language production from varying sample sizes are presented in percentages and used for comparisons between groups, often without statistical tests. However, this fails to take account of the possibility that variation is not statistically significant if the individuals in the groups vary widely. To avoid such gaps, the present study elicits comprehensive data from adequate samples making use of the two tasks developed by the Heidelberg–Paris group measuring significant differences with statistical methods.

2.9.1 Single events

In testing use of the progressive in languages where it is not an obligatory feature like in English, single events are used as stimuli centring on selected situation types, headed by the task question “what is happening”. The term single events denotes unrelated everyday situations shown as brief event clips in a sequence in a video film. The video presents each event without a broader context and are, therefore, decontextualised in nature.

The situation type of the unrelated single events is the category of activities known from Vendler (1957) which originally represents one of the several time schemata of verbs and is re-classified in this model into different event types based on three inherent properties involved: CHANGE IN STATE, and NO CHANGE IN STATE, when causatives are concerned, and CHANGE IN PLACE when it comes to motion events, which can be bounded or unbound-
ed. The classification allows the experimental manipulation to identify the contexts that may attract use of the progressive construction (Carroll et al., 2004; von Stutterheim et al., 2009).

The classification into separate situation types draws on Vendler’s (1957) activities, which presuppose a human agent, and Garey’s (1957) notion on telicity, which relates to the perfectivity of predicates determined by the verbs as bounded or unbounded, and Klein’s (1994) classification of event types as in *He is running* as a 1-state event in which the endpoint is not explicit. Moreover, reference is made to Bybee et al. (1994) who outline the stages of grammaticalisation of the progressive, used by Flecken (2010; cf. section 2.6.1) and Tommola (2000).

Figure 2.10 visualises the event features including events made bounded by an endpoint (EP) in the mapping of causatives in the single events of the Heidelberg–Paris (H–P) model (Klein, 1994; Schmiedtová & Flecken, 2008).

<table>
<thead>
<tr>
<th>Vendler</th>
<th>activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garey</td>
<td>atelic/unbounded</td>
</tr>
<tr>
<td>Klein</td>
<td>1-state verbs</td>
</tr>
<tr>
<td>H–P</td>
<td>no change in state</td>
</tr>
<tr>
<td>event type</td>
<td>causatives</td>
</tr>
</tbody>
</table>
| examples | *a man relaxing on a bench,*  
*a bike leaning against a lantern,*  
*a dog sitting on the lawn* | *knit a scarf,*  
*fold a paper plane,*  
*peel a potato,*  
*candle is burning* |

<table>
<thead>
<tr>
<th>event type</th>
<th>causatives</th>
</tr>
</thead>
</table>
| examples   | *tidying up a room,*  
*shopping in supermarket,*  
*rowing a boat on a river,*  
*train entering a tunnel* | *car driving on a road,*  
*man climbing a ladder,*  
*lady going into a shop,*  
*car driving into a garage* |

Figure 2.10. *Classification of activities in single events*

The present project selects the event types that are telic, i.e. bounded, either inherently by 2-state verbs or explicitly by including an endpoint adjunct (for causatives see Figures 2.11, for motion events see Figure 2.13). 1-state events showing static events are used as fillers such as *A man is relaxing on a bench,* *A bike is leaning against a lantern,* and *A dog is sitting on the lawn.* Fillers involve also dynamic events as in *A person is tidying up a room,* *A lady is shopping in a supermarket,* *A man is rowing a boat on a river,* and *A train is entering a tunnel.*

1-state events prototypically take the progressive owing to the fact that speakers of languages with grammaticalised aspect encode them merely as
ongoing on the basis of the here-and-now context. Thus, the agentive activities are excluded from the test items in the present study as English and Persian have the progressive. However, these activities suit to test whether speakers of languages lacking the progressive aspect are likely to use an aspectual viewpoint in the situations without any possible endpoint.

The model identifies the focalised use of the progressive, i.e. ongoingness at the time of speech, as the observer’s here-and-now. In answering the task question “what is happening”, the temporal viewing point is given by the deictic now of the speaker. Selection of the aspeccal distinction, i.e. event is ongoing, and deciding what is actually ongoing at the time of speech, may lead to a segmentation of the event into one of its sub-phases: inchoative, intermediate, or end phase (von Stutterheim et al., 2012a, p. 839).

In this project, the properties change in state, and change in place are combined contrastively with a set of other situational properties, as shown in (3). It is hypothesised, in line with the model that progressive constructions with a non-obligatory status are subject to constraints relating to the properties of situations (Behrens et al., 2013, p. 97). Thus, a contrastive comparison is conducted on the following properties as shown in (3):

(3)
1. change in state: effected vs. affected objects; high dynamicity
2. change in state: homogeneity vs. heterogeneity; high dynamicity
3. change in state: transformation on a high vs. low dynamicity
4. change in place: motion events with vs. without endpoints

Activities represented by 2-state verbs are classified as causatives and involve an explicit change in state. They are telic. The change in state leads to a resultant state as in Someone is knitting a scarf, Someone is folding a paper plane, Someone is decorating a cake, and A candle is burning. Each situation has a point of time when the event has reached an endpoint inherently. In contrast, there is generally no inherent endpoint in change in place events, i.e. motion events, as in Someone is going to the park but an adjunct can denote the goal as potentially reached. Speakers of languages with grammaticalised aspect may encode the events merely as ongoing on the basis of the here-and-now context, not focusing on the endpoint. The change-in-state / place features allow to test for a hypothetical order for use of the progressive to see if the concept of progression is grammaticalised in a language; situations that embed actual progressive change may trigger use of forms encoding events as in progress or merely ongoing (Behrens et al., 2013, p. 99).

The change in state property is referred to as the progressive component. This is inherent in the situation described and in the construction used to describe it. The high attractor factor of this property lies in the establishment of the event as being in progression given the measurable distinct contrast
between each stage in the process of, for example, knitting a scarf and the eventual resultant state in the created entity, the scarf (ibid. 110).

Next, the situation types with the features of change in state are explained.

2.9.1.1 Causatives and non-agentive activities

The situation types relevant to change in state are as follows: causative situations, which denote an inherent change in state, are classified on the basis of the change-in-state feature prevalent in the situation (i.e. effected or affected objects), in addition to high or low dynamicity of the transformation involved, respectively. These four features of situations exhibiting change in state are accommodated in two situation types, Type 1 and Type 2, as shown in Figure 2.11, adapted from Natale (2009).

<table>
<thead>
<tr>
<th>Situation type</th>
<th>Type 1. Causatives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Process leading to a qualitative change of an entity with high dynamicity / 2-state situation</td>
</tr>
<tr>
<td></td>
<td>- <strong>high dynamic creation</strong> of an object, e.g. <em>to knit a scarf</em> (scarf as the <strong>effected</strong> object of the homogeneous event), <em>to fold a paper plane</em> (paper plane as the <strong>effect-ed</strong> object of the heterogeneous event)</td>
</tr>
<tr>
<td></td>
<td>- <strong>high dynamic transformation</strong> of an existing object, e.g. <em>to decorate a cake, to peel a potato</em> (cake and potato as <strong>affected</strong> objects)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type 2. Non-agentive activities</th>
<th>Process leading to a qualitative change of an entity with low dynamicity / 2-state situation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- <strong>low dynamic transformation</strong> of an existing object, e.g. <em>A candle is burning</em></td>
</tr>
</tbody>
</table>

Figure 2.11. Change in state situations

Figure 2.11 presents the main details of Type 1, i.e. causatives with two sub-types, and Type 2, non-agentive activities. Both situation types involve an inherent qualitative change in state.

Causatives with effected objects depict situations showing homogeneity in the progression towards the qualitative change of an entity as in *She is knitting a scarf*. Also, situations that show tangible change in state of the effected object represented by heterogeneous sub-events as in *He is folding a paper plane* indicate that the situation in question has the progressive component. This is measured by the progression in distinct stages until the creation of the entity. Thus, along with the shared feature of high dynamicity, causative events with effected entities are compared among themselves for the sub-events involved: homogeneous events such as *knitting a scarf* have one kind of sub-event that is continuously repeated in the movement of the
hands, i.e. the first sub-type of Type 1, and heterogeneous events such as folding a paper plane have different steps in the sub-events leading to the creation of the entity, i.e. the second sub-type of Type 1. Such sub-events of causatives with affected objects are less relevant for comparison as the attractor effect is highly strong in the context of the effected objects.

Comprising, similarly, situations with a change in state with high dynamicity, Type 1 also depicts situations leading to a transformation of the entity as in decorating a cake, where the object is merely affected by the transformation. Since the progressive change in state with high dynamicity is a strong attractor effect, these causatives with affected objects are contrasted with the causatives with effected objects for the progressive component. Taken together, the underlying features in causatives exhibiting a change in state with high dynamicity of transformation are twofold: object entities (created or transformed) and the type of sub-events of the object entity creation (homo- or heterogeneous).

The aspectual perspective in event descriptions in different languages shows the following order of attractor effect for homo- and heterogeneous sub-events: while use of the aspectual perspective is very low, 3%, in German, Dutch shows higher preference with homogeneous, 63%, than heterogeneous events, 22% (von Stutterheim et al., 2009).

For the purposes of this study, Type 2 causatives are re-named as non-agentive activities (cf. Figure 2.11). They are situations formed by 2-state events with low dynamicity of transformation. Low dynamicity is attested in situations where the transformation takes place after a considerable time interval leading eventually to extinction of the entity as in A candle is burning or the activity comes to an end on its own as in A washing machine is washing clothes. These are the endpoints of the situations even though the time point is not visualised in the stimuli. The situations depict non-agentive activities in which the process lacks any readily tangible change in state. Figure 2.12, adapted from Flecken (2011, p. 491) is an overview of situation types presenting a hypothetical order for the use of the progressive.

<table>
<thead>
<tr>
<th>Motion events: entity underway, endpoint evidently mentioned</th>
<th>Motion events: entity underway, endpoint not mentioned</th>
<th>Predicates expressing activities, change in state, low dynamicity</th>
<th>Predicates expressing causatives, change in state, high dynamicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicates expressing activities, change in state, low dynamicity</td>
<td>Non-agentive activities</td>
<td>Causatives</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2.12. Situation types in a hypothetical order for use of the progressive
Figure 2.12 shows the hypothetical order for the use of the progressive along with the low/high attractor effects. Motion events are included in the figure but are discussed in section 2.9.1.2. There they are presented in Figure 2.13. Causatives and motion events have endpoints in the features change in state and change in place. Agentive activities such as run are excluded from the project. They prototypically take the progressive which encodes the activity as merely ongoing due to a high level of continuity when no possible endpoint is explicit.

This section presented that situation types such as causatives may convey the event as in progression on the basis of their feature change in state towards an inherent endpoint or resultant state. The next section presents motion events and the features involved.

### 2.9.1.2 Motion events

Activities classified as motion events not only grant a glimpse at event construal and the underlying cognitive processes in their conceptualisation but also indicate the degree of the use of the progressive, as compared to causatives, because the concept of a motion event involves, firstly, the notion that an event is merely ongoing in the sense that initial and final temporal boundaries are defocused. Drawing on Bybee et al. (1994), they are the prototypical event type to take the progressive marker in languages that provide it grammatically. Secondly, motion events may eventually lead to the mention of an endpoint if it is perceivable. Thirdly, they allow speaker choices on a possible segmentation into inchoative, intermediate or end phases of the relevant event, which is when the use of the progressive is enhanced.

Such segmentation is grounded in grammaticalised aspect and is attested in the languages with the feature. This event conceptualisation reflecting the speaker focusing attention on a phase of an event leading to the choice to use the progressive is termed phasal decomposition (von Stutterheim et al., 2012a, p. 858, 2003, p. 112; von Stutterheim & Nüse, 2003, pp. 865, 878 fn. 9). There are two strategies of taking a view on a relevant event. One is phasal decomposition which focuses a phase of an event, evident in the use of the progressive in English. The other is a holistic view on an event, as seen in German lacking the progressive (cf. von Stutterheim et al., 2009, p. 208). These strategies/perspectives are possible in short single event descriptions and long narratives. In the single motion event descriptions, this model focuses on the investigation of the correlation between boundedness and the progressive. Phasal decomposition, involving the use of the progressive and begin/start, is examined in narratives (see section 4.3.6).

Generally, different speaker choices may depend on a variety of factors such as which phase is being focused in the video clip; some of the clips show the motion event as reaching the endpoint, while others do not. Notably, these properties of motion events lead to differing speaker decisions due
to inference which is enhanced especially when the goal is not explicitly presented as reached. Also, speaker choices may depend on what kind of aspectual structure the language has, and to what degree the progressive has grammaticalised (cf. von Stutterheim et al., 2009, p. 196).

Further, languages may vary in the way bounded versus unbounded events are constructed. These differences may also indicate language specificity if the relevant cross-linguistic frequencies differ. To exemplify, assertions about motion events with 1-state verbs are unbounded in English. When appearing along with an adjunct denoting an explicit endpoint, they are bounded by the potential goal as in *A lady is going to the market*. Motion events with 2-state verbs are inherently bounded, though there are not many of them in English (cf. section 2.8.2). Thus, languages may differ in verb formation leading to more uses of either 1-state or 2-state verbs.

Ultimately, the classification of activities into different situation types adopted in the studies on single events within the model provides the set of situations in which a hypothetical order of strength in attracting use of an evolving progressive marker in language is represented, as discussed in Flecken (2011, p. 488); prototypically, the speaker’s here-and-now is the most favourable context of its use, though averted by statives. Unlike change in state events, to which segmentation does not apply, use of the progressive with motion events in telling “what is happening” means that the event can be viewed as merely ongoing and segmented to focus the intermediate phase. Different features underlying motion events are presented in Figure 2.13.

<table>
<thead>
<tr>
<th>Situation type</th>
<th>Motion events</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Process involving a change in place / 1-state situation with optional endpoint, the endpoint can be inferred as reached</td>
<td><em>e.g. to walk towards a house</em></td>
</tr>
<tr>
<td>-Process involving a change in place / 1-state situation with reached endpoints</td>
<td><em>e.g. to go into the supermarket, to drive into a garage</em></td>
</tr>
</tbody>
</table>

Figure 2.13. *Motion events and their underlying features*

Motion events do not inherently have any endpoint with the exception of a few verbs such as *arrive, enter, and reach* (cf. section 2.8.2). The speaker can choose to mention the endpoint in the context of ordinary motion events if it is inferred as reached. Inferences about events as bounded are encoded in the endpoint or they are encoded as unbounded when no inferences are made (von Stutterheim, 2003, p. 191). The two features provide an appropriate testing ground for speaker preferences in verbalisation emerging from conceptualisation. Motion events that can lead to inferences about the goal
are referred to as *critical* items in this study. In contrast, motion events explicitly showing the endpoint, which the speaker is prone to mention, are *control items*. Notice that motion events are investigated independently from causatives. Causatives have their own set of critical and control items; causatives with effected and affected objects involve a strong attractor for the use of the progressive in the explicit measurable stages of the progression to an end state. This attractor is much weaker in non-agentive activities, i.e. the control items, as in *A candle is burning* because the endpoint of the burning out of the candle is not perceived as close.

Apart from the endpoint inferences, a significant point for the analysis of the project data is the phasal reading of the progressive verb form, as discussed in section 2.6.8. The progressive characteristically encodes that an event has not reached an endpoint as it denotes the intermediate phase of the event defocusing the boundaries. Thus, assertions with the progressive aspect are unbounded by default and the endpoint is only potentially reached even if it is inherently or overtly given as in *He is entering the house* and *The sand man is falling down*, respectively. To put differently, use of the progressive may focus on the intermediate phase but does not exclude mention of endpoints (von Stutterheim et al., 2009, p. 206).

In compliance with conceptual phasal segmentation, phasal decomposition denotes, then, the practical use of the progressive form to represent linguistically such conceptualisation of a situation. This allows one to test if speakers of aspect languages are more likely to segment the event into phases. Linguistic representation of phasal segmentation in conceptualisation is sufficient if reference is made only to one phase, the intermediate phase of an event as in *A woman is going across the parking space*. Mention of endpoint is merely another option as in *A woman is going across the parking space towards her car*, where the car is the possible endpoint. In the clips on motion events, mention of the possible endpoint is at issue, as they are never reached (Mary Carroll, personal communication). For this reason, all the different kinds of endpoints count in the linguistic analysis, such as those that are intended, such as the preposition *towards*, or explicit endpoint as in *to a car*.

Notably relevant for the analysis of single events in Experiment 1 is the fact that the endpoint need not be explicitly marked as being reached but the mention of the eventual or intended goal suffices such as in the use of the preposition *towards* as in *Two ladies are going towards a house*. In contrast, in Experiment 2 on re-narrations, the endpoint has to be explicitly marked (cf. section 2.8.2). Thus, intended endpoints do not count. To illustrate, the preposition *around* renders a proposition bounded if it can be interpreted as bounded, as in *He looks around*. The context may make clear that the person

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16 Critical items are sometimes called experimental items in similar studies. This project uses the terminology of the Heidelberg–Paris model.
looked behind himself/herself. In narratives, *towards* renders an event unbounded as it defines only an intended goal as in *He runs towards the pool of water*. Recall that boundedness in main structure contributes to unfolding the story line (see section 2.9.2.4).

Reference to endpoints is language-specific because it is said to be dependent on grammaticalised aspect. To exemplify, speakers of English, as well as Arabic and Russian that have grammaticalised aspect and have been investigated within the Heidelberg–Paris model tend not to encode the endpoint (von Stutterheim et al. 2012a). In relating to this phase they are, simply, telling “what is happening”. In this sense it is not accurate to conceive that speakers of aspect languages such as English, Arabic or Russian do not mention endpoints, generally. It depends on the phase of the event they are referring to. Due to the grammaticalised aspect, the rate of the explicit reference to endpoints is significantly lower in what are called aspect languages than in non-aspect languages. Studies on motion events in languages include von Stutterheim et al. (2002) on English, German, and Spanish; von Stutterheim & Nüse (2003) on English, German, and Arabic; Carroll et al. (2004) on English, German, Arabic, Dutch, and Norwegian; Flecken (2010) on Dutch and German; Bylund (2009, 2011) and Bylund & Jarvis (2011) on Spanish and Swedish, and von Stutterheim et al. (2012a) on English, German, Arabic, Czech, Dutch, Russian, and Spanish.

Last but not least, the experiment on single events (see section 3.1) tests the use of the progressive in languages that have optional progressive construction. In a language such as English, only the progressive can be used to refer to events that are ongoing at the time of speech (von Stutterheim et al., 2009). As other forms for the contexts of ongoingsness are not possible, the results do not show any variation. Since no pattern of variation emerges in English, the experiment on the single events is particularly relevant for languages with only emerging grammaticalised aspect as in Dutch. Particularly interesting is to investigate variation in the expressions of ongoingsness in a system such as Persian in which the *dāštan*-progressive is fully grammaticalised and the imperfective bare *mi*-form expresses ongoingsness.

Taken together, sections 2.9.1.1 and 2.9.1.2 on single events presented that situation types such as causatives may convey the event as in progression on the basis of their feature change in state towards an inherent endpoint or resultant state. However, there are differences in dynamicity of the events leading to differences in the use of the progressive. Linguistic representations of motion events mirror the speaker’s possible focus on the intermediate or end phases of an event in segmenting them. Eventually, the different situation types building on the features change in state and change in place presents a hypothetical order for the use of the progressive construction in languages with aspectual verb forms.
2.9.1.3 Findings from earlier studies

Elicitations based on the different types of causative events have produced different degrees of use of aspectual forms in languages where the progressive is not obligatory. Flecken (2011, p. 490, 507) found in a study on Dutch that the *aan het*-construction shows high sensitivity to situations with change in state with high dynamicity (56% of the cases in here-and-now contexts), while agentive activity situations with ‘no change in state’ are close behind.

Generally, Dutch shows clearly higher percentages than Norwegian and German for causatives with change in state with high dynamicity, as compared to those with change in state with low dynamicity and motion events (Behrens et al., 2013, p. 116). The findings for Dutch pattern with those for French and Italian showing that the overall occurrence of aspectual forms is higher for change-in-state situations than for agentive activities (ibid. p. 118). The findings provide empirical evidence for the relevant constructions having the progressive component at the current stage of their grammaticalisation in the languages.

However, with respect to motion events, Dutch and Italian in which use of an aspectual form is optional show significantly lower frequencies, or zero as in French. Among them, Dutch admits the progressive construction, to some extent, with motion events though only without endpoints.

Flecken (2010, p. 171) explains these differences, which are not observable in systems such as English, in the use of the progressive construction in Dutch as follows: the *aan het*-construction in Dutch exhibits both features of event being ‘ongoing’ and ‘in progression’ in the sense that it is confined to the expression ‘event is ongoing’ with motion events showing a change in place defocusing the endpoint.

With relevance to the findings presented by Flecken (ibid.), the progressive construction in Dutch, which is now only emerging with motion events involving an endpoint, can tentatively be defined as Stage-1 progressive (cf. section 2.6.1) for a comparison of grammaticalisation of the *dāštān*-progressive in Persian.

Relating these results to the languages with grammaticalised progressives included in the present project, significant differences in the use of the progressive in the L1s and L2 and the related features would speak about linguistic relativity in spite of the shared progressive. In case of no significant differences, the similarities can be ascribed to the shared progressive.

2.9.2 Temporal frame of reference

The following sub-section outlines the characteristic features of the temporal frames of reference as found in English and German. The overall temporal structure in a narrative embeds different kinds of temporal relations necessary to unfold the relevant sequence of events. Particular stretches of such
discourse also mirror the characteristic features of the aspectual system in the language in question, referred to as temporal frame of reference (cf. section 2.8.1.4). The Heidelberg–Paris model builds on the investigation of the languages involving the typological contrast of the so-called aspect and non-aspect systems. This project looks at the possible similarities/differences between English and Persian, both with the progressive aspect.

The concept of time underlying the re-narrated events in relation to the time of retelling is depicted in the next sub-section.

2.9.2.1 Time concept in re-narrations

This section presents an overview of the time concepts in retellings of events. Some differences are pointed out and a particular paradox in the concept of time is outlined.

In contrast to personal narratives, which are told in the past tense, retellings often take the present tense, despite the fact that the situations talked about do not relate to the real time of utterance, TU (cf. section 2.6.3). There are three ways for the speaker to solve the problem of embedding the TSits of the events of a video film in time (von Stutterheim et al., 2003, p. 108). First, the speaker can imagine the situation presented in the video as being over, retelling the events as if they had happened by referring to them deictically in the past tense. Second, the speaker can treat the events as fictitious presenting the chain of events and states in relation to the time the speaker is experiencing the film, the ‘experiencer’s now’. In this case the idea ‘and now I see’ dominates the re-narration. These two strategies involve zooming in on phases of situations, as in He started/starts digging a hole, as if the time window does not open on the whole situation. A third strategy, called shift-in-time, is similar to the second one in that the situations are fictitious again, and the tense is the present. However, the time window on events is very wide so that events are seen as strings of pearls, each as a self-contained unit (cf. section 2.8.1.1). The idea ‘these are the things I have seen in the film’ dominates. These three types of viewing the events while re-narrating them can be identified, firstly, from the tense used in the text, either past or present. When the present tense is used, there is an additional characteristic feature, such as now, highlighting that the speaker is relating the events as if experiencing them at the moment of the re-narration, or a feature, such as then or next, highlighting a view that each event is self-contained as in using the historical present.

In contrast to single event descriptions which are based on the underlying quaestio what is happening, in the narrative task the speaker is given the quaestio what happened. In this case the speaker has to say what happened first and what happened next. This leads to a series of events. The speaker has to make sure that the events can be understood as forming a sequence; boundedness with 2-state verbs is one possibility and boundedness with 1-state verbs plus endpoint is another (for Klein’s theory see section 2.6.3).
To elaborate contrastively on the time concept in the video retellings (von Stutterheim et al., 2003), Östen Dahl’s (personal communication) delineation of the differences in time concept between real events that the speaker is actually experiencing in the real world time while speaking, A, on the one hand, and events that the speaker has seen or heard and re-narrates them, B, on the other hand, is useful.

There are further distinctions under B, i.e. events separate from “real” time:

(i) real events that you have experienced at an earlier point in time
(ii) real events that someone else has told you about
(iii) fictional or enacted events that you are witnessing as you speak (e.g. a video)
(iv) fictional or enacted events that you have (a) seen on a video or (b) read about earlier

Dahl points out a different kind of time concept involved not only in tasks such as describing single events and retelling video films for research projects but also other retellings of movies, animated films, fairy tales, jokes, and anecdotes. These involve temporal matters the speaker has to tackle with in embedding events in time. According to Östen Dahl (personal communication), the time concept involved in speaking about events that the speaker is experiencing at the very moment of speaking differs from the concept of time in retelling previously seen events. Firstly, it is the real time in the real world, and the event talked about has not yet come to its endpoint but is ongoing in its intermediate phase. Thus, the progressive verb form is used, typically. If the endpoint is mentioned, it is merely potential. In re-narrating earlier events, the speaker may choose to retell them either in the present or past.

Secondly, in re-narrating previously seen events, the speaker is talking about another time, and it may not be the real world, either. Even though the present tense can be used, there is no connection to the real time. Often it is not possible to point out what the time in them is. Such retellings have their own internal temporal structure in the plot, which takes place in a fictional world. Both the time structure in the plot and the time of the fictional world are detached from the real time. Although use of words such as yesterday connects the re-narration to the real time to some extent, they keep their internal temporal structure intact and distinct from the real time; the detached temporal structure is in a sense more essential in re-narrations than their relationship to reality. Events seen a short while ago can be conceived as somewhat less detached from the real time than events seen a long while ago, yet both have their own internal temporal structure of a discourse.

Since re-narrations are events that the speaker has previously seen or heard, the events in them are, in fact, over at the situation of the re-narration. Strictly speaking, since the events are taking place in a fictional world you
cannot say that they are “over”. It may be more natural to use the past tense during a re-narration. Moreover, it is possible to re-narrate previously seen events in their intermediate phase conveying them in the progressive form, or alternatively the historical present.

Apart from the differences between the time concept in retelling events that are experienced at the time of speaking or events seen previously in movies or heard in jokes, there is a conflict, a paradox, involved in the fact that the speaker as a spectator of the events creates a sense of being in the film and seeing the events. The conflict is between the speaker being in the real world and the events taking place in some other, narrated world and a strong sense of the speaker being part of those events. Relating this discussion to the single event descriptions and re-narrations of a video film in the present model, the time concept conflict is present for all informants in both experiments. Thus, the present tense used in the tasks is identified as a common ground in examining the differences in event conceptualisation.

2.9.2.2 Shift-in-time pattern of temporal reference in German

The re-narrations employed in the present model test how speakers of languages proceed in discourse production in languages either with or without grammaticalised aspectual forms when having to talk about a series of events. The speaker’s task in telling “what happened” is to observe the rules of coherence (cf. section 2.8.1.3), yet languages tend to show different temporal frames of reference, presented as being dependent on the grammaticalised aspect. In contrast, in the studies on single events (cf. section 2.9.1), speakers are asked to describe the relevant context-free events to test to what extent the aspectual form provided by the language at issue is used.

Given this nature of narratives, there emerge two main patterns of temporal reference in conceptualising segmented event units for expression, which are not independent of the language-specific typology (Carroll & von Stutterheim, 2003, pp. 382–385; Carroll et al., 2004; Klein, 1994; von Stutterheim et al., 2002, pp. 192–193; von Stutterheim et al., 2003, p. 114; von Stutterheim & Nüse, 2003, pp. 867–868). One pattern is termed the temporal reference point for a shift-in-time relation, the other is referred to as the TT-linked, i.e. Topic time, frame of reference. The former pattern, which is straightforward and relates to the typology as found in German, typically involves initially, i.e. at the beginning of the relevant episode, the introduction of the starting point of the following sequence of events marked deictically by sentences such as ‘the film begins…’, or ‘in the first episode there is…’ (for the use of present tense, see section 2.9.2.1). As indicated by Klein (1994), the temporal progress of a sequence of events, which refers to the way the TT of events unfolds, is linked in it on the basis of temporal relation ‘event y after event x’, which is established by linking the current topic time to the previous time of event, which is reformulated as ‘event x, then event y’ (Carroll et al., 2004, pp. 192–193; von Stutterheim & Carroll, 2006, p.
The bounded event creates a post time, a new TT-interval, often encoded by temporal shifter dann ‘then’ in German (von Stutterheim, 2003, p. 188). (4) below is from Carroll & Lambert (2006, p. 60) and illustrates the chain of events thus created:

(4)
1. wacht dann so langsam auf  
   ‘and wakes then slowly up’
2. und schaut sich um  
   ‘and looks around’
3. und sieht dann die Flasche vor sich liegen  
   ‘and sees then the bottle lying in front of him’
4. nimmt die Flasche  
   ‘takes the bottle’
5. und guckt  
   ‘and looks’
6. ob da Wasser drin ist  
   ‘if there is water in it’
7. dann steht er so langsam auf  
   ‘then he gets slowly up’
8. und kniet so  
   ‘and kneels down’
9. und guckt sich um  
   ‘and looks around’
10. und dann donnert es plötzlich  
    ‘and then there is suddenly thunder’

This means that a specific type of temporal perspective is employed in the narrative where events are presented in a strict sequence of completed events and, thus, viewed holistically as their end boundaries are made explicit in the form of the goal or result of the action. In such a temporal sequence, the time of situation of the preceding event functions as a reference interval for a shift-in-time relation, depicting the way the TT of events makes a sequence in a language such as German. Importantly, the shift-in-time relation is dependent on the boundedness of the preceding event in advancing the story line (von Stutterheim, 1991, p. 390). The speaker has to make sure that the events can be understood as forming a sequence for the story to unfold. To this end, boundedness based on 2-state verbs is one option, and 1-state verbs plus an endpoint adjunct is another.

This temporal referencing applies to the whole chain of events, thus termed ‘event-based’ perspective (Carroll et al., 2004, p. 193; von Stutterheim & Lambert, 2005, p. 212). As the perspective presents the event line from the inside, as if the speaker is a participant in the described events, it is also called the participant’s perspective. Further, although rare, comments
from the speaker’s point of view or switches to the observer’s perspective label it as the protagonist’s perspective, which is evident in the events typically describing what the protagonist does (Carroll & von Stutterheim, 2003, p. 389). Taken from Carroll & von Stutterheim (2003, pp. 382–383), (5) shows the core event–time relation.

(5)
Shift of topic time:
(x) then he walks up to the wet spot TSitx in TTx
(y) and then he takes a piece of rock TSity in TTy and TTy after TSitx
(z) and then he makes a hole in the ground TSitz in TTz and TTz after TSity

In this type of event sequencing, boundedness in terms of the perfective is employed to constitute the foreground information in the narrative. Narratives are based on the question what happened which leads the speaker to relate what happened first and what happened next producing a series of events of mainly completed events:

tell what happened first (event completed)
what happened next (event completed)

In such a sequence of events each event occupies a separate temporal slot as the first event marked as completed makes way for next interval on the story line, occupied by second event marked as completed, which, again, leads to the next interval. To illustrate the cross-linguistic differences found in event boundedness, von Stutterheim & Lambert (2005, p. 213) present the difference there is between bounded versus unbounded events in re-narrations of a video film between L1 German and English

17

Table 2.1. Proportion of different types of propositions in L1 English and German

<table>
<thead>
<tr>
<th>Propositions</th>
<th>L1 English</th>
<th>L1 German</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bounded</td>
<td>27.4 %</td>
<td>51.4 %</td>
</tr>
<tr>
<td>Unbounded</td>
<td>44.7 %</td>
<td>20.2 %</td>
</tr>
<tr>
<td>Inchoative aspect</td>
<td>5.8 %</td>
<td>1.7 %</td>
</tr>
<tr>
<td>Non-events, i.e. states</td>
<td>22.1 %</td>
<td>26.7 %</td>
</tr>
</tbody>
</table>

17 The percentages given here only illustrate the existing relative cross-linguistic differences in boundedness in narratives. Since it is not clear in von Stutterheim & Lambert (2005, p. 222) whether the English data either involves a particular pattern of temporal reference or all the three different patterns of temporal reference relevant to English are included, the results from their study are taken to show merely an overall tendency.
Table 2.1 shows the global perspective on situations in L1 English and German narratives in terms of frequencies for the bounded and unbounded events, and the use of inchoative begin/start. Cross-linguistically, English has a rich repertoire of phasal verbs such as start, keep on, to get to. However, in German very little phasal decomposition occurs because speakers relate to the event as a whole.

German speakers describe events holistically in presenting them as bounded with an endpoint. Typically, complex dynamic situations are segmented into sets of events forming a sequence where the temporal relation ‘event x, then event y’ is established by linking the topic time to the previous time of situation. The perspective German speakers take reflects how their conception of a reportable event differs in comparison to English speakers. In German, the absence of aspectual features correlates with high frequency of endpoints.

There is a point to note; presumably what is here called the German and the English way of expressing things means the way used by majorities of informants and there were minorities of informants in English who use different strategies, as shown in sections 2.9.2.3 and 2.9.2.4. Since the Heidelberg–Paris model tends not to use statistical tests, it is impossible to know how strong the evidence is that these are really different strategies. Although the difference looks convincing, there are no statistical tests and no standard deviations or even averages so we do not know whether the difference in total reflects differences in individuals.

Next, the patterns of temporal frame of reference in English are presented.

2.9.2.3  Now you see pattern of temporal reference in English

The pattern of temporal reference, termed the now you see pattern, in English is illustrated in (6). As the point of reference, the deictic origo now is globally established as default TT, Topic time. In this pattern the progressive is used. The words now or now you see occur somewhere in the re-narration, though not necessarily often. The ongoing events are hooked up as a succession of ‘nows’ that move the story line (Carroll & Lambert, 2006, p. 58). (6) is taken from Carroll & von Stutterheim (2003, p. 384) to show the pattern.

(6)

a) he starts trying to scoop the water up  TT (point in time) = now  TT overlaps TSit
b) but the water is being absorbed into the surface  TT maintained  TT includes TSit
c) and he cannot get any water from that  TT maintained  TT includes TSit

Switch to simple tense
d) so he sits there  TT (interval) = TSit  TSit includes TT
e) and looks up  TT maintained  TSit includes TT
f) to where he thinks they are  TT maintained  TSit includes TT
g) but there’s no more drips  TT maintained  TSit includes TT
h) they have stopped dripping  TT (point in time) = now  TT after TSit
(6) shows a more complex structure in the pattern of temporal reference in English than in German in (4) in section 2.9.2.2. Interdependently, the Progressive in English and the absence of the German-like shift-in-time relation as a core organising principle allow systematic integration of events that are conceptualised by the speaker as ongoing phases of an event with no right boundary. The now you see pattern in English has no distinctly delimited time intervals as in German (Carroll & Lambert, 2006, p. 59).

In this pattern in which the progressive is integrated, the TT of the very first utterance is introduced as the deictic origo, i.e. the time of experiencing the film which is the observer’s here-and-now, to anchor initially the overall structure of the narration in time at the point now by default. Moreover, the external anchor is explicitly expressed by “you” in now you see. It conveys the deictic situation that “it is now the case that x is happening”. Then, a particular frame is formed as the time of situation of the following unbounded utterances is hooked up to this deictic TT, and the same TT, now, is maintained through the following chunk of ongoing events as in a–c in (7) (Carroll & Lambert, 2006, pp. 57–58; Carroll & von Stutterheim, 2003, pp. 385).

Unlike in the pattern in German, the exact temporal relations between the TSits of the ongoing events are not made clear and have to be inferred. Such events relate explicitly to surrounding circumstances, i.e. side structure. In the German pattern, an accurate description of what happened first, what happened next (von Stutterheim & Lambert, 2005, p. 211) is explicit.

In this phasal deictic perspective, the utterances are temporally unbounded as the progressive form cannot encode completion of events. Instead, the temporally unbounded ongoing situation, particularly, functions as the TT-interval for the following sequence of events. Thus, the time interval of event b embeds the TSit of the events d–g in (6).

The way how the TT of the events unfolds in temporal terms in English differs from that in German. While the story line in German narratives unfolds on the basis of bounded events in a series of ‘event x, then event y’ English uses the contrast between the progressive and simple forms, i.e. ongoing and holistic situations (Carroll & Lambert, 2006, pp. 57–58). The events d–g can be interpreted as holistic as they are not explicitly marked as ongoing. They are situated in the time-interval of the situation “water is being absorbed into the surface” and in the stated order d–g (Carroll & von Stutterheim, 2003, p. 384). Causal links such as so indicate a link between the frame of ongoing events and the associated holistic events such that “there is circumstance x : so this leads to y”.

The next example presents, again, the now you see pattern. It illustrates the role of states in the narrative discourse. A state, notably, functions as a transition between the progressive and the simple forms of the narration, as in line 2 in (7) from Carroll & Lambert (2006, pp. 57–58).
Like states, the narrator as the deictic anchor (see line 2 in (8)), functions to facilitate transition of ongoing events into the event sequence with simple forms.

There are said to be two types of temporal frames of reference in English. They are characterised by the expressions now you see and then you see. The latter is presented in section 2.9.2.4. The common thing is that both patterns are hooked up to the external anchor, the deictic, temporal origo.

The next example illustrates how the external deictic anchor mediates a transition between a simple and a progressive form in the narrative sequence in (8), adapted from (Carroll et al., 2008b, p. 166).

(8)
1. a pile of stones pushes him up out of the ground
2. and you see him looking around
3. while he is going high up into the air

By way of a deictic anchor, or a state, the overall events form a sequence. In (8), the external anchor in line 2 mediates a possible ongoing event such as sentence 3. Unmediated sequences with bounded events immediately followed by an ongoing event are not licensed; the switch has to be mediated.

Unlike in German, the event construal in the phasal deictic perspective does not require the specific temporally bounded property. In English, bounded and unbounded situations can be hooked up to the temporal origo. This means that the speaker adjusts the specific type of situation in its relation to the deictic temporal anchor by means of phasal decomposition (von Stutterheim et al., 2003, p. 112). Especially, as the precise term of TSit is neither a single interval nor a point but a temporal structure, it may then involve a number of subintervals. Thus, a high level of aspectual markings such as inchoative phases with start and ongoing phases with the progressive, making particular time spans or subintervals perceivable, express the flow of events in relation to the origo, i.e. the viewing point. This pattern makes possible the use of bounded and unbounded situations as the story line does not unfold fundamentally on the basis of the bounded events, unlike in German.
2.9.2.4 Then you see pattern of temporal reference in English

The pattern of temporal reference found in English has a second option. The two patterns found in narratives in English are similar in that both have the point of reference linked to an external anchor ‘you’, which in this pattern is in the form *then you see*. The patterns are different in the way that here the progressive is not used in English, and *then* is not used in the same functions as that in German. This pattern is sequentially more explicit than the *now you see* pattern. Characteristically, the dynamic situations that the speaker perceives are segmented and ordered into a chronological chain governed by *then you see* as illustrated in (9) from Carroll & Lambert (2006, pp. 58–59).

(9)

01 and *you see* a form in the sand
02 and there’s a bottle lying near to the form
03 and *then you see* an eye
04 an eye opens
05 and *then* a figure stands up
06 and *you realise*
07 it’s some sort of animal or person
08 he reaches out (...) for a bottle
09 that’s lying near to him
10 and lifts up the bottle
11 and tries to get something out of it (...)
12 and *then you hear* the sound of water dripping / one drop
13 and the figure tries to find the drop
14 and *then* as the figure starts to dig
15 the sand starts to flow downwards

Unlike in German, the English system of temporal ordering builds on relations defined across the left boundary, in contrast to the right boundary marked by bounded events in German (Carroll & Lambert, 2006, p. 59). To exemplify, a sequence of two events marked by *then*, as in *you see a form in the sand and then you see an eye*, does not require bounded events but the precedence of the event *you see a form* is determined with respect to when this event started, i.e. its left boundary. Thus, the form *then* as used in the pattern in English is compatible with unbounded utterances as well because it does not relate to the right boundary of the preceding event (ibid.).

As the left boundary of the event *you see a form* is earlier on the time line and can be unbounded, it may still be taking place when the next event starts. Such focus on the left boundary allows the point of reference to be reinstated when necessary in the narrative. To put differently, the bounded/unbounded events play a different role in English and German. The temporal right boundary of the bounded event can be used as a reference point.
for a shift-in-time relation in German. In contrast, if an event is temporally open with respect to its right boundary, it functions as a reference frame, implying the relation of maintenance for the following utterance in English (von Stutterheim, 1991, p. 390).

According to Carroll & Lambert (2006, p. 59), the principle of the use of *then* in film retellings in L1 English leads to a rather even pattern across the preceding events being either bounded or unbounded, as shown in Table 2.2:

<table>
<thead>
<tr>
<th></th>
<th>L1 English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bounded</td>
<td>53.7%</td>
</tr>
<tr>
<td>Unbounded</td>
<td>46.3%</td>
</tr>
</tbody>
</table>

The difference between the pattern in English and German, presented in section 2.9.2.2, is that the evenness between the bounded and unbounded events in English is a considerable difference in German as *then* is in mostly preceded by a bounded event (von Stutterheim & Lambert, 2005, p. 215).

Among L1 English speakers, all three patterns of temporal frame of reference described above are possible, overall. Illustrating the extent to which these speakers use the different patterns, Carroll gives the following frequencies: 14 out of 20 narratives employ the ‘*then you see*’ frame, 4 out of 20 narratives conform to the *now you see* frame, and 2 out of 20 narratives present the events as completed as is typical of L1 German speakers. However, the differences here involve differences in frequency, and they are not categorical. This means that since the speaker preferences are interpreted from the results in percentages for a whole speaker group rather than individual speakers, solid results taking into consideration individual variation in use from large speaker groups are necessary. In this project the numbers for each individual are subjected to statistical tests.

The *now you see* frame in English clearly exhibits use of the progressive in phasal decomposition. In contrast, when the simple present is predominant in the *then you see* frame in English, phasal decomposition is confined to contexts with the inchoative *start/begin* (for the present participles in English see section 2.8.2, for their status in Persian see section 4.3.1).

### 2.9.3 Parameters selected for the analysis of the cognitive processes

This section presents the different parameters selected for analysis to indicate possible similarities/differences in language production in English and Persian sharing the progressive, yet with differing typology. However, an important difference between the two experimental tasks used is that the speaker attends to the constituency of the event in focus in each short clip
one by one, while the speaker also has to apply the principles of coherence in narrating a series of events in a sequence (for the hypotheses in the two tasks see sections 3.2.1 and 3.2.2). The speakers are confined in these tasks to the resources available in the language. This is, then, a point of interest with respect to L1 influence on L2 and, particularly, how the Persian L2 English speakers perform; their L2 production is directed from a more to less complex formal system so the task should be relatively uncomplicated. A second point of interest relevant to L1 influence is that the internal structure of the category of the progressive in the two languages involves differences (cf. section 2.7.5) which may affect conceptualisation. The following is a description of the parameters, which are briefly re-written as points A—D in section 2.10, and again as points A—D in section 5.2.

A. Given the fact that cognitive processes correlate with the grammaticalised categories in language, *phasal decomposition*, i.e. selection for expression of the phase of the event focused in the stimuli, is taken as the primary parametric feature for the measurement of the use of the progressive verb form in language production (cf. section 2.9.1.2). Speakers of languages with the progressive as the only and obligatory form for expression of ongoingness in context-free single events, as in English, focus on the segment of the event shown in the clip. This leads to its overall use as the speaker has to state what is actually in progression. In Persian, where the *dāštan*-progressive is not the only grammaticalised structure for ongoingness (cf. section 2.7.4), the results from the single events determine the extent of its use empirically, to be compared to the Progressive in English (see sections 4.2.1 and 4.2.2).

B. A possible reference by the speaker to the end phase of an event, i.e. endpoint, takes place in *event segmentation*, relating closely to the cognitive process of the selection of event components in deciding ‘what to say’ (cf. section 2.2). This feature of segmentation of events as well as information selection as they go hand in hand, is defined in von Stutterheim et al. (2003, pp. 117–118) as relating to the degree of segmentation of events into sub-events and phases. There are two issues involved: first, the segmentation of a main event into phases of events, i.e. intermediate or end phase, by speakers of some languages; second, information selection which relates to the components the speaker chooses to use in verbalisation showing the segmentation, i.e. the endpoint, which is also part of event segmentation. Put simply, this means that a sub-event may be presented, first, as a mere phase of an event, which then demands the use of the progressive for the intermediate phase; second, use of *begin* and *start* for the inchoative phase of an event, which pertains to narratives in this study; third, the choice to mention the endpoint. In languages that do not mark the predicate for aspect, a holistic view is taken on events, often accompanied by endpoint encodings.
Phasal decomposition in A above leads to the description of the use of the Progressive in Persian with the single events to define the status of this aspect in Persian. In contrast, the task of the retelling of events seen in a video clip elicits narratives that allow us to study language use and features specific to a longer stretch of discourse. In the narrative task the speaker processes the non-linguistic stimuli into verbal, linguistic form. In structuring the non-linguistic information, which is facilitated and speeded up in language production by the grammaticalised means provided by the language, the speaker is obliged to observe the relevant underlying language-specific principles of coherence to produce language easily understandable for the listener. Thus, based on the idea that the information organisation in the verbal form represents the underlying cognitive processes in terms of the grammaticalised means (von Stutterheim et al., 2002, p. 182), the narratives serve to indicate the highly automated processes that the speaker activates during language production. Given the following set of parametric features in the narrative discourse, particular speaker preferences can be observed.

