Traces of L1 patterns in the event construal of Czech advanced speakers of L2 English and L2 German

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Abstract

This paper investigates the role of the underlying L1 perspective in the construal of goal-oriented motion and events with a resultant state in L2 production. Previous findings demonstrated that native Czech and German speakers have the same preferences for event construal (holistic perspective). The same holds true for Czech L2 speakers of German. Since L1 Czech and L1 German share the same preferences for motion event encoding, it is impossible to decide whether Czech learners of L2 German chose the holistic perspective because of L1 transfer or because they have restructured their conceptual preferences in the direction of the L2. This question can be resolved by examining data from Czech L2 speakers of English since L1 English, unlike L1 Czech, prefers taking a phasal perspective in motion event construal. The present data show that, for highly proficient L2 speakers, conceptual restructuring in the direction of the L2 is possible, however limited.

1. Introduction

The final frontier in adult second language (L2)[1] acquisition is most likely represented by conceptual knowledge. It is part of near-native command of a foreign language to be able to "think" like a native speaker (if one wishes to). Conceptual knowledge of any kind seems to be, apart from mastering phonology, the most challenging domain to be acquired in a foreign language and it presumes not only a large vocabulary but also a very good command of the L2 grammar.[2]

1. The terms second language learner and L2 speaker, as well as foreign and second language (L2) are used synonymously in this article.
2. This assumption is based on the observation that conceptual knowledge is an acquisitional task that primarily (highly) advanced L2-speakers attend to. Typically, these L2-speakers do

IRAL 51 (2013), 87–116
DOI 10.1515/iral-2013-0005
0019042X/2013/051-087

But what is conceptual knowledge? Let us take a look at what I call conceptual preferences, which speakers of different languages employ when speaking about goal-oriented motion events (cf. Schmiedtová et al. 2011). In German, for example, the description of a situation depicting motion typically includes an endpoint. So, if a native speaker of German sees the following situation depicted in a video clip: a building in the distance, two people are walking on a road in the direction of the building but they do not reach the building in the distance – (s)he most likely says: *Zwei Frauen gehen zu einem Haus* – 'Two women are walking to a house'. However, the typical description of the very same scene produced by a native speaker of English is not the same: *Two women are walking along the road*. Clearly, there is a difference in the way native speakers of German and English speak about goal-oriented motion: native German speakers mention the presumed endpoint of motion (the so-called *holistic perspective*) while native English speakers focus on the process instead (the so-called *phasal perspective*). Moreover, native speakers of German and English also differ in the way they view one and the same situation before starting to speak (allocation of visual attention). In the above example, native German speakers' eyes remain much longer at the endpoint and come back to it more often than native English speakers. The differences in speaking and eye-movements are further corroborated by the ability to remember: native German speakers have a notably better memory for endpoints in scenes of the above type than native speakers of English have for the same type of scene (cf. von Stutterheim et al. 2012).

These findings show that patterns of thinking are affected by the availability of grammatical categories stored in speakers' minds. In other words, the choice of a particular perspective (e.g., phasal vs. holistic) in event construal is guided by temporal-aspectual means available in the grammar of a particular language (Schmiedtová et al. 2011; von Stutterheim and Nüse 2003; von Stutterheim and Carroll 2011; von Stutterheim et al. 2012). Although each language has more than one way to view a given event, in the majority of cases speakers chose a depiction that is most compatible with the grammar of their L1, which has a direct impact on the selection and structuring of information in discourse. In order to construe a given event under a specific perspective, attention must be allocated to information relevant for the verbalization; this is reflected in eye-movements and memory behavior. Once speakers are used to talking about events in a particular way, language-specific conceptualizations become automatized (cf. *habits of thought*, Whorf 1956), and conceptual pref-

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no longer exhibit problems related to the grammar or vocabulary in the L2. By contrast, learners with less advanced proficiency levels (i.e., intermediate or beginners) who have not yet mastered the L2-grammar do not usually attempt to employ conceptual patterns of the target language but rely solely on the concepts from their mother tongue.

erences are established. Conceptual preferences are acquired, automatized and habituated already in early childhood (cf. Slobin 1996; Bowerman and Choi 2003).

A relevant question for the present article is whether a highly proficient learner who desires to become native-like in an L2 can master conceptual preferences in the L2 and "think" like native speaker? In other words, can conceptual knowledge be restructured[3] in a non-native language? The available evidence which is based on performance data is mixed: Some studies have found (partial) shifting of conceptual knowledge in the direction of the L2 for the domains of color (Athanasopoulos 2009) and object categorization (Malt and Sloman 2003; Cook et al. 2006; Athanasopoulos 2006, 2007; Athanasopoulos and Kasai 2008), and talk and gesturing about situations and motion (Kellerman and van Hoof 2003; Cadierno 2004; Cadierno and Ruiz 2006; Hohenstein et al. 2006; von Stutterheim and Carroll 2006; Brown and Gullberg 2008, 2011; Wolff and Ventura 2009; Schmiedtová and Sahonenko 2012). Other studies have shown that conceptual knowledge required for text organization and the expression of time is not attainable for highly proficient learners in the L2 (Carroll and Lambert 2003, 2006; Carroll and von Stutterheim 2003; Schmiedtová and Sahonenko 2008; Schmiedtová 2012).

The differences found with respect to the degree of attainment in the domain of conceptual knowledge in a second language can be attributed to at least some of these points: (i) the use of different *tasks* and *methodologies* (e.g., linguistic vs. non-linguistic tasks/elicitation vs. categorization/naming); (ii) differences in the *complexity* of the tested domains (e.g., more lexically-based domains, such as color, object categorization vs. more syntactically based domains, for instance information structure, expression of time); (iii) different levels of *L2 proficiency* of the participating informants across studies. The last point is connected to the general lack of a testing instrument or an established set of (general) criteria, on the basis of which one could assess near-native command in an L2 in terms of preferential accuracy and thus go beyond the assessment of pronunciation and/or formal accuracy.

The strength of the present investigation lies in sharing the same methodology, stimulus material, task instruction as well as experimental settings with a larger number of other studies investigating conceptual transfer and restructuring in the L2 in the domain of goal-oriented motion and/or events with resultant state in different European languages (e.g., Carroll and Lambert 2003; von Stutterheim 2003; von Stutterheim and Carroll 2006).

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3. Restructuring does not imply a complete replacement of structures from the first language by structures of the second. But interestingly, it has been shown that the second language can have an effect on the first (e.g., Cook, 2003, Brown and Gullberg 2011).

The current study is based on a data set of very advanced L2-speakers of English with Czech as L1. The findings of this study are compared to the data of native English speakers as well as to two other already published studies, in each of which a group of L2 speakers of German with Czech as L1 was examined. All three L2 speaker groups are matched in terms of age, socioeconomic and educational background and also with respect to the attained proficiency level in the respective target language. In other words, the selection of L2 participants in all reported studies is based on the same criteria, which means that the level of L2 knowledge is highly comparable across informants.

Previous studies demonstrated that Czech speakers of L2 German verbalize and conceptualize goal-oriented motion events and events with resultant state like native speakers of German. However, since the preferences for the construal of these event types in L1 Czech and L1 German are the same it is impossible to determine if Czech speakers of L2 German rely on L1-patterns (*conceptual transfer*) or have successfully acquired the target language preferences (*conceptual restructuring*). Given the fact that L1 English unlike L1 Czech prefers taking a phasal perspective on the construal of motion events (cf. von Stutterheim and Carroll 2011; von Stutterheim et al. 2012) the question is whether advanced Czech speakers of L2 English have mastered the target-like perspective and to what extent can the L1 pattern (still) be "tracked down" in the event construal in the L2. Restructuring in a non-native language means the capacity to modify, re-organize or even completely change internalized cognitive representations built up through the mother tongue. The ability to restructure is understood as a consequence of learning new linguistic knowledge and it takes place in all linguistic areas (e.g., phonology, lexicon, grammar, syntax).

This paper focuses on the construal of goal-oriented motion events, for which the encoding of endpoints is the most relevant feature. However, in order to gain a better understanding of how goal-oriented motion is encoded by L2 speakers in the target language other parts of motion (e.g., path, source, location) were also included in the analyses.

First of all, the paper presents the results of an empirical study comprising linguistic data produced by Czech advanced L2 speakers of English. Secondly, it compares these results to previous findings from Czech advanced L2 speakers of German. In addition, to illustrate the makeup of the conceptual strategies of the Czech L2 speakers of English, comparisons will be drawn to conceptual preferences found in native speakers of English.

The paper is structured as follows: Section 2 summarizes relevant previous research into event construal in advanced L2 users; Section 3 introduces the methodology used in the present study, including experimental parameters and information about participants; Section 4 comprises the coding criteria illustrated by examples; Section 5 presents the predictions of the present study; Section 6 presents the results of this study; Section 7 is dedicated to comparing

the findings to results from previous studies and to the discussion of the present findings. The article ends with a set of conclusions.

2. Previous studies

Previous studies of event construal in typologically different languages (von Stutterheim and Nüse 2003; Carroll et al. 2004; Carroll and von Stutterheim 2011; von Stutterheim et al. 2012) have demonstrated that the way speakers select and organize information depends on specific features of the grammatical system of a given language, in particular tense and aspect.

The findings show that categories that are deeply anchored in the linguistic system (i.e., grammaticalized) give rise to highly automatized preferences when selecting and structuring information for expression. The use of these preferences results in language-specific principles of information organization that speakers implement when solving complex verbal tasks (von Stutterheim and Nüse 2003). This view is in line with Slobin's (1996) "thinking for speaking" hypothesis: the preparation of content for verbalization in the mind of a speaker is shaped by specific linguistic categories available in the speaker's language system.