C. Narratives are composed of main structure, in which the story line unfolds, and side structure, where additional information not relevant for the story line belongs (cf. section 2.8.2). The analysis of narratives centres on the language processing features relevant to the conceptualiser (cf. section 2.2). In line with Levelt (1989) and Habel & Tappe (1999), the speaker may opt to depict a particular main event in great detail in several utterances. This relates to the macro level of the conceptualiser where the speaker’s decisions pertain to the content of the utterance, i.e. ‘what to say’. The first referential feature is granularity (section 2.2), which represents one of the cognitive processes of information selection showing cross-linguistic differences such as L1 English speakers parsing the information from the same stimulus into more units than L1 German speakers (von Stutterheim & Nüse, 2003, p. 859). This involves the comparison of bounded and unbounded events in main structure (see section 4.3.1).

D. The second parametric feature relevant to narratives is phasal decomposition (section 4.3.6). In narratives, in particular, it can incur various sub-features, i.e. focus on the inchoative, intermediate, and end phases. The speaker’s focus on these phases of a situation is brought about by the grammaticalised progressive aspect affecting perspective-taking in the conceptualiser. The relevant phases can be verbalised either by means of the progressive verb form or phasal verbs, such as begin/start. The ongoing perspective expressed by the progressive belongs basically to the side structure of the narrative, while the various perspectives conveyed by phasal verbs belong to main structure. Particularly, the inchoative perspective expressed by the phasal verbs begin and start are of interest.
This is for the reason that while speakers of non-aspect languages such as German commonly take a holistic perspective with focus on end phase of events and, therefore, focus less frequently attention on the inchoative and intermediate phases of situations, speakers of aspect languages do the contrary and may focus on phases other than the end phase. This perspective-taking is in line with the aspectual means provided by the grammar. The analysis centres on the progressive and \textit{begin/start} in narratives (see section 4.3.2).

E. The third parameter relates to cognitive process underlying the speaker’s decisions about boundedness (cf. section 2.6.9) of events and the speaker’s choice to encode endpoints as a separate endpoint component on a 1-state verb or denote it in the 2-state verb inherently. Boundedness relations in narratives conforming to \textit{shift-in-time} and \textit{now you see}, and \textit{then you see} patterns of temporal reference are observed to differ. The relevant referential feature analysed is \textit{event–time structures} involved in temporal shift. Notably, the overall presentation of the number of events includes those with a right boundary, i.e. the bounded events, as well as a left boundary which marks an initial phase, i.e. the inchoative \textit{begin/start} and \textit{try}. Thus, the overarching category in the analysis at hand is not boundedness but temporal shift on the time line, based on overall occurrences of left and right boundaries (see section 4.3.3). Important part of the discussion is relevant to the selection of event component. It treats the problem of catenatives as it may affect the way bounded and unbounded events are classified (see section 4.3.2).

F. The fourth parameter relates to boundedness of events regarding completion of events by 2-state verbs and bounded 1-state verbs, when catenatives are excluded (see section 4.3.4).

G. The fifth parameter relates to cognitive processes at the micro level of information organisation where temporal structuring (cf. section 2.9.2.2) of the content for verbalisation occurs. The speaker’s decisions relate to ‘how to present’ the information content. The use of the temporal shifter, \textit{then}, and its Persian equivalent \textit{ba:d} ‘then’, are examined, particularly with respect to whether it is preceded by bounded events, which is when it presents events holistically in the ‘\textit{event x, then event y}’ pattern found in German (Carroll et al., 2004, p. 193; Klein, 1994; von Stutterheim & Carroll, 2006, p. 42). In English, the pattern ‘\textit{then you see}’ does not require bounded events to precede the temporal shifter \textit{then}. This indicates that the temporal frames of reference are different in German and English. Unlike English speakers, German speakers tend to refer back to bounded events to advance the story line (see section 4.3.5).

Notably, two of the parameters for analysis, i.e. progressivity and boundedness, recur in the experiments on the single events and re-narrations. They mirror the cognitive processes of phasal decomposition and selection of
event components, though in different ways on the basis of the different stimuli. Considering the difference between the relevant experimental tasks in which single events depict the status of the relevant means provided by the languages and the re-narrations depict how they are used in coherent language production, the innovation adopted here is that the recurring parameters are brought together in discussing them as phasal decomposition and event boundedness.

2.10 Research questions

The present project follows the basic hypotheses put forth by the Heidelberg–Paris group but tests them in a new linguistic context. The principal hypothesis is that the grammaticalised meanings play a central role in determining the decisions speakers make in preparing content for expression (Carroll et al., 2004, pp. 184–185). Due to the progressive in common, the tested parameters are expected to show similarities. Thus, the following statement is adopted as the overall hypothesis (p. 185):

If grammaticised meanings drive the coding options selected in language use, languages which share a similar grammatical profile should exhibit similar patterns of conceptualisation when preparing content for expression.

Carroll & Lambert (2006, p. 56) emphasise the dependency relation of grammaticalised means and information structure, given the identical tasks. As both English and Persian have the grammaticalised progressive aspect, the present project formulates the overarching research questions, (RQ), building on the above hypothesis, as follows:

1. Is the role of the progressive aspect the same in L1 English, L1 Persian, and Persian L2 English, given the single events and narratives?
2. Is there any difference in event construal between L1 English, L1 Persian, and Persian L2 English, given the single events and narratives?
3. Is language production by Persian L2 English speakers conceptually-driven by their L1?

There are three aspects to each of the research questions. They are discussed in the discussion section in interpreting and elaborating on the quantitative results obtained. The following three aspects relate to the first research question, RQ1:

Firstly, the analysis of the single events in the L1 Persian data provides information about the status of the progressive aspect in Persian and how Persian L2 English speakers use it. The level of analysis is not only the
structural but also the conceptual one when considering event construals with motion events, particularly.

Secondly, the analysis of the progressive in the narratives, in turn, describes the particular features of use of the seemingly less frequent Progressive in Persian. Also, the progressive, together with *begin* and *start*, are discussed in terms of phasal decomposition.

Thirdly, equivalent information in accordance with the sub-questions below about the role of the progressive is retrieved for contrastive comparison for the three subject groups in line with the data collected:

- L1 English — (single events\(^{18}\)) and narratives
- L1 Persian — single events and narratives
- Persian L2 English — single events and narratives

The following sub-questions relevant to the first research question, RQ1, probing into the role of the progressive in language production elicited by single events and narratives from L1 English, L1 Persian, and Persian L2 English speakers are used. The quantitative analyses are presented in Tables 4.1–4.21. To begin with, answers are provided to the next sub-questions:

1. Is there a significant difference between use of the *dāštān*-progressive and bare *mi*-form in L1 Persian single events, as observed individually for each event type?

2. Is there a significant difference in the use of the progressive in L1 English
   a) between homo- and heterogeneous causatives with effected objects? (Also, in L1 Persian and Persian L2 English)
   b) between two sets of critical items, i.e. causatives with effected and affected objects? (Also, in L1 Persian and Persian L2 English)
   c) between critical and control items; i.e. causatives vs. non-agentive activities? (Also, in L1 Persian and Persian L2 English)
   d) between critical and control items of motion events? (Also, in L1 Persian and Persian L2 English)

3. Is there a significant difference, with respect to phasal decomposition, i.e. the progressive in the critical items of the motion events versus the progressive and use of *begin/start* in narratives,
   a) between L1 English and L1 Persian?
   b) between L1 English and Persian L2 English?
   c) between L1 Persian and Persian L2 English?

\(^{18}\) Data for the task on single events for L1 English were not collected as the progressive occurs up to 100% (von Stutterheim, Carroll, & Klein, 2009, p. 211).
The following three aspects relate to the second research question, RQ2. To begin with, given the two different kinds of tasks involved, i.e. single events and narratives, the tasks independently give a picture of what the event construal produced by the three speaker groups at sentence and discourse levels is like. Comparison between the two levels of analysis must, however, be cautious and not very straightforward. At sentence level, i.e. single events, the analysis of motion events concerns, particularly, event construal focusing on boundedness. At discourse level, event construal involving boundedness contributes to temporal shift in advancing the storyline in narratives.

Secondly, the core level of analysis relevant to RQ2 is the conceptual level. The parameters selected relate to processes at the macro and micro level of language production measuring the similarities and differences in information organisation dependent on the grammaticalised linguistic means.

Thirdly, to find out about possible conceptualisation differences between the subject groups, a set of parameters, relating to the two aspectual systems and patterns of conceptualisation in discourse production, appear in four areas as follows (also presented in section 5.2):

A. use of the progressive verb form in single events
B. phasal decomposition; progressive in motion events and narratives, and uses of begin/start in the main structure of narratives
C. event boundedness in single motion events (cf. section 2.9.1.2), and temporal shift in narratives relevant to boundedness (cf. sections 2.9.2.2–2.9.2.4) involving overall bounded and unbounded events (i.e. granularity) in narratives, left and right boundary
D. temporal structuring; use of the temporal adverbial then

The sub-questions relevant to the second research question, RQ2, pertaining to event construal are as follows:

4. Is there a significant difference, with respect to boundedness in terms of encoding the endpoints in motion events,
   a) between critical and control items in L1 English? (Also, in L1 Persian and Persian L2 English)
   b) in critical items between L1 English and L1 Persian?
   c) in critical items between L1 English and Persian L2 English?
   d) in critical items between L1 Persian and Persian L2 English?

5. Is there a significant difference, with respect to temporal shift in terms of overall bounded and unbounded events, on the one hand, and overall granularity in narratives, on the other hand,
   a) between L1 English and L1 Persian?
   b) between L1 English and Persian L2 English?
   c) between L1 Persian and Persian L2 English?
6. Is there a significant difference, with respect to left boundary as represented by \textit{begin/start} and \textit{try},

   a) between L1 English and L1 Persian?
   b) between L1 English and Persian L2 English?
   c) between L1 Persian and Persian L2 English?

7. Is there a significant difference in the occurrence of the bounded and unbounded events preceding the temporal adverbial \textit{then}

   a) in L1 English?
   b) in L1 Persian?
   c) in Persian L2 English?

With respect to the third research question, RQ3, firstly, the important issue at the L2 level involves the L2 speakers’ proficiency of English as this investigation centres on the advanced level of L2 English. Thus, the issue whether the Persian L2 English speakers master aspect in English is elaborated on.

Secondly, the impact of L1 Persian on L2 English concerns whether there are problems of analysis for Persian L2 English learners due to the infrequent category of the progressive, given the tasks on single events and narratives. The possible impact of the Persian \textit{dāstan}-progressive on Persian L2 English is observable from the results to sub-questions 1, 2, and 3, meaning that the role of the progressive aspect has to be considered on the basis of both the experiments used and across the three speaker groups.

Thirdly, linguistic relativity is considered by investigating the cross-linguistic context not only across L1 English and Persian but also Persian L2 English performance.
3 Method

In this chapter the different aspects of the methodology employed for the volunteer recruitment, participant selection, data collection and selection for analysis in the present project are outlined.

In line with the Heidelberg–Paris model, the conceptuo-semantic category as represented in the temporal category of the progressive aspect is taken as the tertium comparationis, the common platform, across two tasks with different stimuli and three language groups for the analysis of the underlying principles of use of the linguistic expressive device. The progressive among other things is looked at in one-sentence-long descriptions of short decontextualised single events as the stimulus at sentence level and longer stretches of re-narrations of a sequence of dynamic events using a film clip called Quest as the stimulus at discourse level. Eventually, language-specific preferences in L1 English, L1 Persian, and possible Persian influence on L2 English with respect to the progressive aspect are defined in the subsequent analysis. Section 3.1 gives a schematised presentation of the data used.

3.1 Material

Figure 3.1 shows the sequential stages of the data collection. It started with the recruitment of volunteers for the two experimental tasks of the project. Each stage of the current data collection along with the inclusion of the L1 English data from Christiane von Stutterheim, Heidelberg, Germany, depicted in Figure 3.1, is described in detail in the relevant sub-sections below.

Two sets of data were used. Study 1 on single events was based on the same set of single events as employed in the experimental test in von Stutterheim et al. (2012a, p. 864; see also section 4.2.2.2.1). The data for L1 English from Heidelberg is, simply, in the form of results from the relevant research articles concerning the uses of the progressive. They are sufficient for the L1 English speakers for Study 1 on single events as the progressive is an obligatory category in English and has to be used in all the cases to describe unrelated context-free single events. L1 English data are used to compare how far the Persian L2 English informants have acquired the progressive in L2 English. Thus, testing the usage in L1 English is not relevant.
New data from the two other subject groups, i.e. L1 Persian and Persian L2 English, completed the data for Study 1.

Study 2 on narratives was based on the re-narration of the same video film as employed in the tests in Heidelberg. L1 English data from Heidelberg comprise the major part of the L1 English narratives. The data were completed with data from a minor group of L1 English speakers. Two new subject groups were recruited, i.e. L1 Persian and Persian L2 English. Figure 3.1 is a schematised presentation of the process of data collection.

![Diagram of data collection process]

Figure 3.1. Process followed in data collection

The next section outlines the present research design.
3.1.1 Overview of the design: Experiments 1 and 2

In this section the two experiments used are discussed with a focus on the way the data from these experiments reflect both the Persian aspectual system and some of the cognitive processes in language production in the two languages involved. The results from Experiment 1 in Study 1 on single events relate, fundamentally, to the progressive aspect and the linguistic means used in progressive contexts in English and Persian, intra-linguistically. This means that the language production based on decontextualised, unrelated events serves, in the first place, as a window on the Persian aspectual system, though only within the limits of this experimental situation. This experiment, additionally, indicates the degree to which the different forms in Persian are grammaticalised in proportion to each other, given this linguistic task. The results, thus, establish the quantitative status of progressivity in the Persian aspectual system. (Across the speaker groups, the minimum and maximum lengths of the whole five episodes of the narratives are from around 50 to around 300 clauses in total.) This is necessary in order to understand the difference between progressivity in English and Persian and, further, its possible influence on Persian L2 English. The L1 influence on the L2 is established at two levels of analysis, i.e. by examining the cognitive processes in language production based on short, decontextualised single events in Experiment 1 in Study 1 and re-narrating a long sequence of events in Experiment 2 in Study 2. Henceforth, the terms Experiment 1 and Experiment 2 are used.

Thus, the language-specific status of the progressive in the two L1s and the cognitive processes behind their uses being the primary interest, performance by Persian L2 English is a secondary interest in the results from Experiment 1, i.e. to what extent the Persian L2 English learners have acquired English syntax and, particularly, the principles of use of the Progressive in English. While the unrelated single events serve as a window on the status of the Progressive in Persian, their cross-linguistic comparison illuminates the principles underlying the grammaticalised means used, which determine event construal in language, in general.

If the Persian L2 English speakers correspond to the L1 English norms, it would indicate that the underlying cognitive processes for these speakers are English like. It must not be ignored that the English progressive is a salient feature so L1-specific patterns of use in L2 English may not emerge.

Although no erroneous use of the progressive is expected from advanced Persian L2 English learners, it would be important to observe such uses as learner errors. To capture such inconsistencies, qualitative analysis complements the more basic, quantitative one. Eventually, when the status of the progressive in the three speaker groups is established in Experiment 1, the cognitive processes in language production in the two L1s are investigated in the context of Experiment 2 on narratives, particularly with respect to a set
of parameters (cf. section 2.9.3) relevant to event conceptualisation as well as possible Persian L2 English influence.

To measure the two primary issues, i.e. the status of the progressive in the two L1s and the cognitive processes behind event construal and, on these grounds, event conceptualisation in Persian L2 English, Experiment 1 on single events investigates two temporal features: reference to the intermediate and end phases of a situation. These features relate to use of the progressive verb form, on the one hand, and the marking of an event as bounded, either in terms of a created or, alternatively, transformed object of an activity, or mention of an endpoint of a motion event, on the other hand. Thus, in Experiment 1, the two temporal features are investigated in two sets of contrasts in situation types, i.e. causatives with inherent endpoints and non-agentive activities without endpoints, as well as motion events and their possible +/- endpoint preferences. This investigation is conducted first in Persian and then Persian L2 English. The observed uses of the progressive are then compared to the obligatory usage of the Progressive in English.

Taken together, Experiment 1 on single events is relevant for languages where the progressive is not the obligatory progressive verb form. Generally, the experiment adds to the description of the progressive aspect and the other formal means used in progressive contexts in the languages studied, intralinguistically. Consequently, the experiment is not relevant for a language such as English with non-optional progressive (von Stutterheim et al., 2009, p. 211). The results would not show any difference or variation as the event verbs describing single events that are ongoing at the time of speech only take the progressive form (cf. section 2.9.1.2). This is a major particularity about the Progressive in English. As the Heidelberg–Paris model does not probe into the complexities in aspect in languages, they have not explicated what it means that a language has the single form of the progressive used in focalised contexts up to 100 per cent (von Stutterheim et al., 2009, p. 211); it has a bearing on the internal structure of the progressive (cf. section 2.7.5).

Investigation into the cognitive processes behind language use in narratives in Experiment 2 is based on a set of parameters which also establish possible Persian L2 English influence when considered cross-linguistically, given the language-specific aspectual differences in the L1s. As the aspectual system in English does not provide any other option, it is expected that the advanced L2 English learners also use the progressive in their L2 English up to 100 per cent as its use about context-free situations is straightforward.

The present project differs in one important aspect from the Heidelberg–Paris studies, which typically involve the contrast of aspect and non-aspect systems in languages such as English and German. In this project both the languages examined, English and Persian, have the grammaticalised progressive aspect. On this ground, similarities in results can be expected.

Also, the issue that these languages belong to culturally different areas is strong, and this may lead to differences across the languages. Apart from
these possible similarities/differences, language systems may differ from one another in more ways than the European ones do, leading to differences.

Notably, direct comparison to the results from previous studies within the Heidelberg–Paris model is not possible as the L1 English re-narrations are analysed in this project as a whole, without making any distinction between the different temporal frames of reference such as Now you see, and Then you see, said to be characteristic of English. The rationale behind is that the kind of quantitative investigation presented here is deemed as a necessary first step of analysis because the languages involved have the same grammaticalised concept of progressivity (cf. section 4.3).

3.1.2 Process of recruitment of volunteers

Fundamentally, the data collection for the project follows two complementary principles to ensure the representativeness of the data obtained; on the one hand, use of a large number of recruits for the experimental tasks and, on the other hand, use of multiple criteria to select the most appropriate data for analysis from among the collected pool of data. The criteria for the recruitment of the informants are defined in sections 3.1.4–3.1.6 and for the selection of recordings to get valid data for analysis in Figure 3.5 in section 3.3.3. The criteria provide a set of purposeful data safeguarding the study aims.

The recruitment proceeded as follows: emails sent by the researcher were used in three rounds of, firstly, recruiting volunteers, secondly, collecting data for the three subject groups and, thirdly, asking for new recruits. All data were collected at a distance by email and informants recorded their own texts. Volunteers for Experiment 1 on single events were targeted first to initiate the analysis of the status of the progressive. Experiment 2 on narratives closely followed, with a different set of informants The email method employs the snowball sampling technique, i.e. a volunteer leads to one or more new volunteers.

To make the recruitment of a large number of volunteers possible, the dynamic method of recruitment was necessary. It helped with the difficulty with finding suitable volunteers from far distances and from among specific student groups. The dynamic fashion of the recruitment, stretching over a long period of time and overlapping with the two separate experiments, diminished some of the difficulties of this large scale data collection; students who were not willing to volunteer or did the task improperly did not affect the study negatively as is the case with large on-site data collections from big participant groups.

The data collection started from those giving their consent first. After the first mail of general introduction of the research project aim and task, the instructions for the task were sent to the participant (see Appendix B). No separate consent form was used as the students were informed of the general
aim of the project. Their continuation was taken to be informed consent. Attached to the second mail relevant to the task on the single events, there were detailed task instructions along with information about access, via a Dropbox link, to a short video provided by the Heidelberg–Paris group. With the second mail related to the task on the narratives, the relevant task instructions were, again, enclosed along with a link to the film clip and a language-background questionnaire, as described in section 3.2.4. As soon as valid data on the single event from a number of subjects were received, analysis could start. Data on the narratives were first collected as large pools of data for which a set of criteria for the selection of the data for analysis were specified (see section 3.3.3) before transcription from sound to text, glossing and translation could start.

After the recorded file and questionnaire had been received from the participants, a third mail was sent to double-check about the manner of performing the task, even though they had been asked about it in the questionnaire. In this mail, they were thanked for their participation, and assistance was requested with recruiting more volunteers targeting graduate L1 Persian speakers, and advanced learners of L2 English from among PhD and MA students.

There was no incentive for the task. The effect of an incentive was tested in a part of the data collection. An incentive of a little gift was used in order to assess its positive influence on the recruits. The effect was not obtained. It did not affect the rate of recruitment nor did it increase the recruits’ motivation to perform the task thoroughly. The incentive was offered to two groups of twenty students at two different universities. The turn-out was 4 and 6 volunteers from the groups, respectively. The inefficient incentive was abandoned. Committed volunteers were trusted to take part to serve a good cause submitting a well-performed task. Henceforth, the participants were offered advice on scholarly matters for their participation.

A record of the volunteers’ contact details in the form of email addresses allowed getting in touch with them later on. The storage of the email addresses for the purposes of the project is not in conflict with the participants’ integrity as it is fully safeguarded. Names were not asked for in the questionnaire so the participants remained fully anonymous. In the records, the data from each participant were given a numerical identity number such that the gender representation, numeral ranking, and language group membership were evident in the label for each subject: female (F) and male (M) informants were referred to by their particular ranking number, 1–15, along with the relevant language group such as F09_L1 English, i.e. female participant number 09 belonging to the L1 English group. Gender is evenly represented in each group of 30 in Experiment 2, and close to even in Experiment 1.

The data were stored in an individual folder for each subject in each language group. The participants’ email addresses were listed separately for each group. In this way, the numerical identity number created a link in the
project both to the data and the email address for further contacts. The lists of contact addresses to the participants in the relevant groups were removed from the digital data after the completion of the data collection. The data are provided for Open Access via a link (see page 6).

It turned out to be very helpful to have the chance of contact with the participants afterwards. Incomplete questionnaires could be completed, and the manner of performing the task in an off-line fashion double-checked. By way of these post-experiment inquiries via the email, the effect of practice could be controlled for (see section 3.3.2.1).

The recruitment of volunteers took place as a continuous process for three years altogether. The data collection involved difficulties of various kinds. Since the participants were pursuing their MA and PhD studies full time, they were not able to contribute to the study promptly. Kind reminder mails were sent, at convenient intervals, during the academic year and prior to the term and summer holidays. On average, each recruit was reminded about the task 5–7 times. Simultaneously, new possible volunteers were sought for. Overall, around 3000 emails were sent during the whole period of the data collection. Request mails were sent as group or individual mails while kind reminders were only sent as individual mails. In retrospect, the data collection turned out to be an overwhelmingly more time-consuming and demanding task than expected.

3.1.3 Participants

The target populations of the project are speakers of L1 English, L1 Persian, and advanced Persian L2 English. Language production by the two native speaker groups represents native language discourse. As language production by Persian L2 English learners is compared to native English, the L1 English group has the status of the control group of the study. In contrast, the language produced by the L1 Persian group is used as a benchmark to compare the language use in Persian and describe L1 Persian-related variation in the discourse produced by the Persian L2 English speakers. Thus, the two Persian groups serve as the experimental groups of the study.

The recruitment of participants and data collection for Experiment 1 on the single events was rather straightforward owing to the relatively uncomplicated task involved. It produced a set of relevant data from 30 L1 Persian speakers and another set of data from 30 Persian L2 English speakers (for criteria see Figure 3.5 in section 3.3.3). The details of the participants along with controlled variables such as age range and educational background are given in sections 3.1.4–3.1.6. The samples are homogeneous yielding valid data. L1 English data were not collected as the unrelated single events only allow the progressive.

Like in Experiment 1, two new groups were recruited for Experiment 2. The recruitment of participants and collection of data on narratives took a
long time. The task required, practically, at least one hour of the students’ study time. The demanding task of recruiting volunteers was made even more difficult by the time-consuming task. In retrospect, convincing volunteers to undertake the task in L1 Persian was as time-consuming as recruiting volunteers with advanced L2 English. Regarding L1 English data, a set of 34 items of data on the narratives were available from Heidelberg. They had been elicited on the same video clip as was made available for this project. This support from the Heidelberg–Paris group is highly appreciated as it made it possible to carry out the project.

Next, each of the sample groups is presented in turn. All recruits were given a language background questionnaire (see Appendix C) in which questions about the mother tongue, daily use of other languages, and age were asked. Also, a self-evaluation of the level of the proficiency in English, along with the city and duration of the recent university studies, field and degree were to be given. On the basis of these responses the socio-economic background of the recruits is deemed as middle-class.

3.1.4 L1 English

The L1 English-speaking participants are a group of university students from the United Kingdom and the United States. As the data set from Heidelberg had mostly female participants, and included only five male participants from the United Kingdom and another five from the United States, a small number of male L1 English-speaking participants were recruited in order to make the control group balanced for gender and home country. A number of native English-speaking PhD students and staff at the Department of English, Stockholm University, Sweden, were requested to participate. After collecting their data, the L1 English sample group was made up of two sub-groups comprising 15 participants from the United Kingdom and another 15 participants from the United States. The former sub-group has 8 male and 7 female recruits the latter has 7 male and 8 female recruits, totally 30. 24 of these are British and American participants, selected from the Heidelberg sample and 6 of them are British and American recruits from the Department of English, Stockholm University. The social background and age of these six L1 English recruits correspond to those of the Persians; university students with the age range of 23–30. Average age is 27.2. There is no exact information available about the age of the subjects in the Heidelberg studies, though they are referred to as university students in the relevant research articles.

Eventually, the data were selected for analysis according to the criteria specified for the three groups of recruits in section 3.3.3, building as closely as possible on the criteria used by the Heidelberg–Paris model.
3.1.5 L1 Persian

The first criteria for these recruits is their native language, Persian, i.e. the language spoken as their home language with the family. Local dialects that differ distinctly from the Persian language that is spoken in the major Iranian cities, such as Tehran in northern Iran, Isfahan in central Iran, or Kerman in southern Iran, are considered as too different from the general Persian. Speakers of such distant dialects are not included in the study.

An important point concerning controlling for the effect of practice (see section 3.3.2.1) is that each sample group is a self-contained cohort of informants. Thus, the L1 Persian speaker group has two cohorts; one for single events, another for re-narrations. There is no overlap in terms of informants between the cohorts as each unit has its own informants.

The recruitment of L1 Persian informants for Experiment 1 on single events took place in Iran from among university students of other majors than those related to the English language. Although they may have some knowledge of English from their study of it as an obligatory subject at university, they are not advanced learners of English. The level of the study at university was not important and is mostly the BA level, while the mother tongue Persian was controlled for. The age range for this group of recruits is 20–32 years, 25.5 years on average. The total number of the recruits was 39. Nine recruits were rejected due to their mother tongue which was Turkish or a local dialect according to the language background questionnaire. The selected cohort has 18 female and 12 male informants.

Second, in Experiment 2 on re-narrations the L1 Persian speakers are university students, or graduate students, with majors other than the English language. At the time of the data collection they were or had recently been studying in Iranian universities. Their age range was 22–44 years old, 26.6 years on average. The total number of the recruits was 113. Out of them, 83 recruits were rejected as inappropriate (for the criteria of rejection, see section 3.3.3).

3.1.6 Persian L2 English

Persian L2 English learners were also recruited from Iran. The population targeted for the study consists of very advanced Iranian EFL learners studying for a degree of MA or PhD. The in-group related variables controlled for among the Persian L2 English learners are as follows: the subjects' majors are closely related to the English language, and they are at the highest level of proficiency of English among those who volunteered to the study; university students of English at MA and PhD levels who have learnt L2 English in classroom settings in the native country. A section of the Nelson English test battery was added for the L2 English recruits as a way of controlling for language proficiency (see section 3.2.5).
Conventionally, foreign language learning in Iran takes place entirely in classrooms starting at the age of 12 in secondary school. Iranian high-school students are enrolled at university on the basis of their scores on the National Entrance Examination, which is also taken for admission to both the MA and PhD levels. The Entrance Examination for admission to the MA and PhD studies in English focuses both on the subject specific courses of the English-centred majors and on advanced English language proficiency. Generally, the advanced Persian L2 English learners included in this project had attended extra language classes since their school years for 12–17 years, to ensure admission in the entrance examinations.

As the focus here is on language production by advanced adult learners, the targeted informants who have learnt L2 English in classroom are appropriate for the project.

Due to their profound interest in the study of English and a keen desire to continue studying their major, Iranian learners of English make great efforts in getting also prepared for the Comprehensive Exam taken directly after passing all the PhD courses to qualify to start the PhD project.

In light of the strict admission conditions, owing to competition for the existing study places, the students are well motivated in their language studies from the first years at university. Their interest in the language is greater and their performance in English much better than that of students of other majors in which only few credits of General English are studied. The levels of MA and PhD in the study of English can be taken as a good indicator of high level of proficiency obtained by Persian L2 English learners.

All the Persian L2 English learners were engaged in a full time study in the fields of either English Language and Literature, Teaching English as a Foreign Language (TEFL), or Translation Studies, each of which require a lot of English. Some of the participants were also teaching English in language schools and institutes.

To eliminate the effect of practice (see section 3.3.2.1), the Persian L2 English sample has two self-contained groups of informants, like L1 Persian sample; one for the single events, another for re-narrations. Thus, there is no overlap in terms of informants between the units.

In Experiment 1 on event descriptions the age range of the recruits is 23–42 years, 30.5 years on average. The total number of the recruits was 33. Three recruits were rejected as inappropriate. Two of those rejected had Turkish as their mother tongue and all three used daily 1–4 other languages according to the language background questionnaire. The selected cohort has 18 female and 12 male informants.

In Experiment 2 on re-narrations the age range of the Persian L2 English subject group is 23–45 years, 28.1 years on average. The relatively wide range of ages reflects the selection focus on proficiency rather than age: older but more proficient L2 learners qualified rather than younger but weaker learners as it was essential to include the most proficient L2 English learners.
in the study. Section 3.2.5 presents the Nelson English test used to test the proficiency. The total number of the recruits was 130. Out of them, 100 recruits were rejected (for the criteria of rejection, see section 3.3.3).

In terms of naturalistic exposure to English, a small number of the L2 learners were pursuing studies, at the time of the data collection, in their majors at the English department of a university in an English-speaking or non-English-speaking country. None of these immersed L2 English speakers were included in the study due to the different language learning condition.

3.2 Instruments

3.2.1 Stimulus 1 — Sentence level

The non-linguistic stimulus of 63 video clips is administered to the participants with the task to provide a brief, one-sentence-long description of each single event. The research task is simple. What the participants are formally asked to do is described in section 3.2.3 and shown in Appendix B. Figure 3.2 presents the subject groups to whom Stimulus 1 was administered.

Figure 3.2. Stimulus 1 in Experiment 1 by speaker groups

Recall that the stimuli of 63 video clips are based on the categorisation of the dynamic events into causatives, non-agentive activities and motion events (cf. section 2.9.1). The stimuli used in earlier studies on progressivity in languages within the Heidelberg–Paris model were identical, enabling a cross-linguistic comparison.

In line with previous studies, the hypothesis is that forms that are viewed as encoding progressive aspect are sensitive to properties of situations that show actual progression on the basis of specific changes in state of an object. There are two kinds: one (effected) leading to the object being created in either homogeneous sub-events as in knitting a scarf or heterogeneous sub-events as in making a paper plane. These are properties of situations to which the progressive is more sensitive to than to the second kind of change in state of an object (affected) which leads to transformation, as in decorating a cake (cf. section 2.9.1 for the theoretical view).
Regarding motion events, it is hypothesised that speakers of languages with grammaticalised aspect will more likely attend to the phase focused in the video clip, showing the intermediate stage of the event though not the possible goal of the event, even though it is visible in the distance. In contrast, in motion events in which the endpoints are shown as reached as the end phase is focused in the clip, they are expected to be encoded but significant differences between the speaker groups are not expected. Eventually, the results allow us to establish whether the hypothetical order of grammaticalisation of the Progressive in Persian conforms to other languages.

Figure 3.3 is a schematic view of the 63 film clips including causatives, non-agentive activities, motion events, and fillers in a quasi-randomised order. The fillers ensure that the participants will not recognise the focus on the endpoints not reached.

![Figure 3.3. Schematic presentation of Stimulus 1 in Experiment 1](image)

The importance of the classification of the event types are explained in sections 2.9.1.1 and 2.9.1.2. The video provided for the project presents the following thirty-seven clips in balanced order, as indicated by the clip numbers given in the list below. These 37 clips out of the total of 63 were analysed for the use of the progressive. Motion events were also analysed for the endpoint encoding.

Causative events with EFFECTED objects consist of two sub-groups:

Homogeneous sub-events:
1. Clip 24: A person is stringing a necklace
2. Clip 34: A man is drawing a tree
3. Clip 36: A lady is knitting a scarf
Heterogeneous sub-events:
1. Clip 10: A lady is building a pyramid with playing cards
2. Clip 14: A man is folding a paper airplane
3. Clip 40: A person is building a tower of wooden blocks

Causative events with AFFECTED objects:
1. Clip 12: A person is peeling potatoes
2. Clip 19: A boy is letting air out of a balloon
3. Clip 30: A man is carving a wooden block
4. Clip 31: A man is shaving
5. Clip 45: A person is shredding a sheet of paper
6. Clip 54: A lady is decorating a cake

Non-agentive activities:
1. Clip 7: A candle is burning
2. Clip 18: Water is flowing out of the tap
3. Clip 47: A cigarette is giving smoke in an ashtray
4. Clip 53: The washing machine is washing clothes
5. Clip 62: An effervescent tablet is dissolving in water

Motion events: 10 critical items — the endpoint can be inferred as reached.
1. Clip 3: Two people are walking towards a playground
2. Clip 13: A lady on horseback is approaching a barrier
3. Clip 22: A man is walking across a street towards a car
4. Clip 27: A child is walking towards a playground
5. Clip 33: A man is climbing a ladder
6. Clip 39: A lady drawing a shopping bag is going towards her car
7. Clip 44: A lady is walking on a street towards a barrier
8. Clip 48: A car is driving on a village road
9. Clip 57: A car is driving towards a gas station
10. Clip 59: Two ladies are walking towards a house

Motion events: 10 control items — the endpoint is explicitly reached.
1. Clip 5: A lady is going into a supermarket
2. Clip 9: A girl is riding a horse into a stable
3. Clip 17: A man riding a bike is entering a gate into the inner yard
4. Clip 21: A dog is running into a building
5. Clip 23: A van is driving through a gate into an inner yard
6. Clip 25: A car is driving into a garage
7. Clip 35: A lady dragging a bag is entering the railway station
8. Clip 46: A person is walking into a church through the entrance door
9. Clip 60: A boy is walking towards a playground
10. Clip 63: A cat is walking into a room

3.2.2 Stimulus 2 — Discourse level

In order to obtain comparable data of coherent language production, participants from the different L1s and the relevant L2 learners are provided with the same stimulus. The visual input leads the participants to perceive and conceptualise the eventful stimulus resulting in verbalisations which are characteristic of their language.

Thus, as English and Persian have the progressive in common, Experiment 2 tests the hypothesis that similarities emerge on the selected parameters. Following the basic principle of typological difference/similarity, elicitation tasks in the previous studies such as Carroll & von Stutterheim (2003), von Stutterheim & Nüse (2003), Carroll et al. (2004), von Stutterheim & Lambert (2005), and Carroll & Lambert (2006) have found that typologically different languages, such as English and German, differ in event construal.

The non-linguistic video is observed to work well as a stimulus. The practical task for the participants was to re-narrate the events of the video in episodes. Section 3.2.3 outlines what the task involved. The instructions for Stimulus 2 are given in Appendix B.

*Quest* is produced by Thomas Stellmach. It won an Oscar for the Best Short Animation Film in 1996. The main events in the film are related to a sandy creature, a sandman, who is in quest of water and leaves the sand world in which he lives. He wanders through other worlds made of paper, stone, iron, and machines following the sound of dripping water he continuously hears. In the end he manages to reach the water despite the tragic situations that threaten him along his way. The different worlds of the film divide it into different episodes, or scenes, marked in the film as separate by means of a black screen indicating the beginning of a new episode. The scenes related to the paper and stone worlds are analysed. They are the second and third scenes of the video. The first scene about a paper world was omitted, as in the Heidelberg–Paris studies, due to idiosyncrasy in language production. It indicates that participants need time to get used to the task. The minimum and maximum lengths of the whole five episodes of the narratives were defined as 50 and 300 clauses in total (cf. section 3.1.1). The L1 English speakers produced longer narratives than the Persian groups.

The topic in the video is easy for the learners and interesting for the native speakers to speak about as the external forces and natural elements are from the real world, which stimulates the speakers’ thoughts intertwining in them the imaginary protagonist and the plot. This ensures more motivation for the task. In this manner, the situations the single protagonist is entangled in, in...
the foreground, and the various ongoing events involving external forces and moving objects in the background, provide an appropriate platform for the study of representation of temporality and event construals (cf. section 2.8.1.1) in order to explore information structure, information choice, and information organisation in language production in L1 and L2. Following the Heidelberg–Paris model, the present study subscribes to the rationale for using the particular film, namely that the one animate protagonist of the film and a variety of ongoing events in its background elicit language use that displays the crucial aspects of temporality and information organisation. Figure 3.4 presents the subject groups Stimulus 2 was administered to.

![Figure 3.4](image)

**Figure 3.4. Stimulus 2 in Experiment 2 presented by speaker groups**

The re-narration task was given to the three subject groups. L1 English data were mostly selected from the set of re-narrations made available by the Heidelberg–Paris team. New data from a number of L1 English speakers were collected as presented in section 3.3.3 on the criteria used.

### 3.2.3 Instructions

Instructions for the research tasks were prepared in English for the L1 and L2 English recruits and in Persian for the L1 Persian recruits. Since there are two different tasks involved, two sets of instructions were prepared, one for Experiment 1 on the single events, which is shorter, with fewer instructions and questions, and another for Experiment 2 on the narratives, which is longer, with more extensive instructions and questions. Both sets include the following: instructions (Appendix B) and language background questionnaire (Appendix C). In addition, a separate Nelson English test with 45 grammar questions was sent to the L2 English group participating in Experiment 2 (Appendix D).

The instructions (Appendix B) are intended to be simple and exhaustive. The aim is to make the participant quickly grasp the entire task. Understanding the task easily is essential for increased motivation and commitment to
the task. The content of the instructions for the three participant groups is identical within each set; an initial request for participation in the data collection is made, and the general aim to compare single event descriptions/narrations in English and Persian is pointed out. Importantly, the instructions explain what the task expected from the recruit involves and how the recording of the speaker’s voice has to be conducted.

To get ready for the re-narration of the video, the manner of recording and checking the auditory quality obtained in recording with the device before starting doing the task was important. Recording devices such as computer, mp3 and cell phone were suggested. A link to the relevant video film was given. To watch the entire film once was pointed out as a necessary step before performing the research task. The black screen between the episodes indicates the place where to stop the video to retell and record the episode seen. The detailed way of performing the task leads to an increase in comparability. It is the rationale for retelling the film in short episodes.

Further, it was made clear that the research task had only one quaestio, namely “what happened”. The elicitation question is formulated in the past tense for all the participants as was done in the earlier studies of the verbalisation of perceptual input. The quaestio occurs twice, both times underlined, in the instructions. Presenting the task question in this way, it is left to the participant to decide whether to perform the re-narration in the present or past tense without spelling it out, which might have involved an implication or expectation about a certain tense affecting the participants’ performance.

While the instructions do not literally specify any tense for the task, they are explicit about what the task should embrace, steering the participant to focus on the events of the film only. This is stated in “You need not talk about, for example, what you saw meant, symbolised or what you understood of it. This will increase comparability between the two languages.”

Finally, the instructions delimit various aspects of the participants’ work; the participants were instructed that re-recording and erasing of parts of the story, and previous practice were disallowed. The questionnaire was to be answered after doing the main task, reserving 25–30 min. for the film and the questionnaire. They were asked not to spend longer on the task. However, the time limit for the Persian L2 English participants was specified as 40–45 min. for the film and 10 min. for the questionnaire, in order not to put any time pressure on the language production. Despite the time limits, the participants are encouraged to relate to as many details as possible.

3.2.4 Language background questionnaire

As part of Experiment 2, a language background questionnaire (Appendix C) was sent to the three groups of participants, in addition to the video, Quest, and the task instructions. The questionnaire was prepared in English for the L1 English and Persian L2 English participants, and an identical question-
naire was prepared in Persian for the L1 Persian group. It was asked to be filled in after doing Experiment 2 and return by email with the recorded task. As part of Experiment 1, a shorter form of the same questionnaire (Appendix C) was used.

The questionnaire asked the participants about the scope, depth and place of their language studies, languages spoken on a daily basis, their age, place of birth, as well as their field of study and degree. They were also asked about possible previous experience in story-telling techniques, and whether they did the recording of the story without erasing or re-recording parts of it. They were, finally, asked to evaluate the tasks performed, on the basis of the degree of difficulty and their interest in doing the re-narration task. The detailed information about the participants’ linguistic background, language studies and the language of everyday communication given in the questionnaire was used as part of the criteria qualifying for analysis.

3.2.5 Nelson English test

The language background questionnaire was complemented, at the end of the questionnaire, with a set of grammar questions for the Persian L2 English informants, selected from a series of graded grammar tests entitled Nelson English tests. The purpose of the test was to ensure that the participants, recruited from among students at MA and PhD levels in fields centring on the English language were highly proficient in English, and to discriminate among them. The participants were asked to answer the multiple-choice grammar questions directly after the language background questionnaire. They did the task electronically in the questionnaire returning it by email.

The rationale for using the Nelson English tests was that it is a standardised set of tests compatible with Iranian L2 English learners. It is widely used by Iranian as well as non-Iranian linguists, such as Vivaldo-Lima, López-Olivas & González-Robles (2003), Abdollahian Barough (2004) Jalilifar (2009), Pishghadam & Navari (2010), Fahim, Motallebzadeh & Sazegar (2011), Gorjian, Pazhakh & Parang (2012), and Saaffarian, Gorjian & Fazel (2013). There are many other Iranian research papers with large samples in which the Nelson English test series were used as well as evaluated for their reliability in making sure about the homogeneity of their sample populations. The Nelson English tests are, thus, a well-known and tested tool for Iranian researchers. On the basis of those reliability estimations, the present study uses the Nelson English test 250C to obtain the most homogeneous group of very advanced level of proficiency of English for the study.

Nelson English tests provide tests for all levels of proficiency. The graded tests are compiled in ten sets from elementary to very advanced level. Each set includes four graded tests, i.e. A, B, C, and D, making totally 40 tests, each with 50 questions. Test 250C was selected for this project (see Appen-
dix D). It belongs to the slot 19 out of the 40 slots of the battery. The multiple-choice questions were checked with a native English professional and 5 inadequate questions relevant to pronunciation were omitted. In addition, a few modifications of the grammar questions were made, aiming at including questions that involve a contrast for the Persian L2 English learner with respect to the grammars of the two languages. The omissions and modifications provided an appropriate grammar test for very advanced Iranian learners of L2 English who have learnt the language in a classroom setting.

To compare the level of proficiency of the Persian L2 English learners, test 250C was given to a group of 23 students enrolled in a BA program in English at the Department of English, Stockholm University, including 4 L1 English and 19 Swedish L2 English learners. They did the test on paper in classroom. The steps of retrieving an overall average score, for the Swedish and Persian L2 English learner groups, based on the individual errors in their responses are as follows: first, nine questions out of the set of 45 questions of test 250C were assessed as bad and omitted because the L1 English students got them wrong. The omission corrected the test and ensured that the test questions would not lead to wrong responses. Second, the individual scores for the remaining 36 test questions for the 19 Swedish L2 English learners and 30 Persian L2 English learners were observed to be mainly between 0 and 5 in both groups. It was specified as the joint individual error rate. Finally, the overall average score for the 30 advanced Persian L2 English subjects was obtained, giving a figure of 2,1. The overall average score for the 19 Swedish participants was 1,5. It indicates that the Swedish learners of English are at a somewhat higher level of proficiency than their Persian counterparts.

The method of administering the grammar test by email is regarded as reliable on the evidence of the overall results on the test for the L2 group, the error rate being slightly higher than that for the Swedish L2 English learners, to whom the test was given to compare the results. Given the fact that the mean of the errors for Swedish L2 English learners is 1,5, and for Persian L2 English learners 2,1, it is plausible to assume that the L2 English learners’ results would have had a lower overall error rate, if the participants had been using reference books at the time of answering the grammar questions. No doubts about such misbehaviour arose, since in the course of the massive data collection, the interrelation between the high quality of the performance and the informants’ situation of the performance was recognisable they had to be doing the task in a peaceful place so that the narration would have valid quality. These circumstances led to the conviction that the participants did the grammar test in the direct connection to the re-narration, as they indicate in the questionnaires, and without getting help from reference books.

Next, the mode of the recording of the film retelling is explained.
3.3 Data collection

3.3.1 Recording of retelling for Experiment 1 on single events

The email method was used in data collection for Experiment 1 on single events. This method was presented in section 3.1.2. The recording of the brief descriptions of the single events took place online. This means that at the same time as the participant watched the 63 clips in the video following each other at intervals, they were described during the black scene of the in-between interval. The black scene was followed by a white dot on the screen to signal the next clip. The participants were explicitly asked to make one sentence about the clip so the time was sufficient for the spontaneous task.

The participants could use the recording device available to them; a computer, an mp3, or a cell phone, whose sound quality was to be controlled before the recording. As one round for watching the video and doing the recording was sufficient, there was no possibility of practice before the task. However, the brief questionnaire included an inquiry about the number of the times the task was performed to check about a possible pre-task practice.

3.3.2 Recording of retelling for Experiment 2 on narratives

The elicitation technique employed for this spontaneous language production was film re-narration. It was performed by the participant in an offline mode. This mode involved the following procedure: after watching the entire film once first, the participant viewed it episode by episode in the second round. After each episode, the film was paused. The offline mode necessitated the retelling and recording of the participant’s story to take place between two episodes while the film was not playing. This manner of responding to the stimulus while the film was paused provided the participant an opportunity of processing and conceptualising the visual input without time pressure and producing a linguistic form for what they had just seen.

3.3.2.1 Controlling for effect of practice

In the performance of the experimental tasks, the effect of practice was controlled for in Experiments 1 and 2. The participants were instructed to do the task in one session in the direct context of watching the film. If the task was not done directly after watching the video, the participant would have had to watch it again in doing the task at a later point of time. Then, the first round of watching the video would prime the informant to the task.

The post-task questionnaire was used to get a clear picture of how the task was performed. It had questions as to whether the participants had been taught to tell stories, if they had practiced the re-narrations before doing the requested task, or if they had re-recorded their re-narration doing it twice.
Another way to control for the effect of practice was to not allow the informant to do the task on more than one occasion. If invalid data were received from participants, they were not allowed to participate a second time. The issue of not allowing two participations related to each speaker group making up a cohort of its own without any overlap.

Finally, a small part of the data collection from L1 Persian and Persian L2 English learners was carried out in a face-to-face setting to ascertain that the performance of the task would not involve practice.

3.3.3 Criteria used for the selection of recordings for analysis

The completed task sent in by the recruits included a recorded file of single event descriptions and a brief questionnaire for Experiment 1, while a recorded film re-narration and a language background questionnaire which also comprised a grammar questionnaire relevant for the L2 English group were submitted for Experiment 2. Common criteria consisting of two sets of primary and secondary criteria referred to as Step 1 and Step 2 (see Figure 3.5) were used for all the three language groups from which 5 sets of data were received; data for Experiment 1 on single events from L1 Persian and Persian L2 English speakers (cf. Figure 3.2 in section 3.2.1). Recall that data from L1 English were not collected as the former research results for the use of the Progressive in English defined as 100 per cent were used. Recruitment and elimination of inappropriate data sets continued until the target number of thirty acceptable recordings in each category had been reached.

The criteria are discussed here according to Steps 1 and 2 with reference to what criteria were applied first, what next. Applying the criteria at Step 1, the files received for both Experiments 1 and 2 on single events and re-narrations were first reviewed by the researcher in totality by listening for the audibility of the recording. Regarding tense used, while Experiment 1 accepts all tenses, in Experiment 2 the present tense was listened for.

In Experiment 1, both of the informant groups, i.e. L1 Persian and L2 English, met the criteria of the sound quality, L1 status, age and major rather straightforwardly at Steps 1 and 2. There was no English proficiency test in Experiment 1 for the L2 English users because they are English majors. Their degree and opinion of their language proficiency were asked for.

The result for L1 Persian is that from the total number of the recruits of 39, nine recruits were rejected. Their mother tongue was given as either Turkish or a local dialect in the questionnaire (cf. section 3.1.5). The result for the Persian L2 English informant group is that from the total number of the recruits of 33, three recruits were rejected as invalid. Two of those rejected had Turkish as their mother tongue and all three used 1–4 other languages on a daily basis according to the language background questionnaire.

To turn to Experiment 2, Figure 3.5 presents the criteria to get valid data.
Figure 3.5. Criteria for valid data for Experiments 1 and 2

The criteria for Experiment 2 at Steps 1 and 2 are discussed first for the L1 English group, separately, as the 30 items of data are made up of 24 items from Heidelberg and 6 items collected at the English Department, Stockholm University (cf. section 3.1.4). Starting with Step 1 for L1 English, the criteria relate to audibility and tense; the 34 L1 English narratives obtained from Heidelberg were all in the present tense. One informant’s data collected in Stockholm was in the past. All data had a good sound quality so those data for Experiment 2 easily met the criteria at Step 1 (see Table 3.1).

At Step 2 for L1 English, 10 items of the total of 34 L1 English data from Heidelberg for Experiment 2 were eliminated as they were too short in 6 cases or too long in 3 cases (cf. section 3.2.2). Also, one of the ten speakers was described as bilingual, as shown in Table 3.2. The remaining 24 narratives were valid along with 6 items of data from Stockholm (see Table 3.1).

Henceforth, the discussion relates, first, to Step 1 of Figure 3.5 above. The relevant numbers are given in Table 3.1 below. Then, after Table 3.1, the discussion relates to Step 2. Those numbers are given in Table 3.2 as the overall data in the present tense are discriminated for valid and invalid data.
At Step 1 for L1 Persian in Experiment 2, the criteria were applied to a pool of 113 items. Out of them, 34 were in the past tense and 6 had a weak sound quality, resulting in a pool of totally 73 items of data of well-audible narratives in the present tense, as shown in Table 3.1. Recordings made at home had a good auditory quality. The participants had been asked to check the quality of the recording before doing the task. There were some recordings with noise in the background as if the recording had been made in a university corridor. The noise was taken as evidence of a stressful recording situation in which the participant could not concentrate on his/her task.

At Step 1 for Persian L2 English in Experiment 2, the criteria were applied to a pool of 130 items. Out of them, 52 were in the past tense and 6 had a weak sound quality, resulting in a pool of totally 72 items of data of well-audible narratives in the present tense.

The overall numbers relevant to the discrimination of valid data based on tense and audibility at Step 1 and the remaining valid and invalid data, classified by way of the final discrimination at Step 2, are presented in Table 3.1.

### Table 3.1. Numbers of the valid and invalid data in Experiment 2

<table>
<thead>
<tr>
<th>Invalid on the basis of:</th>
<th>Valid</th>
<th>Total of collected data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Past tense (A)</td>
<td>Weak audibility</td>
</tr>
<tr>
<td>L1 English</td>
<td>1(D)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>34(B)</td>
<td>(24(C)+6(D))</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>130</td>
</tr>
<tr>
<td>L1 Persian</td>
<td>34</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>113</td>
</tr>
<tr>
<td>L1 Persian English</td>
<td>52</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>130</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>90</td>
<td>250(E)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>284(F)</td>
</tr>
</tbody>
</table>

(A) Narrations in the past tense show sensitivity to the task question “what happened?”
(B) Data obtained from prof. von Stutterheim, Heidelberg, Germany
(C) Data selected for the project from the Heidelberg–Paris data
(D) Data collected by the researcher from L1 English speakers at the Department of English, Stockholm University, Sweden, totally 7 narrations out of which one is in the past tense.
(E) Total number of data collected by the researcher
(F) Total number of data, valid and invalid, available for the project. A set of 34 L1 English data were available from Heidelberg.

Table 3.2 below presents in detail the text-internal and text-external criteria used to discriminate between valid and invalid data in the present tense at Step 2. The criteria apply to the three different subject groups included in Experiment 2. There are four text-internal and nine text-external criteria.
Applying Step 2 criteria for L1 Persian in Experiment 2, a pool of 73 items were initially available in the present tense, resulting in 30 items of valid data and 43 invalid data (for the discrimination between the text-internal and -external criteria see Table 3.2).

According to the text-external criteria, there were, most outstandingly, 19 cases in which the questionnaire was not enclosed, and 10 cases in which the recording had been done online, while the film was playing. The manner of recording was perceivable from the recorded text. Further, there are 7 cases where the participant was too young, well under 20. Also, in 3 cases the informant reported on advanced studies in English — a disadvantage for the L1 Persian group. There is also 1 case of missing episode, and 1 case of effect of practice, according to the text-internal criteria.

Applying Step 2 criteria for Persian L2 English in Experiment 2, a pool of 72 items were initially available in the present tense, resulting in 30 items of valid data and 42 invalid data (for the discrimination between the text-internal and -external criteria see Table 3.2).

According to the text-external criteria, there were 10 cases in which the home language was not Persian, and another 10 cases in which the degree was not the requested MA or PhD level. Further, there were 6 cases of missing episodes and 5 cases where the recording had been done online. In 4 cases the questionnaire was missing, in 3 cases the major was other than English — a disadvantage for the L2 English group — and in 2 cases effect of practice was reported. Finally, there were 2 cases of advanced studies in other languages alongside with English.

For the Persian L2 English group the level of proficiency in English was an important criterion, given the fact that all these speakers had Persian as their mother tongue, an English-centred major, and no advanced level studies in other languages. Recall that the most highly-proficient participants were targeted from among MA and PhD students of L2 English; the individual rate of errors on Nelson English test was specified as 0–5 (cf. section 3.2.5) so that the group matches the Swedish L2 English speakers in the comparison of the level of L2 proficiency. Regardless of the fact that the Persian L2 English learners are slightly weaker in English, the group is considered as representative of the highest level of proficiency of English obtained in classroom settings in the speakers’ L1 environment.

The following criteria eliminate the invalid data yielding three uniform sets of data. Table 3.2 below presents the text-internal and text-external criteria discriminating between valid and invalid data in Step 2.
Table 3.2. Text-internal and text-external criteria of Experiment 2 data in the present tense

<table>
<thead>
<tr>
<th>Text-internal criteria</th>
<th>L1 English</th>
<th>L1 Persian</th>
<th>Persian L2 English</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. one or more episodes is missing, usually, episodes 1 and 5</td>
<td>-</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>2. questionnaire informs about effect of practice, or the recording is erased/re-recorded</td>
<td>-</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. the narration is short: less than 50 clauses</td>
<td>6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. the narration is long: over 300 clauses</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Text-external criteria</th>
<th>L1 English</th>
<th>L1 Persian</th>
<th>Persian L2 English</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. the participant is bilingual</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. the recording was done online, i.e. while the film was playing judging from the video sound</td>
<td>-</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>3. questionnaire informs about home language other than monolingual Persian</td>
<td>-</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>4. no questionnaire enclosed</td>
<td>-</td>
<td>19</td>
<td>4</td>
</tr>
<tr>
<td>5. participant’s degree of L2 English is BA</td>
<td>-</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>6. questionnaire informs of a major other than English, a point of disadvantage for L2 En speakers</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>7. questionnaire informs of adv studies in other languages than English, a point of disadvantage for L2 En speakers</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>8. questionnaire informs of adv studies in English, a point of disadvantage for L1 Pe speakers</td>
<td>-</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>9. participant’s age is outside the relevant range</td>
<td>-</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10</td>
<td>43</td>
<td>42</td>
</tr>
</tbody>
</table>

The following points were double-checked before the process of discrimination. First, ascertaining about the subjects following the correct procedure in the experiments, it was double-checked in an extra mail to the participants as to whether they had done the task only once, i.e. no re-recording, and if the participant had practised telling the story before starting the task. As each recording was listened carefully checking against the replies to the questionnaire, a clear picture of the way the task had been done was obtained.

Second, the monolingual language background of the participant was important. The information was double-checked after reception and checking the preliminary criteria, Step 1. All the informants were born and educated in Persian-speaking areas of Iran and the language they use with their families is Persian. Data from informants who were born in a non-Persian-speaking area or customarily spoke a language other than Persian were excluded.
Third, language studies were also double-checked. Advanced studies were not allowed for the L1 Persian speaker group, and advanced studies of other languages than English were not allowed for the L2 English speakers. Also, the participant’s age had to be consistent with the majority of the participant.

Fourth, four text-internal criteria were used. Overall, missing episodes in the re-narrations and their scanty length were the most conspicuous criteria. The recordings in which the first episode was missing did not affect the data in the analysis, as episodes two and three were targeted for the analysis. Thus, if the missing episode was due to an unsuccessful recording, the participant had most probably re-told the episode, doing the task requested. In line with the Heidelberg–Paris model, Episode 1 is considered as practice for the task as it involves idiosyncratic variation and is excluded from the analysis as a rule. Despite this, all data with missing episodes were regarded as invalid in this project. Notably, the relevant statistical analyses take into consideration the relative difference in the length of the language production by the samples (see section 3.4).

Finally, the completed language background questionnaire was crucial in observing the qualifying features. Out of the nine text-external criteria, the most conspicuous issues are doing the experiment on the retelling online while the video is playing, and home language being other than monolingual Persian. Also, several cases where the degree was not the required MA or PhD were identified by way of the questionnaire. Thus, when the questionnaire was missing, the data were regarded as invalid.

3.4 Analytic procedure

The tool in which the data of single events in Experiment 1 were analysed quantitatively is Excel (2010). The re-narrations of Experiment 2 were coded in NVivo 10 (2014) to get individual numbers for each parameter. The numbers from NVivo were analysed statistically in Excel (2010) and SPSS (2017).

These tools are appropriate for this research. Excel suits well for the smaller data load in Experiment 1 while NVivo is practical for the large amount of data in Experiment 2. NVivo enables the analysis of the three data sets in the same manner once the categories of analysis are defined in it under different nodes. As the results are extracted in the same fashion from each data set, the L1 English data received from the Heidelberg for Experiment 2 were re-analysed according to the criteria employed in this project. Yet, the analysis in the project conforms to the criteria used in the model.

Every finite clause was treated as a separate propositional unit (cf. section 2.8.1.2). Information structure was examined in them empirically. The retellings were divided into propositional units corresponding to events and states.
Events make up main structure and states side structure. As side structure comprises many different kinds of states, the criteria for them were carefully observed (cf. section 2.8.2). The propositions were analysed for the linguistic features defined for the project as parameters (cf. section 2.9.3).

Several issues justify the use of NVivo as the tool for the analysis of the nominal data. First, the analysis builds on using all the details in the re-narrations relevant for the research questions. NVivo facilitates gathering the smallest details from the large nominal data for findings. To illustrate, re-narrations in nominal text form can reveal usage preferences when an adequate number of them are analysed for the number of occurrences of selected parameters such as the progressive (cf. section 2.9.3). The different parameters which materialise different queries on the codings stored in NVivo were easily run and extracted as numerical results.

Further, it is easy to search and sort out information needed and put it into lists for qualitative analysis. NVivo has functions for the data to be viewed and organised. To illustrate, matrix queries presenting the actual occurrences of a particular item can be viewed as a list and/or read with or without their relevant contexts. The lists extracted for each speaker group proved helpful for qualitative analyses on various issues such as the occurrence of begin/start in catenatives and the related boundedness (see section 4.3.2); the issue whether the temporal shifter then and its equivalent in Persian, baʕdan, is preceded by bounded or unbounded events (see section 4.3.5); the uses of the progressive with different types of subjects (see section 4.3.6).

The numbers obtained from NVivo were subjected to statistical calculations. To illustrate, an independent samples t-test was run to show if there was any significant difference in the studied structure of narratives between the three speaker groups. Similarly, when significances between the particular items or structures were targeted within a specific group, a paired samples t-test was used. Also, a chi-square test was used to calculate whether pairs of speaker groups could be regarded as belonging to the same population (no significant difference) or not (significant difference).

The p-value obtained may be clearly higher than the threshold level and here there is assumed to be no significant difference. Similarly, when the p-value is below the threshold, there is a significant difference. In view of the extensive previous work which did not rely on statistical tests, it has been worthwhile to draw attention to non-significant differences which are still relatively large. Where averages are different but the p-value is above the threshold level, results are sometimes referred to as being indicative of a trend and tendency in the linguistic feature.
# Results

## 4.1 Overview

The present chapter reports on the results of the two experiments described in the previous chapter. Similarities and differences between the two linguistic systems with the aspectual category of the progressive are examined by analysing the overall and individual occurrences in terms of the set of parameters selected for the two linguistic tasks.

The parameters of language production processes were explained in section 2.9.3 and particularities of the experimental tasks in section 3.1.1. The results for the individual unrelated single events and narrative discourse are analysed and compared across the three language groups. The analysis gives a picture of aspect in Persian, and an indication of what event construal at sentence and discourse level is like, as produced by L1 Persian and Persian L2 English speakers. Informed by previous studies of these phenomena for L1 English, the empirical analysis builds on those results for single events and an additional independent re-analysis of the L1 English narratives. Figure 4.1 presents a schematised outline of the discussion in this chapter.

<table>
<thead>
<tr>
<th>Experiment 1</th>
<th>Subjects/Data:</th>
<th>Investigates:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decontextualised single events (change-in-state)</td>
<td>L1English</td>
<td>-use of progressive at sentence level in the three speaker groups</td>
</tr>
<tr>
<td>- causatives with effected objects</td>
<td>L1Persian</td>
<td>-status of the Progressive in Persian</td>
</tr>
<tr>
<td>- homogeneous</td>
<td>Persian L2 English</td>
<td></td>
</tr>
<tr>
<td>- heterogeneous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- causatives with affected objects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- non-agentive activities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Experiment 1</th>
<th>Subjects/Data:</th>
<th>Investigates:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motion events (change-in-place)</td>
<td>L1English</td>
<td>-event construal at sentence level involving the progressive and endpoints in the three language groups</td>
</tr>
<tr>
<td>- progressive</td>
<td>L1Persian</td>
<td>-status of the Progressive in Persian</td>
</tr>
<tr>
<td>- endpoints</td>
<td>Persian L2 English</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Experiment 2</th>
<th>Subjects/Data:</th>
<th>Investigates:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coherent sequence of events in narratives</td>
<td>L1English</td>
<td>-progressive (in side structure)</td>
</tr>
<tr>
<td></td>
<td>L1Persian</td>
<td>-parameters (in main structure)</td>
</tr>
<tr>
<td></td>
<td>Persian L2 English</td>
<td>-event construal in L2 at discourse level</td>
</tr>
</tbody>
</table>

Figure 4.1. *Schematised outline of discussion in Chapter 4*
In line with the framework applied in the project, and with a focus on the selected parameters in the L1s and L2, the results are assessed with respect to L1 influence due to typological differences from the speakers’ L1 Persian.

4.2 Experiment 1 — Single events

In answering the task question “what is happening” about each film clip showing short unrelated everyday situations, the speaker verbalises brief scenes of events. Figure 3.2 in section 3.2.1 schematise the two subject groups\(^{19}\) involved, i.e. L1 Persian and Persian L2 English. Figure 3.3 presents the situation types used in Experiment 1. The quantitative results (including both present and past forms, as tense is not a focus of interest in the analysis here) are complemented by a qualitative analysis for additional clarification, when necessary (cf. section 3.4). Following the Heidelberg–Paris model, items comprising causatives with high dynamicity as well as motion event with implicit inferable endpoints are called critical and those involving causatives with low dynamicity as well as motion event with explicit endpoints are called control items, section 4.2.1 is organised as follows:

1. Causative events with effected objects, (critical) (Table 4.1)
2. Causative events with effected objects, only those with homogeneous sub-events (Table 4.1)
3. Causative events with effected objects, only those with heterogeneous sub-events (Table 4.1)
4. Causative events with affected objects, (critical) (Table 4.2)
5. Non-agentive activities, all verb forms, (overview) (Table 4.3)
6. Non-agentive activities, excluding copula, (control) (Table 4.4)
7. Motion events, all verb forms, (overview) (Table 4.5)
8. Motion events, inferred endpoints (critical) (Table 4.6)
9. Motion events, overt endpoints, (control) (Table 4.7)

The parameter for comparison in Experiment 1 is the frequency of verbalisations with the progressive, both with respect to the bare mi-form and the relevant critical and control items. The quantitative accounts of the relevant linguistic parameters are presented in Tables 4.1–4.7 for L1 Persian and in Tables 4.8–4.14 for L2 English. In Table 4.1, causative events with effected objects have been differentiated into homo- and heterogeneous sub-events as the different kinds of sub-events may affect the use of the progressive. Table 4.2 presents causative events with affected, i.e. transformed, objects for comparison with the grand total in Table 4.1; the qualitative difference of the

\(^{19}\) Recall that earlier studies on L1 English data by the Heidelberg–Paris group show uniform use of the progressive in all situation types.
object, i.e. created versus transformed, may affect the use of the aspectual form. Table 4.3 is not relevant for a comparison as it presents the numbers for all verb forms, some of which do not bear aspect. Instead, Table 4.4 presents the occurrences of non-agentive activities using only event verbs.

Results for motion events in Tables 4.6 and 4.7 add to the picture of progressive aspect obtained from the causatives and non-agentive activities. The motion events are compared between their own sets of critical and control items. An additional parameter for comparison is the endpoint; while Table 4.6 relates to speaker choices with respect to inferred endpoints, Table 4.7 indicates speaker choices with situations with the endpoints reached and, thus, expected to be mentioned.

Finally, reference to the phase that is in progression (cf. section 2.9.1.1) is, by definition, what the progressive requires. Tightly linked to this grammaticalised feature is its particular impact on event conceptualisation, i.e. endpoints are less frequently encoded in languages with the grammaticalised progressive (cf. section 2.8.2). Then, the prediction with respect to mention of the endpoints in Persian is that Persian patterns with other languages that admit the progressive with motion events, given the fact that the status of the progressive depends on the degree of its grammaticalisation and the overall aspectual system.

4.2.1 L1 Persian

4.2.1.1 Causatives and non-agentive activities
In this section the results from the quantitative analysis for use of aspect with causative and non-agentive activity events are presented. The frequencies in the following tables illustrate how often the different grammaticalised aspectual forms appear in the descriptions of the decontextualised single events in response to the task question “what is happening”.

In testing if a hypothetical order (cf. Figure 2.12 in section 2.9.1.1) of use of aspectual form applies to Persian, the prediction in line with the previous studies is that particular situations that have a progressive component in the form of an inherent change in state are more likely to lead to the use of an aspect marker than other situation types and their underlying features.

The number of speakers, N, is 30 for all three groups of informants. In some cases, N is lower than 30 indicating that some of the utterances were disqualified for analysis. The disqualified utterances generally include event descriptions in sentences without a main verb, misinterpretations of the event shown in the clip, or uses of verb forms with an aspectual marking other than the targeted imperfective and progressive, as for instance the Past Perfective in Persian. For motion events with the crucial feature of endpoint, the disqualified data are shown in numbers in Table 4.5 in section 4.2.1.2.
Table 4.1 presents frequencies for causative events with effected, i.e. created, objects distinguishing between the homo- and heterogeneous sub-events. The first column, Clip #, identifies the clip reported on. The second column, Speakers, shows the number of valid utterances reporting on it. The following columns indicate the number of utterances with each of the three possible expressions in Persian, as described in section 2.7.4, i.e. the grammaticalised dāštan-progressive, the imperfective bare mi-form, and the construction with a verbal noun. In each case the percentage of the valid utterances represented by this number is also given.

Table 4.1. Forms of utterances describing causative events with effected objects, critical items: L1 Persian

<table>
<thead>
<tr>
<th>Clip #</th>
<th>Speakers</th>
<th>Dāštan-PROG</th>
<th>IPFV mi-form</th>
<th>Verbal noun</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
</tr>
<tr>
<td>Homogeneous</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 30</td>
<td>25 83</td>
<td>3 10</td>
<td>2 7</td>
<td></td>
</tr>
<tr>
<td>34 29</td>
<td>21 72</td>
<td>3 10</td>
<td>5 17</td>
<td></td>
</tr>
<tr>
<td>36 28</td>
<td>20 71</td>
<td>3 11</td>
<td>5 18</td>
<td></td>
</tr>
<tr>
<td>Total homogeneous</td>
<td>87</td>
<td>66 76%</td>
<td>9 10%</td>
<td>12 14%</td>
</tr>
<tr>
<td>Heterogeneous</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 28</td>
<td>18 64</td>
<td>7 25</td>
<td>3 11</td>
<td></td>
</tr>
<tr>
<td>40 28</td>
<td>18 64</td>
<td>5 18</td>
<td>5 18</td>
<td></td>
</tr>
<tr>
<td>14 27</td>
<td>19 70</td>
<td>5 19</td>
<td>3 11</td>
<td></td>
</tr>
<tr>
<td>Total heterogeneous</td>
<td>83</td>
<td>55 66%</td>
<td>17 20%</td>
<td>11 13%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>170</td>
<td>121 71%</td>
<td>26 15%</td>
<td>23 14%</td>
</tr>
</tbody>
</table>

Table 4.1 shows a preference in the grand totals for the use of the dāštan-progressive for situations with the progressive component (71%) as compared to the bare mi-form, (15%). A chi-square test shows that the use of the dāštan-progressive is significantly more frequent; ($\chi^2(1) = 61.395, p < .001$).

A question of interest is whether a feature such as homogeneity as compared to heterogeneity (cf. section 2.9.1.1) is a relevant factor for the use of the Progressive in Persian. The sub-event features may lead to differences in the use of the progressive. A set of three film clips out of the six presented in Table 4.1 shows causatives with homogeneous sub-events. Clips 34 and 36 are highly homogeneous as there is one action type involved, i.e. knitting with needles and shading in a trunk of tree with a pencil that is continually repeated. Clip 24 includes two actions; picking up the bead and threading it. Therefore, Clip 24 could be rated as heterogeneous simply because it in-
volves two different types of actions. However, since both are repeated continually, it is rather a border line case. In Clips 10, 14, and 40 showing heterogeneous sub-events the events are made up of different sub-events as in folding a paper plane.

No significant difference was found in the use of the dāštan-progressive between homo- and heterogeneous sub-events; \( \chi^2 (1) > 3.402, p < .065 \).

The comparison shows that Clip 24, which produces the highest rate of use of the dāštan-progressive, (83%), is a clear case of homogeneous sub-events, not a border line case with heterogeneous events.

Next, to contrast the results for causatives with effected, i.e. created, objects in Table 4.1 to a set of situations with affected objects, i.e. transformation of an object, Table 4.2 presents the numbers for the verb forms used.

Table 4.2. Causative events with affected objects, critical items: L1 Persian

<table>
<thead>
<tr>
<th>Clip #</th>
<th>Speakers</th>
<th>Dāštan-PROG n</th>
<th>IPFV mi-form n</th>
<th>Verbal noun n</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 29</td>
<td>20 69</td>
<td>8 28</td>
<td>1 3</td>
<td></td>
</tr>
<tr>
<td>54 29</td>
<td>18 62</td>
<td>1 3</td>
<td>10 34</td>
<td></td>
</tr>
<tr>
<td>12 28</td>
<td>19 68</td>
<td>4 14</td>
<td>5 18</td>
<td></td>
</tr>
<tr>
<td>30 27</td>
<td>20 74</td>
<td>3 11</td>
<td>4 15</td>
<td></td>
</tr>
<tr>
<td>45 25</td>
<td>15 60</td>
<td>7 28</td>
<td>3 12</td>
<td></td>
</tr>
<tr>
<td>19 19</td>
<td>7 37</td>
<td>10 53</td>
<td>2 11</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>157</strong></td>
<td><strong>99 63%</strong></td>
<td><strong>33 21%</strong></td>
<td><strong>25 16%</strong></td>
</tr>
</tbody>
</table>

Table 4.2 indicates a somewhat different pattern of the use of the progressive with this situation type; as compared to the bare mi-form, i.e. 21%, the dāštan-progressive amounts to 63%. A chi-square test shows that the dāštan-progressive is significantly more frequent; \( \chi^2 (1) > 33.000, p = .001 \).

In comparison to the figures in Table 4.1, use of the dāštan-progressive is somewhat higher with the causatives with effected, (71%), than with causatives with affected, i.e. transformed objects, (63%), in Table 4.2. No significant difference was found in the use of the dāštan-progressive between the causative events with effected and affected objects, \( \chi^2 (1) > 2.231, p = .135 \).

Clip 19, A boy is letting air out of a balloon, shows a lower total number of speakers than the other clips in the set. This is because there are relatively many disqualified event descriptions such as a missing main verb or the event in the clip is misinterpreted as other than a dynamic event.

Next, Table 4.3 presents the figures for all the verb forms occurring with non-agentive activities. Subsequently, a subset of Table 4.3 covering the three progressive constructions excluding copula is presented in Table 4.4.
for comparison of the progressives used here with those used with the causatives, i.e. the critical items, in Table 4.1. In this comparison, the activity events in Table 4.4 are the control items, which present the change in state with low dynamicity as in A candle is burning, i.e. the change in state can be conceived of as taking place when the candle burns down. The endpoint of the event is perceived as distant in time.

Table 4.3. Non-agentive activities, all verb forms used (overview)

<table>
<thead>
<tr>
<th>Clip #</th>
<th>Speakers</th>
<th>Dāštan-PROG</th>
<th>Verbal Noun</th>
<th>IPFV mi-form</th>
<th>Copula</th>
</tr>
</thead>
<tbody>
<tr>
<td>53 29</td>
<td>17</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>47 27</td>
<td>11</td>
<td>6</td>
<td>1</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>18 26</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>62 24</td>
<td>8</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>7 19</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.3 presents the full range of verb forms appearing in the speakers’ utterances about non-agentive activities. In many cases the situation seen in the five clips is represented as a state (with copula), and not as an event, as in The tap is open and The washing machine is on. Copula is presumably used because there is no perceptible human agent in the events. Thus, for instance, the tap can be seen as in the state of being open making the event non-agentive (cf. section 2.9.1 for human agents with activity verbs).

Overall, the figures for the events involving the non-agentive activities give a different picture than was observed with the causatives in Tables 4.1 and 4.2 where the dāštan-progressive is clearly predominant. First, non-agentive activities take copula to mark a state almost as often as the dāštan-progressive occurs. Second, there is a conspicuously low rate of occurrence of the bare mi-form. Recall that these are causatives with which the change-in-state has very low dynamicity with far off endpoints not shown in the clip.

Since the previous studies by the Heidelberg–Paris group do not specify use of copula in the context of activities, Table 4.3 is rewritten as Table 4.4 showing only the proportion of the three different progressive constructions. Nevertheless, use of copula with activities is not an exception relevant to Persian only. It is important to consider these uses because the proportional relations between the verb forms used may change considerably when copula is included or excluded, as evident in Tables 4.3 and 4.4. This study regards it important to report the full range of the verb forms used, unlike former studies on L1 English in which copula is not mentioned.
Table 4.4. Non-agentive activities excluding copula, control items: L1 Persian

<table>
<thead>
<tr>
<th>Clip # Speakers</th>
<th>Dāštan-PROG n %</th>
<th>Verbal noun n %</th>
<th>IPFV mi-form n %</th>
</tr>
</thead>
<tbody>
<tr>
<td>53 27</td>
<td>17.63</td>
<td>7.26</td>
<td>3.11</td>
</tr>
<tr>
<td>47 18</td>
<td>11.61</td>
<td>6.33</td>
<td>1.6</td>
</tr>
<tr>
<td>18 10</td>
<td>5.50</td>
<td>3.30</td>
<td>2.20</td>
</tr>
<tr>
<td>62 21</td>
<td>8.38</td>
<td>8.38</td>
<td>5.24</td>
</tr>
<tr>
<td>7 9</td>
<td>4.44</td>
<td>4.44</td>
<td>1.11</td>
</tr>
<tr>
<td>Total</td>
<td>45.53%</td>
<td>28.33%</td>
<td>12.14%</td>
</tr>
</tbody>
</table>

Table 4.4 shows that the dāštan-progressive is the most frequent of the three verb forms, occurring with a clear preference in 53% of the cases in relation to the total use of the verb forms, while the verbal noun construction is used in 33% of the cases. In contrast, the imperfective bare mi-form is used least, 14%, for situations with low dynamicity. A chi-square test shows that the dāštan-progressive is significantly more frequent than the mi-form; $\chi^2 (1) > 19.105, p = .001$.

Comparing causative events with effected object in Table 4.1 and non-agentive activities in Table 4.4, no significant difference is found in the use of the dāštan-progressive; $\chi^2 (1) > .307, p = .580$. The result is important as it shows that the high vs. low dynamicity factors involved in the events lead to similarly high use of the dāštan-progressive.

The results obtained can be summarised in three points. Tables 4.1-4.4 showed, firstly, that L1 Persian speakers use the dāštan-progressive to a markedly greater extent than the imperfective bare mi-form, with homo- and heterogeneous causative events, and those with affected objects. Among these situation types, the most frequent use is found with the homogeneous events where the endpoint is inherently present as the resultant state. Thus, the two features of homogeneity and inherent endpoint form two important factors leading to this aspectual perspective. However, heterogeneity along with inherent resultant state is as strong an attractor of the use of the progressive as homogeneity. Recall that the distinct stages of the heterogeneous sub-events, leading to a resultant state of object completion, function as a clear measure of an activity being in progression (cf. section 2.9.1.1).

Non-agentive activities are conceived of as being either states or dynamic events in progression towards an inherent resultant state with low dynamicity. Relating to these dynamic events, the evidence is strong for the feature of the progressive change towards the inherent endpoint in causatives, i.e. an inherent endpoint reached with high/low dynamicity, as crucial for the high frequency of the dāštan-progressive; the contrast perceived in the sub-events
between the states leading up to the completion of the object and the resultant state when completed is precisely the progressive change in state.

Secondly, Persian speakers use the *dāštān*-progressive as frequently for situations showing a qualitative change of an entity with high dynamicity, as in *Someone knitting a scarf*, and *Someone folding a paper airplane*, as for situations showing a change in state with low dynamicity as in *A candle is burning*. The finding that the *dāštān*-progressive in Persian does not show less sensitivity to situations associated with low dynamicity reflects the fact that both the situations have a progressive component, confirming the status of the *dāštān*-progressive as the progressive proper (cf. Flecken 2010, p. 124 fn. 14).

The semantics of the progressive proper is reflected in causatives denoting high/low dynamicity, as shown in Figure 4.2.

<table>
<thead>
<tr>
<th>causatives with affected objects</th>
<th>homogeneous creation</th>
<th>high dynamicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>homogeneous creation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>heterogeneous creation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>transformation</td>
<td></td>
<td>high dynamicity</td>
</tr>
<tr>
<td>homogeneous creation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>heterogeneous creation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>causatives with far off endpoints</td>
<td>transformation</td>
<td>high dynamicity</td>
</tr>
<tr>
<td>transformation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(non-agentive activities)</td>
<td></td>
<td>low dynamicity</td>
</tr>
</tbody>
</table>

Figure 4.2. *The progressive proper in relation to different event types*

There is a particular distinction between the concepts of ongoingness and progressivity in the Heidelberg–Paris model, as explicated in Behrens et al. (2013, p. 116; cf. section 2.9.1.1); the meaning of ongoingness is conveyed by the verb form denoting situations where no endpoint exists but the event stops when the doer stops acting, i.e. agentive activities as in *play, run* and *walk*. In contrast, progressivity is conveyed by the verb form denoting situations which lead to a resultant state with high dynamicity. These technical terms of the distinction used in the model overlap with their general denotations. The term progressive denotes the form and the terms ongoingness and progressivity denotes the meanings it conveys. These are employed in discussing the present project.

The distinction employed by the model should not be confused by the fact that in English only the progressive form is used at the formal level. The same form conveys ongoingness with agentive activities and progressivity with causatives with affected objects. Note that different forms are not expected for the two concepts. Thus, the distinction is a technical one employed to differentiate the progressive proper in languages. In Persian, two verb forms are possible for both ongoingness and progressivity, though the *dāštān*-progressive is clearly more dominant.

Thirdly, progressivity is expressed in Persian up to 100% in the situation types tested. Notably, the system provides three different forms for express-
ing progressivity. The dāštān-progressive consistently conveys progressivity more frequently while the imperfective bare mi-form occurs to a significantly lesser extent. The existence of three forms denoting progressivity reflects the fact that Persian does not have an obligatory form, unlike English. It can be considered as a well-evidenced fact that the bare mi-form conveys progressivity as it is used in the here-and-now contexts of the single events, i.e. ongoingness at the time of speaking, along with the dāštān-progressive. Recall that the dāštān-form also has the mi-marker. Since the verbal noun construction is not marked for aspect, it is omitted from the discussion.

Overall, the results showed that the dāštān-progressive is used significantly more frequently than the bare mi-form in the contexts of high and low dynamicity. This characterises the dāštān-progressive as having developed the particular focalised meaning denoted in the speaker’s here-and-now contexts, while the bare mi-form is known to denote the general imperfective aspect characteristic of the present, apart from progressivity. Next, the intermediate and end phases of motion events are examined, showing how the aspectual forms in Persian relate to these types of dynamic events.

### 4.2.1.2 Motion events — critical and control items

The experiment with motion verbs examines the following three things. Firstly, it looks at which of the aspectual forms is more frequent. Secondly, in comparing contrastively the results for progressive and endpoints with critical items with those for control items, it tests the hypothesis whether the L1s involved show similar patterns in encoding endpoints (for hypothesis see section 3.2.1). This is a point where speakers of what the Heidelberg–Paris model calls aspect and non-aspect languages differ as they encode endpoints significantly less frequently due to the progressive aspect than when the aspect is lacking (von Stutterheim et al., 2012a). With respect to the endpoints, the speaker may choose to mention the explicitly shown goal with a separate endpoint adjunct, or else no inferences about the goal are made. This depends on which phase is focused in the video clip and what kind of aspectual structure the language has (cf. section 2.9.1.2).

As pointed out in the former section, L1 Persian speakers have three different verbal structures available for the expression of progressivity. The focus is on the use of the progressive form proper, the dāštān-progressive.

The material used is ten critical items of the motion events, which makes 300 utterances in total. Out of them 226 utterances referring to dynamic events were analysed as the participants verbalised the clips as situations presenting motion events. However, 74 utterances were not analysable for the following reasons: 30 utterances were with the perfective past tense and did not have the required progressive/imperfective forms; 12 utterances used verbs change of place, such as bring, drag, pull and take; 4 used modal verbs; 4 used verbs denoting inherent endpoints such as enter that are not motion events; also 2 utterances with copula + present/past participle were
excluded. There were 22 utterances in which the speaker re-interpreted the ongoing event as other than a motion event, as in *I did not use my car*. In some of these 22 cases, the main verb was missing or copula was used, or the answer was blank.

To describe the overall endpoint encodings and the lack thereof in the set of 300 utterances of the critical items, all the possible verb forms used are presented in two columns in Table 4.5. Also, the column for totals gives the overall occurrences of the particular verb form.

Table 4.5. *Motion events, all verb forms, (overview)*

<table>
<thead>
<tr>
<th>Verb form</th>
<th>- Endpoint n %</th>
<th>+ Endpoint n %</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pr/pt <em>dāštān-</em> progressive</td>
<td>92 66</td>
<td>47 34</td>
<td>139</td>
</tr>
<tr>
<td>pr/pt <em>mi-</em> form</td>
<td>40 59</td>
<td>28 41</td>
<td>68</td>
</tr>
<tr>
<td>pr/pt verbal noun structure</td>
<td>15 79</td>
<td>4 21</td>
<td>19</td>
</tr>
<tr>
<td>Total analysed</td>
<td>147 65</td>
<td>79 35</td>
<td>226</td>
</tr>
</tbody>
</table>

| Excluded                         |               |               |         |
| perfective past tense            | 16            | 14            | 30      |
| change of place verbs ‘drag’     | 7             | 5             | 12      |
| pr/pt modal verbs                | 2             | 2             | 4       |
| verbs with inherent endpoint     | 0             | 4             | 4       |
| copula + pr/pt pple              | 0             | 2             | 2       |
| reinterpreted as other than a motion event: incl. copula, irrelevant endpoint, and no verb | n/a | n/a | 22 |
| Total excluded                   |               |               | 74      |
| Total                            |               |               | 300     |

Table 4.5 shows that utterances with the *dāštān*-progressive, imperfective *mi*-form, and verbal noun construction are used most often.

Table 4.6 differentiates the results for the motion events, critical items, on the basis of the individual film clip and the number of speakers involved. The three verb forms with the critical items of the motion are shown. The speaker numbers less than 30 are due to the omissions of disqualified utterances, as reported on above.
The first finding observed in Table 4.6 on the critical items is the difference relevant to the overall use of the dāštan-progressive versus bare mi-form. There is a clear overall preference for the use of the dāštan-progressive, i.e. 62%. It is significantly more frequent than the overall use of the bare mi-form, i.e. 30%; $\chi^2 (1) = 25.298$, $p < .001$.

Looking at the overall endpoints, Table 4.6 shows that the no mention of the endpoint with motion verbs, critical items, is in 65% of the cases, while the endpoint is mentioned in 35% of the cases. There is a statistically significant difference ($\chi^2 (1) = 16.685$, $p < .001$). The high overall frequency of no mention of the endpoint is indicative of the speakers' tendency to attach little attention to the endpoint. It is not that speakers of aspect languages do not mention endpoints. Rather, they tend to show a low rate of their encoding, as reported by von Stutterheim et al. (2012a) on a number of European languages.

There is a thing to notice about endpoints and preferences. The preferences this project looks at are not absolute preferences the speakers should conform to in language production. Speakers are not obliged to produce language resorting to particular structures. They verbalise what they think is reportable and the grammaticality of the linguistic form benchmarks reportability. Thus, the L1 utterances do not involve grammatically incorrect forms. The averages in the tables show which form the speakers usually use rather than not, indicating speaker preferences.

A general speaker preference pattern is discernible in Table 4.6. Looking at clips 48, 33, 44, 57, and 13, particularly, in which use of the dāštan-progressive is high, no mention of endpoint is also a conspicuous feature.

However, all utterances do not conform to the pattern. A more specific speaker preference is seen in clip 59, Two ladies are walking towards a
house and, clip 27, *A child is walking towards a playground*, where the mention of the endpoints is unexpectedly high in the context of the *dāštan*-progressive. Similarly, in clip 22, *A man is walking across a street towards a car*, the mention of the endpoint is high as is the use of the bare *mi*-form. These clips show a different pattern.

The examples concretely illustrate that there can occur variation within the speaker preferences but it is not an issue of ungrammatical verbalisation. Responses to clips 27 and 59 do not represent the typical preference pattern observed with the critical items as the endpoint is encoded frequently in the context of the *dāštan*-progressive. Similarly, clip 22 differs from the typical pattern as the bare *mi*-form is used, instead of the *dāštan*-progressive, and the endpoint is encoded frequently.

A question of interest arises as to whether the speakers regard these three clips as belonging to the category of the control items, as if considering the given goal as definitely reached. A qualitative analysis (cf. section 3.4) of the utterances shows, however, that this is not the case. The analysis reveals frequent use of the compound prepositions *be samte, be tarafe ‘towards’*, indicating that endpoints were not considered as reached. This is evidence for the items being understood as critical items, in which the endpoints are never shown as reached while all control items explicitly show them as reached. Thus, there was no misinterpretation on the part of the speakers. The frequent use of *towards* only indicates that variation within the main speaker preferences is fully possible.

Further, a chi-square test used for the causatives with affected objects (Table 4.2) and motion events, critical items (Table 4.6) shows no significant difference in the use of the progressive. ($\chi^2 (1) = 2.375, p < .123$). This means that the *dāštan*-progressive is similarly frequent with both situation types.

Similarly, a chi-square test used for non-agentive activities (Table 4.4) and motion events, critical items (Table 4.6), shows no significant difference; ($\chi^2 (1) = 2.945, p < .086$). It is in the 10% probability range and hence shows a clear tendency but not significant difference, as defined here.

These results show that the *dāštan*-progressive is used similarly frequently with causatives with affected objects and motion event, whereas there is an indication that it is used slightly less frequently with non-agentive activities than motion events. However, no significant differences are involved (see section 5.4 for discussion on the hypothetical order for use of the progressive in Persian). Notably, this pattern of use of the *dāštan*-progressive presents a new pattern in the hypothetical order for the use of the progressive, indicating different degrees of grammaticalisation of the progressive construction between languages such as Persian and Dutch (cf. Figure 2.12 in section 2.9.1.1).

Next, Table 4.7 deals with the control items of the motion verbs, depicting explicit endpoints. This time the order of presenting the figures in the table is rearranged according to the highest to lowest percentages in the col-
umn for the imperfective bare *mi*-form with the endpoint, the most frequently used verb form in this case.

Table 4.7. *Motion verbs, overt endpoints, control items: L1 Persian*

<table>
<thead>
<tr>
<th>Endpoint + Endpoint</th>
<th>Verbally None</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPV <em>mi</em>-form</td>
<td>66</td>
<td>154</td>
</tr>
<tr>
<td>Dāštan-PROG</td>
<td>22</td>
<td>214</td>
</tr>
</tbody>
</table>

Table 4.7 on the control items shows the difference relevant to the overall use of the dāštan-progressive vs. the bare *mi*-form. There is a clear preference for the use of the latter, i.e. 71%. It is significantly more frequent than the use of the dāštan-progressive, i.e. 24%; $\chi^2 (1) = 49.258$, $p<.001$.

Regarding overall endpoints, Table 4.7 shows that the absence of the endpoint encodings with control items is in 11% of the cases. Since the control items explicitly show that the endpoint is reached, their mention is expected to be high; 89% of the cases. Statistical significance is not needed for the control items.

Table 4.7 shows that 19% of the cases with the dāštan-progressive have an endpoint, while 67% of those with the bare *mi*-form have an endpoint. The result shows that when the language system provides two aspectual
forms, they are not similarly used but show a distinction; the bare *mi*-form is preferred with endpoints.

Regarding the contrast between critical and control items, significantly more informants use the *dāštān*-progressive without endpoint for the critical than for the control clips. Correspondingly significantly more informants use the bare *mi*-form with endpoint for the control than for the critical clips. There is no significant difference in the number of informants using the bare *mi*-form without endpoint for the two sets of clips. Significantly more informants use the bare *mi*-form with an endpoint for the control than for the critical clips. Finally, significantly more informants use some other form of expression for the critical than for the control clips.

In sum, the overall results from Experiment 1 characterise the *dāštān*-progressive in Persian and its difference between the imperfective bare *mi*-form: dynamic events with high/low dynamicity and motion events without explicit endpoints take the *dāštān*-progressive frequently. Correspondingly, events with high/low dynamicity take the bare *mi*-form less frequently while explicit endpoints in motion events increase its use. The evidence provided is robust. A few clips diverged from this pattern showing that variation in speaker preferences is possible within the limits of grammaticality.

4.2.1.3 Observations from some European languages

Investigation of European languages such as Dutch, Italian and French shows that use of aspectual distinctions encoding an event as ongoing is not obligatory in any context. Recall, however, that agentive activities such as *play, run* and *walk* (cf. section 4.2.1) prototypically take the progressive. Contrary to this, speakers of Dutch, Italian and French use the progressive form more frequently when describing single events classified as causatives than agentive activities (Flecken, 2010, p. 109). Note that the set of clips used to compare English and Persian in this project include causatives, non-agentive activities and motion events, while agentive activities are excluded.