With respect to the languages examined in the present investigation, previous experimental studies (cf. Schmiedtová 2010; 2011b; 2012), which included linguistic, eye-tracking, speech-onset time, and memory data, showed that Czech speakers focus on completion (a holistic perspective) when construing goal-oriented motion events and events with resultant states in their native language (L1). This means that native Czech speakers show a preference for inferring an endpoint in goal-oriented motion events (e.g., in a situation in which a man on a cart is riding on a road and a farm is in the background, native speakers of Czech will most likely say: cze. *Sedlák jede do vesnice* – engl. A farmer is riding to a village), and for encoding a *poststate* in events with resultant state (e.g., in a situation, in which somebody is posting a letter a typical description of a native Czech speaker is: *Někdo vhodí/vhodil dopis do schránky* – 'Somebody throws /perfective marking/ threw /perfective marking/ a letter into a mailbox').

Interestingly, in terms of perspective taking, Czech clusters with German and not with other Slavic languages such as Russian, Polish or Slovak, in which speakers prefer a *phasal* perspective (cf. Schmiedtová and Sahonenko 2008; Schmiedtová 2012; von Stutterheim et al. 2012). These findings have been explained in terms of language contact with German, which affected the Czech grammatical system, in particular the perfective aspect: A re-analysis of the perfective form allows for the integration of resultant states and endpoints under the perspective of the deictic now that is expressed as the combination of

the perfective aspect (event marked as complete) and the present tense under a present tense reading. The change in the Czech aspectual system goes hand in hand with a strong preference for the holistic perspective in motion events as well events with resultative state (cf. Schmiedtová 2011; Schmiedtová et al. 2011; Schmiedtová 2012). These results show again the strong relation and interaction between grammatical structure and conceptualization of events.

The patterns found are further supported by data from very advanced L2 speakers: Linguistic comparisons with eye-tracking data and memory data produced by Czech and Russian L2 speakers of German (Schmiedtová and Sahonenko 2008; Schmiedtová et al. 2011) demonstrated that Czech speakers rely on different conceptual strategies than Russian speakers when construing goal-oriented motion and events with resultant state in L2 German: While Czech L2 speakers of German have a preference for the holistic perspective, which leads to the encoding of inferable endpoints in locomotion events and poststates in events with resultant state, Russian L2 speakers of German choose the phasal perspective and encode the depicted situations in process. The "Czech pattern" in L2 German is very similar to that found in verbalizations of native German speakers.

These findings have been endorsed by a recently conducted study on the encoding of goal-oriented motion by very advanced speakers of German with L1 Polish (Schmiedtová and Obrębska 2012). The findings of this study show that Polish L2 speakers of German do not express endpoints in the target language as frequently as Czech L2 speakers of German. Instead Polish learners of German encode more often path and location, and thus prefer using a phasal perspective.

On the whole, speakers of different languages access and use different conceptualizations of one and the same situation. These differences in conceptual knowledge lead to differences in eye-movements, verbalizations and memory. Moreover, native speakers of Czech, Russian, Polish, and Slovak, despite the typological closeness of their mother tongues, follow different conceptualization patterns when construing locomotion events and/or events with resultant state. The evidence from the L2 research on conceptual restructuring in the domain of event encoding suggests that restructuring in the direction of the target languages poses a great challenge even to very advanced learners. In other words, even near-native L2 speakers seem to rely on their L1 preferences when encoding different event types in the target language.

3. Methodology

The method used in the present study was an elicitation production task based on the narrations of short video clips depicting different everyday situations.

The testing clips were presented to the participants on a computer screen in a randomized order. The clips were on average 7.4 seconds long (range from 5 to 15 seconds) and there was an eight-second blank between them so that the participants had sufficient time to finish their verbalization. The task for the participants was to recount *what was happening in the clip* as soon as they recognized what was going on in the clip. The instruction was in the present tense and identical for all participating subjects (see Appendix B). First, the participants were given the instruction in written form with enough time to read it. After that the experimenter explained the task to the participant orally to ensure that the task was understood completely.

Each experimental trial was preceded by a training session consisting of six testing items, which were different from those used in the actual experiment. To increase the amount of information in the accounts produced, the subjects were asked to imagine that their narrations will be later presented to persons who have no knowledge of the clips and that the task of these persons will be to identify the clips on the basis of the their narrations. The experimenter did not participate as interlocutor in the experiment. After the recording was completed the participants had to fill out a questionnaire comprising questions about their biographical, linguistic and educational background (see Appendix C). The participants were tested individually and received a small remuneration for their participation. Each experimental session took about 15 minutes. The recordings were conducted at the Charles University in Prague and the only language spoken during the recording was English. For the recording as well as the transcription of the data the program Audacity was used. Data of all participants were transcribed and included in the analysis (no missing data).