Flecken (2011, p. 504, 508) reports that motion events with an explicit endpoint represent a low attractor effect in the use of forms expressing ongoingness in Dutch, Italian and French (see also Carroll et al., 2008a, cited in Flecken 2010, p. 109), and in Norwegian and German (Flecken 2010). While the Progressive in Persian is used with all the event types tested showing no significant differences, the progressive construction in these European languages is very low with motion events, in particular, but also with non-agentive activities. In those languages the progressive construction is restricted to use with the critical items with no mention of endpoints. Thus, the *dāštān*-progressive is more similar to the Progressive in English than in Dutch and French.

Consequently, when the non-agentive activities admit the progressive as frequently as motion events in Persian, it diverges from the hypothetical order for the use of the progressive presented for the European languages (cf.
Flecken, 2011, p. 491; cf. section 2.9.1.1). While motion events in those languages tend to show very low or no use of the progressive, in Persian all the tested situation types admit the progressive without significant difference.

4.2.2 Persian L2 English

The investigation in this section proceeds in analogy with Experiment 1 on L1 Persian. This presentation on Persian L2 English is organised as follows:

1. Causative events with effected objects, (critical) (Table 4.8)
2. Causative events with affected objects, (critical) (Table 4.9)
3. Non-agentive activities, all verb forms, (control) (Table 4.10)
4. Motion events, all verb forms, (overview) (Table 4.11)
5. Motion events, inferred endpoints, (critical) (Table 4.12)
6. Motion events, overt endpoints, (control) (Table 4.13)
7. Endpoints, critical and control items, (overview) (Table 4.14)

4.2.2.1 Causatives and activities

In line with the illustration of the use of the progressive with single events in L1 Persian, the equivalent results are given for Persian L2 English examining if the use of the Progressive in Persian L2 English fully conforms to L1 English. A point of interest is in how far Persian L2 English learners use the aspect form, indicating the acquisition of the rules of usage, given this language production task. Secondly, in terms of conceptualisation, the results establish if there is any influence of L1 Persian on the Persian L2 English performance as the L2 learners deal with two different aspect systems. Some utterances were disqualified from the analysis, as explained in section 4.2.1.1. As English has one obligatory form available for expressions of ongoingness, no contrastive comparison of the verb forms is possible; only the use of the progressive is compared across the different event types. Table 4.8 shows the use of the progressive with causatives with created, i.e. effected, objects as in someone is stringing a necklace.
Table 4.8 shows the use of the progressive form in all cases except for two utterances for clip 36, as copula is used: *The woman is busy knitting something for her grandchildren* and *There is a lady knitting a scarf*. Since the whole range of forms occurring in the language production in the experiment must be considered, the expressions with copula are not excluded. They reflect the speakers’ reinterpretations of the situations as states. However, the use of copula does not have any negative effect on the overall results as the progressive form is used in all cases when the situation in the clip is described with an event verb, indicating that the L2 English learners have mastered the rules for the progressive. Table 4.8 shows that there is no difference between homogeneous (24, 34, 36) and heterogeneous (10, 14, 40) events.

Next, Table 4.9 shows the use of the progressive with causatives with affected, i.e. transformed, objects in Persian L2 English.

Table 4.9. *Causative events with affected objects, critical items: Persian L2 English*
The use of the progressive with causatives with affected objects shows slightly more variation with copula than causatives with effected objects observed in Table 4.8. Copula occurs in five cases describing the situations as states. This is illustrated by the following examples from the L2 English data: Clip 12, *A woman is busy peeling potatoes*; Clip 19, *Here is a little boy emptying his balloon*; Clip 31, *Here is a young man shaving*. Importantly, the progressive form occurs in all the cases when an event verb is used.

Next, Table 4.10 shows the use of the verb forms produced with non-agentive activities. They function as the control items in the comparison between the critical items comprising the causatives with effected objects.

Table 4.10. Non-agentive activities, all verb forms, control items: Persian L2 English

<table>
<thead>
<tr>
<th>Clip #</th>
<th>Speakers</th>
<th>Progressive</th>
<th>Copula</th>
<th>There is X</th>
<th>Cop+ppl</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
</tr>
<tr>
<td>47 30</td>
<td></td>
<td>26 87</td>
<td>1 3</td>
<td>0 0</td>
<td>3 10</td>
</tr>
<tr>
<td>18 30</td>
<td></td>
<td>24 80</td>
<td>5 17</td>
<td>1 3</td>
<td>0 0</td>
</tr>
<tr>
<td>7 29</td>
<td></td>
<td>21 72</td>
<td>3 10</td>
<td>4 14</td>
<td>1 3</td>
</tr>
<tr>
<td>53 29</td>
<td></td>
<td>25 86</td>
<td>2 7</td>
<td>2 7</td>
<td>0 0</td>
</tr>
<tr>
<td>62 26</td>
<td></td>
<td>22 81</td>
<td>1 4</td>
<td>2 8</td>
<td>1 4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>118 81%</td>
<td>12 8%</td>
<td>9 6%</td>
<td>5 3%</td>
</tr>
</tbody>
</table>

Progressive is the most frequently used form with the non-agentive activities, i.e. 81%. Other forms employed are as follows: copula has been used 12 times, i.e. 8%. Utterances about clip 7, *It is a candle burning* and clip 18, *The water tap is open* exemplify the use. Also, the existential structure *There is X* occurs 9 times, i.e. 6%, as used about clip 53, *There is a washing machine*, and clip 62, *There is a vitamin tablet getting dissolved in a glass of water*. Yet another structure is copula followed by the past participle. It appears 5 times, i.e. 3%, as in clip 47, *A cigarette is put in the ash tray*.

Overall, the most frequent verb form used with the event verbs is the obligatory progressive. In comparison to the different event types, however, there is an indication that the L2 English speakers are slightly more reluctant to use the progressive with the non-agentive activities, which is where the *dāštān*-progressive is used less than with the other event types even in their L1 Persian; the absence of the agent tends to make the speaker regard the events as states.

In sum, the occurrence of the progressive is 100 per cent with all causatives and activities in Tables 4.8–4.10 when an event verb is used. Given this task, the Persian L2 English performance at this rate might be, partly, due to
positive transfer from L1 Persian and, partly, saliency of the L1 English progressive. The key finding is that these speakers have acquired the rules of use of the progressive in L2. The next section probes into motion events.

4.2.2.2 Motion events — critical and control items

As the first step of analysing the propositions about motion events, an overall rate of occurrence of all the different verb forms used is given. The number of participants, N, is 30. There are 10 critical items of the motion events, which produced 300 utterances in total.

42 utterances are not analysable for the endpoint, as they either have verbs denoting a change of place, copula or the light verbs have, and see in some cases. These are cases in which the speaker has not interpreted the clip as an ongoing event. Further, in some utterances the main verb is missing.

Table 4.11. *Overall occurrences of endpoint encodings with different verb forms in motion events, critical items*

<table>
<thead>
<tr>
<th>Verb form</th>
<th>- Endpoint n %</th>
<th>+ Endpoint n %</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pr/pt progressive</td>
<td>156 66</td>
<td>81 34</td>
<td>237</td>
</tr>
<tr>
<td>pr/pt simple verb form</td>
<td>9 4</td>
<td>12 57</td>
<td>21</td>
</tr>
<tr>
<td>Total analysed</td>
<td>165 64</td>
<td>93 36</td>
<td>258</td>
</tr>
</tbody>
</table>

| Excluded                   |                |                |        |
| change of place verbs; ‘drag’ | 16 62         | 10 38          | 26     |
| reinterpreted as other than a motion event: incl. copula, irrelevant endpoint, and no verb | n/a | n/a | 16 |
| Total excluded             | 181            | 103            | 300    |

Out of the total of 258 utterances with event verbs analysed, no mention of the endpoint occurs in 64% of cases; around two-thirds of the descriptions exclude the endpoint. This high frequency of the no mention of the endpoint is indicative of the speakers’ overall tendency not to attach attention to the endpoint.

Like the results for motion events in L1 Persian, the result here confirms the earlier finding to the effect that when the language system provides the progressive form, the endpoint is less likely to be encoded. Recall that no
mention of endpoints in L1 Persian, i.e. 65%, is close to that in L2 English, 64% (for endpoints in L1 English see Table 4.14 in section 4.2.2.2.1).

Next, the extent to which the progressive is used by the Persian L2 English learners with motion event, critical items, is presented in Table 4.12.

Table 4.12. Motion events, inferred endpoints, critical items: Persian L2 English

<table>
<thead>
<tr>
<th>City # Speakers</th>
<th>Progressive – Endpoint</th>
<th>Progressive + Endpoint</th>
<th>Simple form – Endpoint</th>
<th>Simple form + Endpoint</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>24.89%</td>
<td>48.68%</td>
<td>26.00%</td>
<td>52.00%</td>
<td>108.00%</td>
</tr>
<tr>
<td>35</td>
<td>57.28%</td>
<td>21.78%</td>
<td>25.77%</td>
<td>25.77%</td>
<td>108.00%</td>
</tr>
<tr>
<td>152</td>
<td>13.27%</td>
<td>21.78%</td>
<td>25.77%</td>
<td>25.77%</td>
<td>108.00%</td>
</tr>
<tr>
<td>58</td>
<td>41.26%</td>
<td>18.72%</td>
<td>18.72%</td>
<td>18.72%</td>
<td>108.00%</td>
</tr>
<tr>
<td>12</td>
<td>48.24%</td>
<td>18.72%</td>
<td>25.77%</td>
<td>25.77%</td>
<td>108.00%</td>
</tr>
<tr>
<td>10</td>
<td>59.30%</td>
<td>17.57%</td>
<td>8.57%</td>
<td>8.57%</td>
<td>108.00%</td>
</tr>
<tr>
<td>16</td>
<td>39.12%</td>
<td>12.44%</td>
<td>11.11%</td>
<td>11.11%</td>
<td>108.00%</td>
</tr>
<tr>
<td>12</td>
<td>39.12%</td>
<td>12.44%</td>
<td>11.11%</td>
<td>11.11%</td>
<td>108.00%</td>
</tr>
<tr>
<td>8</td>
<td>27.30%</td>
<td>1.87%</td>
<td>1.87%</td>
<td>1.87%</td>
<td>108.00%</td>
</tr>
<tr>
<td>Total</td>
<td>258</td>
<td>158.60%</td>
<td>237.00%</td>
<td>237.00%</td>
<td>515.60%</td>
</tr>
</tbody>
</table>

Out of the total of 258 utterances, Table 4.12 shows that the Persian L2 English speakers use the progressive in the clear majority of the cases. However, they use the English simple form as an optional form for the progressive in 8 per cent of the cases, 5 per cent of which appear in the context of the mentioned endpoint.

Thus, overall, more than half of the cases with the simple form give the endpoint, while only a third of those with the progressive do so. Although the number of cases of the simple form is very low, this result is significant;
\[ \chi^2 (1) > = 4.413, \ p < .036. \] The finding may indicate that the Persian L2 English speakers tend to differentiate between the form and the endpoint so that the simple form, even though it is erroneous, is associated with the endpoint. Again, even though there is a significant association in this respect, the numbers are low. Generally, the erroneous use of the simple form about ongoing event reflects the L2 learners’ problem with tackling two aspectual systems in processing language for verbalisation.

Table 4.12 also mirrors the results for the individual clips, given in Table 4.6 for L1 Persian. Like in the given table, the very same individual clips, i.e. clips 33, 57, 13, 3, 44, and 48, also show the most infrequent mention of the endpoints in Table 4.12 for Persian L2 English. In these clips, the speakers view the events in their intermediate phases, and the mention of the endpoint is low. Results for these individual clips are not available for L1 English for a comparison whether these clips attract mention of the endpoint.

Even though they seem to associate the simple form with the endpoint, the Persian L2 English speakers mainly use the progressive with the control items in which the endpoint is clearly shown. Table 4.13 below shows the use of the progressive with motions events, control items, in Persian L2 English.

Generally, as the control items explicitly show the endpoint as reached, it is frequently mentioned. Consequently, in looking at the possible speaker inferences made about the endpoints, the critical items are more central to observe than the control items. The pattern in L1 English is that the obligatory progressive has to be used regardless of the encoding of the endpoint, or not. Table 4.13 shows that the Persian L2 English speakers use the progressive twice as often with endpoints as the simple form with endpoints.
Table 4.13. Motion events, overt endpoints, control items: Persian L2 English

<table>
<thead>
<tr>
<th>Clip ≠ Speakers</th>
<th>Progressive</th>
<th>Simple form</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endpoint</td>
<td>- Endpoint</td>
<td>+ Endpoint</td>
<td></td>
</tr>
<tr>
<td>n</td>
<td>n %</td>
<td>n %</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>14.48</td>
<td>13.45</td>
<td>24</td>
</tr>
<tr>
<td>17</td>
<td>13.46</td>
<td>11.39</td>
<td>29</td>
</tr>
<tr>
<td>60</td>
<td>17.64</td>
<td>17.01</td>
<td>78</td>
</tr>
<tr>
<td>46</td>
<td>17.59</td>
<td>18.69</td>
<td>71</td>
</tr>
<tr>
<td>23</td>
<td>3.28</td>
<td>3.26</td>
<td>20</td>
</tr>
<tr>
<td>23</td>
<td>3.28</td>
<td>3.26</td>
<td>20</td>
</tr>
<tr>
<td>15</td>
<td>15.65</td>
<td>15.65</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>278</td>
<td>150.54</td>
<td>76</td>
</tr>
</tbody>
</table>

| Endpoint       | - Endpoint  | + Endpoint  |       |
| n              | n %         | n %         |       |
| 17             | 13.46       | 11.39       | 29    |
| 60             | 17.64       | 17.01       | 78    |
| 46             | 17.59       | 18.69       | 71    |
| 23             | 3.28        | 3.26        | 20    |
| 23             | 3.28        | 3.26        | 20    |
| 15             | 15.65       | 15.65       | 15    |
| Total          | 278         | 150.54      | 76    |

Table 4.13 shows slightly increased erroneous use of the simple form, with control items, in 27 per cent of the utterances. It also shows that the Persian L2 English speakers mention the endpoint with motion verbs, control items, less frequently, i.e. 78%, than the L1 Persian speakers, (89%), as presented in Table 4.7 in section 4.2.1.2. Both figures are, however, high and conform to those from the earlier studies (von Stutterheim et al., 2012a) in which 80 per cent is presented as the norm.

Overall, regarding endpoints with the progressive as the principal verb form, they are encoded in 36% of the cases as shown for motion events, critical items in Table 4.12. The rate is as high as with the L1 Persian speakers, i.e. 35%, for critical items in Table 4.6.

Comparison of Tables 4.12 and 4.13 shows that significantly more informants use the progressive (without endpoint) for the critical than for the control clips; \( \chi^2 (1) > =70.267, p< .001 \). Correspondingly significantly more
informants use the progressive with endpoint for the control than for the critical clips.

In 24% cases out of 27% of the cases where the English simple form is used as an optional form for the progressive, the simple form appears with endpoint. However, the equivalent numbers (5% out of 8%) for critical cases is too low for the chi-square test to be used, so this difference cannot be said to be significant.

It would be interesting to compare the L1 English performance with respect to the mention of the endpoint in the individual clips to see if L1 English speakers are likely to mention the endpoint about the same motion events in the manner the L1 Persian and Persian L2 English speakers seem to do. Since no data collection was carried out on the single events for L1 English speakers, this comparison cannot be done. The Heidelberg–Paris group only report on the use of the progressive being up to 100 per cent without further details of endpoint (von Stutterheim et al., 2009, p. 211). Such a comparison would indicate if some events presented in the clips are more prone to be regarded by the speakers as reached than others. It would be an important thing to observe if some of the critical items are prone to be perceived as having an end state, and then there is something in the event that causes such speaker preference. If different clips are perceived as having the end state, then that kind of cross-linguistic difference relates to different language-specific speaker preferences, not a particular feature of the event.

The next section looks at endpoint encodings cross-linguistically.

4.2.2.2.1 Cross-linguistic comparison of endpoint encodings

To compare the overall mention of the endpoints with motion events, both critical and control items, the results from this study are presented in Table 4.14. The figures for L1 English are 43.5 % as presented in von Stutterheim et al. (2012a). Notice that the equivalent figure, 23.3%, presented in von Stutterheim et al. (2009, p. 207) indicates that there is variation and a possible difference between the criteria used. However, both results are low, pointing to the same tendency of infrequent endpoint encoding.

This project takes the results presented in von Stutterheim et al. (2012a) as relevant for comparison here because the number of the motion events, critical and control items, is the same as in the present project, 20, involving exactly the same individual clips (cf. section 3.2.1). The clips used for the analyses in von Stutterheim et al. (2012a, p. 864) are clearly listed in the appendix while those relevant to von Stutterheim et al. (2009, p. 206) are only reported to comprise 18 items. Importantly, different studies have to make clear what clips are included because considerable differences may appear due to the individual event clips.
Table 4.14. *Endpoints, critical and control items, (overview)*

<table>
<thead>
<tr>
<th></th>
<th>Critical items</th>
<th>Control items</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1 English</td>
<td>44</td>
<td>87</td>
</tr>
<tr>
<td>L1 Persian</td>
<td>35</td>
<td>89</td>
</tr>
<tr>
<td>Persian L2 English</td>
<td>36</td>
<td>78</td>
</tr>
</tbody>
</table>

Table 4.14 shows that the endpoint encoding is, generally, low with critical items in the three speaker groups. As compared to the figures for L1 English, the trend is the same for the two Persian groups, i.e. infrequent mention of endpoint with critical items. In contrast, in control items in which the endpoint is clearly shown as reached, the endpoint is frequently encoded.

However, the result for the mention of the endpoints with critical items for Persian L2 English may provide evidence for transfer from L1 Persian; the mention of the endpoints in both L1s differ; while all the groups are low, the Persian groups are low at the same level. The raw numbers are not available for L1 English to conduct a statistical comparison of significance.

Yet, it would be interesting to inquire in further research into the issue whether these L2 learners tend to mention the endpoints less frequently because they associate the use of the progressive with no mention of endpoints, like in their L1, or whether they have acquired the principles of its use in L2 English in which they also have to learn to use the progressive both with and without endpoints. As restructuring the L1 rules of use are found to be difficult, the use of the Progressive in English with and without endpoints may be challenging for these L2 learners.

The next section presents the results for Experiment 2.

### 4.3 Experiment 2 — Event conceptualisation

In Experiment 2 the narratives serve to test how the speakers of the selected languages proceed when having to talk about a series of events, given the progressive as the common grammaticalised feature. The experiment gives insights into event conceptualisation and the way events are organised into a sequence in preparing information for verbalisation in the conceptualiser.

The task quaestio ‘what happened’ plays a crucial role as the underlying organising principle in language production (von Stutterheim & Klein, 1989; cf. section 2.8.1.4). Propositions providing an answer to the quaestio belong to the main structure of discourse. Those that do not answer the quaestio but give extra information are side structure (cf. section 2.8.2).
The basic findings (cf. Carroll et al., 2008b; von Stutterheim & Lambert, 2005) have established that, in addition to the ordinary temporal relations used to convey the sequence in which events occurred, there is cross-linguistic variation, pertaining to distinctions such as encoding of events as bounded, iterative, simultaneous or perspective taken on events such as being in progression, as evidenced in the system-related language-specific differences between languages such as English, French and German. Choices to mark these temporal relations in event construals are dependent on how linguistic systems are structured, as for instance, whether or not aspect is expressed by way of independent morphology (von Stutterheim & Lambert, 2005, p. 220). To exemplify, the different ways systems are structured in English and French may show up as frequent use of the Progressive in English in contrast to subordination in French (ibid.).

The current experiment builds on the work by the Heidelberg–Paris group in looking, at a sub-level of analysis of the temporal frame of reference, at a number of individual features that emerged in the earlier Heidelberg–Paris studies as parameters relevant to event conceptualisation, i.e. perspective-taking and features mirroring the temporal relations in event construals, as well as the overall temporal frame of reference in narratives, as presented in section 2.9.3. This section investigates such individual parameters obtaining an overall picture of event conceptualisation in the three data sets.

Main structure
Macro level processes:
1. Granularity: number of events and phases of events
2. Phasal decomposition: treatment of inchoative begin, start
3. Temporal shift: begin, start and try as left boundary
4. Event boundedness: bounded and unbounded events

Micro level process:
5. Temporal structuring: use of temporal shifter then

Side structure
Macro level process:
1. Phasal decomposition: use of the progressive

The parameters are analysed quantitatively. When necessary, the analysis is complemented qualitatively (cf. section 3.4). The stimulus used has been described in section 3.2.2. The relevant hypothesis is given in the context of each parameter below.

The quantitative accounts of the relevant linguistic parameters are presented in Tables 4.15–4.21 following the order as listed above and outlined in detail in section 2.9.3. Relating to the macro level of language production and main structure domain of narratives, section 4.3.1 gives the results for the level of granularity. Section 4.3.2 presents the treatment of phasal de-
composition in which use of the inchoatives *begin* and *start* is also involved. Sections 4.3.3 and 4.3.4 give a numerical account of the complexities involved in temporal shift and boundedness. Section 4.3.5 reports the use of the temporal adverbial *then*. Moving on to side structure, section 4.3.6 establishes the role of the progressive there. In addition, the progressive is an integral part of temporal frame of reference as well as part of phasal decomposition along with *begin* and *start*.

As mentioned in section 3.1.1, direct comparison of results for English and Persian from this project to those for English from the previous work in the Heidelberg–Paris model is not possible. To exemplify, here the English and Persian data have been subjected to analysis as complete wholes and no differentiation between the different temporal frames of reference within any of the data sets has been done in the way the model suggests (cf. sections 2.9.2.3. and 2.9.2.4). Since English and Persian have the progressive aspect in common, it is justified to investigate these data as complete wholes. In this project, however, reference is made to the results from the previous studies to point out the previously observed general trends, instead of a comparison of the exact results.

There are further restrictions for a close comparison to former investigations within the model. One is the fact that since speaker performance can vary vastly within a sample in terms of use of the grammaticalised means and length of text, it is necessary that the same episodes of the narratives are included in a comparison; the literature reports on results for a varying combinations of the episodes. More generally, also, the samples have to be relatively large to obtain reliable results. Another restriction is that the criteria of analysis, which are not sufficiently clear and detailed in the literature, may differ in the former studies. Different criteria lead to different results. Due to the solid set of criteria used for the analysis of the three data sets in this project (cf. section 2.8.2), the comparison is confined to the language groups of this project. Finally, statistical methods that accurately reflect the samples have to be used. It is necessary for researchers to state how these issues are treated and be consistent to safeguard comparability with previous work to facilitate accurate future research.

### 4.3.1 Granularity

Granularity pertains to the speaker’s chosen way of segmenting event units from an overall unstructured knowledge base the speaker has about the situation in question (von Stutterheim et al., 2002, p. 181). This corresponds to the choice of the speaker to speak about events seen, and referring to them in either a general or detailed resolution, i.e. either packaging the relevant information into a single main clause or segmenting it into phases of events by means of the progressive and inchoative verbs *begin* and *start* (cf. Talmy,
These speaker choices yield different levels of detail in different languages.

Thus, the Heidelberg–Paris prediction for granularity is that speakers of a non-aspect language such as German do not refer to small micro events as in *He is looking down*, and *He is swinging from the rock* but they are covered by other macro events or are not mentioned at all (von Stutterheim & Nüse, 2003, p. 859). This leads to fewer references to events about situations in the same visual stimulus (von Stutterheim et al., 2003, p. 117). The hypothesis tested here is that English and Persian with the progressive aspect show high granularity.

Table 4.15 displays the overall figures, both for the speakers involved and the utterances produced by the L1 English, L1 Persian, and Persian L2 English speakers. Observe that since in Table 4.15 both main and side structures are covered, the term *utterance* is relevant here. However, henceforth the term *proposition* is relevant as the focus of analysis is a section of the whole utterances such as main structure (cf. section 2.8.1.2).

The total number of utterances for each speaker group is given as the sum of the main structure, M, and side structure, S, of the narrative, propositions with the progressive being part of side structure (cf. section 2.8.2). In episodes 2 and 3 that were analysed, the total number of propositions is 1880 in L1 English, 1653 in L1 Persian, and 1534 in the Persian L2 English group.
Table 4.15. Overall scores for utterances in three data sets, bounded and unbounded events in main structure and the progressive in side structure

<table>
<thead>
<tr>
<th>Utterances</th>
<th>Bounded (M*)</th>
<th>Unbounded (M*)</th>
<th>(S**)</th>
<th>Progressives in (S**)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speakers</td>
<td>N %</td>
<td>N %</td>
<td>N %</td>
<td>N %</td>
</tr>
<tr>
<td>L1 En</td>
<td>1880</td>
<td>550.29%</td>
<td>279.15%</td>
<td>1051.56%</td>
</tr>
<tr>
<td>L1 Pe</td>
<td>1653</td>
<td>593.36%</td>
<td>335.20%</td>
<td>725.44%</td>
</tr>
<tr>
<td>L2 En</td>
<td>1534</td>
<td>425.28%</td>
<td>273.18%</td>
<td>836.54%</td>
</tr>
<tr>
<td>Total</td>
<td>5067</td>
<td>1568.37%</td>
<td>887.18%</td>
<td>2612.52%</td>
</tr>
</tbody>
</table>

* Main structure, ** Side structure
Table 4.15 shows the bounded and unbounded utterances as sub-parts of main structure along with their percentages. It also includes the whole side structure defining its proportion in percentage in relation to the whole main structure. The progressive is, then, given as a percentage of the total side structure, where the progressive belongs. The progressive makes, generally, only about 10 per cent of side structure indicating that there is around 90 per cent of other types of constructions in side structure (cf. side structure in section 2.8.2).

Depending on the level of granularity, a proposition can refer to an independent macro event, a sub-event or a phase of an event. The overall number of propositions is a measure of the level of granularity. The propositions may be bounded and marked either by an inherent or explicit endpoint as in *The rock under his feet cracks* and *The creature goes to the water pool* or unbounded in that they do not have such endpoints to mark the right boundary as in *He walks along*, *He starts to scratch at the damp paper*, and *He is digging the ground*. These propositions with the simple form belong to main structure, the ones with the progressive belong to side structure (cf. section 2.8.2). Propositions denoting inchoative phases of events are also part of main structure.

An independent-samples t-test was run to investigate the significance of the difference in granularity between the speaker groups. The test was run on the total of the bounded and unbounded events comprising main structure and all side structure including the progressive.

**Table 4.15a. Mean number of propositions per speaker group**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1 En</td>
<td>27.73</td>
<td>.345</td>
</tr>
<tr>
<td>L1 Pe</td>
<td>30.90</td>
<td></td>
</tr>
<tr>
<td>L1 En</td>
<td>27.73</td>
<td>.118</td>
</tr>
<tr>
<td>Pe L2 En</td>
<td>23.23</td>
<td></td>
</tr>
<tr>
<td>L1 Pe</td>
<td>30.90</td>
<td>.012</td>
</tr>
<tr>
<td>Pe L2 En</td>
<td>23.23</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.15a shows that there is no significant difference in granularity between the L1s. This result also indicates no difference in the text length by the L1 speakers. However, there is a significant difference between L1 Persian and Persian L2 English meaning that the L2 English speakers produce significantly less language. This difference is predominantly developmental and learning-related due to the L2 status of the language as there is no difference between the L1s.
In previous research such as Fant (2018), some features are found as typical of L2 speakers. They produce somewhat fewer words than any of the native groups. He explains this in terms of insufficient linguistic rather than sociocultural competence, in spite of the high proficiency level observed in the L2 speakers.

Diagram 4.1 based on Table 4.15 presents the relation between main and side structure across the speaker groups. The figures include all the possible main and side structure propositions such as the catenatives.

Diagram 4.1. Proportion of main and side structure across speaker groups

Diagram 4.1 shows that the proportion of main and side structure in the English texts is similar, and significantly different from that in the L1 Persian texts; $\chi^2 (2) = 58.751, p < .001$. The diagram also shows that the largest proportion of main structure is in L1 Persian. The largest proportion of side structure is in L1 English. One of the reasons behind the difference may be the fact that, unlike in English, the present participle does not form non-finite clauses in Persian. Thus, finite sub-clauses are common in Persian. Even though non-finite clauses can be formed with past participles, they seem to be formal and are not used in colloquial style. Clauses with the subjunctive can also function as non-finite clauses. Taken together, Persian seems to have fewer non-finite clauses than English (for an example of a non-finite clause, see Clip 40, line 10 in the L1 Persian data (see page 6).

The next section discusses the occurrence of the inchoatives begin and start in main structure, as part of phasal decomposition.
4.3.2 Phasal decomposition — treatment of begin and start

In this section a methodological problem is discussed. This means that the section does not report any results. The results for begin/start are given in Table 4.16 in section 4.3.3. The methodological problem concerns two notions. One is the notion of boundary which is associated with the left and right boundaries of an event in an event sequence. It relates to unfolding the story in terms of a temporal shift, i.e. shift in time on the story line (see section 4.3.3). The other is boundedness which refers to the terms unbounded and bounded and relates to right boundary. Left boundary comprises begin/start and try while right boundary can be bounded by an inherent endpoint as in The rock breaks or an adjunct as in He walks up to the hole.

Apart from forming the left boundary, begin/start and try are also included in the dual-verb combinations called catenatives as in begin to dig and start sliding into the ground. In language production these inchoatives contribute to a high level of granularity and represent the cognitive processes of segmentation of events into small units at the macro level of language production. In comparison to a language such as German with a low level of granularity and low use of begin/start, the hypothesis tested for English and Persian is that the use of these inchoatives is similar, meaning that it is high. Notably, begin and start are investigated as part of phasal decomposition in which the progressive also contributes to high level of granularity.

In what follows, the complexities with these left boundary markings are first explicated. As begin, start and try mark the left boundary of an event in the event sequence, they bring about a shift in time on the story line in main structure. In analysing them, it is the event that counts in determining the main structure, i.e. the narrative sequence. The event must occupy the next possible slot on the time line, as in He wakes up, which is bounded. This event occupies an interval/a single point on the time line (cf. section 2.8.2). In contrast, the unbounded event as in He hears water dripping nearby does not occupy an interval on the time line because it can continue over several intervals. In contrast, It starts to crack occupies an interval, given the specification of the point at which it commences (Mary Carroll, personal communication), as illustrated in (10).

(10)
1. And then it starts to crack          main structure
2. And he gives it another hit         main structure
3. It cracks a little more             main structure
4. The rock just sits in the hole      main structure
5. And all of a sudden the hole gives way main structure

As begin/start, and try specify the initial phase, they make the left boundary of an event (cf. section 2.6.8). However, there are two things to observe that
are not well explained in the relevant literature; whether the catenatives with begin/start, and try, as in start dripping, convey progressivity, and whether the event that started is bounded if it has an endpoint or unbounded by default and on what grounds.

The first issue is here clarified as follows: the sense of an event being ongoing, or expressing ongoingsness in any way, is not encoded by the catenatives. There has to be the formal morphology of the form be + V-ing of the progressive to encode an event as ongoing. Thus, begin/start, and try are not included in the scores for the progressive. Recall that these catenatives belong to main structure while the progressive belongs to side structure.

To illustrate the boundedness of the verbal component of the inchoative, it is possible to distinguish in (10) that, depending on the context, the event which is anchored by begin and start on the time line, i.e. by marking the left boundary, can be presented by the speaker as continuing; it starts to crack is an event that continues until the utterance in line 5. In contrast, in other contexts as in (11) the event that started does not continue.

(11)
1. He is wondering what to do side structure
2. He starts to dig main structure
3. The ground slips away main structure
4. He falls through into another world main structure

In (11), he starts to dig is not represented as continuing because the subsequent event marks it as discontinuing. The ground slips away is the endpoint where the event encoded as to dig ends.

Relevant for the analysis of the catenatives, (10) and (11) clarify that the utterances with the left boundary do not involve ongoingsness in the sense of progressivity. They also illustrate that the event that starts may end when the next event takes place or it may continue over some utterances.

Regarding the criteria for analysis of begin and start, a sample analysis from the Heidelberg–Paris group shows that all catenatives with begin and start were analysed as unbounded. This is explicated in the model as follows: temporal shift on the time line is marked via mention of the initial phase of the event with the use of the forms begin and start. Such events are thus anchored on the time line via the left boundary without specifying that the phase thus initiated is actually completed. The present project adopts a shift from only analysing catenatives as unbounded to analysing them as bounded or unbounded in terms of the boundedness of the main verb. This is to see to what extent the catenatives contribute to the propositions being bounded or unbounded, overall.

To illustrate, (10) shows that the event introduced with start does not reach completion even though the verb crack involves an inherent endpoint; start to crack does not specify that the cracking was completed. Thus, the
Heidelberg–Paris view is that even if the event that starts has an inherent endpoint and is bounded on its own, the combination with an inchoative does not specify its completion, as in (10). In contrast, *starts to dig*, as in (11) has an endpoint, which is where the next event, *The ground slips away*, starts.

The point of interest emerges due to the criteria used; the criteria of analysis cannot be used for inchoatives and ordinary event verbs in the same fashion because verbs with inherent endpoints may be unbounded in the context of inchoatives, and unbounded catenatives can have right boundary in the immediately following event. The question, then, arises as to how often catenatives combine with verbs with inherent endpoints and whether they affect the overall boundedness in main structure, if they are frequent. The question is important because languages with the progressive are generally more unbounded than those without it so the catenatives may considerably increase the overall number of unbounded events.

The shift in the use of the criteria (for further justification see section 4.3.4) emerges from the lack of transparency as to whether the event that starts and then continues, or discontinues, should be analysed as bounded or unbounded. It is not clear in the relevant literature if the criterion for the endpoint of the event that starts can typically be found in the context as in (11), or in the inherent or explicitly marked endpoint of the verb for the event that starts, as in (10) where the context allows the reading that the event with the inherent endpoint continues. Overall, the analysis of catenatives is not as straightforward as ordinary event verbs occurring in the narratives (for boundedness excluding catenatives see Table 4.18).

The catenatives with *begin/start*, and *try*, are presented together with other bounded and unbounded events of main structure in Table 4.16. While these catenatives mark the left boundary, boundedness of events as either bounded or unbounded marks the right boundary. Recall that the left and right boundaries relate to the temporal organisation of the narrative on the time line. The left and right boundaries share this function of temporal shift in narratives.

4.3.3 Temporal shift
The previous section elaborated on the major difference in the narrative analysis between the terms boundary and boundedness. Events in the narrative which are bounded shift the time line via a right boundary; events with a left boundary also shift the time line, even if they are unbounded. Boundaries are at a different level in the analysis – there is the time line as a whole on which each individual event takes up a slot. While boundaries are two, i.e. left and right, boundedness relates to the right boundary. The hypothesis tested with respect to temporal shift in English and Persian is the similarity of the right and left boundaries, respectively. Similarity of temporal shift is expected due to the shared progressive aspect.
In Table 4.16, the presentation of the number of events showing temporal shift along the time line include those with a right boundary, i.e. the bounded events, as well as left boundary consisting of begin/start and try. The overarching category in the analysis at this point is not boundedness but temporal shift on the time line. Table 4.16 distinguishes between the two types of temporal shift, marked as right and left boundaries. Notably, Table 4.16 also shows the occurrences of begin/start, discussed in section 4.3.2, which relate to phasal decomposition and level of granularity in narratives.

Table 4.16. Temporal shift

<table>
<thead>
<tr>
<th>Main structure</th>
<th>Right Boundary</th>
<th>Left Boundary</th>
<th>Left Boundary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>n %</td>
<td>n %</td>
</tr>
<tr>
<td>L1 En</td>
<td>1880</td>
<td>550</td>
<td>63</td>
</tr>
<tr>
<td>L1 Pe</td>
<td>1653</td>
<td>593</td>
<td>48</td>
</tr>
<tr>
<td>Pe L2 En</td>
<td>1534</td>
<td>425</td>
<td>62</td>
</tr>
</tbody>
</table>

The proportion of right boundary, on the one hand, and left boundary, on the other hand, were calculated in relation to the total of propositions in main structure. Looking first at phasal decomposition, the mean numbers for the use of begin/start in English and the equivalent šoroʃ in Persian, are given in Table 4.16a.

Table 4.16a. Mean numbers of begin/start and šoroʃ per speaker group

<table>
<thead>
<tr>
<th></th>
<th>begin/start, šoroʃ Mean</th>
<th>p-value (df = 58)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1 En</td>
<td>2.03</td>
<td>.398</td>
</tr>
<tr>
<td>L1 Pe</td>
<td>1.63</td>
<td>.951</td>
</tr>
<tr>
<td>L1 En</td>
<td>2.03</td>
<td>.450</td>
</tr>
<tr>
<td>Pe L2 En</td>
<td>2.07</td>
<td></td>
</tr>
<tr>
<td>L1 Pe</td>
<td>1.63</td>
<td></td>
</tr>
<tr>
<td>Pe L2 En</td>
<td>2.07</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.16a shows that use of begin/start in phasal decomposition is similar between the three groups. A t-test showed no significant difference. Given the general overlap across the categories in L1Persian and L1English, the learners did not have any problem of analysis in acquiring English, as reflected in this feature of phasal decomposition. This similarity in languages such as English and Persian is in striking contrast to the differences found across European languages such as English and German.
As the next step, the occurrences of *begin/start* and *šoroʕ* in Table 4.16 are analysed to produce results for left boundary. A statistical analysis of *try* and the equivalent *saʕi* are added to establish possible differences in their use as left boundary between the speaker groups, as shown in Table 4.16b.

Table 4.16b. *Mean numbers of saʕi and try in left boundary per speaker group*

<table>
<thead>
<tr>
<th></th>
<th><em>saʕi</em></th>
<th><em>try</em></th>
<th><em>p</em>-value (df = 58)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1 En</td>
<td>3.33</td>
<td></td>
<td>.065</td>
</tr>
<tr>
<td>L1 Pe</td>
<td>2.37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L1 En</td>
<td>3.33</td>
<td></td>
<td>.082</td>
</tr>
<tr>
<td>Pe L2 En</td>
<td>4.37</td>
<td></td>
<td>.002</td>
</tr>
<tr>
<td>L1 Pe</td>
<td>2.37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pe L2 En</td>
<td>4.37</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.16b shows no significant difference between the L1 groups though there is a clear tendency meaning that L1 English speakers use *try* relatively often and L1 Persian use it relatively less often. Similarly, the two English groups show no statistically significant difference. However, the figures for the two Persian groups exhibit a significant difference. As compared to the results for *begin/start* in Table 4.16a, where no difference was observed between the groups, *try* seems to be overused by the L2 English speakers. This can be regarded as a developmental feature; the Persian L2 English speakers use *try* significantly more frequently than the L1 Persian speakers do.

The informant retellings are of different lengths, as shown by the significantly different mean lengths across the language groups (see Table 4.15a in section 4.3.1). Hence the following procedure was adopted to assess whether the parameters differed significantly across language groups: all scores were normalised to percentages of the total number of propositions for each informant. The median percentage for each proposition was then calculated. Then the score for each informant on each parameter was compared to the median and assigned to group 1 if it was below the median and group 2 if it was above. SPSS was then used to calculate the value of Pearson $\chi^2$ for each parameter for the three informant/language groups and the two categories (low = 1 and high = 2) for each parameter.

*Try* is used in L1 English to introduce a series of events as part of the temporal frame of reference. However, having not yet integrated this function of *try* in English, L2 English speakers may use it on different grounds such as for semantic reasons to show that the actor has been unsuccessful or an action difficult to achieve (von Stutterheim & Lambert, 2005, p. 226).
Generally, when the L2 does not have the same means or the same patterns of information organisation as the L1, L2 speakers remain guided by the L1 options of preference. The use of *try* is infrequent in L1 Persian and, therefore, there is not transfer from L1 Persian but it is a developmental and learning-related feature due to the L2 status of the language because there is no difference between the L1s. The uses of *try* in Persian remain open to further research. However, overuse of *try* in Persian L2 English reflects general difficulty in adjusting the L2 means and underlying principles.

Some researchers outside this model interpret the overuse of *try* in the way that frequent items get more frequent in learner speech and infrequent ones even more infrequent. Thus, these L2English learners can be regarded as overcompensating typically frequent *try* in English.

**4.3.4 Event boundedness based on endpoint components**

The hypothesis for boundedness in languages is that the rate of bounded events is higher in the ‘*event x, then event y*’ type of temporal frame as found in German, in comparison to the ‘*then you see*’ temporal frame, which is very common in English, as the majority, ca. 75%, follow this deictic frame of reference with an external anchor (Carroll & Lambert, 2006, p. 57). The hypothesis tested is similarity in boundedness across the speaker groups.

In the narrative task the speaker is required to answer the underlying quaestio *what happened*. The speaker has to say what happened first, what happened next. This leads to a series of events; the speaker has to make sure that the events can be understood as forming a sequence. Boundedness with 2-state verbs is one possibility, and boundedness with 1-state verbs + endpoint is another (Mary Carroll, personal communication). Describing the selection of event components encoding boundedness in overall language production, Table 4.15 in section 4.3.1 on granularity gives the overall numbers for the bounded and unbounded events, while Table 4.17, which is a sub-table of Table 4.15, gives the figures for boundedness including the catenatives. Table 4.18 shows the results excluding the catenatives.

The reason for the two kinds of investigation is that it is not clear in the relevant literature whether and to what extent the kind of analysis used in the previous Heidelberg–Paris studies has an effect on boundedness. In some result reports they are included, in others they are not (cf. section 4.3.2). The analysis of the inclusion/exclusion of the catenatives is relevant as it is important to establish what type of difference is involved when main structure includes/excludes them. This question comes down to whether the distribution of catenatives is significantly different across language groups.

The shift in the use of criteria, as explained in section 4.3.2, means that this project opts to follow the same criteria for the analysis of the boundedness of the verbal components of the catenatives as used with the ordinary verbs. This is because regarding the inchoatives straightforwardly as un-
bounded might increase the overall proportion of the unbounded events, which is a central issue in these languages with the progressive aspect as languages with the progressive are said to employ considerably more unbounded events than languages without grammaticalised aspect. A qualitative analysis showed, however, that the majority of the catenatives have the unbounded component as in *start to dig* while only few of them have the bounded component as in *start to crack* (cf. the related discussion in section 4.3.2).

Table 4.17. *Bounded and unbounded events, catenatives included*

<table>
<thead>
<tr>
<th></th>
<th>Bounded</th>
<th></th>
<th>Unbounded</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n %</td>
<td></td>
<td>n %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L1 En</td>
<td>550 66</td>
<td></td>
<td>279 34</td>
<td></td>
<td>829</td>
</tr>
<tr>
<td>L1 Pe</td>
<td>593 64</td>
<td></td>
<td>335 36</td>
<td></td>
<td>928</td>
</tr>
<tr>
<td>Pe L2 En</td>
<td>425 61</td>
<td></td>
<td>273 39</td>
<td></td>
<td>698</td>
</tr>
</tbody>
</table>

These numbers from the data sets present the proportion of the bounded and unbounded events of main structure. Next, Diagram 4.2 presents these relations across the speaker groups.

Diagram 4.2. *Proportion of bounded and unbounded events across speaker groups*
Catenatives included, Diagram 4.2 shows that the largest proportion of bounded events is in L1 English. The largest proportion of unbounded events is in Persian L2 English. The differences are not significant ($\chi^2 (2) > =4,890, p < 0.087$. The overall results are compared as means in Table 4.17a. Also, possible differences in boundedness are examined as catenatives are excluded (Table 4.18).

Next, the scores from Table 4.17, re-written from Table 4.15 on granularity in section 4.3.1, are tabularised in Table 4.17a together with the mean numbers of bounded and unbounded events including the catenatives. A t-test was run on the mean values for possible significances.

Table 4.17a. Mean number of bounded and unbounded events, catenatives included, per speaker group

<table>
<thead>
<tr>
<th></th>
<th>Total N</th>
<th>Bounded</th>
<th>$p$-value</th>
<th>Total N</th>
<th>Unbounded</th>
<th>$p$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(df = 58)</td>
<td></td>
<td></td>
<td>(df = 58)</td>
</tr>
<tr>
<td>L1 En</td>
<td>550</td>
<td>18.47</td>
<td>.575</td>
<td>279</td>
<td>9.27</td>
<td>.117</td>
</tr>
<tr>
<td>L1 Pe</td>
<td>593</td>
<td>19.83</td>
<td>.028</td>
<td>335</td>
<td>11.07</td>
<td>.976</td>
</tr>
<tr>
<td>L2 En</td>
<td>425</td>
<td>13.93</td>
<td>.007</td>
<td>273</td>
<td>9.30</td>
<td>.116</td>
</tr>
</tbody>
</table>

Table 4.17a shows that the speaker groups employ bounded events more frequently than unbounded events, and particularly so within the L1 Persian though there is no significant difference between the L1s. The L2 group has a significant difference in producing bounded events as compared to the L1s. The difference appears between the two Persian groups because the Persian L2 English speakers produce less language and thus less of bounded events. The difference between L1 English and L2 English can be described in exactly the same terms: decreased language production leads to less frequent use of the bounded events, in general. No other significant difference between the proportions of bounded and unbounded for the three language groups is observed.

Overall, the two L1 groups show that boundedness of events is a crucial feature in advancing the storyline. In contrast, the relatively short performance by the L2 group does not allow solid conclusions.