The stimulus material consisted of 43 video clips, which were already used in previous studies investigating event construal (Schmiedtová and Sahonenko 2008; Schmiedtová 2011).[4] The stimulus set comprised of *fillers* ($n = 24$) depicting either *activities*, e.g., two people playing table tennis; *static* situations, e.g., a dog sitting on the ground; *control items* ($n = 6$), in which locomotion from point A to point B was depicted, whereas the point B *was reached* within the clip, e.g., a dog entering a building; *critical items with goal-oriented motion* ($n = 7$), where a motion event from point A to point B was depicted but the point B *was not reached* within the clip and it could be *inferred*, e.g., two persons walking in the countryside, the background a large house, the two people do not enter the house; *critical items with resultant state* ($n = 6$) showing

4. The reason for using video clips that were manipulated in terms of endpoint encoding was twofold: (1) The clips depicted apart from +/−endpoints also other parts of motion relevant to the present investigation, e.g., *path, source*, *location*. (2) Since the data of this study were compared to data from previous studies it was crucial to use the same experimental design, including the stimulus material.

situations with a change of state and the result of this change, e.g., a tree being chopped down.

As for the participants, 16 persons took part in the current study. In order to ensure high homogeneity of the group, great effort was made to match the participants in terms of age, educational and linguistic background as well as language proficiency in the target language. The criteria for selecting participants were very similar to those of the previous studies (Schmiedtová and Sahonenko 2008; Schmiedtová 2011), which will be used in this study for comparison. All subjects grew up in the Czech Republic, with Czech as the only language of communication and they started to learn English after the age of 10. They were taught English as a foreign language on average for 8.9 years ($SD = 1.59$; range from 7 to 12 years) and at the time of the experiment all participants had spent at least six months in an English-speaking country ($SD = 1.78$; range from 6 month up to 6 years). All participants were either graduate students in English linguistics/literature, members of the staff at the Department of English Studies or General Linguistics at the Charles University of Prague, or professional interpreters from English to Czech and vice versa.

All participants indicated that English is one of the active languages they use on a daily basis to communicate with their partner and/or for professional reasons. According to the self-assessment of the language skills in the L2 (speaking, comprehending, writing, reading), which was taken up as part of the questionnaire mentioned above, 10 participants considered their L2-English skills as *excellent* (the best mark) and 6 *very good* (the second best mark) in all four areas. All informants spoke besides English at least one other foreign language, most frequently German, Russian or French. For 12 participants English was their first foreign language, for 4 participants English was their second or third L2.[5]

Apart from these extra-linguistic criteria language proficiency of the L2-speakers was also assessed in terms of formal accuracy, i.e., only subjects were included in the analysis who produced in the descriptions of the video clips no errors in tense and aspect, number and person agreement, word order, plural marking and who had shown no lexical problems. Three persons, the author, a

5. As a general rule, young educated people in Middle Europe are multilingual speakers. Finding monolingual speakers is nearly impossible. Providing this piece of information is crucial for understanding the language background of the participating speakers, but given the complexity and dynamics of multiple language systems in the mind of a multilingual speaker (cf. de Bot et al. 2007) it seems unfeasible to test and tease apart the effects of the individual languages. The approach taken in the current study is keeping the variable "multilingual" constant by examining only speakers with multilingual competence. This also holds true for the all other data sets used here for comparison. I suspect that many L2-studies especially conducted in the European context do not address the issue of multilingualism, but rather simplify, by stating that they test L2-speakers who speak only one L2.

linguistically "naive" native speaker of English, and a native English speaker with background in teaching ESL evaluated the formal accuracy of the produced verbalization. No participants had to be excluded on the basis of the assessment of formal accuracy.

With respect to the group of native English speakers: Data from 20 native speakers were taken in for the analysis. The data from 10 speakers come from a large corpus of English video clip narrations collected over the past decade by various members of the Heidelberg group.[6] Based on the information provided in the transcripts, all 10 speakers were monolingual speakers of English, with moderate knowledge of German (intermediate level of proficiency), either from the USA or the UK. During the testing session English was the only language of communication. The other recordings, comprising data from 10 participants were collected at the Max Planck Institute for Psycholinguistics in Nijmegen (MPI).[7] All participants were raised in a monolingual English-speaking environment (USA or Australia) and were in command of another foreign language (either Dutch or a less-known non-European language). At the point of the experiment all participants were staff members of the MPI. The experimental setting, the procedure, the instructions as well as the stimulus material used for collecting native speakers' data were identical to those applied for the collection of the learner data.

The findings of the current study will be compared to the results from two previous L2-studies (Schmiedtová and Sahonenko 2008 (Study 1); Schmiedtová 2011 (Study 2)). To show the comparability of the three learner groups the information about participants in all three studies is summarized in Table 1.

Table 1 shows that the profile of the L2 participants in all three studies is comparable. The only difference is that L2 speakers examined in Study 2 were at the time of data collection resident in Germany. However, no reliable variation in terms of the selection of conceptual preferences in the L2 could be identified in the comparison of the results from Study 1 and the current study, in which L2 speakers were recorded in the Czech Republic.

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6. I would like to thank all my colleagues from the Heidelberg group who recruited the subjects, made the recordings and transcribed the data. I appreciate the possibility to make use of this data.

7. At the point of data collection, the author of this paper worked in a EU-research project investigating multilingual interaction between humans and computers, so the likelihood that the MPI-participants were aware about the research question behind the experiment was very low. Given the fact that the preferences employed by the MPI-based native English speakers are very comparable to those of native English speakers from other studies using the same experimental design (cf. Carroll and von Stutterheim 2003; von Stutterheim and Carroll 2011; von Stutterheim at al. 2012) there is no doubt about the representativeness of the data from the MPI-participants.

Table 1. *Summary of extra-linguistic parameters for all L2-speakers*

	Current Study	Study 1	Study 2
Number of participants	16 (Czech speakers of English)	15 (Czech speakers of German)	21 (Czech speakers of German[a])
Age	Ø 31.8 (range from 22 to 38 years)	Ø 23.7 (range from 18 to 24 years)	Ø 29.9 (range from 20 to 59 years)
Gender	8 female, 8 male	9 female, 6 male	18 female, 3 male
Active use of the L2	Yes	Yes	Yes[b]
Length of instruction	Ø 8.9 (range 7–12 years)	Ø 8.15 (range 7–10 years)	Ø 9.9 (range 7–12 years)
Length of stay abroad	Ø 2 (range 0.5–5.1 years)	Ø 1,6 (range 1–2.5 years)	Ø 4,5 (range 1–15 years)
Place of recording	Charles University Prague	Charles University Prague	University of Heidelberg

a. The participants in this study were at the time of the experiment either students of German at the University of Heidelberg or professional interpreters. They were all living in Germany.
b. In Study 2, 80 % of all participants consider L2 German their dominant language. In the two other groups (the present study and Study 1), speakers indicated that they use the L2 actively in their daily life.

4. Coding criteria

In the following section the coding criteria are listed and illustrated by examples from the database of the current study. Depending on the situation type tested, the data were coded either for *locomotion-related aspects* (items *locomotion:* critical, control) or for aspects related to *the expression of resultant state* (poststate of the situation depicted). Relevant for coding was the occurrence of verbal adjuncts and complements, not the semantics of the verbs since they were very comparable across languages and restricted to only few type (see also Footnote 10 for coding of manner). Additionally, in all verbalizations the tense/aspect forms were coded.

Locomotion: ***endpoint*** (e.g., prepositional phrases such *into a house*, *towards a house*, *in the direction of a house*), ***manner***[8] (e.g., to run *fast*, to play *with a ball*), ***location*** (e.g., *in the garden, on the road*), ***path*** (e.g., *down the road*, *along a path, through town*) ***source*** (*from a building*, *taking off from the surface*). In addition the so-called *bare verbal phrases* were coded (cf. Schmiedtová 2011; Schmiedtová 2013). Here are some examples for the coding categories *endpoint*, *path, source and location* from the data of native English speakers:

Marking of Endpoints (+END)
English L1

(1) *A guy is going to a village with a horse and a cart* (Sub02_EngL1[9])

(2) *Two nuns are walking towards a house* (Sub07_EngL1)

All occurrences of prepositional phrases (PP), in which an inferable endpoint was mentioned, were counted as *endpoints*. These included PPs with prepositions such as *in the direction of*, *towards*, *to*, *into*, etc.

Marking of Path[10]
English L1

(3) *Geese are walking through town* (Sub08_EngL1)

(4) *A child is throwing a ball along the ground* (Sub20_EngL1)

(5) *Five geese are crossing the street* (Sub03_EngL1)

The occurrences considered as marking the *path* of a motion event included prepositions such as *along*, *down*, *through*, etc. Also verbs like *to cross*, *to go across* were counted as expressions of path.

8. The verbs found in the data were nearly identical across languages and speaker groups and restricted to only few verb types. The differences were in the type of information added as arguments (i.e., satellites) to the verb. This was the reason why the category *manner* was conceived differently from the "classical" *manner* notion based on Talmy's classification for motion verbs (Talmy 2000). The expression of *manner* was extended beyond motion and included apart from velocity specifications (*fast*) also information about instrument/object (play *with a ball*, run *with a suitcase*). In this way it was possible to differentiate between bare verbs (e.g., *run*) and verbs combined arguments providing additional information about the depicted event (e.g., run *fast*).
9. *Sub* = participant/subject; L1 = native speaker; L2 = non-native speaker; *Eng* = English; *Cze* = Czech; the number is related to the numbering of participants in the respective participant group.
10. The term *path* is used for occurrences expressing trajectory of motion.