Table 4.18 presents the scores for bounded and unbounded events, though excluding the catenatives, to ascertain if they have any significant effect on the overall boundedness.
Table 4.18. *Bounded and unbounded events in main structure, no catenatives*

<table>
<thead>
<tr>
<th></th>
<th>Bounded n</th>
<th>Unbounded n</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1 En</td>
<td>542</td>
<td>175</td>
<td>717</td>
</tr>
<tr>
<td>L1 Pe</td>
<td>592</td>
<td>259</td>
<td>851</td>
</tr>
<tr>
<td>Pe L2 En</td>
<td>421</td>
<td>142</td>
<td>563</td>
</tr>
</tbody>
</table>

The figures show again that the L2 users say less producing shorter re-narrations. However, a chi-square shows that the distribution among bounded and unbounded, by this measure, is significantly different from chance ($\chi^2(2) = 8.435, p < .015$). When the overwhelmingly unbounded catenatives are excluded and only the non-compound event verbs are scrutinised, the numbers show that, while bounded events are always dominant, L1 English has significantly fewer unbounded events than L1 Persian, with the L2 users in between.

Thus, like in Table 4.15, the figures in Table 4.18 are more bounded but display some differences in the distribution of the unbounded events; while the largest proportion of bounded events is, again, in L1 English, the largest proportion of unbounded events is in L1 Persian. The exclusion of the dominantly unbounded catenatives such as *try* which was frequent in L1 English and overused in L2 English, along with the relatively short narratives produced by the L2 speakers, are the reasons behind. Although L2 English is in between with respect to bounded and unbounded events, it is clearly closer to L1 than L2 English (cf. Shaw, 2004).

4.3.5 Temporal structuring with adverbial *then*

Table 4.19 presents the occurrences of the temporal shifter, *then*, which belongs to the temporal frame of reference *then you see*. It is used by the majority of L1 English speakers, 14 out of 20 speakers (section 2.9.2.4). In a very few cases, i.e. 2 out of 20, L1 English speakers structure the narrative discourse in accordance with the temporal frame *event x, then event y*, which also employs *then*, like in German (section 2.9.2.2). Like English, Persian is expected to have the *then you see* frame of reference. The hypothesis tested is the similarity of the occurrence of the temporal shifter.

In this investigation, no qualitative analysis to identify the temporal frame of reference in the individual narratives in Persian was conducted. This is because the quantitative analysis of the three data sets as separate wholes serves to indicate whether the frame of reference employed in Persian is similar to that in English or not. The different parameters are used to this end.
Notably, since Persian does not have any external anchor, equivalent to *you* in English, and the occurrence of *now* is also extremely low, Persian is not assumed to have a temporal frame of reference similar to *now you see*, which, in English, is characterised by the explicit mention of *now* and use of the progressive.

Similarly, due to the lack of an external anchor, the temporal adverbial *baṣdan*, 'then’ recurs independently in Persian. In English it occurs most often independently in the form ‘*then*’, at times in the form ‘*then you see*’. A quantitative comparison shown in Table 4.19 shows the totals for *then*.

A subsequent qualitative analysis was carried out to show how often *then* is preceded by a bounded or unbounded event. The claim by the current model is that *then* is more frequently preceded by a bounded event in German than in English. A Paired Samples test was run to test whether the scores for ‘then preceded by bounded’ are significantly higher than those for ‘then preceded by unbounded’ within each language group.

**Table 4.19. Relation between occurrences of ‘then’ preceded by bounded and unbounded events**

<table>
<thead>
<tr>
<th></th>
<th>Total N</th>
<th>Mean bounded</th>
<th>Mean unbounded</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1 En</td>
<td>126</td>
<td>2.30</td>
<td>1.90</td>
<td>.411</td>
</tr>
<tr>
<td>L1 Pe</td>
<td>86</td>
<td>1.67</td>
<td>1.20</td>
<td>.141</td>
</tr>
<tr>
<td>Pe L2 En</td>
<td>91</td>
<td>1.90</td>
<td>1.13</td>
<td>.050</td>
</tr>
</tbody>
</table>

Table 4.19 shows that the highest frequency of *then* across the groups is in L1 English. The highest proportion, i.e. relative to unbounded, is in L2 English. The L2 group departs from the L1s which indicate no difference between the bounded and unbounded events preceding *then*. Thus, only L2 shows a significant difference. This difference may indicate a developmental feature in L2 English as it does not derive from either L1. More exactly, however, the temporal shifter is more likely to be preceded by a bounded than unbounded event in all three speaker groups. The even pattern of the difference between the bounded and unbounded events in English and Persian contrasts the pattern in German as *then* is more frequently preceded by bounded events in German than in English (cf. section 2.9.2.4).

### 4.3.6 Phasal decomposition — progressive in side structure

Table 4.20 presents the total figures for side structure (cf. section 2.8.2 for the description of side structure). There are also two uses of the progressive belonging to main structure. Such rare cases are only found in L1 English.
The percentages in Table 4.20 show that the progressive is not proportionally significantly different in frequency in side structure across the language groups. The raw scores show that there is much more side structure in L1 English than in L1 Persian. Thus, what is different is the amount of side structure, and hence the number of progressives in side structure. There is a significant difference in the number of side structure proposition.

In side structure the event stretches over several time intervals on the time line so it does not fill a slot of its own, which is what each event that contributes to an event sequence in main structure must do. However, the progressive can fill a slot when the event in progression is preceded and followed by a set of events, establishing main structure as in (12) where the event ‘standing up’ is necessarily completed before the act of ‘walking’ can start, and the event ‘avoiding a piece of paper’ ends the walking.

(12)
He stands up
He is walking along
He avoids a piece of paper

(12) shows that the progressive can involve a temporal shift and advance the story line in English. The progressive in main structure is a language-specific feature pertaining to English, not used by the L1 Persian nor Persian L2 English speakers. In contrast, the cross-linguistic studies on aspect within the Heidelberg–Paris model have found that German and French L2 English speakers, for instance, present events at times as a sequence of ‘nows’ in overusing the English progressive in narratives in relating TSit to TT (von Stutterheim & Lambert, 2005, p. 227). This is suggested to relate to the type of language lacking grammaticalised means of expressing progressivity (ibid.).

The point is that the temporal frame of reference in L1 English with the progressive aspect hooks ongoing events up as a succession of ‘nows’ as a preference but without any overuse by the L1 speakers (Carroll & Lambert, 2006, p. 58). The L2 learners have to acquire the accurate L2 frame of refer-
ence, meaning that they have to learn to use the progressive form to hook up events into a sequence though not overusing it. For this they have to uncover how the simple and progressive forms are integrated into the narrative sequence to unfold the storyline (ibid.).

The results show that Persian L2 English speakers do not overuse the progressive. This indicates two things; first, speakers of aspect languages do not overuse the progressive like German and French L2 English speakers may do. Second, while there is no significant difference between the L1s, the Persian L2 English speakers may either transfer their L1 aspect patterns or they have acquired the L2 principles of its use; both transfer from L1 Persian and acquisition of the L2 principles of use can be assumed to be involved.

In pursuing these assumptions, the following examination based on the different types of subjects involved is conducted. The examination is outside of the present model as the aim is only to find possible differences in the distribution of the progressive across the groups. The point at issue is to differentiate quantitatively between the contexts of the uses of the progressive, fully apart from the current model, though based on the occurrences of the progressive in the current data, as presented in Table 4.20.

The syntactic subject in two different environments is taken as relevant for this investigation. Partly, both the only protagonist and several natural forces are the actors or agents of the events seen in the video and appear as the syntactic subject. Partly, the narrative comprises main and sub-clauses. In a slightly different context, Carroll et al. (2004, p. 199) discuss the capability of inanimate entities to occur as the syntactic subject in English whereas this happens infrequently in German as they do not seem to meet the criterion to allow a shift in topic on the time line in German.

Notably, the aim of this examination is not to probe into whether different types of subject may affect the use of the progressive. Rather, the aim is to investigate the distribution, without implying that there would be a causal relation between the use of the progressive and particular syntactic subject.

As a first step, a prior qualitative analysis identified the contexts of the uses of the progressive relevant to the selected grammatical subject.
Table 4.21. Frequency of the use of the progressive in main and sub-clauses with two types of syntactic subjects

<table>
<thead>
<tr>
<th></th>
<th>Protagonist</th>
<th>Other entities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Main cl.</td>
<td>Sub-cl.</td>
</tr>
<tr>
<td>L1 En</td>
<td>1051</td>
<td>24 21</td>
</tr>
<tr>
<td>L1Pe</td>
<td>725</td>
<td>5 8</td>
</tr>
<tr>
<td>Pe L2 En</td>
<td>836</td>
<td>9 13</td>
</tr>
</tbody>
</table>

*Side structure

Table 4.21 is re-written from Table 4.20 and shows that there is much more side structure in L1English than in L1Persian. As mentioned above, there is no significant difference in their proportions. What is different is the amount of side structure, and hence the number of progressives in side structure.

For the variable of the use of the progressive with the Protagonist irrespective of clause types, 41% of L1 English subjects use the progressive with the protagonist and only 15% of L1 Persian, with Persian L2 English almost up with L1 English at 37%. This difference is spread across the informants and the chi-square shows it is significant.

Two-thirds of the L1 Persian progressives occur in sub-clauses with other entities as the subject and most of the rest in main clauses with such subjects. In both the English samples the uses are more evenly spread.

Looking at main clauses, only 24 out of 63 (38%) of the L1 English utterances use the progressive with the protagonist and 5 out of 17 of the L1 Persian (29%), with the L2 English at 9 out of 27 (33%).

In subordinate clauses with the protagonist as the subject L1 English has 23/53 = 43%, L1 Persian has 4/44 = 9% and L2 English has 16/41 = 39%.

There are clearly different patterns in the distribution of the progressive between English and Persian. To elaborate, there are two things to observe about conveying focalised meaning; the pattern of the use of the progressive in single main clauses in Experiment 1 and in narratives in Experiment 2. These differ in English and Persian. First, while English admits only the progressive to convey focalised meaning, Persian admits mostly the dāštān-progressive — and the bare mi-form much less often — in single main clauses. Second, while the uses of the progressive in narratives in English are evenly distributed across the specified contexts of the uses, the dāštān-progressive is typically used in sub-clauses, with only few cases of uses in main clauses.

Consequently, the pattern for the use of the focalised progressive in single main clauses needs to be seen parallel with the pattern for the narratives in examining the overall temporal frame of reference in Persian; while the bare
mi-form is the conventional verb form of the narratives, the dāštān-
progressive is used in sub-clauses. In contrast, the outstanding use of the
dāštān-progressive in main clauses in single event descriptions shows that it
can be used in main clauses in a different genre. Since the two experiments
belong to different genres with different patterns of the use of the progres-
sives, both must be regarded for a deep insight into the differences in its use.

Thus, a pattern for the progressive denoting focality in narratives is as fol-
low:s: main clauses take the Progressive to convey focality in narratives in
English, whereas the progressive and simple forms together form a lan-
guage-specific temporal frame of reference in which these forms are com-
bined, as illustrated by an example from F02_L1 English, lines 37–43,
shown in (13):

(13)
As he is walking towards the source of the water
one of the rocks is emerging from the earth
lifts him up
and he slowly climbs down the rock
and finds the puddle of water again
looks up to sky
but no more drops are coming

The pattern for denoting focality in narratives in Persian is that most main
clauses take the bare mi-form, whereas the dāštān-progressive is a solid fea-
ture of the focalised context in sub-clauses.

To illustrate with an example from speaker F14_L1 Persian, lines 30–33
(see p. 6 for the link to the data Open Access), the dāštān-progressive often
appears with other entities20 as the syntactic object in narratives, as shown in
(14):

(14)
He opens his eyes
He sees
that a stone is falling on his head
He dodges

Apparently, the Persian L2 English learners have recognised many of the
functions where the English progressive should be used more frequently and
have increased its use to some extent. This speaks about their having ac-

20 Observe that narratives do not elicit all kinds of uses of the dāštān-progressive such as its
use to denote temporary habits. Without further research into the issue, it is then not possible
to generalise the finding, from these narratives to all language use, with respect to the more
frequent use with other entities as the syntactic subject.
quired the principles of its use in the L2 to some extent. However, the general pattern, which is similar to the pattern in the use of the dāštān-progressive in L1 Persian recurs in Persian L2 English; characteristically less occurrences in main clauses than in sub-clauses. Also, it is used considerably less with the protagonist than with other entities as the subject.

An increase in the use of the progressive in L2 English should take place far more efficiently. This is, seemingly, not an easy task for L2 learners even at the advanced level of proficiency. The results speak about the effect of the habitual thinking tied to the grammaticalised categories and the inherent principles of their use in L1, which is exactly what linguistic relativity is about.

4.3.6.1 Examples of language use — the Protagonist as the subject

This section presents examples from the present data to illustrate the use of the progressive by the different subject groups shown in Table 4.21. In L1 English, the protagonist as the syntactic subject takes the progressive in both main and sub-clauses as follows: He is still looking for water; While he is climbing down, part of the rock gives way. Similarly, in Persian L2 English, the progressive is used in main clauses though slightly more often in sub-clauses with the Protagonist as the subject as in Again he is lying on the ground, As he is walking around, he is hit by a sheet of paper.

In Persian, extremely few uses of the dāštān-progressive occur in main and sub-clauses with the Protagonist as the subject. There are only 5 and 4 cases of them, respectively. For an example of the dāštān-progressive with the Protagonist as the subject in main clauses, see speaker M13_L1 Persian, line 43 (for the Open Access link see p. 6). Also, see speaker F08_L1 Persian, line 38, for an example of the progressive with the Protagonist as the subject of a sub-clause.

The distinctive difference in the use of the progressive is its more frequent use to express single ongoing events in independent main clauses in narratives in L1 English than in either L1 Persian or Persian L2 English. Examples are as follows: He is standing; He is walking; He is falling; He is looking around; and He is observing his body. Such utterances primarily take the bare mi-form in narratives in Persian.

4.3.6.2 Examples of language use — other entities as the subject

This section gives examples from the present data illustrating the uses of the progressive by the speaker groups when other entities form the syntactic subject, as presented in Table 4.21. Some observations about the results are the following: generally, there is less inter-group variation with respect to the use of the progressive in main and sub-clauses. In L1 English, the progressive is again used evenly in both types of clauses as in The world is crumbling; He realises that the water is trickling down a crack in the rock. Similar uses of the progressive are found, again rather evenly in main and
sub-clauses, in Persian L2 English as in *The wind is blowing; He sees that a piece of rock is falling on him*. In Persian, by far the most conspicuous uses of the *dāštan*-progressive occur in main and sub-clauses with other entities as the subject. The progressive is infrequent with the Protagonist as the subject. For examples of the *dāštan*-progressive with other entities as the subject in main clauses, see speaker F08_L1 Persian, line 39, and in sub-clauses see speaker F01_L1 Persian, line 6, at the Open Access link (see p. 6).

**4.3.6.3 Summary**

The investigation showed that in English only the progressive is used in the focalised meaning with all situation types tested in the single events. In Persian, both the bare *mi*-form and the *dāštan*-progressive were used, the latter significantly more frequently. The *dāštan*-progressive was used with causatives and motion events without significant difference between them. Compared to the causatives and motion events, non-agentive activities showed no significant difference at 10% level.

L1 English speakers showed an even distribution of the progressive in narratives; both in main and sub-clauses and across the protagonist and other entities as the syntactic subject. L1 Persian showed more predominant use of the *dāštan*-progressive with other entities than the protagonist, particularly in sub-clauses. Its use is infrequent in main clauses. Persian L2 English speakers had increased the uses towards becoming more even across the clause and subject types and more L1 English-like. This may indicate that the principles of use have been integrated in L2 to some extent.

To put differently, even though the overall mean values for the use of the progressive showed no significant difference between the language groups, the deeper analysis showed significant differences between the L1s. The L2 English speakers are acquiring the rules of the uses of the Progressive in English which is not so frequent in L1 Persian. The pattern from L1 Persian appears clearly.

Due to the typological difference of absence/presence of the IPFV–PFV categories, system-related differences in the use of the progressive were observed. More particularly, the simple verb forms in English that lack aspectual value are not similar to the bare *mi*-form that can convey inherent continuity, i.e. imperfective aspectual value. Consequently, uses in which the bare *mi*-form can convey ongoingness where English can only use the progressive were pointed out. This was most obvious in main clauses (for examples cf. section 4.3.6.1).
5 Discussion

5.1 Main findings in brief

The comprehensive discussion of the results begins with a brief overview of the central findings from the research. Foremost, the investigation shows that the issues examined in the Heidelberg–Paris model relate to having the progressive aspect in the language, which may be the imperfective category in some languages when the progressive is not present. In languages with an imperfective–perfective distinction and no progressive, the imperfective is used in prototypical PROG contexts. Nonetheless, the impact of aspect on event conceptualisation does not relate to the perfective aspect.

In making a distinction of aspect and non-aspect languages between languages such as English and German, the concept of aspect is presented in the Heidelberg–Paris model as involving primarily the progressive; English and German do not have grammaticalised IPFV–PFV distinction though English has the fully grammaticalised progressive. Consequently, while Persian has the IPFV–PFV distinction and separate progressive, the model regards English and Persian as aspect languages because they have the progressive in common. This project emphasises that English and German are fundamentally non-aspect languages on the basis of the lack of the IPFV–PFV distinction. These categories exist in Persian. However, Persian is classified as a tense-prominent language because it has past and non-past stems for each verb.

The overall findings confirm the impact of the progressive on event conceptualisation, as stipulated by the Heidelberg–Paris model. In contrast, the findings disconfirm the postulation that the differences in event conceptualisation and information organisation are grounded in the difference in the language systems related to what the Heidelberg–Paris model regards as aspect versus non-aspect categories. Evidence from Persian shows overlap with English with respect to infrequent endpoint encodings, which is dependent on the progressive category. It also shows convergence with German in relation to frequent endpoint encodings which is associated with a holistic view of the speaker on events, shown as the impact of the grammaticalised imperfective aspect in Persian. Such a distinction cannot become evident in the Russian system because it does not have a separate progressive.
Regarding event segmentation, this project finds there to be two types of foci\textsuperscript{21} of speaker attention: the intermediate and end phases of an event. This finding was observed contrastively in the use of the aspectual forms with motion events, critical items, in L1 Persian and their comparison to the relevant results for L1 English. It is emphasised that speakers of different languages are bound to perform in accordance with the means provided by the language in expressing the relevant focus. The use of the aspectual forms in Persian make the two foci emerge (see sections 5.4 and 5.9).

As far as European languages are concerned, the impact of the progressive on event conceptualisation is observed if the progressive is systematically used with motion events (von Stutterheim et al., 2012a). This relates to the relevant stage of its grammaticalisation at which its use is possible with motion events with endpoint (cf. section 2.6.1). To illustrate, Spanish but not Dutch uses the progressive construction with motion events showing the related impact.

Regarding the cross-linguistic context, linguistic relativity is evidenced in language production by speakers of Persian L2 English. It is grounded in the typological difference between the overall aspectual systems in these languages: First, the bare mi-form is not the same as the simple form in English (see section 5.11). Second, even though they share the progressive and both of them show an impact of the progressive on event conceptualisation, the progressives have different internal structures (see section 5.11).

Thus, the cross-linguistic similarity in the impact of the progressive on event conceptualisation is seemingly a semantico-notional similarity at the conceptual level, i.e. a feature of the gram-type PROG, whereas the different internal structures emerge from the differences at the level of grammar, i.e. a feature of the language-dependent gram, PROG (cf. Dahl, 1985; cf. section 2.6.4). This is why Persian L2 English speakers conceptually perform like L1 English speakers in terms of infrequent endpoint encodings. However, differences appear at the level of grammar. Significant frequency-related linguistic differences in the use of the progressives between the L1s were observed, as explained in section 5.6. L2 English speakers may tend to see the L2 grammaticalised categories and the principles of their use as similar to those in their L1, even at advanced level of proficiency. This can be the reason for their positioning in between the L1s in the use of the progressive showing the clear effect of linguistic relativity. Generalising from this finding, L2 speakers performance reflects the rule formation in their L1.

Linguistic similarities measured in terms of features such as phasal decomposition including begin/start, and left boundary including begin/start, and try are characteristic of the narrative discourse in English and Persian. The observed overuse of try is classified as a learning-related developmental

\textsuperscript{21} The discussion is restricted to the two foci of intermediate and end phases of motion events. In Russian the inchoative phase is expressed by the prefix za- as in zaplakat, ‘begin to cry’.
feature. The parameters selected for the measurement of the linguistic similarity across the two languages give evidence of similarity.

Finally, culture differences are not reflected in this kind of analysis of language production. Cultural features are not regarded as being reflected in the morphosyntax this project has focused on in the analysis.

5.2 Pointing out some fundamental issues

The global goal of this study is to increase our understanding of the event conceptualisation underlying linguistic representation. The study has investigated empirical linguistic evidence in both language-specific and cross-linguistic contexts. In these two different kinds of contexts, two tasks were adopted for two levels of analysis, both of which illuminate complexities in aspect in the languages investigated.

The overall investigation in this project centres on the use of the progressive and event construal in the L1 contexts. Also, it seeks to illuminate related cross-linguistic issues. The overarching query this project has probed into is whether speakers of two languages with the grammaticalised progressive produce language showing similar event conceptualisations even when aspectual categories differ in the language systems and the languages are quite remote and culture is different.

Slobin (1996a) enquires into the issue to what extent the grammaticalised categories in speakers’ first language influence the language production while ‘thinking for speaking’, though he does not consider the differences that a grammatical category such as the progressive may involve due to the different overall aspectual systems, as in English vs. Persian, or stages of its grammaticalisation, as in Persian vs. Dutch. The Heidelberg–Paris model (Nüse, Carroll & von Stutterheim, 2004) applies Slobin’s theory further to advanced level of proficiency in L2, i.e. the cross-linguistic context. Recent research by adherents to this grammatical aspect approach to L1 influence on language production in L2, such as Bylund (2011) and Athanasopoulos and Bylund (2013), have shown that the L1 patterns for event conceptualisation of event–time relations are closely connected to the category of grammatical aspect, drawing on the concept of aspect used by the Heidelberg–Paris model. Also, L2 influence on L1 was observed, depending on the language learning history.

Since the languages in question in the present project, English and Persian, are classified as aspect languages in the Heidelberg–Paris model, it is possible to assume, in line with the model furnishing evidence for distinct differences between aspect and non-aspect languages such as English and German that no significant differences can be expected between English and Persian. These language-specific preferences and cross-linguistic differences
in its use are discussed on the basis of the results in sections 5.4 and 5.5.1. The Heidelberg–Paris hypothesis in section 2.10 does not define what the “similar grammatical profiles” of languages share. There can be vast cross-linguistic differences in the grammaticalised categories. In e.g. Finnish (Tommola, 2000), the main aspectual categories are materialised in the use of the partitive and accusative cases and the separate grammaticalised progressive.

At first sight, the absence of the IPFV–PFV distinction in English may seem irrelevant to event conceptualisation as the past tense of simple verb forms can convey perfective meanings, and imperfective meanings can be read into them in the present tense (section 2.7.5). However, while the bare *mi*-form has aspectual value in morphology, it is not as straightforward as that to interpret the simple verb forms in English aspectually. Thus, this typological difference may have an effect on the use of the progressive which can be shown as the difference in the internal structure of the grammaticalised progressive when the scope of the progressives does not overlap. This is discussed in section 5.5.1 and in section 5.14. Put simply, the differences in the aspectual systems can concern both partial typological similarity, i.e. the shared grammaticalised aspectual category of the progressive between the otherwise different systems, and the partial aspectual difference, i.e. the different internal structures comprising the different uses, and the main typological difference of the absence/presence of the IPFV–PFV distinction between the language pair. These issues indicate complex differences between the systems.

These complexities lead to discussion on grammaticalisation and at what point of the process a particular construction can be referred to as grammaticalised. In terms of frequency, a construction can be grammaticalised in a language when it is either frequent or infrequent as is the case with the frequent progressive versus infrequent inversion in English, as in *Never had I thought of it*, are grammaticalised.

Further, in terms of obligatoriness versus optionality, a particular construction may be obligatory as there is no alternative form to be used versus it can be optional as there are two forms that can be fully optional in some contexts, yet grammaticalised, such as the Progressive in English and the Progressive/Imperfective in Persian, as discussed in sections 4.2.1.2 and 4.3.6.

Finally, the grammaticalisation of a particular construction can be either robust, defined as being at a high level, or less robust being at a lower level of grammaticalisation, reflecting different diachronic stages of their developmental processes. To illustrate, the Progressive in English is an old phenomenon of language change and is highly grammaticalised while the Progressive in Dutch is a recent phenomenon and cannot be used with motion events with defined endpoints (cf. Flecken, 2010). Languages can be at different language-specific stages of grammaticalisation in at least two ways: in
terms of the diachronic level of the grammaticalisation process and synchronic frequency of use (cf. Bybee & Dahl, 1989, p. 57). These developments are exposed differently in the overall aspectual system in language; since Persian has the grammaticalised imperfective, it may not incur the vast scope of the progressive similar to English.

In the present model, a particular construction is referred to as grammaticalised when there is a particular morphology for it, which is systematically used. As a consequence, the stage of the grammaticalisation of the feature establishes the language-specific preferences pertinent to the particular aspectual system (Flecken, 2010, p. 15). The systematic use of the progressive can be attested by conducting an investigation on single events as designed by the Heidelberg–Paris group.

Another issue pursued in this project is whether the partial aspectual difference, i.e. the different internal structures comprising the different uses, is big enough to be relevant for linguistic relativity, which is, generally, observed to emerge in the cross-linguistic context of typologically different first languages. The linguistic relativity effect is grounded in a language-specific L1 structure and the related L1 influence on L2 not only due to vast differences between the language systems, as in English vs. German, but also such subtle differences as the L1 and L2 having the same progressive category but differ in the principles of their use, as in English vs. Persian. This is observed in the L2 learners’ performance being in between the L1s.

Thus, the issue of the L2 learners living in the L1 environment is an asset in the present project, as these learners can give insights into event conceptualisation, given the fact that they are advanced learners and have acquired a new linguistic system to show how to put the new system to use (von Stutterheim & Lambert, 2005, p. 221). By contrast, Bylund (2011) shows in his study on adult L2 learners that typological differences are not an issue for bilinguals living in the L2 environment who perform in their L2 in the same fashion as the native speakers of that target language. Given the different TL features, the effect of L2 on L1 was empirically observed by Bylund (2011) as the subjects were asked to do a non-linguistic task of a film re-narration, i.e. the task used in the Heidelberg–Paris design, in their SL and TL. Apart from the results of L2 influence on L1, the L2 learners living in the L2 environment were seen to retrieve rules of language use from their two systems in a way not predictable from the two relevant systems (Bylund, 2011). Ultimately, the issue has relevance for what Pavlenko (2011) regards as important about language learners’ history: living in the L1 or L2 environment can make a difference as performance in L2 can lead to differences in terms of L2 influence on L1.

In line with the Heidelberg–Paris model, two tasks were used in this project forming a set of identical stimuli allowing for a cross-linguistic comparison not only within this survey but also across the bulk of the languages formerly investigated within the framework (for single events cf. von Stut-
The cross-linguistic comparison to the previous investigations within the model is only taken as an indicator because those and the present analysis may not be exactly the same.

In the first experimental task, the speakers were asked to view each single event and tell what is happening, whereas the second task based on a video clip included the task question what happened eliciting re-narrations of event sequences. Basically, the task question and the unrelated decontextualised events versus sequence of situations shown are two constant things allowing for the cross-linguistic comparison at sentential and discoursal levels. Also, the present tense is controlled for in the tasks. Recall that the task question is in the past tense to elicit narratives on the stimuli shown once before the re-narration task was done, yet the narratives are most often told in the present tense.

However, an important difference between the tasks is that in the single event description the speaker attends to the constituency of the event in each short clip one by one, while in the film re-narration the speaker also has to apply the principles of coherence in narrating a series of events in a sequence. The speakers are confined in these tasks to the resources available in the language. This is, then, a point of interest with respect to L1 influence on L2 and, particularly, how the Persian L2 English speakers perform; judging from the number of the relevant grammaticalised categories involving the IPFV–PFV distinction and the separate progressive, their L2 production is directed, seemingly, from a more to less complex formal system so the task should be relatively uncomplicated. A second difference which may affect event conceptualisation is that the internal structure of the progressive in the two languages involves differences (section 2.7.5).

The overall investigation centres on the use of the progressive and event construal, looking at them in the two experiments, i.e. single events and re-narrations, which form the sentential and discoursal levels. The project has adopted the following parameters to feed the results from the experiments into the discussion. The parameters were elaborated on in section 2.9.3, and briefly presented as points A–D in section 2.10 in the following order:

A. Use of the the dāštan-progressive in single events. Description of the progressive aspect in Persian with causatives and non-agentive activities, i.e. single events, to define aspect in Persian.

B. Phasal decomposition, discussing partly the progressive in motion events and, partly, the progressive in narratives, which belongs to the side structure of the narrative. Also, the uses of begin/start in main structure of the narratives by the three speaker groups are contrastively compared as part of phasal decomposition.

C. Three parameters concerning boundedness. First, event boundedness in single events focuses on motion events and their being marked as
bounded and unbounded. Second, boundedness is discussed in terms of temporal shift in the main structure of the narratives. Third, temporal shift in main structure involves the following parameters:

a. bounded and unbounded (i.e. right boundary) events in main structure, which are contrasted across the groups. This overall comparison, along with the inclusion of side structure, gives an insight into granularity, i.e. how fine-grained re-narrations of the same narrative stimuli are produced by the relevant speaker groups.

b. left boundary, which is denoted by begin, start, and try and compared across the groups

D. Temporal structuring. This is discussed in terms of the use of the bounded events preceding the temporal adverbial then.

The multifaceted issues presented here as parameters are captured in the different sub-questions in section 2.10, and are brought there together in terms of three overarching research questions. The following discussion deals first with the parameters, leading then to the discussion of the research questions and other related issues.

The evidence base for the discussion in this project is broad. Most dissertations are confined to describing the progressive aspect on the basis of the single events, as principally presented in point A above (e.g. Flecken, 2010), and merely some individual research articles have employed the video clip as the stimulus for re-narrations in investigating new languages within this model (e.g. Carroll et al., 2008b; Carroll & von Stutterheim, 2003; Nüse, 2003; von Stutterheim & Lambert, 2005; von Stutterheim et al., 2002). The current project presents a more comprehensive perspective on the aspectual systems of the languages as it includes both the stimuli and includes several additional parameters, as presented in points A–D above.

To provide a solid picture of the complexities involved, it is considered necessary to look beyond the mere presence of a progressive to its role in the wider system characterised by the absence/presence of the IPFV–PFV distinction; this chapter discusses the effect of the absence of this distinction on the progressive and language production in the English system. This discussion is enabled by the subtle typological contrast with Persian.

In this investigation of language effects, adequate samples are also considered necessary to ensure representativeness and generalisability. Previous studies have used data from 20 informants but this project consistently involves thirty/ninety informants in narratives, and sometimes less than that in single events which is due to disqualified utterances (see Tables 4.5 and 4.11). In adopting two languages with partial typological similarity and partial aspectual difference, as pointed out in this section, along with the broad-
er level and evidence base of analysis, this project provides a solid possibility to generalise the results.

Finally, as the languages included in this project originate from distant cultures, the possible impact of culture on event conceptualisation, which can impossibly take place in terms of the principles embedded in the grammaticalised category, are discussed. As a way of illustration, the relative similarity of British and German narrative culture lets us confidently describe the linguistic differences in language production as being grounded in the typological differences (von Stutterheim et al., 2012a, 2009). In contrast, other studies such as Pear stories by Chafe (1980), investigating culturally divergent language usage between speakers from different nations, found cultural differences even within the European continent in terms of the way the speakers characteristically approached the particular task. Then, if the linguistic similarities are seen to dominate between the current unrelated languages across the two cultures, it rules out the effect of culture in this type of study which examines the grammaticalised means provided by the systems, allowing for generalisations on the linguistic basis for linguistic relativity, whereas a replication of the study by Chafe (1980) on English and Persian might well reveal culturally diverging language usage, which is relevant to discursive habits and relativity (cf. section 2.4). Tannen (1980) pointed out cultural differences between L1 American and Greek speakers in approaching the re-narration of the Pear story as a mere memory task versus interpreting the story line, respectively.

This means that there are two major, though distinct, issues involved in cross-linguistic comparison; while typological differences between languages may be complex in a subtle way showing linguistic differences, the ways speakers approach and perform a task on the basis of their discoursal conventions and traditions, as shown by Chafe (1980), may display cultural differences. The former are investigated in the linguistic building blocks of language, the latter in the speaker attitudes conveyed by the building blocks. These are distinct types of relativity which are discussed in sections 5.8.

5.3 The role of the progressive in causatives and activities in English, Persian and Persian L2 English

This section reports on the findings for the progressive in the context of unrelated single events. Overall, these decontextualised single events partly serve to define the progressive aspect in the new language system, Persian, in the context of these event types. Partly, the same single events serve to describe the grammaticalised status of the progressive aspect in L1 Persian as compared to L1 English. In addition, the results for Persian L2 English may indicate L1 Persian influence.
The Heidelberg–Paris model employs causative and non-agentive activity events, as discussed in this section, and motion events, reported on in the next section, in testing what verb forms are used to convey progressive meaning and what event types admit the progressive.

To begin with, like the results from earlier studies for the use of the progressive in L1 English, relevant to this context, the current results show that L1 English speakers use the progressive in all cases with all the event types tested (von Stutterheim et al., 2009, p. 207). No other verb forms occur as the Progressive is fully grammaticalised and there is no other verb form available. Thus, it is an obligatory category in English. This finding answers sub-questions 2a–c regarding significant difference in the use of the progressive between the event types, defined in section 2.10 for L1 English.

Secondly, the dāštan-progressive is consistently more frequent than the bare mi-form in L1 Persian. This answers sub-question 1 which is posed only and particularly for L1 Persian and concerns the role of the dāštan-progressive, as compared to the bare mi-form, within the event types of causatives and non-agentive activities.

Thirdly, in response to sub-question 2a for L1 Persian, the use of the Progressive in Persian across homo- and heterogeneous sub-events of causatives with effected objects (Table 4.1) was tested. The temporal feature of the sub-events showing progression towards a qualitative change of an entity as in She is knitting appeared to be the strongest attractor for the use of the dāštan-progressive. The second strongest attractor was the feature showing tangible change in state of the effected object as in He is folding a paper plane (for differences in the relevant results for Dutch see section 5.3.1).

In other words, when compared across these two kinds of sub-events, there is a trend, although no significant difference, for an increased use such that the homogeneous sub-events attract use of the dāštan-progressive, whereas the heterogeneous sub-events lean to the use of the bare mi-form which is precisely when the use of the dāštan-progressive slightly decreases.

Fourthly, the statistical test results show a slight, though not statistically significant, difference with respect to sub-question 2b for L1 Persian testing use of the dāštan-progressive across the next two situation types, i.e. causatives with effected objects (Table 4.1) and causatives with affected objects (Table 4.2) in section 4.2.1.1. The finding shows that the dāštan-progressive is firmly established in the system. There is a qualitative difference in the two event types with the effected and affected objects. Yet, they both take the dāštan-progressive nearly to the same extent. To explicate, the causative events with effected objects involve a qualitative difference in providing a

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22 Recall that data for single events were not collected for L1 English as the progressive is the obligatory verb form with event verbs in all cases, given the particular experiment.

23 The verbal noun construction is not discussed because it is not morphologically marked for aspect and, therefore, not relevant for this discussion.
visible change in state and a final resultant state in the created object, which is thus a tangible measure for progression, marking that the situation has a progressive component. In contrast, causatives with affected objects merely involve a transformation of the object. These two event types involve homogeneous and heterogeneous change in state showing clearly perceivable change in state (high dynamicity) attracting the use of the dāštān-progressive. Thus, the result that there is no significant statistical difference in the use of the dāštān-progressive with these event types importantly shows that the dāštān-progressive is sensitive to these features.

Language-specific speaker preferences become observable in relatively big samples. The variation in their use does not reflect randomly matching a situation with a linguistic form. Rather, they mirror the underlying cognitive processes of information organisation, indicating what the speakers of the particular language focus attention on while speaking; in viewing situations described as causative, L1 Persian speakers conceptualise them as in progression at the time of speaking. This notion is referred to as the speaker’s here-and-now in this model but is, generally, known as the focalised meaning of the progressive.

Fifthly, the non-agentive activities in Table 4.4 manifest use of several different constructions, of which the dāštān-progressive is, however, most frequent. In these control items, the endpoint is inferable though temporally distant. Thus, the endpoint does not function as an attractor for the use of the progressive (low dynamicity). The finding that the dāštān-progressive is frequent is important, giving evidence of high level of grammaticalisation.

With reference to sub-question 2c for L1 Persian, causatives with effected objects (used as critical items, Table 4.1) are contrasted with non-agentive activities (used as control items, Table 4.4) as in The candle is burning. There is no statistically significant difference at 10% level. Consequently, the finding that there is no significant difference in the use of the dāštān-progressive with the tested situation types is important for the description of the status of the dāštān-progressive as the progressive proper.

The ranking in terms of the highest to lowest occurrences in attracting use of the dāštān-progressive with these three event types tested is obtained as follows: causatives with effected objects are followed by causatives with affected objects. These are followed by non-agentive activities. Persian shows as full strength in attracting use of the dāštān-progressive with causatives as with non-agentive activities.

Turning, finally, to the findings for the Persian L2 English speakers, these speakers always use the progressive with the tested event types. That is, they conform fully to the findings for L1 English with respect to sub-questions 2a–c. The result is important because, even though L1 Persian has a variety of progressive constructions used in ways expected from the literature, there is no transfer to L2 English in the context of causatives and non-agentive activities. This means that the learners do not equate the dāštān-progressive
with the English progressive and the bare *mi*-form with the English simple form categorically, given this context-free experiment. This can be interpreted as the correct acquisition of the principles of use of the English progressive and, particularly, simple forms in contrast to the bare *mi*-form as this can convey ongoingness due to the inherent continuity; incorrect equation of the bare *mi*-form with the simple form would have led to its use to express focalised ongoingness. The finding is, however, not surprising as the learners are at advanced level of proficiency of English, and the context of the use of the progressive in L2 is not complex in Experiment 1.

Thus, the key finding from Experiment 1 is that the L2 English learners make the correct distinction between continuity inherent in the verb forms in their L1 and the progressive in L2 English. It is possible to illustrate continuity inherent in the bare *mi*-form as follows: despite the fact that Persian has developed the separate *dāštān*-progressive in the system, the bare *mi*-form has preserved its aspectual value of imperfectivity which involves inherent continuity (Hojatollah Taleghani, 2006, p. 28). Therefore, there is a big difference between the bare *mi*-form and the English simple form; the latter is grammatically a form for tense, unmarked as imperfective although it functions as an imperfective verb form in a long stretch of discourse. The complete lack of any aspectual value in simple verb forms is seen in the study of single events; the simple verb form cannot be used in decontextualised contexts to convey focalised ongoingness (cf. section 2.7.5). Thus, even though English has two verb forms in the present, the progressive is obligatory for expressions of ongoingness.

In sum, the role of the progressive in causatives and non-agentive activities was discussed at the formal level. Importantly, L1 English speakers obligatorily associate the progressive form with focalised ongoingness, while L1 Persian speakers can use two forms, the *dāštān*-progressive and bare *mi*-form. Despite this difference, Persian L2 English speakers do not transfer from their L1 but associate ongoingness only with the progressive in their L2 English, given the task on the decontextualised single events. In viewing situations described as causatives and non-agentive activities, the three speaker groups conceptualise the context-free single events as in progression at the time of speaking about them. The *dāštān*-progressive was identified as the progressive proper in Persian.

In the next section, use of the progressive construction is some European languages is discussed briefly in order to contrastively identify the level of grammaticalisation of the *dāštān*-progressive in Persian.
5.3.1 The progressive in causatives in some European languages

European languages, such as Italian, French or Dutch, in which use of aspectual distinctions that encode an event as ongoing is not obligatory in any context, and the proportion of speakers who choose the aspectual perspective is 30% at the most shows a uniform trend in the use of the progressive (2010, p. 143). Dutch makes a good example; causatives with effected objects with homogeneous sub-events show an increase in the use of the progressive, as compared to agentive activities such as play, run and walk (cf. section 4.2.1.3) which are known to be the prototypical event type to take the progressive (cf. Bybee et al., 1994). There is a statistically significant difference in the frequency of the progressive constructions between the homogeneous and heterogeneous sub-events (Behrens et al., 2013, p. 119; Flecken, 2010, pp. 124, 152; von Stutterheim et al., 2009, p. 212). Thus, the results for Dutch show a high level of use of the progressive particularly in homogeneous sub-events along with events with affected object (Flecken, 2010).

Van Ierland (2010, p. 201) reports results for Dutch; out of the 30 per cent of the speakers who choose the aspectual perspective, 60 per cent use the progressive with both agentive activities and causatives, while motion events only take the progressive in 9 per cent of the cases. Van Ierland (2010, p. 56) refers to the figures for L1 Italian; out of the nearly 30 per cent of the Italian speakers who choose the aspectual perspective, causatives take the progressive in 56 per cent and agentive activities 39 per cent of the cases (Natale, 2009, p. 102). Figure 5.1 is re-written from Figure 2.1 showing the stages of the grammaticalisation of the progressive in Dutch, English and Persian.

<table>
<thead>
<tr>
<th>Stages</th>
<th>Prototypical event types</th>
<th>Example of verbs</th>
<th>Languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>1-state verbs</td>
<td>clean, walk</td>
<td>Dutch, English, Persian</td>
</tr>
<tr>
<td>Stage 2</td>
<td>2-state verbs with duration</td>
<td>change, dissolve</td>
<td>(Dutch), English, Persian</td>
</tr>
<tr>
<td>Stage 3</td>
<td>2-state verbs with punctual events</td>
<td>break, open</td>
<td>English, Persian</td>
</tr>
<tr>
<td>Stage 4</td>
<td>statives</td>
<td>enjoy, live</td>
<td>English, Persian</td>
</tr>
</tbody>
</table>

Figure 5.1. Stages of grammaticalisation of the progressive

In Dutch the progressive is low with situations with non-agentive activities. Flecken (2010, p. 152) reports that the use of the aspectual form with such situation types with low dynamicity is 12%. Out of this 12% the share of the progressive aan het-construction is 8%. A comparison against the hypothetical order of the use of the progressive (cf. section 2.9.1.1) indicates that the results for Persian fully conform to those expectations while Dutch meets the expectation with a low percentage.

Dutch has an emerging progressive structure that is used principally with causatives with effected object, closely followed by agentive activities such as He is playing the violin. Thus, the finding for the dāštān-progressive...
shows that the progressive hierarchy found in Standard Average European languages is robust even outside that group.

In the next section, the results for motion events are interpreted with respect to the role of the progressive not only at the formal but also at the conceptual level. The two levels are intertwined in the way that the progressive verb form represents the formal level, to which the description of aspect in Persian also pertains, whereas use of the progressive and mention of endpoints together represent the conceptual level, i.e. the macro level of selection where the speakers’ decisions regarding the choice of the components for verbalisation of visualised events take place. At the conceptual level, the progressive is discussed in terms of phasal decomposition at sentence level in section 5.5.1 and endpoints in terms of boundedness in section 5.7.1.

5.4 The role of the progressive in motion events at the formal level

This section discusses sub-question 2d regarding the possible significant difference in the use of the progressive between critical and control items of motion events. The three subject groups are treated again in the following order: L1 English, L1 Persian and Persian L2 English. The investigation into the progressive deepens in this section: while section 5.3 discussed the role of the progressive in causatives and non-agentive activities aiming at describing the relevant aspectual systems at the formal level, the considerations about its role with motion events are extended from the formal level in section 5.4 to the conceptual level in section 5.5.1.

In motion events, an examination of the correlation of two features as the possible speaker choices was conducted, i.e. the verb form used and the endpoints mentioned. Two sets of motion events consisting of critical and control items, in which the endpoint of the event could either be inferred or was explicitly shown, respectively, were used. The formal, progressive verb form is in focus here, while endpoints are discussed in section 5.7.1 relating to event construal at the conceptual level.

As shown in section 3.1.1, L1 English speakers have 100 per cent marking of the progressivity in single event descriptions, i.e. at sentence level. This is the case in L1 English with all event types tested, both critical and control items. Since English only provides one verb form for expressions of ongoingsness, L1 English speakers are likely to use the obligatory verb form encoding the focus on the phase actually presented in the clip.

As there is no contrast in terms of usage of different verb forms in English, this presents a special language use situation as no possible speaker preferences emerge; the progressive is always obligatory. Also, the correlation between the verb form and possible endpoints (section 5.7.1) seems
non-informative; the progressive form is used both when the endpoint is mentioned and when it is not. Thus, the verb form in English is less relevant, although it indicates that the simple form is not possible. As in other languages, the aspectual system in English is language-specific; it has a very dominant progressive aspect to create aspectual contrasts by means of the aspectually void simple verb forms to enable the expressions of the imperfective and perfective meanings.

Turning to L1 Persian, the results for the use of the progressive with motion events add to the language-specific description of the status of the dāštān-progressive, defining further the aspectual system in Persian.

Generally, the dāštān-progressive was identified as Stage-4 progressive, i.e, fully grammaticalised (cf. section 2.6.1). This is an unexpected finding because one tends to think that grammaticalisation shows empirically in the frequency of use or the form being obligatory. The findings show that in Persian not only the dāštān-progressive but also the bare mi-form can be used to convey focalised ongoingness. This becomes apparent in Experiment 1 which generates use of forms for focalised ongoingness (cf. section 2.9.1). Otherwise, the dāštān-progressive is infrequent in general language use (cf. Table 4.20 in section 4.3.6).

In addition to this general finding, sub-question 2d as formulated for L1 Persian specifies the difference in the use of the progressive by looking at the expressions of ongoingness across the two types of motion events, i.e. critical and control items. Critical items show a clear overall preference, amounting to 62%.