Marking of Source
English L1

(6) *A small boy jumps from a chest of drawers* (Sub14_EngL1)

(7) *A woman just got out of a door* (Sub10_EngL1)

(8) *A woman is leaving the house* (Sub 03_EngL1)

The coding category *source* included PPs with preposition such as *out of*, *from* as well as verbs *to leave, to get out, to got out*. These verbs were not used as bare verbs but always in combination with a PP.

Marking of Location
English L1

(9) *A child is throwing a ball in the garden* (Sub17_EngL1)

(10) *Five geese are in the farmyard* (Sub11_EngL1)

(11) *A guy is standing on a wagon* (Sub01_EngL1)

All PPs with prepositions *in* or *on* which did not encode direction/goal/ destination of locomotion (e.g., *going in the house*) were counted as occurrences of *location*.

Event with Resultant state: ***poststate*** (e.g., *to post a letter into a mailbox*, *to drink up a glass of water*), ***process*** including no poststate (e.g., *posting a letter, drinking water*) and falling into the category of bare verbal phrases (see below). Since the marking of the poststate is frequently found in the productions of L2 speakers we will illustrate this category using some examples from this speaker group:

Marking of Poststate
English L2

(12) *A young woman is drinking up a glass of water* (Sub01_CzeL1EngL2)

(13) *Young woman is drinking a glass of water all the way up* (Sub03_-CzeL1EngL2)

(14) *Woman at a desk is emptying a whole glass of water* (Sub 07_CzeL1EngL2)

(15) *She has drunk all the water in the glass* (Sub16_CzeL1EngL2)

A set of linguistic devices were used either alone or in combination to mark a poststate. These devices included specific verbs (e.g., *to empty*), verbal particles (e.g., *to drink up, to cut/chop down*), or quantifiers (the *whole* glass). In some scenes the resultant state was expressed by a prepositional phrase:
English L1

(16) *A tin is falling onto the floor* (Sub11_EngL1)

Marking of process English L1

(17) *A woman is having a glass of water* (Sub02_EngL1)

(18) *Somebody is posting a letter* (Sub09_EngL1)

(19) *A man is cutting trees* (Sub19_EngL1)

The following three categories were considered for the coding of both types of events examined the present study:

Combinations. In some cases multiple (two or three) markings were used in one and the same sentence to describe the depicted event. When such a case occurred only one marking was coded. To this end, the following hierarchy was used for goal-directed locomotion:[11] *Endpoint* > *Path* > *Location* > *Source* > *Manner*; and for events with resultant state: *Poststate* > *Source* > *Location*. In other words, the encoding of an endpoint/poststate, for instance, would override the expression of other information produced by the speaker. All instances of combined information (for example the combination of endpoint and location in goal-oriented motion or the combination of source and poststate in the events with resultant state, see Example 16 above) were counted separately and will be considered in Section 6.

Bare verbal phrases. These VP consisted of a subject and a verbal predicate, with no additional information related to any parts of the depicted event, e.g., *Two woman are walking*, *A child is throwing a ball.*

11. Since the present study is primarily designed to examine the encoding of *endpoints* in goal-oriented locomotion, the *endpoint* encoding is on top of the coding hierarchy, followed by *path* encoding, a dynamic quality of locomotion, and the expression of *location*, a static quality of motion events. The encoding of *source* seems to be language-specific and is frequently occurring in combination with other information (see Section 6). The encoding of *manner*, typically specifying the type of motion (run vs. crawl), was not found in our data (see also Note 8).

Verbal forms. All verbs were coded for tense/aspect forms. There were three categories: (i) the *simple form* (e.g., to roll, to walk), the *progressive* form (e.g., a person is *walking*, *drinking*), (iii) the *past form* (e.g., something *rolled down*, somebody *spun a wheel*). No occurrences of past progressive (e.g., *the dog was running* into a house) were found in the data.

No coding. All verbalizations containing only a noun without any verbal elements were not coded (e.g., *a dog*). Narrations, which did not follow the posed question *What is happening in the clip*?, for example interpretations or descriptions as well as silence were excluded from the coding.

The coding of the data was checked by a second researcher with background in linguistics and an excellent knowledge of English. Based on the measurement of the data and the number of coders, the Cohen's kappa index was selected as a proper measure of inter-coder reliability. The value of the Cohen's kappa index between the two coders was 0.75, which means that the average coders' agreement was 'substantial'.[12]

5. Hypothesis

On the basis of previous findings[13] on differences in event encoding by native speakers of English and Czech as well Czech second language learners, the following hypothesis was formulated before the data analysis was carried out: Czech L2 speakers of English will follow the conceptual pattern preferred in the L1 when speaking the L2.