To determine the general ranking of the use of the dāštān-progressive between the event types tested, the critical items of the motion events were compared to causatives with affected objects, showing no significant difference. Similarly, non-agentive activities and motion events, critical items, show no significant difference at the 10% probability level. All the verb types tested are at the same high level of frequency to take the progressive.

Concerning language use by the Persian L2 English speakers, close to 100% marking of the progressivity with critical and control items is observed at the formal level. In contrast to the other event types where the progressive is used in all cases, motion events show some few cases of use of the simple form. Since fully correct use was observed with other event types, the simple forms may be regarded as the slip of the tongue rather than low proficiency or difference in event conceptualisation.

The three speaker groups show use of the progressive marking up to 100 per cent with critical and control items of motion events. In English, it is expected. In Persian, there is a distinct difference in the use of the verb forms showing that the dāštān-progressive is more dominant with the critical items than control items. A clear pattern is evident in the critical items that the endpoint is likely not to be mentioned with the dāštān-progressive, not even when the bare mi-form is used.
In contrast, with the control items in which the endpoints are shown explicitly as reached, the bare \emph{mi-}form is predominantly used. With this verb form, the endpoint encoding is frequent. With the control items the endpoint is likely to be mentioned, even when the \emph{dāštan}-progressive is used. These two forms can be used to denote focalised ongoingness in the speaker’s here-and-now context in Persian.

In contrast to this pattern seen in L1 Persian, in Persian L2 English a slightly different trend in the use of the verb form and its relation to the endpoint encoding is seen; in L2 English the critical items, with which the endpoint coding is not likely, show a trend that the few simple verb forms used associate with the endpoint. The control items conform to the expected likelihood to encode the endpoint. The L2 speakers use the simple verb forms.

Regarding sub-question 2d defined for the three speaker groups, the issue as to whether the formal inconsistency in the use of the verb forms in L2 English indicates L1 influence is replied negatively; the numbers for the use of the simple verb forms in L2 English are too low to show definite L1 influence. The Persian L2 English speakers are regarded to be in full conformity with L1 English speakers at the formal level, given the critical items of the motion events.

In sum, given the motion events, critical items, the role of the progressive aspect is the same in Persian L2 English as it is in L1 English. The obligatory form is used by those speakers, while ongoingness has two forms in Persian. The two aspectual forms in L1 Persian may be the reason why control items, which explicitly show the endpoint, tend to take the simple form more often than the critical items do in L2 English. This L1 influence on the use of the simple form in the context of focality remains open to further research.

5.4.1 The progressive in motion events in some European languages

To contrast the result for motion events, critical items, in Persian with some European languages, Flecken (2010, pp. 148, 152) reports on the use of the progressive with motion events in Dutch. From among 30\% of the speakers who choose the aspectual perspective, 2\% use it when no endpoint is given, and 0\% with explicit endpoints. Like in Dutch, motion events in Italian take the progressive more frequently without an endpoint than with it (cf. Natale, 2008, cited in van Ierland, 2010, p. 55). Similarly, French shows the lowest use of the progressive, 0\%, with motion events (Flecken, 2011, p. 506; Natale, 2009; von Stutterheim et al., 2009). In Norwegian only uses of stature verbs are found as the progressive is less developed (Behrens et al., 2013).
5.5 Phasal decomposition

The discussion in this section on phasal decomposition relates to event construal at the conceptual level. More concretely, as presented in point B in section 5.2, phasal decomposition is examined not only in motion events in the context of the progressive in section 5.5.1 but also in narratives in the context of the progressive in section 5.5.2 and the inchoatives begin/start in section 5.5.3. On the basis of the findings for the progressive in single events and narratives, it is possible to comprehensively answer the first overarching research question, RQ1 in section 5.6 (for overall research questions, cf. section 2.10). By default, the prediction of the model for languages with the progressive is that the speaker focuses on the intermediate phase of the event and the zooming-in on this phase goes so far that endpoints are not mentioned (von Stutterheim et al., 2009, p. 207). This discussion takes place in section 5.7.1.

5.5.1 The role of the progressive in motion events at the conceptual level

Sub-question 3 regarding possible differences in the use of the progressive in motion events is examined across the three speaker groups. Especially, intergroup differences can illuminate conceptual differences. In contrast to causatives whose core feature, i.e. change-in-state, is conceptualised as a progression towards a resultant state, the core feature with motion events is movement to a possible goal, whose conceptualisation concerns rather the segmentation of the event by the speaker for verbalisation (Nüse, 2003, p. 267).

There are two settings in segmentation: when the progressive aspect is a grammaticalised feature in the speaker’s L1, the speaker may attach attention to what is merely ongoing as the intermediate phase of the event in the clip, which is focused, or the speaker may make inferences about the endpoint as reached, as another option for their decisions. With control items in which the endpoint is explicitly shown as reached, the speaker is expected to mention it. With critical items the endpoint is never shown as reached but can be inferred so or not. Thus, *He is walking vs. He is walking to the park* are two possible responses to the quaestio *what is happening* about a situation showing a person approaching a park at some distance. The results for the critical items are discussed in this section.

Since English only provides one verb form for expressions of focalised ongoingness, L1 English speakers are likely to focus on the phase which is actually presented in the clip. This means that since the task question is to tell *what is happening*, the event shown in the clip is perceived as ongoing and the “zooming-in” on this phase goes so far that they do not attach attention to the end phase to necessarily mention it (von Stutterheim et al., 2003,
p. 108, 2009, p. 207). More precisely, if endpoints are not explicitly reached by the figure in motion, there is a clear preference not to mention them by speakers of languages with the grammaticalised progressive. The results for the motion events show that the L1 English speakers perceive the event as ongoing in its intermediate phase in each case. This is to say that since the progressive is obligatory, L1 English speakers are most likely to focus on the phase which is actually presented in the clip. The closely related issue regarding to what extent the endpoints are encoded, or left unencoded, in the context of the progressive is discussed in isolation in section 5.7.1.

Contrary to English, endpoints cannot be discussed in isolation in Persian, though an effort is made to focus here on the aspectual forms. Given the two forms for ongoingness in L1 Persian, there is a statistically significant correlation tightly related to the endpoint; significantly more informants use the dāštan-progressive without endpoint for the critical (Table 4.6) than for the control items (Table 4.7). Also, significantly more informants use the bare mi-form with an endpoint for the control than for the critical items.

More exactly, the results for Persian indicate that there is a persistent dāštan- / mi- contrast in their usage such that the dāštan-progressive is more preferred when the event is in progression, i.e. in its intermediate phase, as shown in the critical items. This is further supported by the fact that there is only a very low use of the bare mi-form with these critical items (Table 4.6).

This leads to a new finding grounded in the aspectual system in Persian; the grammaticalised aspectual bare mi-form is associated with frequent endpoint encoding in the same way as non-aspectual verb forms in German do. The bare mi-form is used when the endpoint is explicit and focused in the clip and is highly likely to be mentioned (Table 4.7). This is again supported by the fact that with these control items the dāštan-progressive is infrequent.

By comparison, such alternate correlation between the verb form and endpoint encoding does not show in L1 English with only one obligatory progressive form. This is because the simple verb form in English is not like the imperfective bare mi-form; in contexts where ongoingness is focused, the simple verb form cannot be used. In other contexts such as narratives it is possible to read imperfective ongoingness into the simple forms.

The reason why the bare mi-form is used when the endpoint is evident needs clarification. As Östen Dahl (personal communication) points out, there are two things to be noticed. First, the prevalent inherent differences in the aspectual category of the imperfective and the progressive; a progressive is not a kind of imperfective in the sense of belonging to the imperfective gram-type but the prototypical uses of progressives are included in the domain of use of imperfectives. This applies to all progressives. This is also the difference between the aspectual verb forms in Persian; the bare mi-form can be used to denote ongoingness but the dāštan-progressive cannot be used to denote the ordinary imperfective meanings.
Second, the speaker can use the forms available to create some kind of opposition between the imperfective and the progressive. Building on this explication by Östen Dahl (personal communication), the persistent dāštān- / mi- contrast in their usage in relation to endpoint encoding is explained by the fact that the forms are slightly different from each other, even though both are imperfective and can be used for particular contrasts of meaning.

The key findings relevant to L1 English and Persian speakers conform to what is regarded as the core internal structure of the progressive, and thus to the basic finding of the Heidelberg–Paris model; given the progressive aspect, the speaker does not attach attention to a possible endpoint as a preference. While this applies precisely to English, as it provides merely the progressive form for ongoingness, there is, however, a difference for L1 Persian speakers as different verb forms are used; the dāštān-progressive is preferred with no endpoint encoding, while the bare mi-form is more likely with the endpoints. This is a clear general difference in event conceptualisation, which is a highly relevant finding from this cross-linguistic comparison.

The additional issue as to whether the Persian L2 English speakers conceptualise the tested motion events as in their L1 or as the native speaker of their L2 do, i.e. whether they have acquired the relevant principles of use in L2 or not, is discussed next.

As pointed out above, the results for the critical items of the motion events for the Persian L2 English speakers indicate that these advanced adult learners have acquired the rules of its use and generally perform like L1 English speakers. However, they use the simple form in some cases. Unlike the bare mi-form in Persian, English simple forms cannot be used for ongoingness at the sentence level. Despite the fact that imperfective meanings can be read into simple verb forms in contexts such as habituality appearing in clauses with temporal adverbials such as every day, single main clauses such as A man goes to his car, A man goes up a ladder, A child goes to the playground have to be solved for the habitual aspect from the context.

The Persian L2 English speakers may associate the English simple form with the Persian bare mi-form with motion events, control items. No such association was observed in the context of causatives and activities.

By default, the pattern observed with the critical items of motion events more precisely illuminates event conceptualisation than the pattern with the control items because speaker choices are involved in the inferences made.

Yet, it is worth observing the particular motion events with the erroneous uses of the verb form. There is more frequent use of the simple forms with the control items than with the critical items. With both item types, the simple form is associated with endpoints, which is more conspicuous with the control items. Nonetheless, it is not possible to regard this as sufficient evidence for L1 transfer as the other event types tested showed firmly that these speakers had acquired the rules of the Progressive in English.
In sum, the key finding for motion events, critical items, confirms the earlier finding by the Heidelberg–Paris group that the grammaticalised progressive focuses the speaker’s attention on the intermediate phase, defocusing the endpoints. In Persian, two aspectual verb forms show a dāštān- / mi-contrast in differentiating between a focus on intermediate phase while defocusing endpoints, which is associated with the dāštān-progressive, and a focus on end phase mentioning the endpoints, which is associated with the use of the bare mi-form. The new finding relates to the grammaticalised bare mi-form which is associated with endpoints. As evident with critical items, Persian L2 English speakers mainly conform to the L1 English pattern. However, in the use of the simple verb form, they indicate some potential L1 transfer, for which further evidence is sought in the investigation of narratives in the next section.

5.5.2 The role of the progressive in narratives in L1 English, L1 Persian, and Persian L2 English

This section discusses sub-question 3 regarding the role of the progressive in narratives. As pointed out in section 2.8.2, the progressive in narratives belongs to the side structure of the narrative which does not advance the story line. Generally, the role of the progressive in language use is determined both by the aspectual system of the relevant language and the genre. Different genres may not generate similar frequencies of the use of the progressive, as observed from the brief event descriptions and re-narrations. Also, particular genres may not generate all kinds of uses of the progressive. It is assumed that the narrative genre used in this project mainly generates focalised uses because the narratives used in this project are direct re-narrations of events seen in a video. The investigation of what the individual uses of the progressives are and how they are integrated in the temporal frame of reference in the narratives of the three groups remains open to further research.

Regarding the grammaticalised aspect, some differences were discerned in the aspectual systems. English does not have morphologically marked imperfective as it lacks the IPFV–PFV distinction on the whole, unlike Persian. Since English only provides the progressive for the contexts of ongoingness, it is obligatory in the sense that there is no other form to be used. The discussion in this section focuses on the way this aspectual difference in the language system is reflected in narratives.

To start with, the fact that obligatoriness of one verb form does not imply that it is the condition of the full grammaticalisation of a construction; grammaticalisation relates to the concept of the expansion of the use of the aspectual form to the full range of semantic domains and variety of functions when there exists solid morphology for it (cf. section 2.6.1). For example, the stages of full grammaticalisation of the progressive as presented by
Bybee et al. (1994) involve its use with a particular range of event types; grammaticalisation starts prototypically with 1-state activities such as *play* and *run* expanding to 2-state event verbs of long and short duration such as *change* and *break* and, finally, to statives such as *live*. Motion events are equated in this project with accomplishments such as *change* because both involve a process and an endpoint.

A question may arise as to when a construction can start to be regarded as grammaticalised. For instance, the progressive construction in Dutch is used about situations other than statives and motion events with endpoints. Further, in other languages such as English, the progressive has some extended uses in addition to its prototypical meaning to convey focality. The range of its uses has expanded from the primary focalised meaning to protracted ongoingness of uni-occasional events as well as contingent habitual meaning of pluri-occasional events (cf. section 2.7.2). In their study, Bybee & Dahl (1989, p. 59) report that in any particular language, at any particular time, there are grams in various stages of development; inflectional grams show the highest degree of grammaticalisation, while derivational grams are likely to show more of the properties of lexical morphemes, such as restricted distribution. Similarly, periphrastic grams develop and gradually become obligatory, though there is no particular point to be singled out as the point at which a gram category becomes obligatory (ibid. p. 65).

In the sense of having a wide range of uses, the Progressive in English is described as fully grammaticalised as it is obligatory. This is due to the overall system, as shown in Experiment 1; no other verb form is available to replace it. It is also fully grammaticalised, as its use has expanded to the whole range of event types, e.g. activities, accomplishments, achievements and statives. In the progressive, these verbs incur the meanings of protracted activities, proximative and iterative events, and contingent habits, respectively, while including the primary focality, i.e. the time of speaking.

In Persian, these semantic domains of the use of the *dāšt*an-progressive converge with those in English. The level of grammaticalisation is established as Stage-4 in English and Persian and Stage-1 in Dutch on the basis of the solid morphology and the semantic domains of use.

As compared to English, the *dāšt*an-progressive is not obligatory as it can be replaced by the bare *mi*-form in decontextualised sentences; motion events in Experiment 1 showed that it is not an either-or issue but both aspectual forms occur. Yet, the *dāšt*an-progressive is fully grammaticalised as it is used with the verb types of the same semantic domains as in English.

To turn to narratives, there is another level of obligatoriness in the use of the progressive. When the use of the progressive is investigated in long stretches of discourse, i.e. elicited narratives in which the speaker has to consider the rules of coherence, the Progressive in English is used differently from Persian. Obviously, the particular uses of the progressive are obligatory due to the narrative context, as shown in Experiment 2. The obligatoriness is
dependent of the rules of coherence and the dāštān-progressive cannot be replaced by another verb form in the particular contexts. Thus, the progressive has its particular role to play in the narrative.

To elaborate on the issue that the verb form denoting ongoingsness in the narrative has to be the progressive proper and cannot be replaced by another verb form, it can be examined in the Persian system in which two grammaticalised verb forms exist for expressions of ongoingsness. To begin with, the argument that the dāštān-progressive and bare mī-form are interchangeable in conveying focalised meaning, i.e. in context-free single events, is justified because, firstly, those situations are decontextualised and, secondly, the aspectual verb forms share the feature of continuity. However, in a long stretch of discourse the rules of coherence determine language production which gives evidence for different kinds of distributions in Persian and English; the dāštān-progressive is not interchangeable with the bare mī-form randomly. The rules of coherent discourse do not allow a random replacement as the dāštān-progressive is used in its particular functions in conveying focalised meaning, which is where it creates a contrast with the more general meaning of the imperfective bare mī-form, i.e. the primary verb form of narratives.

Apart from this difference in the roles of the progressive in L1 English and Persian, the L1 English speakers produce significantly more side structure (cf. section 4.3.1). The different scores of the use of the progressive (cf. Tables 4.20 and 4.21) depict in numbers that the progressives play different roles in discourse in English compared to Persian, regardless of the fact that the progressive is fully grammaticalised in both languages.

The aspectual systems in English and Persian are crucially different due to the absence/presence of the IPFV–PFV categories. Despite the similar proportions of its cross-linguistic occurrence (cf. Table 4.21), there is a significant increase in the use of the progressive in English resulting in a cross-linguistically different, though L1-specific, patterns of perspective-taking in the narrative discourse in English and Persian.

Overall, the different patterns of the uses of the progressives observed in narratives in English and Persian in Experiment 2 speak about the outstanding language-specific differences. Owing to the absence/presence of the IPFV–PFV categories and the effect of the genre, differences in the internal structures of the progressives, principles of their use and their roles in narratives, as well as pragmatically different preferences of their use are evidenced in Experiments 1 and 2, i.e. one-sentence descriptions comprising only main clauses versus coherent long re-narrations.

The key finding relevant to Persian L2 English speakers is the transfer effect from their L1 observed in the pattern of the use of the progressive in narratives different from L1 English and Persian. These effects in Persian L2 English are discussed in section 5.13. Ultimately, however, the restriction by the Heidelberg–Paris model to examine the progressive merely in terms of
the focalised meaning illuminates impossibility to generalise their findings as the other meanings that the Progressive in English conveys are excluded.

5.5.3 The role of begin/start in phasal decomposition

Sub-question 3 concerns a possible significant difference with respect to phasal decomposition in general, and use of begin/start in narratives in particular, between the three speaker groups. The issue is relevant to the conceptual level of analysis. The role of the inchoatives begin/start in a long stretch of discourse relates to the fact that speakers of languages with the progressive aspect are pointed by this grammaticalised category to attend to particular information in situations in selecting components for its verbalisation. The use of these inchoatives indicates the speaker observing the initial phase of an event in a similar fashion as the progressive directs the speaker’s attention to the intermediate phase.

The results obtained show no differences in the use of begin/start between the three speaker groups. This finding was expected, as this feature of phasal decomposition is typical of languages with the progressive aspect. Nevertheless, it is striking with respect to the distance between these languages that the finding is obtained. The similarity in the use of these linguistic features indicates that languages with the progressive may exhibit even further convergence in the diverse features of phasal decomposition apart from the progressive, regardless of the fact that the progressives may differ in terms of different internal structures. The finding confirms the previous finding by the Heidelberg–Paris group as other, more closely related languages without the progressive show significantly less use of the inchoatives (von Stutterheim & Lambert, 2005, p. 222).

The following section summarises the main findings obtained so far in discussing the first research question, RQ1, as to whether the role of the progressive aspect is the same in L1 English, L1 Persian, and Persian L2 English, given the single events and narratives.

5.6 Discussion of research question RQ1

The obtained findings allow for the discussion of RQ1 concerning the role of the progressive in the different speaker groups, given the single events and the side structure of the narratives where the progressive belongs. To begin with, the different types of single events, i.e. causatives, activities and motion events, showed 100 per cent marking of focalised ongoingness in the groups. In this cross-linguistic comparison, the forms used in single event descriptions are defined as denoting focalised ongoingness, as the particular
focus in the clips enables this specification; it is all about focalised ongoingness in the single event descriptions no matter what form is used.

The overall use of the progressive forms in the single event descriptions was similar across the language groups; the event clips were conceptualised as taking place at the time of speaking. Thus, the form denoting focalised ongoingness was used, regardless of the fact that in English the progressive can denote other imperfective meanings and Persian has two different forms.

In narratives, the speaker groups again employed the progressive in a similar fashion, proportionally. Despite the proportional similarity, the results show significant difference in the use of the progressive in English as it has more side structure as compared to Persian. However, while the overall scores showed no significant proportional difference, the deep study of the distribution of the uses indicated there to be significant differences.

These frequency-related significant differences between the L1s are in the different distribution of the progressive in narrative discourse, on the one hand, and the interaction of the dāštan-progressive and bare mi-form in denoting ongoingness in single events in which the progressive in English is obligatory, on the other hand.

Thus, in comparison to an even distribution of the progressive in L1 English, i.e. its use in main and sub-clauses and with the protagonist and other entities as the syntactic subject, L1 Persian uses the dāštan-progressive predominantly with other entities as the subject, and clearly more frequently in sub-clauses than in main clauses. While the bare mi-form can be used to convey focalised ongoingness in addition to the general contexts of imperfective continuity, it typically occurs with the protagonist in main clauses, which is where the progressive is often used in English. These differences are primarily related to the level of grammar and are grounded in the different typology, and genre (for genre-dependent differences see section 5.14).

Relating these results to the different genres, the bottom line is that the differences in the use of the progressive relate, in the first place, to their different internal structures and the fact that the progressives have different underlying principles of use caused by the typological differences. These differences are projected in diverse ways in the two genres: in single events the dāštan-progressive can be used in main clauses and with animate syntactic subjects. Such uses are not typical of narratives in which the dāštan-progressive is used in sub-clauses and with inanimate syntactic subjects.

It is possible to generalise the findings to languages with the fully grammaticalised progressive, a token of which is that the particular morphology the language provides for denoting progressivity is systematically used with motion events. Use of the progressive with motion events indicates a rather high level of grammaticalisation. At that level of grammaticalisation, the progressive materialises the conceptual segmentation of dynamic events. The speaker is likely to pay attention to the intermediate phase of the ongoing event. Also, at the level of grammaticalisation when the progressive can be
used with motion events, it also incurs a distinct role in language production in long stretches of discourse.

Regarding L2 English speakers, the few erroneous uses observed in the single event descriptions may indicate slips of the tongue rather than conceptual transfer. The evidence from the experiment on the single events is not sufficient to determine the issue. In the re-narrations, the role and distribution of the progressive is distinctly different in the L1s, and the L2 speakers are in between. Due to L1-related influence on the principles of use of the progressive in L2 English, the L2 English speakers seemingly proceeds from the principles of use in L1 Persian towards those in L1 English. These L2 speakers have little exposure to the foreign language other than in their study programmes. The fact that they are still in the process of learning the L2 and have little exposure to it are good reasons for conceptual transfer from the L1 to guide their language production.

In the next section, the discussion moves on to the parameters of event construal probing event conceptualisation in more detail.

5.7 Event construal in L1 English, L1 Persian, and Persian L2 English

In this section, event construal relevant to the main structure of the narrative is discussed through a set of parameters in isolation across the three speaker groups in order to obtain an overall picture of event construal for each group for a cross-linguistic comparison. The rationale behind this analysis is the finding by the Heidelberg–Paris group (von Stutterheim et al., 2009; von Stutterheim & Nüse, 2003) that depending on whether the language in question has the progressive aspect or not referred to as the aspect and non-aspect distinction, as in English and German, there are distinct differences in event construal. In the current language pair, the progressives are grammaticalised, although they differ. The possible different effects of the typological differences on event construal are sought for by way of the set of parametrical features selected. They are presented as sub-questions 4–7 in section 2.10.

The cross-linguistic comparison giving insights into event conceptualisation at the conceptual level is pursued first in single motion events, then in narratives, by looking at the status of the relevant parameters in them. Section 5.7.1 focuses on the role of the endpoints in motion events. In section 5.7.2, temporal shift is discussed on the basis of three parameters relevant to main structure; overall boundedness, granularity, and begin/start and try as the left boundary. Finally, in section 5.7.3, boundedness of events preceding temporal adverbial then is discussed.
5.7.1 The role of the endpoints in motion events at the conceptual level

Sub-question 4a relates to event boundedness in terms of endpoint encodings in single motion events. The results for critical items in which the speaker may opt to infer a possible endpoint are key because the inferences illuminate the way the speaker conceptualises the event, while in the control items in which the event clearly ends with the endpoint, the endpoint is likely to be referred to. To recapitulate the findings for the progressive in motion events in section 5.4, the progressive in English is used both when the endpoint is mentioned and when it is not. Consequently, the fact that one obligatory verb form is used in English was considered as non-informative about the endpoint encodings and the way they may associate with the verb form. The obligatory verb form does not illuminate event conceptualisation at the conceptual level across the two English-speaking groups. As for L1 Persian, the dāštān-progressive is associated with infrequent endpoints with the critical items and the bare mi-form with frequent endpoints with the control items, as discussed in section 5.5.1.

The role of the endpoint in L1 English and Persian, and L2 English in critical items of motion events, is as follows: In conformity with the results for L1 English presented in von Stutterheim et al. (2012), the results for L1 Persian and L2 English converge in terms of frequency; the endpoint encodings for the three speaker groups are low with the critical items, 35–44% (cf. section 4.2.2.2.1). By contrast, in a language such as German the speakers are likely to encode endpoints frequently with the critical items, 76.4% (von Stutterheim et al., 2012a). The low rate of endpoints in the current language pair is the impact of the grammaticalised progressive aspect on event conceptualisation. This confirms the earlier finding by the Heidelberg–Paris group. Notably, the results obtained for the endpoints are considered for the total of the utterances for the critical items regardless of the verb form used; in the L2 English group a few simple forms with endpoints occur.

There is a cross-linguistic similarity in the low rate of endpoint encoding with critical items. The projection of the results for the endpoint encoding from the formal level to event conceptualisation at the conceptual level allows for the generalisation that the speakers of these languages with the grammaticalised progressive conceptualise events as ongoing in the intermediate phase, not attending to the end phase. This answers sub-questions 4b–d regarding the possible difference in the encoding of endpoints with the critical items across the speaker groups.

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24 Data for the single events were not collected for L1 English in this project because English has 100% marking of the progressive in them (von Stutterheim et al., 2009, p. 207). For endpoint encodings with motion events, the results from the earlier study by von Stutterheim et al. (2012a) are referred to.
The L1 Persian speaker preferences (cf. Table 4.6) are similar to those of the L1 English speakers. This means that there is a clear distinction for the L1 Persian speakers, at the conceptual level, of the association of the dual aspectual verb forms versus the endpoint; both the *dāštan*-progressive and the bare *mi*-form are used to describe the critical items because they both denote focalised ongoingness. While the obligatory verb form in English does not illuminate event conceptualisation at the conceptual level across the two English-speaking groups, the L1 Persian speakers show to encode less endpoints with both the aspectual forms with the critical item.

Nevertheless, the Persian L2 English speakers readily conform to the L1 English type of event conceptualisation coping with the challenge that one obligatory form is available. Notably, the L1 Persian speakers have a two-fold concept of the aspectual form used to denote focalised ongoingness. Thus, the use of the bare *mi*-form with the critical items in L1 Persian provides further evidence for the impact of the progressive/ongoingness on event conceptualisation as the speakers focus on the intermediate phase and associate less attention to the endpoints whichever form they use.

However, as discussed in section 5.4 and 5.5.1 regarding the progressive form with critical items in L2 English, these speakers conform to the L1 English norm in using the English progressive but indicate that even the simple form is possible in some cases. Even though the use of the simple form in L2 English is ungrammatical, the L2 speakers tend to use it with endpoints. There are 9 cases of simple verb forms without endpoints and 12 cases with endpoints in critical items. The result may speak about transfer from the L1 in the choice of the verb form and endpoint. It is, however, not possible to judge from the low numbers how the L2 English speakers conceptualise the event when they use the ungrammatical simple verb form.

In sum, evidence from Persian shows that there are particular language-specific differences in event conceptualisation not shown in English owing to the obligatory progressive. Persian has two forms for ongoing situations and associates primarily the *dāštan*-progressive, but also the bare *mi*-form, with the low mention of the endpoints in the context of the ongoing events in the critical items. Even though the bare *mi*-form is rather infrequent with the critical items, it is associated with the low mention of endpoints.

In contrast, in control items the bare *mi*-form is associated with high mention of the endpoints. This was observed in section 5.5.1 as a similarity between the bare *mi*-form and non-aspectual verb forms in German. The new finding is that, at the formal level, L1 Persian speakers have two forms to express focalised ongoingness but these speakers maintain the conceptual difference between the two things that while both verb forms can be used to express ongoingness, the *dāštan*-progressive which is the progressive proper is primarily associated with infrequent endpoints with the critical items, which is where the bare *mi*-form behaves similarly even though it is associated with frequent endpoints with the control items. The finding provides
further evidence for the impact of the progressive aspect on event conceptualisation postulated by the Heidelberg–Paris model.

Although there is a need to study more languages on the impact of the progressive aspect, the results for motion events and mention of endpoints showed that the pattern found by the Heidelberg–Paris group for languages with the progressive generalises to Persian. This section pointed out several key issues about event conceptualisation. These key issues were interpreted from the observed speaker preferences as they can illuminate the way speakers conceptualise events mentally.

5.7.2 Temporal shift

5.7.2.1 Overall boundedness and granularity

In this section, sub-question 5 concerning the main structure of the narratives is discussed. Two different kinds of information relevant to narratives are in focus; overall event boundedness and granularity, which are features of the main structure in which the story line advances. They are tightly related features, and due to the absence/presence of the IPFV–PFV categories they lead to differing language production in the selected languages. In seeking for similarity in boundedness between English and Persian, the effect of the absence/presence of the progressive category is empirically observed in the feature of boundedness which defines how frequent bounded and unbounded events in the narratives are overall, as compared to a language such as German which lacks the categories and shows high numbers for bounded events. Similarly, granularity presents an overall picture of the language production in terms of the number of utterances in main structure as speakers of different languages may differ in the way they map information on situations into sentences; the same situation may be described briefly in fewer sentences as in German or in many sentences creating then a fine-grained presentation as in English (von Stutterheim & Nüse, 2003, p. 859). The more overarching concepts these two features pertain to are temporal shift in unfolding the story line (boundedness) and discourse structure (granularity) in narratives, respectively.

The hypothesis of event boundedness in the Heidelberg–Paris model is twofold: speakers of languages lacking the progressive aspect produce language that is dominantly bounded and less granular. By contrast, speakers of languages with the progressive produce language, on the same stimulus, that is more granular but not overwhelmingly bounded (ibid. p. 860). These proportional differences are discerned in both single events and narratives. The relevant hypothesis in this project is that if the findings from English and Persian converge, language production in Persian is different from that in a system such as German because English and German are distinctly different.
The results for overall boundedness observed across bounded and unbounded events in main structure show no significant difference in the mention of endpoints between L1 English and L1 Persian speakers. The results for L2 English have to be taken with caution because L2 learners generally produce less language.

Overall boundedness was also considered when catenatives were excluded showing that language use was again more bounded though displaying some differences in the distribution of the unbounded events; while the largest proportion of bounded events is, again, in L1 English, the largest proportion of unbounded events is not here in Persian L2 English but in L1 Persian. L2 English is in between (cf. Shaw, 2004) in both cases, i.e. with/without catenatives (cf. section 4.3.4). However, the significance of the difference in the unbounded events is not high owing to the fact that the story line unfolds via the bounded events, even though the unbounded events are also part of main structure.

As for granularity, there is no difference between the L1 groups, except for the L2 English speakers whose narratives are much shorter. Fant (2018) reports on shorter texts by L2 speakers due to insufficient linguistic competence despite high proficiency level. This brings about the issue of the role of greater fluency resulting from L1 proficiency in determining the number of propositions produced. In comparison to L1 users, L2 speakers show less fluency and language production despite high L2 proficiency level. Therefore, it is not possible to draw any conclusions about granularity regarding the L2 English speakers, especially because the numbers for the total language production are contrasted. It is questionable if one possibly can compare L1 and L2 speakers of the same language in terms of granularity because the L2 speakers may nearly always produce less.

5.7.2.2 Begin/start and try as left boundary in narratives

In this section, sub-question 6 regarding the role of begin/start and try in narratives is in focus. Unlike in section 5.5.3 where begin/start were discussed with respect to phasal decomposition and the attested similarity in their use across the three speaker groups, in this section begin/start and try are jointly considered for constituting left boundary in the main structure of the narrative.

The relevant hypothesis concerning the languages with different aspectual systems relates to the frequency of use of begin/start and try in narratives and the way it correlates with the absence/presence of the progressive and the high versus zero frequency of its use observed in English versus German. These correlations ultimately contribute to different kinds of temporal shift in main structure in such languages (cf. Table 2.1 in section 2.9.2.2). The hypothesis tested is that English and Persian are similar.

With respect to the fact that both English and Persian have the grammaticalised progressive, two distinct differences in the left boundary in narratives
across the L1 groups appear; while begin/start alone show no significant difference across (cf. section 5.5.3), there appears a different tendency, due to try, when begin/start are considered together with try, i.e. as left boundary. While there is no significant difference between the L1s and the L2 English group, the Persian groups differ significantly due to the somewhat low rate of use of try in Persian while it is high in L2 English. This indicates that the L2 speakers overuse try. As compared to the use of try in L1 English in which it is a feature of the relevant temporal frame of reference to introduce a succession of events, this has been reported earlier as a semantic feature in L2 English to show long duration or difficult achievement of an action (von Stutterheim & Lambert, 2005, p. 226).

In summary, no significant difference was observed in the use of begin/start in narratives across the three speaker groups. The finding conforms to the prediction of the model that languages with the progressive show a more frequent use of inchoative begin/start as compared to a language such as German. The use of try as left boundary in introducing a chain of events is significantly higher with the L2 English speakers indicating overuse, which has formerly been observed in L2 English use.

5.7.3 Boundedness of events preceding temporal adverbial then

Sub-question 7 relates to the possible difference in the occurrence of the bounded and unbounded events preceding the temporal adverbial then. The previous studies by the Heidelberg–Paris group show that a language such as German has more frequently bounded events before then in narratives, unlike in English. The difference between these languages is related to the fact that the temporal frame of reference and the advancement of the story line in German builds heavily on bounded events in main structure, unlike in English (cf. Table 2.1 in section 2.9.2.2). The use of then in temporal ordering in English builds on relations defined across the left boundary, in contrast to the right boundary marked by bounded events in German. The relevant hypothesis is that as the shift-in-time pattern of narrative sequence in German builds on bounded events, there are more frequently bounded events in German to precede the temporal adverbial then than in English and Persian.

The statistically retrieved results determine if the cases of ‘then preceded by bounded events’ are significantly higher than those of ‘then preceded by unbounded events’ for the three speaker groups.

Across languages, the results show that both L1 English and Persian speakers use bounded events before then generally more frequently than L2 English speakers do. For the Persian speakers the difference from L2 English is significant, for the L1 English speakers it is merely slightly indicative. There is no difference between the L1s.

Thus, within L1 English there is no difference between the bounded and unbounded events preceding then. L1 Persian has no significant difference
although it shows a tendency to have more frequently bounded events before the Persian ba:d, ‘then’. L2 English indicates a significant difference.

Given the deviating result for L2 English, another test on the same but normalised figures (i.e. not raw scores but bounded and unbounded per 500 propositions) was done. It shows, similarly, a clear tendency versus significant difference within the L1 Persian and L2 English groups, respectively. The key finding is, however, that there is no difference between the L1s.

It is not possible to draw a solid conclusion for L2 English because those narratives are shorter in length exerting thus an effect on the occurrence of bounded events (see section 5.7.2.1). The L2 effects can be multiple; fluency, complexity, and idiomaticity are reported lower for L2 users (Fant, 2016, pp. 33–34). Since the evidence in the current study is weak, the question remains open to further research.

In sum, the even pattern of the difference between the bounded and unbounded events in English and Persian contrasts the pattern in German as then is more frequently preceded by bounded events in German than in English. L2 English shows a developmental feature as it does not derive from either L1.

5.8 Culture

The current project has investigated languages in culturally different countries and has found predominant similarities in the linguistic parameters used to measure the similarities and differences. The findings convincingly show that the similarities in language use in the L1s are grounded in the linguistic features. Given the identical non-linguistic stimulus, the linguistic similarities between the speaker groups rule out the effect of culture on the effects observed in language use.

The Heidelberg–Paris studies have generally been conducted on European languages which belong to culturally similar countries. A priori one would expect to see in this project that European conceptual patterns cluster together and Persian is a bit different due to the culturally different areas but, instead, Persian and English cluster together while German is different. This pattern is consonant with the overarching linguistic similarities.

The Pear stories by Chafe (1980) show, however, that there are cultural differences within the European language area; the narratives in his study show cultural divergence in such a way that in approaching the re-narration of the Pear story speakers may prefer taking it as a mere memory task or doing the interpretation of the story line.

Notably, the cultural effects come forth in such different categories that they are not directly comparable with the linguistic effects; while typological differences between languages may be reflected as linguistic differences in
language use indicating L1 influence on L2, the ways we approach and perform a task on the basis of our common discoursal conventions and traditions, as shown by Chafe (1980), may display cultural differences, which cannot be investigated in the grammaticalised categories.

These differences involve two distinct types of relativity. While linguistic differences may lead to conceptual differences in, for example, event conceptualisation, the cross-linguistic comparison of, for example, story-telling conventions may show culture-related differences (see Tannen, 1980). Thus, having had the chance to listen for the cultural effects in Chafe’s Pear stories in Persian, my understanding is that the Persian speakers approach the task of retelling the Pear story by reporting the events as in a memory task.

The next section discusses what general linguistics depicts as aspect languages and the way this view is differently adopted in the Heidelberg–Paris model.

5.9 What is an aspect and non-aspect language, and how do they relate to event conceptualisation?

As understood in general linguistics, there is “good reason to regard PFV as a basically aspectual category”, in the sense that aspect accommodates PFV as the basic grammaticalised category (Dahl, 1985, p. 23). It is regarded as a more solid category than the imperfective.

Despite the prominence of PFV explained by Dahl, languages that have PFV also have IPFV, such as Russian. Languages that lack PFV also lack IPFV. However, a language can have only PROG, such as English. As other aspectual categories are not relevant for this discussion, PFV and IPFV appear as binary and basic; if one exists, the other also exists (cf. section 2.6.1). Since they form one comprehensive whole in any aspectual system involving the conceptual contrast of complete–incomplete, there are no varying degrees in their grammaticalisation; it is either the imperfective which comprises all the imperfective meanings, such as habituality and continuity, or the perfective which views events as complete and as wholes. Thus, they can be conceived of as categories lacking degrees of grammaticalisation. Instead, certain system-specific variation occurs so that in some systems boundedness determines aspect in the past as in Russian (Dahl, 1985, p. 75). Languages with the IPFV and PFV categories are conventionally classified as aspect languages and languages lacking them are non-aspect languages. Consequently, both English and German are non-aspect languages in this sense.

The view taken on aspect in the Heidelberg–Paris model builds on the progressive. The grammaticalised progressive aspect is imperfective by nature but stands as an isolate category on its own when it exists in a system
lacking the IPFV–PFV distinction as in English. It can also be a separate category in a system such as Persian in which the IPFV–PFV distinction exists. As a single category, the progressive is more readily subjected to change and development than the binary IPFV–PFV categories.

The progressive is regarded, in this project, as appearing in different degrees of grammaticalisation, being fully grammaticalised in English though not in Dutch (Behrens et al., 2013; Flecken, 2011, p. 506). In Persian, the dāštān-progressive is fully grammaticalised as it is used in the same semantic domains as the Progressive in English; both progressives are at Stage-4.

The progressive can, thus, be classified as a category at different stages of development in different languages. To exemplify, in contrast to the highly grammaticalised obligatory Progressive in English, the use of the emerging progressive constructions in Dutch and French, which is attested as very low vs. zero with motion events, speaks about their low degree of grammaticalisation, defined in this project as Stage-1 (section 2.6.1). Yet, they are considered as progressives in their own right. However, since they do not appear with motion events, they do not exert any impact on motion event conceptualisation in terms of infrequent endpoint encoding.

The progressive has come to be regarded as a rather independent category of aspect in the Heidelberg–Paris model (Schmiedtová & Flecken, 2008, p. 363). This is obvious from the terminology used; the cross-linguistic comparison of conceptualisation of ongoing situations in the model has taken place across so-called aspect and non-aspect languages (von Stutterheim & Nüse, 2003, pp. 870, 878 fn. 9). However, it is the progressive as in English or imperfective as in Russian that is central in materialising the impact of the progressive on event conceptualisation. This feature of the progressive aspect has incurred the particular use of the terminology for the classification of the languages investigated within the model as aspect vs. non-aspect languages lacking a detailed definition of the terms in the model.

In general, the model draws on former works on aspect such as Dahl (1985) and Klein (1994). Nevertheless, the findings by the Heidelberg–Paris group have to do with having a progressive or the imperfective, as in English and Russian, rather than necessarily having the IPFV–PFV distinction in the language system. Notably, however, some researchers have adopted the distinction used in the Heidelberg–Paris model such as Bylund (2011, p. 109) whose work draws on the “grammatical aspect approach”.

Even though the model’s claim as to the influence of what it calls grammatical aspect on motion event conceptualisation are valid with the highly grammaticalised progressive, the languages with only the progressive category must not be grouped with the conventional aspect languages because the progressive does not stand for the entire imperfective aspect. The distinction between aspect and non-aspect languages has to remain clear.

To exemplify, English which has a highly grammaticalised progressive, defined as Stage-4, but has no IPFV–PFV distinction, manifests similar mo-
tion event conceptualisation with a low rate of endpoint encodings as is evident in Russian in which the distinction exists, though it has no separate progressive. Also, the rationale behind the necessity to safeguard the clear classification of aspect is that languages with the IPFV–PFV distinction may differ in one way in language use from those lacking it, such as Russian and German, and languages with the progressive differ in language use in another way from the languages lacking it, such as English and German. More research is needed to contrast system-specific language use (see also section 5.10 for languages lacking the IPFV–PFV distinction in the present tense).

Regarding languages with different kinds of aspectual systems, the grammaticalised categories of the imperfective and progressive lead to identical focus of attention to the intermediate phase of an ongoing event. The impact of the progressive is shown in a comprehensive comparison of a good number of European languages by von Stutterheim et al. (2012a).

Among those languages, the English system, in particular, shows that the impact of the progressive on event conceptualisation has nothing to do with the PFV category of aspect as this language lacks the category. In contrast, the Russian system shows that the impact does not have to do with the progressive alone but with a feature that is common to the fully grammaticalised categories of the progressive and imperfective. The feature is that, while it is possible for the speaker to focus attention on any phase of the ongoing event, they preferably focus on the intermediate rather than the end phase. From this follows the fact that endpoints are infrequently encoded.

It is here in place to observe that Nüse (2003, p. 269) found that the manner of segmenting event sequences for speaking, referred to in this project as the impact of the progressive on event conceptualisation, does not show up in non-verbal tasks. Nüse (2003, p. 270) emphasises that segmenting event sequences for the purposes such as describing verbally what is happening and segmenting them for non-verbal purposes are different things in the sense that when the speakers need not connect their thoughts to the linguistic categories for verbalisation, the linguistic effects vanish. When information is prepared for verbalisation, the grammaticalised categories take on an important role in structuring information.

It is useful to take an overview on some of the European languages studied within the Heidelberg–Paris model. By drawing on the defined stages of grammaticalisation of the progressive (section 2.6.1) in following Bybee et al. (1994), it is then possible to regard the languages with/without a progressive construction, along with its impact on event conceptualisation in the present, on a continuum forming roughly two clusters of languages as depicted in von Stutterheim et al. (2012a). On this continuum, languages with a low degree of grammaticalisation of the progressive such as Dutch appear at one end of the continuum and languages such as English at the other end. Dutch typically allows the *aan het* construction denoting focalised meaning with agentive activities, such as *play* and *run*, and with causatives but almost
zero cases with motion events with endpoints (Flecken, 2011, p. 504, 508). As mentioned above, other similar examples of zero progressive with motion events are French (Carroll et al., 2008a cited in Flecken, 2011, p. 508) and Norwegian (Behrens et al., 2013). Simply, the progressive has to be grammaticalised to the extent that motion events can employ it to show the impact of the progressive in terms of an infrequent endpoint encodings.

However, the Czech system represents an aspect language with the IPFV–PFV distinction. In this system, the expected impact of the progressive on motion event conceptualisation does not show despite its close similarity with the Russian system (Schmiedtová & Flecken, 2008). Apparently, Czech is an aspect language in which the aspectual value of the progressive is fading (Schmiedtová et al., 2011). Thus, Czech clusters with non-aspect languages such as German. The Czech system shows that aspect languages do not automatically show the progressive impact because there can be complexities involved even though they have the relevant grammatical category. Unlike in Czech, the Persian verb forms show a distinct contrast in event conceptualisation in associating the dāštan-progressives with a low rate of endpoint encodings and the imperfective bare mi-form with a high rate of endpoints even though both of the verb forms can be used to denote focalised ongoingness.

Given the graded pattern of classification of languages with highly or less grammaticalised progressive, respectively, we argue that the possibility of the use of the progressive with motion events depends on the high degree of its grammaticalisation, which in this project is defined as Stage-2, to follow Bybee et al. (1994). This leads to a key finding about the grammaticalisation of the dāštan-progressive in Persian. Unlike the languages in which the use of the progressive construction appears mainly with agentive activities and causatives and may then decrease to zero with motion events, use of the dāštan-progressive in Persian is admitted with motion events as frequently as with causatives. This indicates a higher degree of grammaticalisation of the Progressive in Persian than in languages such as Dutch.

Another key finding grounded in the observations about the Persian aspectual system as compared to other systems is that while the imperfective in binary systems such as Russian is capable of showing the impact on event conceptualisation, which is identical to that shown by the progressive in systems such as English, then in systems with both the IPFV–PFV distinction and the separate progressive such as Persian the impact of the progressive is brought about by the dāštan-progressive rather than the imperfective bare mi-form. This means that the grammaticalised aspectual forms in Persian are distinct when encoding the segmentation of an ongoing event into intermediate and end phases. To generalise, if there is merely the imperfective or progressive in a language system, the influence of the progressive is related to them, respectively. If a language has both aspectual forms, the
progressive can be expected to exert the impact of the focus on the intermediate phase provided that the progressive is highly grammaticalised.

As yet another key finding, this observation about Persian allows us to reconsider how event conceptualisation relates across languages with and without the progressive. If the Persian system can be considered as having a consistently grammaticalised aspectual values, unlike in Czech in which the progressive component may be declining, it is possible to associate the event conceptualisation feature observed in the imperfective bare *mi*-form in Persian with the one observed in verb forms in German; the aspectual value in them both is the imperfective, although it is a grammaticalised versus semantic category, respectively. These verb forms associate event conceptualisation with frequent endpoint encodings. This means that what is observed in German on the grounds that it has no grammaticalised aspect can be observed in the bare *mi*-form in Persian as a grammaticalised feature.