This hypothesis means for the comparison of learner data to the data of native speakers of English:

(i) a higher number of endpoint encoding in the critical items;
(ii) a higher number of poststates in the encoding of events with resultant states, possibly also a more frequent use of simple past forms for the encoding of this event type.

In comparison to Czech L2 speakers of German one might expect:

(i) a comparable number of inferable endpoints in the critical items;
(ii) a comparable amount of poststates in the events with resultant state.

12. For the interpretation of the results, I relied on Landis and Koch's (1977) benchmarks for assessing the relative strength of agreement: Poor (< 0), Slight (.0–.20), Fair (.21–.40), Moderate (.41–.60), Substantial (.61–.80), and Almost Perfect (.81–1.0).
13. Since previous research relevant for this paper focused only on the encoding of endpoints no predications can be made with respect to the encoding of other parts of motion.

6. Results

In this section the findings on the construal of goal-oriented motion as well as events with resultant state and the use of tense/aspect forms by Czech speakers of L2 English will be presented and compared to the results of native speakers of English. An overview table of the absolute numbers for all analyzed categories can be found in the Appendix A.

Locomotion. *Control Items* (locomotion events, number of items: $n = 6$): Figure 1 shows the comparison between L2 speakers and L1 speakers of English for control items (END+ means endpoint encoded; END- means other parts of the motion event than the endpoint were encoded).

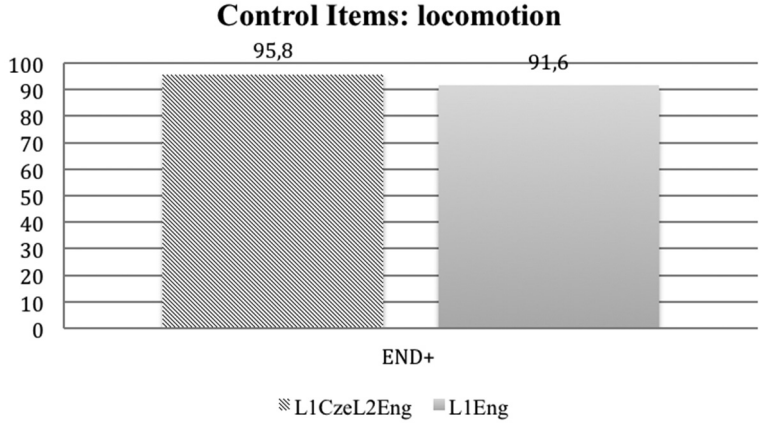

Figure 1. *Percentage of endpoints mentioned for the control items*

The difference between the two groups was statistically not reliable ($\chi^2(1) = 0.92$, *n.s.*).[14] This means that both groups produced a comparable amount of endpoints in situations where the endpoint of locomotion was reached within the clip.

Critical Items (goal-oriented locomotion, number of items: $n = 7$): Figure 2 shows the comparison between L2 speakers and L1 speakers of English for critical items in which goal-oriented motion was depicted.

The data in Figure 2 show that Czech L2 speakers of English encode in the target language three times more endpoints, either in isolation or in combina-

14. The critical value of the chi-square distribution, with 1 degree of freedom and p-value $< .05$, is 3.841.

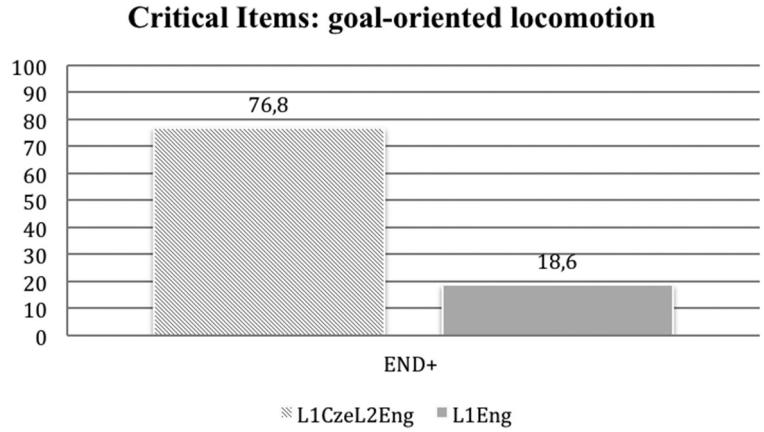

Figure 2. *Percentage of endpoints mentioned for the critical items*

tion with other information type, than native English speakers. This difference was statistically reliable ($\chi^2(1) = 83.06$, $p < .05$).

Let us have a closer look at what type of information besides the inferable endpoint was encoded in the critical items. Figure 3 shows the data of Czech L2 speakers of English, Figure 4 the data of native speakers of English. These overviews set apart the inferable endpoint mentioned on its own or in combination with other types of information.