To generalise from this, the German and Persian systems show that the encoding of endpoint is not, what the Heidelberg–Paris groups claims, dependent of a non-aspect-related feature. More precisely, endpoint encoding is not dependent on aspect. Rather, it is the feature of focus being dependent on the means available, i.e. segmentation of ongoing events is encoded by the different kinds of means made available by different language systems. The aspectual system in Persian shows that it is possible to encode the focus on the endpoint by means of a grammaticalised category.

Overall, the observation about the two principal types of segmentation, i.e. foci, seems to be a general feature of conceptualising ongoing events. The focus of attention is verbalised differently depending on the means provided by the language system. Moreover, the two grammaticalised imperfective forms relevant to segmentation, as found in Persian, also show that segmentation has nothing to do with the perfective category of the language\textsuperscript{25}.

In summary, drawing on the understanding of aspect languages applied here to the Heidelberg–Paris model, an aspect language basically has the binary IPFV–PFV distinction, as in Russian. If not, the single category of the progressive cannot classify a language as an aspect language even if it has highly grammaticalised progressive which can bring about the impact of the progressive observed as infrequent encoding of endpoints with motion events (von Stutterheim et al., 2012a).

This section has discussed what an aspect language is and how typologically different languages relate to event conceptualisation. These considerations were initially based on the notion of an aspect language as depicted in general linguistics. Then, the impact of the progressive on event conceptualisation which is a central notion in the Heidelberg–Paris model in distinguishing between the so-called aspect vs. non-aspect languages was related to languages with different aspectual systems. Importantly, it was also observed

\textsuperscript{25} In some languages the telic category is perfective (see Bybee & Dahl, 1989, p. 86).
that what has been considered as a feature of merely a non-aspect language, i.e. frequent endpoint encodings, is also observable as a grammatically provided feature in Persian. Last but not least, while the IPFV–PFV aspectual values seem to be the most fundamental features of an aspect language, segmentation of ongoing events does not seem to be relevant to aspect in the wider sense. The progressive, i.e. the imperfective, which conveys ongoingness and segment ongoing events into phases is the grammaticalised category involved, though it only represents one aspect of the issue of segmentation. Segmentation is encoded differently depending on the relevant typological system and the means it provides for language use.

Like section 5.7.1, the current section discussed some of the most important findings of the present project. Notably, the cross-linguistically contrastive context of the present project necessitates that the complexities between the aspectual categories in languages become explicated. The next section discusses the status of the IPFV–PFV distinction with relevance to the language clusters presented in von Stutterheim et al. (2012a).

5.10 What does it mean that a language has the IPFV–PFV distinction?

Taking the constellation of the aspectual system presented by Dahl (1985, p. 82) as the basic model, the grams can be expected to be related to each other in the particular way that the perfective gram stands by itself and the imperfective gram has both the past and non-past forms (cf. section 2.6.7), as in Persian.

Seemingly, the perfective is not expected to appear in the present tense in this kind of constellation indicated by the way aspect and tense overlap; imperfective is typically the same as the present tense which is incomplete in the sense that events in the present are still taking place and have not reached completion. Past tense overlaps with the perfective because events in the past are over and completed. Moreover, past tense has the imperfective, not to denote the present tense but because events in the past can also be incomplete and marked by the relevant aspectual form (Dahl, 1985, p. 24). Across languages, the tripartite system is typical of Eurasia but perhaps not so common elsewhere (Östen Dahl, personal communication).

Given the languages scrutinised, aspectual systems that have the grammaticalised IPFV–PFV categories may involve typological differences between languages at the level of their aspectual systems, despite these common labels for the categories. In a derivational aspectual system such as Russian which represents a different constellation of the grams, the non-past perfective exists (Schmiedtová et al., 2011, p. 74).
However, the non-past perfective is not observed to exert any impact on segmentation of ongoing events in the languages examined. In Russian, the present perfective form denotes future perfective situations. In Persian, the past perfective form can denote future perfective situations. Thus, Persian and Russian represent different kinds of constellations of the IPFV–PFV distinction with partly different uses.

A key finding regarding languages with grammaticalised aspect is that it makes a difference in a study like the current one if the grammaticalised imperfective category appears in the past tense though not in the non-past, as in the Romance languages French and Spanish.

This means that in light of the current study focusing on the present tense, languages may have present progressive constructions, which may be grammaticalised to different degrees, while the typologically important aspectual categories appear in the past. Compared to Dutch that fully lacks the IPFV–PFV categories (cf. sections 5.3.1 and 5.4), French has the grammatical distinction in the past, yet both have an emerging present progressive construction denoting ongoingness with causatives, though not with motion events in the present tense. The current model does not define whether the aspectual categories in the past possibly affect the progressive construction in the present. In light of the Heidelberg–Paris projects working on the present tense such as the current one, French apparently clusters with non-aspect languages such as Dutch as the progressive constructions in them are not used with motion events, even though French has the grammaticalised IPFV–PFV.

In contrast to French, the Spanish Present Progressive is seemingly more grammaticalised as it is used with motion events and is associated with infrequent encoding of endpoints in denoting focalised ongoingness in motion events (von Stutterheim et al., 2012a). Therefore, Spanish which has the grammaticalised IPFV–PFV in the past clusters not only with languages with only the present progressive, such as English, but also with languages with the IPFV–PFV distinction, such as Russian (von Stutterheim et al., 2012a). These differences between the aspectual systems in languages such as Dutch, French and Spanish have not been elaborated on in this model (von Stutterheim et al., 2012a).

This section discussed the status of the IPFV–PFV distinction with relevance to the language clusters presented in von Stutterheim et al. (2012a). The Heidelberg–Paris paradigm has not elaborated on the cross-linguistic aspectual complexities involved in the different language systems, which has led to an inaccurate classification of the aspect vs. non-aspect languages (von Stutterheim & Nüse, 2003, p. 878 fn. 9). The next section discusses the differences between the different verb forms and their interrelations in the present tense in languages such as English and Persian.
5.11 What is the difference between the categories in the present tense?

In this section the observations from this project regarding the grammatical and semantic differences embedded in the uses of the Present Progressive and Simple Present verb forms in English are discussed in contrast to the aspectual forms in Persian in the non-past. The cross-linguistically contrastive context of this project urges for an elaboration of the complexities between the verbal/aspectual forms in the two language systems.

As the verbal/aspectual categories are not similar and do not overlap across these languages, the most conspicuous complexities involved are discussed. The main difference is in the fact that the Progressive in English conveying focality has taken on imperfective meanings increasing the scope of the imperfective meanings in the progressive form. In Persian, the dāštān-progressive and the bare mi-form are used to convey mainly focality, temporary habituality, and gradual change in relevant contexts in the non-past (cf. section 2.7.5). The bare mi-form is used for the prototypical imperfective meanings. The aspectual values are explicitly marked in Persian.

The Present Progressive in English conveys the prototypical meaning of focality and is also used instead of the simple verb form in imperfective meanings. To exemplify, it expresses generic events, truths and eternally habitual/ongoing events as in *The planet orbits/is orbiting the Earth*, in which both forms denote habitual occurrence and duration of an event specifiable by temporal adverbials such as *all the time, always, ceaselessly, continually, constantly, endlessly, and eternally*, according to Crystal (1966, p. 11). With semelfactives, iterativity of an action and focalised ongoingness are conveyed by the progressive as in *He is hitting the ball*. Also, stative verbs with the progressive denote them both as activities and in focalised meaning, as in *He is seeing the client*.

This illustrates that the Progressive in English frequently denotes varieties of continuity, which is the concept involved in the description of eternal, stative, habitual, temporary, and focalised ongoingness, in the same manner as the meanings conveyed by the bare mi-form in Persian (cf. section 2.6.6). The term continuity, which embraces an aspectual notion, refers to events going on and states always holding, i.e. imperfective incompleteness. This implies that the scopes of the uses of the Progressive in English and the bare mi-form in Persian partially overlap. Thus, the prototypical imperfective meanings involve differences in terms of the forms that encode them across these languages.

While there has been a shift in English as to the verb forms that encode the particular imperfectively interpreted meanings, the uses of the progressive vs. imperfective verb forms are distinct in Persian. There is some restriction in the way that the bare mi-form conveys prototypical imperfectivi-
ty, i.e. generic/habitual/stative meanings as well as focalised ongoingness but the dāštān-progressive cannot express prototypical imperfectivity.

The discussion points to the fact that the uses of the Progressive in English are emitted by the particular typological constellation comprising one category with and another without aspect in the present. It is by means of these two existing verb forms that all the possible imperfective meanings have to be expressed in the present. This takes place by way of contrasting the values of the Present Progressive and Simple Present in language use.

A question arises as to why the uses of the progressives in English and Persian differ when both are fully grammaticalised. This is explainable (cf. section 5.6) as follows: the scope of the uses of the respective progressive is dependent on the overall typology of the relevant system in English and Persian, i.e. the absence/presence of the IPFV–PFV distinction. This reduces the English verb forms to the simple and the progressive forms, considering the non-past tense relevant for the current project. The simple verb form does not have any aspectual value, as shown in Experiment 1 on the single events. It is a mere semantic category with syntactic tense. To denote a variety of imperfective meanings in the present in English, the simple and progressive verb forms form pairs of verbs involving a contrast of a semantic versus grammatical aspectual meaning as they are the only verb forms provided. Each verb in its semantic meaning is given an aspectual nuance by the progressive for interpretation on the basis of the discourse context.

To illustrate, the pair in produce/is producing comprises a semantic versus aspectual meaning contrast. As soon as the pair is created by putting the verb in the progressive, the simple verb form can readily be interpreted in its habitual meaning which involves aspectual continuity. Similarly, the simple verb forms combined with the progressive in a temporal frame of reference in a narrative are capable of denoting ongoingness. Östen Dahl (personal communication) points out that the simple forms appearing in the temporal frames of reference do not denote focalised ongoingness although they do denote ongoingness.

Overall, regardless of some few verbs, each English verb can form the simple/progressive pair to convey different aspectual nuances of the particular verbal meaning. The point is that the simple verb form does not inherently have any aspectual meaning but is in opposition with the aspectually marked progressive. Such a system triggers relatively frequent uses of the progressive. The progressive creates the possibility to interpret the simple verb form aspectually. The uses of the progressive make us read imperfective meanings into the simple verb forms in a stretch of discourse.

In the Persian system, numerous uses of the progressive are not triggered by the system constellation because the morphologically marked forms of each verb hook to the imperfective meanings which are grammaticalised in the aspectual categories in the non-past. With all verb forms having a morphologically marked aspectual meaning, there are no semantic/aspectual
meaning contrasts triggering aspectual interpretation, unlike in English. Consequently, the dāštān-progressive has merely a limited number of particular functions where it is used. All other imperfective meanings are denoted by the bare mi-form. Put simply, the internal structures, i.e. the overall scopes of the uses, of the progressives differ in English and Persian.

This section discussed the ways the present verb forms in English and Persian differ, and the role the progressive has incurred in these systems as a consequence of the existing relations between the verbal/aspectual form categories. The next section discusses the second research question, RQ2.

5.12 Discussion of research question RQ2

Research question two, RQ2, concerns the possible significant differences in event construal across the L1 English and Persian groups with respect to the defined set of parameters. Persian L2 English speakers are discussed here to some extent and in more detail in RQ3 in the next section.

The whole set of parameters is discussed, starting with the progressive. The first question of interest is whether two languages with the progressive aspect may show differences in event construal, as exhibited by motion events at the sentence level and narratives at the discourse level.

In this investigation the progressives were identified as being at the same high level of grammaticalisation though with different internal structures which was deemed to depend on the overall typological difference of absence/presence of the IPFV–PFV distinction (cf. section 2.7.5). Consequently, many meanings of the imperfective as well as focalised ongoiness are included in the Present Progressive in English, while in Persian the meanings of the imperfective and focalised ongoiness are included in the bare mi-form, and the dāštān-progressive was defined as conveying mainly focality in narratives.

Further, the typological difference between English and Persian is shown by the fact that it is not possible to interpret the simple present as conveying ongoiness at sentence level in English whereas both the aspectual forms are possible in Persian. When it comes to the verb form and the context of encoding endpoints in the single motion events, the progressives in those event construals convey merely focalised ongoiness, and endpoint encodings are infrequent in L1 English and Persian. As English has only one progressive form for the expressions of focalised ongoiness, it is obligatory in those contexts. In contrast, Persian has two aspectual forms. The dāštān-progressive conveys focality, and the bare mi-form appears as a strong alternative; it is less frequent in the context where the dāštān-progressive is frequent such as with causatives and motion events with implicit endpoints.
The bare \textit{mi}-form is associated with explicit endpoints with motion events while such a twofold association does not show in English.

Consequently, a major finding at the sentence level relevant to the bare \textit{mi}-form is its association with frequent endpoint encoding, which is what the verb forms in German do. It has not been shown in the previous studies, nor predicted theoretically in the Heidelberg–Paris model, that the non-aspectual feature in German would be possible as a grammaticalised feature in a language.

There are two key findings at the discourse level. First is that event construal in single motion event descriptions in Persian not only patterns with other languages with the progressive but also the similar impact of the grammaticalised progressive of infrequent endpoint encoding, as in English, Russian and Spanish, is seemingly a solid cross-linguistic feature of languages with highly grammaticalised progressives. The three speaker groups performed uniformly. Also, the L2 English performance was flawless as if it is not an issue of acquisition of principles of use but a conceptually conveyed feature relevant to the progressive.

Second, contrary to this uniform manner of performance, there is a cross-linguistic difference in the pattern of the use of the progressive in main and sub-clauses with different syntactic subjects in narratives. This is grounded in the underlying typological difference and is relevant to the level of grammar. The L2 English speakers clearly show that they perform differently from the L1s. The use of the progressive in the long discourse is an issue of acquisition of rules and the L2 English speakers perform in between the L1s.

Given the experiments on the single events and narratives, this study has shown that the different internal structures of the progressives reflect differences related to the formal means provided by the languages and the underlying principles. These are, ultimately, grounded in the absence of the imperfective–perfective distinction in English, i.e. system-specific differences. Also, all the system-specific differences do not emerge similarly in the particular genre of narratives which elicit mainly focalised progressivity.

The remaining findings for the narratives include the following three groups of parameters:

1. overall event boundedness and granularity in narratives;
2. use of \textit{begin/start} showing phasal decomposition, and use of \textit{begin/start} and \textit{try} marking the left boundary;
3. boundedness in events preceding the temporal adverbial \textit{then}.

The results for the native speakers of English and Persian are focused on in this section. First, there is no difference whatsoever between L1 English and Persian speakers with respect to point 1 above. Overall boundedness and granularity are similar in the L1 groups.

Second, the results similarly overlap across the L1 groups in point 2, i.e. both when \textit{begin/start} are considered in the context of phasal decomposition
Third, bounded events preceding the temporal adverbial *then* showed no significant difference between the L1s.

The overall findings mean that the L1 speakers of these two languages with the grammaticalised progressive aspect show overall similarity in event construal in narrative, as measured by the selected set of parameters; the measured features of overall boundedness, granularity, use of *begin/start* and *try*, and use of bounded events before the adverbial *then* are similar in English and Persian but different from those in German.

The next section discusses the issue whether the Persian L2 speakers’ performance is conceptually/grammatically driven by L1 Persian.

### 5.13 Discussion of research question RQ3

RQ3 focuses on the Persian L2 English speakers with respect to the issue whether the general system-related difference in the use of the *dāštān*-progressive in Persian affects their language use in describing single events and re-narrating a film clip in L2. The principal aim is to establish if their L2 performance is *per se* conceptually/grammatically driven by the L1 Persian, particularly as cross-linguistic conceptual similarities and grammar-related differences are observed, as discussed in the previous section. The progressive is discussed initially in motion events, then in re-narrations.

Firstly, the findings for the conceptual level relate to the use of the progressive and, particularly, the way the progressive relates to the mention of endpoints in motion event descriptions. With respect to motion events and the observation that L1 Persian speakers make a twofold distinction with respect to the relevant form and endpoints, L2 English speakers perform like L1 English speakers in encoding endpoints infrequently. This is not to say that they have acquired the new principles of use. Rather, they have the semantico-conceptual notion from the *dāštān*-progressive leading to infrequent endpoint encodings.

However, another finding for the Persian L2 English speakers indicates that, alongside with the association of the Present Progressive in English with infrequent encoding of the endpoint, in some few cases they tend to differentiate between the form and the endpoint so that in using the simple form it tends to be associated with the endpoint, even though the simple verb form used is erroneous (cf. section 5.7.1). Even if this may be the effect of two forms in Persian, the figures are low; the evidence is weak and cannot be regarded as a solid evidence for L1 influence (cf. section 4.2.2.2).
Secondly, the use of the progressive in the re-narrations in the L1s shows, however, significant differences due to the different principles of their use. These differences relate to linguistic relativity effect in L2 relevant to the level of grammar in the related L1s. A detailed analysis shows a pattern of the use of the progressive in which the L2 speakers end up in between the L1s which perform distinctly differently from each other showing a system-related difference which leads to different roles of the progressives in the temporal frame of reference in English and Persian. These are shown as preferences at the pragmatic level to use the progressive more frequently in sub-clauses than in main clauses in L2 English, rather than using it evenly in both types of clauses, as in L1 English. The results for the L2 speaker performance show that they are proceeding from the L1 Persian pattern towards the TL pattern. The different principles of the use of the progressive in the L1s are caused by the absence/presence of the IPFV–PFV categories in them.

The results for the amount of side structure show a significant difference between the L1 speakers while the L2 speakers are in between. The result must be considered with caution due to the so-called L2 effect; it is often the case that L2 usage frequency is intermediate between the TL and the speaker’s native language (Shaw, 2004). This is for the reason that the texts in L2 are significantly shorter than those in the L1s. Therefore, the results for L2 English cannot be considered at the equal level with those for the L1s.

Despite this, a brief reference to what is a diverging text feature is made to the use of try. It is analysed as overuse in the L2 performance. The feature has earlier been recognised as belonging to L2 performance (von Stutterheim & Lambert, 2005, p. 226). Therefore, it is regarded here as a developmental feature. Another learning-related feature was observed in the highest proportion in the use of bounded, i.e. relative to unbounded, events preceding the temporal adverbial then in L2 English; there is no difference between the proportion of bounded and unbounded events preceding then in the L1s. The other linguistic parameters provide cross-linguistically similar results.

The level of L2 proficiency is important as well as the speakers’ language learning history: The Persian L2 English speakers in this study are at advanced level of L2 English according to the advanced level of the study of English and the Nelson English test administered to them. Also, they compare well in an additional language test to Swedish L2 English learners. However, the Persian L2 English learners are adult learners and their typical L2 environment is the language classroom in their native country. Obviously, insufficient exposure to the L2 is part of the reason behind adherence to the L1 principles of the use of the progressive in the L2.

In sum, learner speech may have its own characteristics. This only appears in a case like the present where L1 and L2 share a feature and, therefore, it is possible to see that the L2 speech is the anomalous one, especially when the feature relates to the level of grammar.
Theoretical implications

The fact that both English and Persian have the grammaticalised progressive along with the difference in the aspectual distinction constituted the point of departure of this project, as these languages provide a new aspectual constellation for the contrastive studies carried out in the Heidelberg–Paris model.

The investigation yields a new picture of event conceptualisation, which constitutes the first theoretical implication as follows: There are two kinds of foci in the segmentation of ongoing events. They are closely related to the imperfective aspect. No association with the perfective aspect is observed. Notably, the verbalisation of segmentation depends on the means, particularly the grammaticalised categories relevant to the imperfective aspect that the language system provides. The investigation shows that the so-called aspect versus non-aspect difference between languages is not the fundamental distinction with respect to segmentation, as presented by the Heidelberg–Paris model. This is shown by the new findings relevant to the bare mi-form in Persian which is associated with frequent endpoint encodings.

This observation leads to the second theoretical implication, which is that the Heidelberg–Paris model adopts an over-simplified view of aspect in languages. Aspectual systems differ from each other in multiple ways. Each aspectual system provides its own language-specific resources for verbalisation of, for example, segmentation in motion events.

Generally, there may not be many language systems that provide the grammaticalised means for the expression of two foci. Consequently, due to the lack of investigation into sufficiently different aspectual systems, the Heidelberg–Paris model classifies the languages studied as clustering in two ways referred to as aspect vs. non-aspect languages. The first cluster of languages shows the impact of the progressive on event conceptualisation in terms of infrequent endpoint encodings as the main focus is on the intermediate phase of the event as in English, Russian, Spanish, and Arabic. They have fully grammaticalised means to denote progressivity benchmarked by its use with context-free motion events.

The second cluster of languages are alike in the way that they do not show the impact of the progressive on event conceptualisation whereby the endpoint encoding is frequent, as in German, Dutch, and Czech. The languages only have the means to show the second type of focus of event segmentation, i.e. viewing the event as holistic including the endpoint. Czech is a good example of the relevant grammaticalised categories. It is not the label of the grammaticalised category but its internal structure that counts. Czech shows that even though the IPFV–PFV distinction exists in the system, it

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26 Here the discussion does not include the third focus, i.e. the inchoative phase. It involves the use of begin/start as in ‘begin to cry’ in languages such as English and Persian, and the perfectivising prefix za- in Russian as in zaplakat ‘begin to cry’.
does not necessarily mean that there is the relevant impact on event conceptualisation. This allows the emphasis of the issue that the language-specific differences within the aspectual systems need to be observed and elaborated on. If the inconsistencies cannot be fully explicated with respect to the underlying reasons, the model does not apply to such systems.

The present investigation shows that the grammaticalised categories in Persian have two different kinds of influence on the verbalisation of event conceptualisation. The dāštan-progressive is associated with infrequent and the bare mi-form with frequent endpoint encodings. Thus, both the foci of event segmentation are denoted by grammaticalised means in Persian.

The aspectual system in Persian sheds light on two crucial things: the association of the progressive/imperfective category with two foci along with a twofold view on endpoint encoding (cf. section 5.9), and the interrelation between the overall aspectual system and the progressive (cf. section 5.11).

The relevant Heidelberg–Paris hypothesis is that speakers of languages with grammaticalised progressive aspect encode endpoints significantly less frequently than speakers of non-aspect languages do. Consequently, while the findings from this project, generally, confirm that the aspectual constellation of the particular language system is crucial, like in English and German, the findings can only confirm the particular point that the highly grammaticalised progressive exerts the impact of infrequent endpoint encodings. This investigation disconfirms the finding presented by the model for non-aspect languages such as German; it is observed in this project that the frequent endpoints associate with a grammaticalised aspectual feature in Persian. The assumption that the frequent endpoint encodings relate to a non-grammaticalised feature is invalid.

The third implication is that these findings elevate segmentation in motion event conceptualisation to the overarching level. It is considered in this project that event conceptualisation basically involves two foci, rather than the reverse, i.e. that the verbalisation of the segmentation is dependent on the progressive aspect. Thus, in contrast to the implication of the Heidelberg–Paris model of there being two verbalisation types of dynamic events, i.e. when the progressive is lacking, the endpoint encodings are frequent, as in German, and with the progressive in the language system the endpoints are less frequent, as in English, the present investigation shows that the verbalisation of the two types of foci in motion event segmentation is dependent on the resources provided by the aspectual system. In verbalising segmentation, speakers of different languages are confined to the grammaticalised means available and may often not be able to show speaker preferences for more than one of the foci.

Speakers of some languages such as German do not have the progressive and focus on the endpoint. Dutch is like German because the progressive is not yet used with motion events as it is not highly grammaticalised. Spanish is like English in focusing on the intermediate phase and encodes endpoints
infrequently. Russian has the IPFV–PFV distinction, like Persian, but they differ in the category of the progressive which entails infrequent endpoints in Persian, while the IPFV category leads to infrequent endpoints in Russian.

This leads to a subtle observation regarding linguistic relativity (see also section 5.8). Motion events, which are a natural part of the external world, comprise the inchoative, intermediate and end phases. L1 speakers of all languages can speak about and verbalise the foci without restriction but they show L1 speaker preferences in attaching attention to them differently according to the means provided by the language, while speaking. The different constellations of the aspectual systems in L1 English and Persian allow us to evaluate if there is linguistic relativity in the L2 context due to the differences in these L1s. Notably, in earlier studies no difference between the speakers of languages such as English and German are observed when the foci in events are distinguish by non-verbal means (Nüse, 2003; von Stutterheim & Nüse, 2003, p. 877). This speaks about cognition that is independent of language while verbalisation of stimuli and experiences are language dependent (Nüse, 2003, p. 270).

The fourth implication is that the Heidelberg–Paris model inaccurately employs the aspect versus non-aspect distinction for languages. The bulk of investigations within the model were conducted on languages with the progressive versus non-progressive as the grammaticalised categories. Those with the progressive are referred to as aspect languages in the model. This distinction places a language such as English among aspect languages (von Stutterheim et al., 2002, p. 182), while German is viewed as a non-aspect language. This classification is not in conformity with earlier works on aspect such as Dahl (1985) and Bybee et al. (1994). From a wider perspective, the classification of the languages the model uses depicts the framework itself as referring to a narrow section of the imperfective aspect, i.e. the grammaticalised progressive, and simple verb forms which can also be interpreted as denoting imperfective meanings. The narrow view on aspect constitutes a major limitation for the external validity of the model.

The fifth implication relates to this inadequate classification of languages with aspect, showing that the Heidelberg–Paris theory is not concerned about the fundamental aspectual distinction of the IPFV–PFV and its possible influence on the progressive (von Stutterheim & Nüse, 2003, p. 878 fn. 9). The conclusion can be drawn that the model applies only to European languages in many of which the IPFV–PFV distinction is not materialised at least in the non-past in the same way as, for example, in Persian in which two aspectual categories are grammaticalised in the non-past. Therefore, most European language systems cannot exhibit findings such as Persian.

Thus, the generalisations by the Heidelberg–Paris model are made on the basis of the typological contrasts between systems such as those in English and German. More precisely, the generalisations have been based on the difference between the progressive as a grammaticalised versus non-
grammaticalised feature in two non-aspect languages, i.e. English and German, then generalising them to aspect languages such as Russian and Arabic (von Stutterheim & Nüse, 2003, pp. 872–873), which happened to match with English in terms of infrequent endpoint encodings. The present investigation shows that a language with the main aspectual categories of the IPFV–PFV, as in Persian, yields results different from those for English.

For the purposes of further research within this model, languages can be classified with respect to the main aspectual distinction in addition to the status of the progressive in the non-past tense into four categories in which the use of the progressive with motion events is a crucial indicator of the Stage-2 level at which motion events admit the progressive. On the basis of this classification, languages with and without the highly grammaticalised progressive in the non-past make a binary sub-clustering within the aspectual systems that are distinguished by their absence/presence of the main aspectual categories of the IPFV–PFV as follows:

Does not have IPFV in the non-past, has PROG as in English, Spanish;
does not have IPFV in the non-past, no PROG as in German, Dutch;

has IPFV in the non-past, has PROG as in Persian
has IPFV in the non-past, no PROG as in Russian

Despite the fact that the term ‘aspect-prominent’ may imply that there is another category that is ‘less prominent’ in the relevant language, in the literature (cf. Bhat, 1999) the term seemingly refers to languages in which the category of aspect is, merely ideally, more or less totally dominant. Thus, ‘aspect-prominent’ language simply refers to a language which has aspect, while ‘tense-prominent’ language refers to a language that has grammaticalised tense (Östen Dahl, personal communication). Persian is regarded as primarily tense-prominent because it has both aspect and tense but tense is marked in the verbal stems while aspect markings are prefixed in the bare *mi*-form and peripheral in the *dāstan*-progressive. Both are solid grammatical categories though tense is a more primary element of the verbal form.

The sixth implication is that the aspectual systems in languages are far more complex than the Heidelberg–Paris model suggests. Furnishing evidence for distinct differences between languages such as English and German, the model raises the expectation that no significant influence from L1 Persian on event conceptualisation in advanced Persian L2 English occurs as English and Persian have the grammaticalised progressive, implying that similar principles of language production are expected. The findings, however, show that the progressives involve language-specific differences due to the typological difference in the main aspectual categories. Even though the model emphasises that typological differences are the reason behind the conceptualisation differences (cf. von Stutterheim & Nüse, 2003; von Stutter-
heim & Lambert, 2005), these differences have not been investigated across the languages with aspectual categories. The present findings show that the aspectual categories as found in Persian are in an interrelation bringing about the different internal structures for the dāštān-progressive and imposing, thus, a system-related language-specific effect on its use, as compared to English. Conversely, in English a different type of interrelation between the progressive and simple verb forms bring about different kinds of language-specific principles of use.

As a consequence, it is, for example, important to perform the two experiments in each language, as in this project, to get a deep insight into the differences in aspect across the relevant languages.

An additional implication for the theory is that the contrastive studies within the model benefit from taking a wider perspective on aspect, and from observing the effects of the whole system of grammaticalised aspect and the degrees of the grammaticalisation of the progressive on event conceptualisation. Generally, languages can be assumed to have progressive constructions at different levels of grammaticalisation.

Another urging issue for more profound insights into the progressive is genre-dependence of the use of the progressive as it can be conceived as occurring in different frequencies in different genres, despite the high level of grammaticalisation as in English and Persian. This may, then, differ across languages as, for example, in single events and narratives.

Genre-dependent difference is observed in the uses of the progressive as follows: in Persian narratives the uses of the dāštān-progressive are different from the typical uses, i.e. reference in main clauses to the involvement of the agent as the central feature (cf. Vafaeian, 2018; cf. section 2.7.4). However, references to external forces in sub-clauses rather than references to the agent/protagonist in main clauses were more prominent with the dāštān-progressive in the narratives. This is the effect of the narrative genre in which the side structure describes the background. In contrast, the context-free single events elicited the more typical uses of the dāštān-progressive, i.e. references to the agent in main clauses.

Apart from genre-related differences, the progressive may have differing status and uses as it can be a formal feature, as in Finnish (Tommola, 2000), rather than a colloquial feature as in Persian. These cross-linguistic differences need to be investigated. What also remains to be investigated is other new languages with the imperfective/progressive aspect to ascertain about the generalisability of the current findings; in a language such as Finnish (Tommola, 2000) the main aspectual categories are materialised in the use of the partitive and accusative cases while the separate grammaticalised progressive is in locative expressions representing, on the whole, a notional system with categories equivalent to those in Persian. Complexities may not be easily observable in aspectual systems unless cross-linguistic comparisons are conducted.
Another point of implication for the theory relates to linguistic relativity, which is known to operate on typological differences between languages. Given the complex aspectual differences between English and Persian, it is shown in this project that the main typological difference is in the absence/presence of the IPFV–PFV distinction but its impact is materialised, as if indirectly, in the progressive aspect in terms of system-related language-specific use of the Progressive in English different from Persian which speaks about different principles of use. The present study has contributed to the understanding of the crucial issue about the impact of the progressive on event conceptualisation that the underlying principles of use of the progressive may differ due to the overall aspectual systems as in English and Persian, or due to the degree of grammaticalisation, as in English and Dutch. These are differences that involve linguistic relativity owing to typological cross-linguistic differences which may lead to L1-related influence. Such grammatical constraints may guide L2 speaker decisions differently as to what is a reportable event.

Put differently, the comparison between English and Persian has shown that the partial typological similarity of the shared grammaticalised category of the progressive can lead to the identical impact of the progressive on event conceptualisation in terms of infrequent endpoint encodings with motion events. The L2 English speakers show that they perform in this flawlessly, as if there is no need to acquire new principles. Therefore, there is good reason to claim that the impact of the progressive on event conceptualisation relates to the semantico-conceptual level of language.

The investigation has also shown that the main typological difference of the absence/presence of the IPFV and PFV categories has emitted different internal structures of the progressives in English and Persian. This is significant for linguistic relativity which is brought about by typological differences.

Finally, this investigation has shown that the partial aspectual difference as observed in the different internal structures, i.e. the principles and uses, of the Progressive in English and Persian is grounded in the main typological difference. These differences belong to the level of grammar. The L2 English users seem to depart from the principles of use of the progressive in L1 Persian proceeding towards those in the TL. This indicates that the L1 principles are difficult to restructure.
6 Conclusion

6.1 Main findings

The findings from this investigation show that the impact of the grammaticalised category on the conceptualisation of dynamic events in different languages fundamentally relates to the expressive means of ongoingness and the highly grammaticalised category of the progressive. When the progressive category is lacking in the aspectual system, the grammaticalised imperfective shows the same impact. On the whole, the distinction leading to cross-linguistic differences in the conceptualisation of dynamic events does not relate to an aspect and non-aspect distinction. Instead, it concerns either having or not having the grammaticalised means of expressing ongoingness. Especially, when these means are highly grammaticalised, there appears cross-linguistic conceptual similarity in terms of infrequent endpoints.

Concerning the grammaticalised means, this project showed that there can be additional system-related complexities involved; in English the main aspectual distinction of IPFV–PFV is missing, making the progressive category dominant with increased functions and uses, while in Persian the presence of the distinction renders the progressive less dominant with some particular functions. This means that in English and Persian the underlying principles of the use of the means differ due to the typological difference. These cross-linguistic differences relate to the level of grammar as the progressives give evidence of different internal structures due to different principles of use.

The examination of dynamic single events showed that conceptualisation of particularly motion events involves two types of segmentation, which is closely related to the imperfective/progressive aspect; it may be the intermediate phase of the event defocusing endpoints, i.e. phasal decomposition, or the speaker may focus attention on the situation as a whole mentioning the end phase frequently. The former is defined as the impact of the progressive on event conceptualisation. The latter is found for the first time as a grammaticalised feature in the bare mi-form in Persian.

The present finding supports the previous finding presented by the Heidelberg–Paris model for languages such as English, regarding the impact of the grammaticalised progressive aspect on event conceptualisation. However, this investigation identifies segmentation as an overarching feature under which languages with different kinds of aspectual constellations encoding segmentation differently are captured. Since the aspectual systems in Euro-
pean languages do not exhibit both types of segmentation as grammaticalised features, the finding regarding the imperfective bare mi-form was crucial in recognising the issue that the holistic viewpoint is not related to the absence of aspectual categories, as claimed by the Heidelberg–Paris group, but segmentation is a higher level cross-linguistic feature encoded according to the means provided by the language. Consequently, the previous finding in the model concerning frequent endpoint encodings for German as dependent on the absence of the grammaticalised feature is disconfirmed.

Regarding the means languages provide for encoding segmentation, four groups of languages were identified. First, languages may lack the primary aspectual distinction of IPFV–PFV but have the grammaticalised progressive in the non-past, as in English, which is grammaticalised at Stage-4 level. Second, languages may profile the absence of aspect, as in German, or have merely emerging progressive constructions at low levels of grammaticalisation as in Dutch. The constructions have to be grammaticalised at least up to the level allowing their use with motion events to exhibit the impact of the progressive on event segmentation. The level of grammaticalisation at which motion events take the progressive was defined as Stage-2.

Third, languages may have the primary aspectual distinction of IPFV–PFV and a separate progressive in the non-past, as in Persian. This study showed that the progressives in language systems such as English and Persian differ considerably.

Fourth, languages may have the aspectual distinction of IPFV–PFV but no separate grammaticalised progressive, as in Russian.

Some languages may exhibit further aspectual complexities, such as Czech, in which the grammaticalised imperfective seems to be in transition. In actual fact, the Czech progressive is a token of the fact that there has to be a genuine progressive to show the relevant impact of the grammaticalised category in terms of infrequent endpoint encodings.

The findings for Persian provide evidence for an aspectual system of languages in which the feature of segmentation leading to a holistic perspective on dynamic events, is a grammaticalised feature. This finding was supported by the fact that the dāštān-progressive in Persian was first defined as fully grammaticalised, exhibiting uses in the same semantic domains as the Progressive in English. Then, it became evident that the aspectual system in Persian consistently differentiates between the notions of progressivity and imperfectivity both of which involve the notion of continuity, leading to a distinct impact of the dāštān-progressive on infrequent endpoint encodings and the bare mi-form on their frequent encodings. The study provides evidence for the fact that languages lacking grammaticalised aspect, such as German, automatically associate segmentation in event conceptualisation with the imperfective meanings that are read into the simple verb forms.

Importantly, this finding allowed for profound considerations about the reasons behind the diverse imperfective meanings of the Progressive in Eng-
lish different from Persian, given the narrative task and the same stimuli.

The cross-linguistic differences in the uses ascertain the fact that the IPFV–PFV distinction is a higher-level aspectual category pair whose absence/presence affects the uses of the progressive. To elaborate, if a system only has the progressive, it is dominant and develops even further to take on imperfective meanings, but if a system has both of the categories it implies distinct differentiation between the imperfectivity and progressivity, and the role of the progressive is then relatively restricted. In contrast, systems with only the imperfective involve inherently the domain of the progressive.

Another related finding is that, as the English system only provides the progressive for the contexts of ongoingness, the form is obligatory in them in the sense that there is no other form to be used.

A variety of parameters of event construal measured if these languages show mostly similarities or differences in the production of a coherent piece of discourse. The overall findings for the two experiments indicated that the L1 English and Persian speakers conceptualise the notion of ongoingness in the same fashion but are confined in verbalisation to the means provided by the language and the relevant underlying principles of use.

Finally, cultural differences were not defined as the reason behind the differences observed on the basis of the parameters for event construal and the use of the progressive aspect in the re-narrations. The similarities of the linguistic features were far more predominant between English and Persian. Two points of L2 learning-related inconsistency were observed. First, over-use of *try* is a developmental feature because English and Persian did not show any cross-linguistic difference. Similarly, another L2 learning-related feature was observed in the significant difference in L2 English, though not in the L1s, between the uses of the bounded and unbounded events preceding temporal shifter *then*.

As for linguistic relativity, the only difference between the L1s was observed in the distribution of the progressive across main and sub-clauses as well as the protagonist vs. other entities as the syntactic subject. However, these contexts of uses do not imply a causal relation but the different contexts of uses of the progressives were tested. They showed that the L2 English speakers proceed from the uses characteristic of Persian towards those typical of English providing evidence for linguistic relativity effect.

### 6.2 Significance and contributions to the field

The significance and strength of the present project lie in its elaboration of the complexities in aspectual systems. Firstly, the overall aspectral systems and the Progressive in English and Persian showed outstanding differences
in these language systems which may superficially be considered as very similar. However, the IPFV–PFV distinction makes an important difference.

On the basis of the details shown by the related grammaticalised categories, the language-specific and cross-linguistic aspectual complexities were contrastively examined and compared to the European languages studied within the Heidelberg–Paris model. The findings showed that the aspectual systems are far more complex than the model suggests. The model adopts a narrow view on aspect, which constitutes a major limitation for its external validity. The concept of aspect as employed in the model relates to the progressive whose uses are part of the domain of the imperfective. Thus, the present investigation has shown that similarity between languages such as English and Persian is in event conceptualisation rather than their being “aspect languages”.

Drawing on earlier works on aspect and the study of event construal at sentence and discourse levels in line with the Heidelberg–Paris framework, the project contributes to an adequate definition of what constitutes an aspect language. What the framework regards as a difference between aspect and non-aspect languages relates to the issue of segmentation of motion events and similarity/difference in event conceptualisation across the languages due to presence/absence of the highly grammaticalised progressives.

Secondly, building on the previous research, the project contributes to the field by putting forward a more sophisticated model of aspect. Given the Heidelberg–Paris framework’s particular focus on the impact of the progressive on event conceptualisation, this project pins down the way in which the multiply different aspectual systems constitute four distinct language system clusters in accordance with the resources they provide for the verbalisation of dynamic events. The contrastive study of English and Persian has shown that the absence/presence of the IPFV–PFV distinction has a considerable effect on the underlying principles of use of the progressive.

Thirdly, the study extends the Heidelberg–Paris view on event segmentation to an overarching cross-linguistic feature which comprises two different types of foci in verbalising segmentation of dynamic events depending on the means provided by the language for their encoding. The encoding may involve the grammaticalised progressive/imperfective and the relevant infrequent endpoint encodings as in English, Persian and Russian. By contrast, the encoding involves frequent endpoints in languages with zero-aspect with imperfectively interpreted simple verb forms, as in German. In languages with systems with the grammaticalised imperfective aspect along with the separate progressive, frequent endpoints are captured by grammaticalised means, i.e. the imperfective, rather than the progressive, as in Persian.

Fourthly, the project manifested the necessity to include the two experiments developed by the model to obtain more comprehensive insights into the complexities in aspectual systems. The single events and ongoing motion events in particular trigger the use of the progressive form in the context-less
situations due to the focus in the clip. In contrast, its use in a long stretch of discourse has quite different conditions. On the basis of these two kinds of data, it was possible to evaluate two crucial issues: what forms the language system provides for expressions of ongoing events, and to what extent the progressive form is used in the narrative discourse. Simultaneously, genre-related differences emerged. The two genres of unrelated single events and re-narrations gave a clear picture of the way the use of the progressive depends also on the relevant genre; in the single events the dāštan-progressive was used about animate syntactic subjects in main clauses while it was mainly used about inanimate subjects in sub-clauses in narratives. Differences due to genre-dependency have not been discussed in the framework.

Eventually, the findings from the single events allowed the evaluation of the extent to which the dāštan-progressive is grammaticalised. Crucially, having defined the level of the grammaticalisation of the dāštan-progressive in Persian and its use in the narrative discourse, it was possible to discern the differences between English and Persian as systems and describe the aspectual complexities in them intra- and cross-linguistically.

Related to the complexity of aspect is the discussion in section 5.6 of the use of the dāštan-progressive for focalised meaning along with the alternative verb form, the bare mi-form, which was found capable of conveying focality. Such a discussion had not been possible to carry out on the basis of the European languages studied so far. The Persian system gave new insights into the imperfective aspect and its status in denoting progressivity.

This project also takes the Heidelberg–Paris model to the level of precise statistical methodology. Based on adequate informant groups of 30, the raw numbers obtained were subjected to statistical calculations by way of t-tests for significances between the differences. This was possible because the number of the subjects was sufficiently high to conduct statistical analyses.

As far as analytical criteria are concerned, keen efforts were made to explicitly describe them for this data analysis in order to facilitate future research on new languages. The criteria were prepared in close liaison with the Heidelberg–Paris group and are presented in sections 2.8 and 2.9.

Another point of significance is that the application of the Heidelberg–Paris model to an aspect language with the separate progressive such as Persian demonstrated that the model works; the impact of the progressive aspect on event conceptualisation is robust. In this respect, the theory that this project draws on is consolidated by the investigation, giving evidence that the impact of the progressive aspect on event conceptualisation is valid across the non-Standard Average European, in line with what Whorf predicted.

Notably, the overall finding that the use of the dāštan-progressive with causatives and motion events in Persian is robust but the use of the progressive construction with the same event types in languages such as Dutch is less frequent has a bearing on the description of the stages of grammaticalisation of the progressive in languages. Drawing on the stages of grammatical-
calisation as presented in Bybee et al. (1994) and the hypothetical order of grammaticalisation as reported on in Flecken (2010), this study presents further details to grammaticalisation: even though each language determines what verbs can take the progressive, motion events showed to involve the feature of endpoints that are not readily compatible with the progressive unless the progressive is at a high level of grammaticalisation.

Finally, this project also showed that the Persian L2 English learners’ challenge in coping with the language-specific categories of the progressive in their L1 and L2 relates to restructuring the principles of use of the dāštan-progressive. The L1-specific principles of use influence their L2. In contrast, the flawless performance in encoding infrequent endpoints in conceptualising motion events in L2 is due to the same L1 feature learnt in L1 acquisition.

6.3 Future directions

Crucially, in producing language speakers are confined to structure the information in the way they are guided by the grammatical resources. Thus, a comparison between English, German, Persian and a language belonging to a different typology can give insights into additional differences in the impact of the aspectual system on information organisation.

Secondly, the impact of the progressive on event conceptualisation is seemingly a common cross-linguistic feature, whereas the progressives in languages can have different principles of use which relates to the level of grammar. Further research is needed with respect to the interplay of these two levels in L2 language production. It would be important to examine the various aspects of this interplay given the absence/presence of the IPFV–PFV distinction in the L1 and L2.

Finally, investigation into new language systems increases our knowledge of the language-specific and cross-linguistic complexities. It is often stated in the literature that there is less conceptual transfer in the contexts where the L2 learners’ TL is a simpler system. This project has shown that the morphologically simpler system in English is more complex in terms of the underlying principles of use than Persian. Further research is needed into aspectual systems in languages to ascertain if the conception of simple systems is valid.
**Bakgrund**


Grammatikalisering progressiv form är ett framträdande drag i engelskt språkbruk, till stor del på grund av att engelska inte har några alternativa verbformer för beskrivning av pågående händelser. Progressiv form är i engelska även fullt grammatikalisad då den används med alla verbtyper, d.v.s. aktivitetsverb såsom run, vilka beskrivs som '1-state' verb eftersom de inte anger någon slutpunkt för en händelse, '2-state' verb såsom change och break, i vilka en slutpunkt inkluderas (för '1-state' och '2-state' verb se Klein, 1994), och stativa verb såsom become. I persiska används den progressiva formen, dāstān-progressiv, i samma semantiska domän, d.v.s. verbtyper, som progressiv i engelska. Således uppnår de samma grad av grammatikalisering, vilket också framgår av det faktum att de i lägre grad grammatikaliserares progressiva konstruktioner i andra språk inte kan användas med stativa verb. I motsats till denna likhet avseende grammatikalisering av progressiv i engelska och persiska utgör aspektsystemet i persiska en tydlig skillnad jämfört med engelska. Konventionella imperfektiva mi-prefixmarkörade verbformen, i denna studie kallad för den enkla mi-formen, kan användas som en alternativ verbform för att beskriva pågående händelser i persikan. Detta leder i sin tur till infrekvent användning av konstruktionen dāstān-progressiv.

Aspektsystemet i persiska innefattar en distinktion mellan grammatikaliserares imperfektiv-perpektivist aspekt vilken utgör en grundläggande typologisk skillnad mellan engelska och persiska. Det konventionella mi-prefixet är en morfemmarkör avseende den allmänna imperfektiva aspekten som omfattar alla imperfektiva betydelseskiftnings, såsom habituella och återkommande betydelse. Dessutom syftar det till de imperfektiva, allmänna händelser i nutid med pågående, icke-fokuserad betydelse, vilket betecknas av termen continuity i persiska.
grammatikbeskrivningar (Hojatollah Taleghani, 2006). Kontinuitet kan
illustreras med referens till Bybee, Perkins & Pagliuca (1994) som hävdar att
nutid är detsamma som imperfektiv. De är händelser som inte har nått sin
slutpunkt eftersom de äger rum i nutid. Följaktligen syftar även imperfektiv i
dåtid till händelser som inte nått sina slutpunkter då de är pågående i den
imperfektiva icke-fokuserade bemärkelsen.

I mer generell bemärkelse innebär skillnaderna mellan engelska och
persiska att den progressiva aspekten i de två systemen har olika interna
strukturer beroende av att de har olika principer som styr deras användning,
vilket leder till att tillämpningen skiljer sig åt på grund av den
grundläggande typologiska skillnaden. Den typologiska skillnaden har en
betydlig påverkan på användningsprinciperna för progressiv form.

Med tanke på den grundläggande typologiska skillnaden mellan dessa två
L1 uppstår frågan om förstaspråkstalare av dessa språk med progressiv
aspekt uppvisar signifikanta skillnader vid analys av händelser som beskriver
rörelse på satsnivå och återberättelser av händelseförlopp på diskursnivå,
vari konceptualisering av händelser kan granskas. I allmänhet har
konceptualisering av händelser i tidigare studier inom Heidelberg–
Parismodellen i språk såsom engelska och tyska, beskrivits som en
språkspecifik företeelse eftersom konceptualisering är beroende av det
berörda aspektsystemet. Vad gäller persisktalande personer som lär sig
engelska som andra språk (L2), uppstår frågan om de möter svårigheter med
att analysera och lära sig använda de relevanta principerna då de är på
avancerad nivå av L2 engelska, med tanke på att den progressiva aspekten är
olika i de två språk som de använder sig av. Enligt Slobin (1996) är
människans hjärna tränad att tänka i enlighet med språkspecifika
grammatikerade kategorier från förstaspråkinslärning, som är därför
svåra att förändra och omstruktera till andraspråksbestämda tankesamman
grundade i dess annorlunda, grammatikerade kategorier.

I ett aspektteoretiskt perspektiv är det temporala konceptet av den
progressiva aspekten i allmänhet inte likvärdig i språken på den grammatiska
nivån även om den progressiva aspekten existerar i dem, trots att alla de
temporala koncepten är likvärdiga i språk på den semantisk-kategoriella
(1985) framträder korrelationer mellan form och dess betydelse som tyder på
språkens universella tids- och aspekttäthet och vilket innefattar en
diakronisk dimension med innebörden att de utvecklingslinjer som
grammatiska morfer (så kallade ’gram’) följer, möjligtvis är desamma eller
snarlika i alla språk. Trots detta motsvarar skillnaderna mellan de betydels
som tids- och aspektgram överför de specifika platser som dessa gram
upptar på de universella utvecklingslinjerna vid en specifik tidpunkt (Bybee & Dahl, 1989, p. 57). För att illustrera detta kan nämnas att progressiv form
inte är grammatikerad i vissa språk, såsom tyska, medan den i viss
utsträckning är grammatikerad i nederländska och helt grammatikerad
i engelska. I det persiska aspektsystem är den ett ganska sent tillkommet drag.

Följaktligen är de grammatikeriserade aspektuella medel som varje språksystem förser språket med, som till exempel de språkliga medel som används för att beskriva pågående händelser, anmärkningsvärt språkspecifika med tanke på de principer som styr deras användning. Sådana språkspecifika medel leder till språk specifika preferenser i formulerings av information om händelser i meningar. De lingvistiska medel tillhandahållna av enskilda språksystem för verbalisering av information har visat sig utöva påverkan på den konceptuella informationshanteringen på den förlingvistiska nivån där språk förbereds för verbalisering (von Stutterheim et al., 2012a, p. 836). Detta har särskilda effekter på språkanvändning även på avancerad språkfärdighetsnivå av L2. Dessa effekter är förnimbara i form av diskreps i sammanhängande diskurs där produktion av en sammanhängande text, i allmänhet, samt verbalisering av tidsmässig sekvensering av händelser av ett händelseförlopp och användandet av progressiv, i synnerhet, måste följa de språk specifika principerna. Dessa principer varierar beroende på de skillnader som finns i grammatikeriserad aspekt mellan L1 och L2.

Frågeställningar
I denna undersökning antas att även om två språk har en och samma grammatikeriserad progressiv kategori, kan de ha olika principer för dess användning på grund av de typologiska systemspecifika skillnaderna. Följaktligen antas det finnas en viss analyssvårighet för persisktalande användare av L2 engelska då de måste handskas med progressivitet i två språksystem med olika användningsprinciper.

Den grundläggande typologiska skillnaden mellan dessa två aspektsystem är en viktig indikator på att deras progressiv har olika användningsprinciper; den fundamentala systemgrundade skillnaden som har påverkan på den progressiva aspekten är att verbformerna i persiska alltid har morfologiskt markerade aspekter, varför alla verbformer är entydiga i förhållande till den aspektuella betydelsen. Däremot markerar engelskan endast den progressiva formen med morfologiska medel på verbformen, och de osammansatta verbformerna kan tolkas imperfectivt i relevanta sammanhang. Detta betyder framför allt att de engelska och persiska systemen tillhandahåller olika formella lingvistiska medel för verbalisering av samma stimuli men också att progressivet som en gemensam grammatisk kategori har olika interna strukturer, d.v.s. olika användningsprinciper och omfång.

En tydlig konsekvens är att det persiska systemet har fler aspektkategorier i presens än engelskan. För persisktalande andraspråkstalare av engelska kan detta vid första ögonkastet verka utgöra en skillnad mellan att röra sig mellan ett mindre komplext system och ett mer komplext system. Emellertid behöver detta inte vara fallet eftersom engelskans färre men mindre tydliga kategorier kan vara komplexa i förhållande till deras användningsprinciper.
för dessa L2 användare. Dessa antagningar undersöks med hjälp av följande frågor formulerade för denna studie:

1. Spelar den progressiva aspekten samma roll i L1 engelska, L1 persiska, och persisk L2-engelska i verbalisering av stimuli av enstaka händelser samt händelseförlopp på video?
2. Finns det några skillnader i informationshanteringen mellan L1 engelska, L1 persiska, och persisk L2-engelska i verbalisering av stimuli av enstaka händelser samt händelseförlopp på video?
3. Är verbalisering av stimuli av persisktalande användare av L2 engelska konceptuellt överförd från deras L1 persiska?

I och med att två olika L1 språksystem är inkluderade innefattar undersöknngen ett lingvistiskt överskridande sammanhang och sätter därmed fokus på att granska om de temporala förhållanden i L2 engelska tyder på att konceptualisering av pågående händelseförlopp är mer relaterad till L1 persiska än L1 engelska. Dessutom gör detta geografiskt avlägsna och kulturellt annorlunda språkpar det möjligt att granska frågan om kultur istället kan ligga bakom skillnader i språkanvändning samt om lingvistiska skillnader tyder på lingvistiskt relativitet som bottnar i typologiska skillnader.

Den grundläggande hypotesen i Heidelberg–Parismodellen betoner att om de kognitiva processerna i språkanvändning är formade av de grammatikalisera kategorierna i varje L1, borde L2 användare — beroende av färdighetsnivån i L2 samt de särskilda typologiska profilerna i L1 och L2 — visa språkanvändningsmönster som avviker från standardmönstren i urval och organisation (jf. sektion 2.2) av information för verbalisering i L2 (Flecken, von Stutterheim, & Carroll, 2013, p. 229). I Heidelberg–Paris anda formuleras grundhypotesen för detta projekt på följande sätt (Carroll et al., 2004, p. 185):

If grammaticalised meanings drive the coding options selected in language use, languages which share a similar grammatical profile should exhibit similar patterns of conceptualisation when preparing content for expression.

De språkliga likheterna/skillnaderna undersöks för att belysa den progressiva aspektens påverkan på konceptualisering av pågående händelser i engelska och persiska. I denna värdering används vissa förvalda gemensamma parametriska nämnare typiska för språk med grammatikalisering progressiv. I det fall det framkommer belägg för dominant lingvistisk likhet mellan de två L1 språk, kan påverkan av geografiskt och kulturellt olikhet uteslutas som den avgörande faktorn. Likaså, om lingvistisk olikhet kan fastställas för samtliga, eller endast några få av de förvalda parametrarna mellan engelska och persiska, leder detta till funderingar om skillnaderna är tillräckligt
betydelsefulla för att åstadkomma lingvistiskt relativitetseffekt i L2 användares språkbruk.

Studien definierar först, på den grammatiskt formella nivån, den progressiva aspekterns status i språkbruk av L1 engelska och persiska användare samt persisktalande användare av avancerad L2 engelska, både på sats och diskurssnivåer. Därefter, med fokus på konceptualisering av händelser på den konceptuella, förlingvistiska nivån, beskrivs likheter/skillnader med hjälp av de förvalda lingvistiska parametrarna på sats och diskurssnivåer. Slutligen diskuteras frågan om lingvistiskt relativitet och om de möjliga olikheterna i konceptualisering av händelser i L2 är konceptuellt överförda i form av de användningsprinciper som gäller för dāštan-progressiv i L1 persiska.

Metod
Språkbruk av tre grupper av språkanvändare undersöktes: L1 engelska, L1 persiska, och persiska L2 talare av engelska på avancerad nivå. För var och en av dessa språkanvändargrupper valdes två grupper av talare ut för två olika experimentella uppgifter, var och en med tillhörande egen stimulus, vilket möjliggjorde en omfattande kontrastiv lingvistisk analys. Som första steg gjordes en kvantitativ analys av språkanvändning i korta beskrivningar av enskilda händelser, d.v.s. på satsnivå, som utgjorde basen för fastställandet av den progressiva aspekterns status. Som andra steg gjordes ytterligare en kvantitativ analys av engelsk och persisk språkanvändning i återberättelser av händelseförlopp på video på dessa förstaspråk samt deras jämförelse med språkanvändning på samma stimulus av persisktalande användare av L2 engelska. Möjliga likheter/skillnader i konceptualisering av händelser som berodde på det språkspecifika aspektsystemet söktes. De relativa distanserna mellan dessa talargrupper återberättelser fastställde om de persisktalande användarna av L2 engelska producerade språk i likhet med L1 engelska talare, vilket skulle reflektera att de lärt sig principerna för användningen av progressiv som gäller för L1 engelska.

Den så kallade snöbollsmetoden användes: de informanter som hade gjort den experimentella uppgiften ombads att introducera nya informanter som bedömdes lämpliga att deltaga i studien. Insamlad data innefattar ett dataset från experiment 1 och ett annat dataset från experiment 2. All data samlades in via epost. Relevanta instruktioner, frågeformulär för språkbakgrund samt Nelson engelsktest för experiment 2 avsett att testa avancerade färdigheter i engelska hos de persisktalande användare av L2 engelska sändes individuellt till varje enskild informant.

Data från experiment 1 där enskilda händelser beskrivs kort fungerade som grund för beskrivningen av statusen avseende den språkliga produktionen av den progressiva aspekten i de två L1 samt L2. Datasetet från experiment 2, i vilket återberättelser av en hel serie av pågående händelseförlopp beskrivs, utgjorde grunden för analysen av progressivets
användning i en lång sammanhängande diskursproduktion. I båda experimenten såg informanterna den relevanta videon på egen hand. Deras uppgift var att spela in sin språkproduktion och sända den via e-post till forskaren.

De förvalda parametrarna omfattade för det första så kallad 'phasal decomposition', vilken syftar till användningen av progressiv i enskilda pågående händelser och återberättelser, samt användningen av begin/start i dessa återberättelser av en lång serie av händelseförlopp. För det andra undersöcktes nivån av granularitet, vilket syftar till mängden av språkproduktion i återberättelser av händelseförlopp. För det tredje granskades händelsernas nådda slutpunkter, 'right boundary', dvs. högra gräns vilken utgörs av en slutpunktsmarkering och kan göras genom användning av både 2-state verbtyper och 1-state verbtyper följda av en slutpunktsmarkering. Dessa granskades både i enstaka händelser och som en del av 'temporal shift' i återberättelser av händelseförlopp. 'Temporal shift' definieras enligt följande: händelserna med slutpunktsmarkering i en berättelse för berättelsen på tidslinjen vidare via högra gränsen. Händelserna med 'left boundary', dvs. vänstra gränsen, för också berättelsen framåt, även om dessa händelser inte har en slutpunktsmarkering. För det fjärde granskades 'left boundary', dvs. vänster gräns, vilken omfattar användning av begin/start och try i återberättelser av händelseförlopp. Slutligen undersökt tidsmässig strukturering, vilken syftar till slutpunktsmarkering i huvudverb före förekomsten av temporal adverbial then i återberättelser av händelseförlopp.

Resultat

Data för experiment 1 visar för det första att talare av engelska som förstaspråk endast använder sig av den progressiva verbformen och att L1 persiska talare oftast använder sig av dāštan-progressiv i kontexen av isolerade enstaka händelser, men den enkla mi-formen förekommer också. Anmärkningsvärt är att användning av dessa aspektformer i persiska tydliggör en statistiskt signifikant distinktion mellan en infrekvent markering av slutpunkter i samband med dāštan-progressiv samt frekvent markering av slutpunkter i samband med den enkla mi-formen.

Då man granskar 'phasal decomposition' i återberättelser av händelseförlopp finns ingen skillnad i användning av begin/start mellan de tre språkgrupperna. Emellertid kan skillnader observeras i användning av progressiv i återberättelser: medan progressiv används utan någon skillnad mellan huvud- och underordnade satser samt mellan protagonist och andra enheter (såsom naturkrafter) som syntaktiskt subjekt i engelska, förekommer dāštan-progressiv betydligt oftare i underordnade satser och i samband med andra enheter (naturkrafter) som syntaktiskt subjekt i persiska. Det faktum att L1 persiska visar dessa användningsmönster i återberättelser i experiment 2 är i viss utsträckning genrespecifikt eftersom det motsatta, d.v.s.
användning av dāštan-progressiv med protagonist som syntaktiskt subjekt och i huvudsatser, tydligt framträder i språkproduktionen i experiment 1. Dessa typer av användning av dāštan-progressiv är inte typiska i återbärlser.

I användning av progressiv visar inte persisktalande användare av L2 engelska de resultat som talare av engelska som förstaspråk visar eftersom de inte uppnått den preferensnivå som kännetecknar progressivs användning i engelska. Man kan urskilja ett mönster som expanderar från det typiska mönstret i L1 persiska mot det mönster som är typiskt i L1 engelska. I allmänhet markerar resultaten för användning av progressiv den största skillnaden i verbalisering i studien.

För det andra visar granularitet i återbärlser, vilket räknas från den totala förekomsten av producerade satser, ingen signifikant skillnad mellan L1 talare. Dessa resultat betyder även att det inte finns någon skillnad i textens längd mellan L1 engelska och persiska talare. Emellertid finns det en signifikant skillnad i textlängd mellan de två persiska grupperna, d.v.s L1 persiska och persisk L2-engelska. Detta betyder att L2 användare producerar signifikant kortare diskurs då de talar det främmande språket.

För det tredje undersöktes slutpunktsmarkeringar (right boundary) i form av alla förekommande verbtyper men även separat, då två-verbshuvudningar, så kallade katenativa verb, exkluderades. Då medelvärden från t-tester jämförs, visar det sig att alla tre talargrupper använder sig betydligt mer av verb som markerar händelsens slutpunkt än verb som inte markerar en sådan slutpunkt. Detta är särskilt tydligt i L1 persiska även om det inte finns någon signifikant skillnad i detta avseende mellan de två L1. Nämnhört är att persisktalande användare av L2 engelska visar en signifikant skillnad i det att de använder sig mindre ofta slutpunktsmarkeringar i jämförelse med L1 talare, vilket betyder att L2 användare producerar mindre diskurs i L2.

Då de katenativa två-verbsommanationerna (vilkas avsevärt ofta har verb som inte markerar slutpunkt) exkluderades och endast de enskilda verben granskas, visar det sig igen att alla talare använder sig betydligt mer av verb som markerar händelsens slutpunkt, men också att talare av L1 engelska använder sig av signifikant färre verb utan slutpunktmarkeringar än talare av L1 persiska medan L2 talare inte visar de nivåer som finns i de två L1 grupperna.

För det fjärde visar 'left boundary’, vilken observeras i omfattningen av användning av begin/start, ingen skillnad mellan de tre talargrupperna, såsom nämndes ovan. Användning av try granskades separat och den visar ingen signifikant skillnad utan en tydlig tendens mellan de två L1 grupper då L1 engelska talare använder try relativt ofta och L1 persiska talare använder det relativt mindre ofta. Detta betyder att medan de två engelska grupperna, d.v.s L1 engelska och persisk L2-engelska, inte har någon statistiskt signifikant skillnad, visar de två persiska grupperna, d.v.s L1 persiska och
persisk L2-engelska, en signifikant skillnad. Följaktligen, då användning av begin/start granskas tillsammans med try, visar L2 engelska talare på en överanvändning av ’left boundary’, try, vilket kan anses vara ett drag av utvecklingen i deras andraspråksinlärning.

Slutligen undersöktes temporal strukturering, vilken syftat till användning av verb som markerar slutpunkt före förekomsten av det temporalala adverbialet then i återberättelser av händelseförlopp. Resultaterna visar statistiskt mest frekvent användning av verb som markerar slutpunkt före then i L1 engelska medan den högsta proportionen, d.v.s. i jämförelse med verb som inte markerar slutpunkt, är i L2 engelska gruppen. Således skiljer sig denna L2 grupp från de två L1 grupperna, vilka inte visar någon skillnad mellan verb som markerar vs. inte markerar slutpunkt av händelser, medan den engelska L2 gruppen visar en signifikant skillnad vad gäller den högsta andelen. Denna skillnad kan vara ett tecken på ett utvecklingsstadium i inlärning av L2 engelska eftersom den inte finns varken i L1 engelska eller persiska.

Slutsatser

Huvudresultatet för beskrivning av enstaka händelser är att dāštān-progressiv i experiment 1 är lik fullt grammatikaliserad progressiv i andra språk i och med att den visar likadan påverkan av progressiv aspekt på konceptualisering av händelser, d.v.s. signifikant mindre markingar av händelseutlopp in jämförelse med språk som inte har progressiv. Däremot är den enkla mi-formen associerad till frekventa markingar av slutpunkter för händelser. Engelskan visar ingen sådan association eftersom den progressiva formen alltid måste användas avseende pågående händelser.

I återberättelser av en hel serie av pågående händelseförlopp kan man se följande skillnader: i jämförelse mellan huvud- och underordnade satser används progressiv i engelska lika ofta medan den förekommer signifikant mer ofta i underordnade satser i persiska. Dessa delresultater talar om skillnader i perspektivtagande i återberättelser mellan dessa L1 språk, vilket beror på skillnaderna i deras aspektsystem och typologi. Det måste även noteras att i jämförelse med användning av progressiv i de eliciterade huvudsatserna i experiment 1, framhåver det mycket annorlunda användningsmönsteret av den progressiva verbformen i återberättelser i engelska och persiska i experiment 2 de synnerligen språksspecifika skillnaderna. Dessa beror i viss grad på de olika textgenrarna i experiment 1 och 2, d.v.s. ensatsbeskrivningar versus sammanhängande längre återberättelser.

Den ingående analysen av de komplexa skillnaderna i aspekt fastställer att den enkla mi-formen kan syfta på pågående företeelser i de fall då progressiv är obligatorisk i engelskan eftersom den inte har en alternativ verbform. Som den yttersta orsaken till de funna lingvistiska skillnaderna är den grundläggande typologiska skillnaden mellan engelskan, som inte har, och
persiskan som har de grammatikaliserade imperfektiva–perfektiva kategorierna. Denna typologiska skillnad leder till olika lingvistiska och språkspecifika mönster av perspektivtagande i återberättelser i dessa L1 språk. I dessa mönster spelar den specifika textgenren en egen roll. Dessutom talar detta huvudresultat även om att principerna som gäller för användning av progressiv i dessa språk är olika.


Däremot kan inte hypotesen att samma grammatikaliserade kategorier leder till likadan språkproduktion i olika språk bekräftas av denna studie. Trots att dessa L1 har progressiv aspekt, är användningsprinciperna i hög grad beroende av de relevanta aspektsystemen. Således fastställer den kontrastiva undersökningen av språkproduktionen på engelska och persiska att de olika användningsprinciperna i dessa L1 reflekteras som olika interna strukturer mellan de två progressiva konstruktioner.

Baserat på detta huvudresultat kan man observera lingvistisk relativitetseffekt i språkproduktionen i L2 engelska. Som följd av lingvistisk relativitetseffekt kan inte L2 användare, i konceptualisering av händelser i L2, lätt omstrukturera de särskilda användningsprinciper i de grammatikaliserade kategorier i sitt L1 i linje med motsvarande kategorier i L2 — en skillnad mellan L1 och L2 som är relaterad till den grammatiska nivån av språken (jf. Dahl, 1985). Studien har visat att vissa skillnader hör till den syntaktiska nivån av språk; en tydlig svårighet för L2 användare uppstår på grund av typologiskt olika aspektsystem i L1 och L2, vilka har gemensam progressiv men med olika principer för perspektivtagande och strukturering av information i temporalt sammanhängande diskurs.

Följaktligen har denna studie visat att lingvistisk relativitetseffekt uppstår i skillnader på grammatisk nivå medan de språkliga drag som härstammar från den sematisk-begreppsliga nivån av språk, såsom påverkan av progressiv aspekt på konceptualisering av händelser, är synnerligen gemensamma för språk med helt grammatikaliserad progressiv. Detta sematisk-begreppsliga språkdrag orsakar inga problem med analys och inlärning för de persiska L2 engelska användarna.
Den lingvistiska relativitetseffekten blev märkbar i de eliciterade återberättelser då de temporalaspekttegnskaper som skiljer sig åt i L1 och L2 och resulterar i grammatskt drivna temporalaspektrelationer från L1 i användningen av progressiv för att föra fram berättelsen i L2. Dessa L2 användare visar tydliga spår av grammatska preferenser för val och organisation av information som bygger på preferenser i deras L1. Detta förklarar delvis varför förstaspråktalares återberättelser låter likt de andra som talar samma språk som förstaspråk, medan andraspråktalares återberättelser inte gör det även om deras L2 är formellt korrekt.

Det är viktigt att observera att för persisktalande användare av L2 engelska kan det nya L2-systemet vid första ögonkastet verka utgöra ett mindre komplext system än det persiska. Jämförelsen mellan engelska och persiska har visat att så inte är fallet eftersom det mindre komplexa systemet med färre aspektkategorier döljer ett komplext system av användningsprinciper i engelska medan aspektkategorierna är tydligt markerade på varje verbform i persiska.

Denna studie har utökat förståelsen av L1 inflytande på temporal strukturering av händelser i vuxnas andraspråksinlärning med fokus på temporal perspektivtagande i diskursproduktion av persisktalande användare av L2 engelska. Studien har fastställt att perspektivtagande i L2 engelska är grundat i den temporalaspektprofilen i talares L1 persiska. Varje språk erbjuder specifika lingvistiska medel för temporal perspektivtagande i händelseverbalisering. När de temporalaspekttegnskaper i L1 skiljer sig från dem i L2, projiceras de L1 temporalaspektrelationer mellan enstaka händelser i ett händelseförlopp i L2. Genom dessa temporalaspektrelationer framskrider sedan berättelsen i L2 delvis likt den i L1.
References


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proficiency in second language and multilingual contexts (pp. 73–95). Cambridge: Cambridge University Press.


structure in a cross-linguistic perspective (pp. 179–198). Amsterdam: Rodopi.


Žukovskij, V. (1888). Osobennoe značenie glagola dăštan a persidskom razgovornom yazyke (Special meaning of the verb (dăštan) in spoken Persian (3rd ed.). St. Petersburg.
Appendix A Terminology

*Actionality/Aktionsart* denotes many different verbal and clausal meanings such as iterative or inchoative. Adding to the lexical content of verbs, such meanings can be conveyed lexically in some languages, or morphologically in other languages such as the Progressive in English and the bare *mi*-form in Persian (section 2.6.5)

*Aspectual constellation* denotes the mutual relation of the grams in the respective systems (section 2.6.6)

*Boundary* refers to left or right boundary of an event in the event sequence and with this a shift in time on the time line (section 2.6.7)

*Boundedness* conveyed by 2-state verbs and endpoint adjuncts refers to the right boundary of single events which lack temporal shift in time

*Conceptual structure* denotes the language-based processes of the conceptualiser in the Heidelberg–Paris model, also termed as *conceptual representation* (section 2.1)

*Continuity* is a concept from Persian grammar descriptions denoting the whole aspectual domain of the imperfective (section 2.6.6)

*Control items* explicitly show the endpoints as reached (section 2.9.1.2)

*Critical items* refer to the experimental items of the test as the possible endpoints are not shown as reached, so they can be inferred or not

*Discourse level* refers to language production at the level of narratives

*Event* denotes a self-contained segment in a conceptual representation of interrelated situations, conceptualised as a time–substance relation which is characterised as dynamic and potentially bounded (von Stutterheim & Nüse, 2003, p. 855; section 2.8.1.1)

*Event conceptualisation* refers to the mental representations of visualised situations (ch. 1)

*Event construal* denotes the verbalised structure of the visualised situation

*Event segmentation* refers to situations with a high degree of resolution; granularity (von Stutterheim et al., 2003, p. 118; section 2.9.3)

*Event–time structure* depicts the way how speaker groups differ in the extent and way to mark bounded events, i.e. whether the completion of the event is either marked with 1-state verbs with endpoint components or 2-state verbs with an inherent completion (section 2.9.3)

*Grammaticalisation*; the expansion of the use of the aspectual form to the full range of semantic domains and variety of functions (Bybee et al., 1994; being systematically used, ch. 1)
Gram denotes a grammatical unit with inherent semantic content
Gram-type category refers to a particular grammatical category as uniform
cross-linguistic category (section 2.6.4)
Identical knowledge base; keeping other things equal, the same stimulus
shown provides the subjects with access to the same set of events
(Carroll et al., 2008, p. 175; section 2.5.1)
Impact of the progressive on event conceptualisation; the effect of the pro-
gressive on event conceptualisation in terms of a low rate of endpoint
encodings (section 5.1)
Information organisation refers to all the processes underlying the selection
and structuring of conceptual material for verbal representation (von
Stutterheim et al., 2002, p. 180; (section 2.1)
Internal structure of the progressive relates to the language-specific scope of
meanings it covers, and the language-specific principles of use the
language user has to abide by (section 2.6.1)
Main typological difference denotes the absence/presence of the IPFV and
PFV categories between English and Persian (section 5.2)
Ongoingness is conveyed by the progressive verb form denoting events that
do not lead to a resultant state, such as agentive activities (ch. 1)
Partial aspectual difference concerns the difference between the internal
structures of the progressive, i.e. the different uses, as in English and
Persian (section 5.2)
Partial typological similarity refers to the shared grammaticalised aspectual
category of the progressive as in English and Persian (section 5.2)
Progressivity; in contrast to ongoingness, progressivity denotes events that
lead to a resultant state. Both meanings are in the progressive form in
English but in the dāštan-progressive and bare mi-form in Persian
Quaestio is a concept denoting a guiding question that texts follow, which
establishes a set of constraints guiding the speaker in selecting and or-
ganising information for expression (von Stutterheim, 2003, p. 184)
Text structure reflects the particular task question, i.e. “what is happening”
elicits a narrative text structure, while “what do you see in the picture”
elicits a structure excluding temporal reference as a structuring device
Sentence level refers to language production at the level of single events
Situation denotes what takes place in the external world (von Stutterheim &
Nüse, 2003, p. 855; section 2.8.1.1)
Temporal shift refers to the role of the language-specific features pertinent to
the way the story line advances, such as boundedness of events, and
the way they can create language-specific temporal frames of refer-
ence (section 2.8.2)
Temporal structure; Time of situation, TSit, is not a single interval but a
temporal structure which may involve a number of sub-intervals; with
a single interval constituting a borderline case (von Stutterheim et al.,
2003, p. 103-4; section 2.2)
Appendix B Instructions

(The set of 60 video clips was made available for Experiment 1 by Prof. Christiane von Stutterheim, Heidelberg, German)

Instructions for Experiment 1 on single events

Please, first, download the video clips from Dropbox at the address (removed). You will see a set of 60 video clips showing everyday events which are not in any way connected to each other. Before each clip starts, a blank screen with a white focus point will appear.

The white focus point marks the start of the next video clip. Your task is to tell “what is happening”, and you may begin as soon as you recognise what is happening in the clip.

It is not necessary to describe the video clips in detail (e.g. “the sky is blue”). Please focus on the event only answering the task question, i.e. “what is happening”, in one sentence.

Record your sentences. For each clip, do the recording during the time when the white focus point appears. Please, make sure that your voice will be recorded clearly because it happens that the recording fails. Do not re-record.

You are asked to retell only the event of each short clip. The task should be done without previous practice.

Attached please find also a file with a few questions about your language background. You can answer them in the questionnaire. In order to save your answers in the questionnaire, it has to be saved on your computer as a file first. Then it will be possible to save the answers. The questionnaire should be answered after doing the main task.

I thank you in advance for your contribution.
Instructions for Experiment 2 on narratives

I thank you for your offer of taking part in my research for a PhD thesis. I would like to ask you to do the attached English language research task. The research will compare narrations in English and Persian.

Below you will get the instructions for the language task. It has two parts:
1. to retell and record the story of the film Quest (in 5 episodes, and in English)
2. to fill in a language background questionnaire

The recording of the retold events can be done on your computer, recording device or cell phone.

Quest is available at http://www.youtube.com/watch?v=uTyev6OaThg. It is produced by Thomas Stellmach 1996. The task starts as follows:

First watch the entire film without interruption from beginning to end. It is animated and has no speech. You will realize that the eleven-minute-long film is in short episodes showing four different kinds of worlds of sand, paper, stone, and metal. The episode of the metal world is divided into two episodes, episodes 4 and 5, in the place where the character takes a running jump. Retell the whole film in 5 episodes. Watch the film only once to get ready for the task.

Task: Go back to the beginning and watch each of the episodes in turn. Pause the film at the end of each episode, and tell what happened in the scene which you just saw. Do each episode in the same way. This way it is easier to remember the content and it increases comparability of the narrations across the two languages.

Record your story. Do the recording after each episode you watched and paused. Please, make sure that your voice will be recorded clearly because it happens that the recording fails. The recording should be done without re-recording and erasing parts of the story you first told.

You are asked to retell the events of the whole 11-minute-long video clip. The only question for the task is What happened? The task should be done without previous practice.
You need not talk about, for example, what you saw meant, symbolised or what you understood of it. This will increase comparability between the two languages. The sound recording made as a sound file should be sent to the researcher at the e-mail address: (removed).

Attached please find also a file with a few questions about your language background. You can answer them in the questionnaire. In order to save your answers in the questionnaire, it has to be saved on your computer as a file first. Then it will be possible to save the answers. The questionnaire should be answered after doing the main task. Reserve 25-30 min. for the film and the questionnaire. Preferably, do not spend longer time on the task.

I thank you in advance for your contribution.
Appendix C Language background

A. Language background and proficiency of English for Experiment 1

Please, fill in the information about:
• your language background (native and other languages, your field),
• your language environment (city of your recent studies), and
• your proficiency of English (personal evaluation and degree).

Write your answers in red.

Q1: MOTHER TONGUE: ____________     AGE:________

Q 2: WHAT IS YOUR LEVEL OF PROFICIENCY OF ENGLISH?
   a. beginner      b. intermediate      c. advanced      d. native-like

Q 3: WHAT OTHER LANGUAGES DO YOU SPEAK ON A DAILY BASIS? _____________

Q 4: THE MOST RECENT UNIVERSITY STUDIES:

   DEGREE and YEAR: (Please, answer both a and b)
   a. I have received a DEGREE of:_____ YEAR:_____________________
   b. I am studying for a DEGREE of:_____ YEARS:__________________

   FIELD OF STUDY:__________________________________________

   CITY of your university studies:___________________________

Any comments related to any part of the task (the instructions, the task given, your own performance of the task, or any other thoughts about it etc.):
THANK YOU FOR PARTICIPATING IN THE RESEARCH.

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B. Language background questions for Experiment 2

Fill in the requested information and answer the questions about your language background. (The same questionnaire is used for all informants.) Please, write/mark your answers in red.

Q1: PLACE OF BIRTH: (City) _______________(Country) __________

Q2: MOTHER TONGUE: _______________ AGE: _______________

Q3: THE LANGUAGE(S) YOU SPEAK AT HOME WITH YOUR FAMILY: _______________________________________________________

Q4: What languages have you studied? Name languages 1, 2 and 3 separately below.

Language 1: ______________________

AT SCHOOL/UNIVERSITY (Which?): ___________ HOW MANY YEARS? ____________

CLASSES OUTSIDE SCHOOL: _______________ HOW MANY YEARS? ____________

AT WHAT LEVEL ARE YOU NOW?
  a. beginner   b. intermediate   c. advanced   d. native-like

Language 2: ______________________

AT SCHOOL/UNIVERSITY (Which?): ___________ HOW MANY YEARS? ____________

CLASSES OUTSIDE SCHOOL: _______________ HOW MANY YEARS? ____________

AT WHAT LEVEL ARE YOU NOW?
  a. beginner   b. intermediate   c. advanced   d. native-like

Language 3: ______________________

CLASSES OUTSIDE SCHOOL: _______________ HOW MANY YEARS? ____________
CLASSES OUTSIDE SCHOOL: ___________________ HOW MANY YEARS? _____________

AT WHAT LEVEL ARE YOU NOW?
a. beginner  b. intermediate  c. advanced  d. native-like

Other languages, if any:
__________________________________________________

Q5: CITY OF HIGH SCHOOL / UNIVERSITY STUDIES (concerns the most recent studies):

CITY:_____________________   YEARS:________________________

FIELD OF STUDY:___________   DEGREE:____________________

Q 6: HAVE YOU STUDIED/HAVE YOU EVER BEEN TAUGHT HOW TO TELL STORIES IN ENGLISH?
NO: ______

YES: How long time ago?
__________________________________________________

Q 7: DID YOU PRACTISE TELLING THE STORY BEFORE STARTING THE RECORDING?
NO: ______

YES: a. very little

   b. some practice

   c. very much

Q 8: DID YOU RE-RECORD OR ERASE PARTS OF THE STORY YOU FIRST TOLD?
NO: ______

YES: To what extent?
__________________________________________________
What parts of the story?
__________________________________________________

Q 9: HOW DID YOU RECORD THE STORY?
   a. I paused the film between the episodes to record the story; 5 pauses.
   b. While watching the film I told and recorded the story.
   c. Doing both a and b, in some parts a and in other parts b.
   d. Not exactly the way mentioned in a, b, or c. Please, describe._______

Q 10: USUALLY A STORY IS TOLD TO SOMEONE. WHILE NARRATING THE EVENTS OF THE FILM DID YOU ‘FEEL SOMEHOW’ OR IMAGINE UNCONSCIOUSLY YOU WERE TELLING THE EVENTS TO SOMEONE? NO: _______

YES: Who is the person?_____________________________________

Q 11: EVALUATE HOW WELL AND EASILY YOU TOLD THE STORY:

Answer: It was difficult/ easy/ very easy for me to tell it.

Q 12: EVALUATE HOW INTERESTING THE STORY OF THE FILM WAS:

Answer: Boring/ interesting/ very interesting

Comments related to any part of the task (the instructions, the task given, your own performance of the task, or any other thoughts about it etc.):
THANK YOU FOR PARTICIPATING IN THE RESEARCH.
Appendix D Nelson English test

Nelson English test, 45 questions for Experiment 2

Choose the correct answer. Only one answer is correct. Mark the correct answer in red.

When I went to bed last night, I ..1.. asleep immediately. I ..2.. tired because I ..3.. so hard for several hours. So I forgot to close the windows before ..4.. into bed. If I had remembered, the thief ..5.. But ..6.. a perfect opportunity to enter the house. The next time I ..7.. late I will lock the house carefully.

A policeman came to see me about the theft. ..8.. investigate,” he said. “So I ..9.. ask you some questions. First, how ..10..?” I told him that I ..11.. the window open. “You ..12.. more careful,” he said. I understood that if people ..13.. their houses properly, the police would not have so much work to do.

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<td>1.</td>
<td>A</td>
<td>fell</td>
<td>8</td>
<td>A</td>
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<tr>
<td></td>
<td>B</td>
<td>did fall</td>
<td></td>
<td>B</td>
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<td></td>
<td>C</td>
<td>was falling</td>
<td></td>
<td>C</td>
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<tr>
<td></td>
<td>D</td>
<td>have fallen</td>
<td></td>
<td>D</td>
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<tr>
<td>2.</td>
<td>A</td>
<td>had to be</td>
<td>9</td>
<td>A</td>
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<tr>
<td></td>
<td>B</td>
<td>ought to be</td>
<td></td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>must have been</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>needed to be</td>
<td></td>
<td>D</td>
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<tr>
<td>3.</td>
<td>A</td>
<td>have been working</td>
<td>10</td>
<td>A</td>
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<td></td>
<td>B</td>
<td>had been working</td>
<td></td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>have being working</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>had being working</td>
<td></td>
<td>D</td>
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<td>4.</td>
<td>A</td>
<td>getting</td>
<td>11</td>
<td>A</td>
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<td></td>
<td>B</td>
<td>to get</td>
<td></td>
<td>B</td>
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<td></td>
<td>C</td>
<td>going</td>
<td></td>
<td>C</td>
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<td></td>
<td>D</td>
<td>to go</td>
<td></td>
<td>D</td>
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<td>5.</td>
<td>A</td>
<td>has not got in</td>
<td>12</td>
<td>A</td>
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<td></td>
<td>B</td>
<td>had not got in</td>
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<td>B</td>
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<td>C</td>
<td>would not get in</td>
<td></td>
<td>C</td>
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<td></td>
<td>D</td>
<td>would not have got in</td>
<td></td>
<td>D</td>
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<tr>
<td>6.</td>
<td>A</td>
<td>it was given to him</td>
<td>13</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>there was given to him</td>
<td></td>
<td>B</td>
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<td></td>
<td>C</td>
<td>he has been given</td>
<td></td>
<td>C</td>
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<tr>
<td></td>
<td>D</td>
<td>he was given</td>
<td></td>
<td>D</td>
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<td>7.</td>
<td>A</td>
<td>shall work</td>
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<td></td>
<td>B</td>
<td>will work</td>
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<td></td>
<td>C</td>
<td>work</td>
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<td></td>
<td>D</td>
<td>will be working</td>
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<tr>
<td><strong>14</strong></td>
<td>There are so many cars ……. nowadays.</td>
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<tr>
<td></td>
<td>A for all places</td>
<td>B in all the place</td>
<td>C anywhere</td>
<td>D everywhere</td>
</tr>
<tr>
<td><strong>15</strong></td>
<td>Ask him to go to the post office ……. some stamps.</td>
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<tr>
<td></td>
<td>A to get</td>
<td>B for getting</td>
<td>C in order he gets</td>
<td>D that he gets</td>
</tr>
<tr>
<td><strong>16</strong></td>
<td>The reason ……. I can't come is that I have to work late.</td>
<td></td>
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<tr>
<td></td>
<td>A because</td>
<td>B for</td>
<td>C as</td>
<td>D why</td>
</tr>
<tr>
<td><strong>17</strong></td>
<td>She cut the cloth with ……. scissors.</td>
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<td></td>
<td>A a couple of</td>
<td>B a pair of</td>
<td>C two</td>
<td>D a</td>
</tr>
<tr>
<td><strong>18</strong></td>
<td>……. me ……. ……. .</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A Tell/where are you going</td>
<td>B Tell/where you are going</td>
<td>C Say/where are you going</td>
<td>D Say/where you are going</td>
</tr>
<tr>
<td><strong>19</strong></td>
<td>The children ……. play with them.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A want that I</td>
<td>C want me to</td>
<td>B want me for</td>
<td>D are wanting that</td>
</tr>
<tr>
<td><strong>20</strong></td>
<td>He may be able to come to the party. ……. the other hand, he may be too busy.</td>
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</tr>
<tr>
<td></td>
<td>A On</td>
<td>B In</td>
<td>C By</td>
<td>D For</td>
</tr>
<tr>
<td><strong>21</strong></td>
<td>I haven't seen him ……. .</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A last week</td>
<td>C for last week</td>
<td>B during last week</td>
<td>D since last week</td>
</tr>
<tr>
<td><strong>22</strong></td>
<td>I'm fond ……. music.</td>
<td></td>
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<td></td>
<td>A to the</td>
<td>B to</td>
<td>C of the</td>
<td>D of</td>
</tr>
<tr>
<td><strong>23</strong></td>
<td>John is ……. .</td>
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<tr>
<td></td>
<td>A a friend of me</td>
<td>B a friend mine</td>
<td>C a friend of mine</td>
<td>D one friend of mine</td>
</tr>
<tr>
<td><strong>24</strong></td>
<td>She's the girl ……. .</td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>A whose money was stolen</td>
<td>B the which money was stolen</td>
<td>C whose money was as robbed</td>
<td>D the which money was robbed</td>
</tr>
<tr>
<td><strong>25</strong></td>
<td>It's the ……. film I've ever seen.</td>
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<tr>
<td></td>
<td>A more interesting</td>
<td>B most interesting</td>
<td>C more interested</td>
<td>D most interested</td>
</tr>
<tr>
<td><strong>26</strong></td>
<td>He doesn't know the answer ……. I've told him several times.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A in spite</td>
<td>B even</td>
<td>C while</td>
<td>D although</td>
</tr>
<tr>
<td><strong>27</strong></td>
<td>……. English ?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A How long time are you studying</td>
<td>B How long do you study</td>
<td>C How long have you been studying</td>
<td>D How long time have you studied</td>
</tr>
<tr>
<td></td>
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<tr>
<td>---</td>
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</tr>
<tr>
<td>28</td>
<td>The little boy keeps the insect in a ..........</td>
<td>A match box</td>
<td>B box of matches</td>
<td>C box of the match</td>
</tr>
<tr>
<td>29</td>
<td>She's going to the photographer's ..........</td>
<td>A to take her photograph</td>
<td>B to have taken her photograph</td>
<td>C to have her photograph taken</td>
</tr>
<tr>
<td>30</td>
<td>He looks ..........</td>
<td>A to be unhappy</td>
<td>C unhappy</td>
<td>B unhappily</td>
</tr>
<tr>
<td>31</td>
<td>Where have you been? I've been playing ..........</td>
<td>A the tennis</td>
<td>B at tennis</td>
<td>C at the tennis</td>
</tr>
<tr>
<td>32</td>
<td>It's very kind .......... invite me.</td>
<td>A from you to</td>
<td>B of you to</td>
<td>C by you to</td>
</tr>
<tr>
<td>33</td>
<td>I can't break it. It's .......... iron.</td>
<td>A as hard as</td>
<td>B so hard as</td>
<td>C as hard than</td>
</tr>
<tr>
<td>34</td>
<td>I didn't know .......... him or not.</td>
<td>A whether to help</td>
<td>C to help</td>
<td>B if to help</td>
</tr>
<tr>
<td>35</td>
<td>.......... of them knew about the plan because it was secret.</td>
<td>A Some</td>
<td>B Any</td>
<td>C No one</td>
</tr>
<tr>
<td>36</td>
<td>Mont Blanc, .......... we visited last summer, is the highest mountain in Europe.</td>
<td>A where</td>
<td>B which</td>
<td>C that</td>
</tr>
<tr>
<td>37</td>
<td>This question is .......... difficult for me.</td>
<td>A so much</td>
<td>B too much</td>
<td>C too</td>
</tr>
<tr>
<td>38</td>
<td>It .......... the village where we spent our holidays last summer.</td>
<td>A reminds me of</td>
<td>B remembers me of</td>
<td>C reminds me to</td>
</tr>
<tr>
<td>39</td>
<td>Living here at the top of the mountain with no one else near you must be very ..........</td>
<td>A sole</td>
<td>B alone</td>
<td>C only</td>
</tr>
<tr>
<td>40</td>
<td>The tailor made him a new ..........</td>
<td>A clothes</td>
<td>B suit</td>
<td>C dress</td>
</tr>
<tr>
<td>41</td>
<td>The clock .......... and we realised it was two o'clock</td>
<td>A hit</td>
<td>B struck</td>
<td>C turned</td>
</tr>
<tr>
<td>42</td>
<td>Good .......... ! I hope you win the race.</td>
<td>A sort</td>
<td>B wish</td>
<td>C luck</td>
</tr>
<tr>
<td>43</td>
<td>My car .......... so I had to come by bus.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>fell down</td>
<td>fell over</td>
<td>broke down</td>
<td>broke up</td>
</tr>
<tr>
<td>---</td>
<td>-----------</td>
<td>-----------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>44</td>
<td>Look what father .......... me when he came home from work.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>brought</td>
<td>B took</td>
<td>C carried</td>
<td>D fetched</td>
</tr>
<tr>
<td>45</td>
<td>Tell me who .......... blue eyes.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>is having</td>
<td>B are having</td>
<td>C has</td>
<td>D have</td>
</tr>
</tbody>
</table>