Figure 3 illustrates a preference of Czech L2 speakers of English for the encoding of inferable endpoints (alone, not in combination with other pieces of

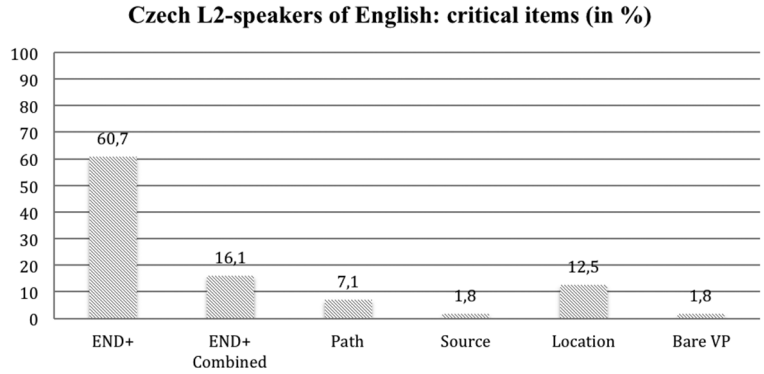

Figure 3. *Information provided in the encoding of critical items – Czech L2-speakers of English*

information) in the critical items ($\chi^2(5) = 11.2$, $p < .05$).[15] Other parts of a goal-oriented motion event, i.e., the expression of path, source, and location, are present in the data but in quantitative terms they do not play any important role in the retellings of the L2 group. The following examples show a typical production of different critical locomotion items produced by Czech L2 speakers of English:

(20) *There is a woman walking out of the house* (source) *on the street* (endpoint)
(Sub06_CzeL1EngL2)

(21) *A man is letting a bicycle wheel to go off to a fence* (endpoint)
(Sub07_CzeL1EngL2)

(22) *Two nuns are walking to a building* (endpoint)
(Sub07_CzeL1EngL2)

The choices made by native English speakers for the encoding of critical locomotion items are presented in Figure 4.

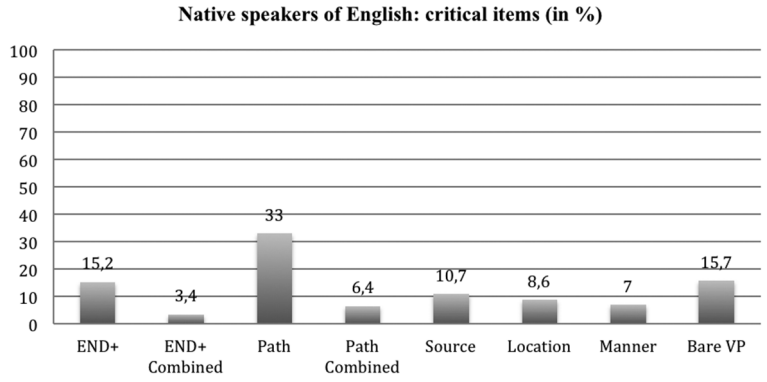

Figure 4. *Information provided in the encoding of critical items – native speakers of English*

The type of information expressed by native English speakers in the critical items differs from that conveyed by Czech L2 speakers of English. Native speakers of English show a preference for the expression of path ($\chi^2(7) = 15.1$, $p < .05$).[16] Furthermore, there is difference in the expression of manner: none

15. The critical value of the chi-square distribution, with 5 degrees of freedom and p-value < . 05, is 11.07.
16. The critical value of the chi-square distribution, with 7 degrees of freedom and p-value < . 05, is 14.067.

was found in the L2-English, 7.1 % in the L1 English data. This difference can be attributed to the different strategies in the description in one testing item, in which a child is throwing a ball in the garden in the direction of a slide. The L1-speakers often encoded this item as *A child is playing with a ball*, coded as *manner*. In contrast, L2 speakers did not use this type of description for this scene, but rather used the verb *to throw* in combination with the expression of endpoint and/or location.

Another difference found between native speakers of English and the L2 speakers is that the native speakers used significantly more bare verbs in the critical items ($\chi^2(1) = 12.4$, $p < .05$). This means that English L1 speakers only express information related to the process of the depicted situation. With respect to the expression of source the two groups also differed reliably in that native speakers of English expressed source more frequently ($\chi^2(1) = 6.53$, $p < .05$). No significant differences were identified with respect to the expression of location ($\chi^2(1) = 0.66$, *n.s.*).

Although from a quantitative point of view, native speakers of English and L2 speakers of English did not differ in the amount of combined information ($\chi^2(1) = 1.56$, *n.s.*) it is worth noting a striking qualitative difference: While L2 speakers combined only endpoints primarily with information about path (15 %) English speakers preferred combining the expression of path with location (6.4 % of all cases). Endpoints were used in multiple markings by native English speakers in only 3.4 % of cases; all instances were in combination with either location or source. The differences found in using multiple markings are illustrated in the following examples:

(23) *Two nuns are walking* *in the countryside* *in Ireland*
Location Location
down the lane *to a building*
Path Endpoint
(Sub13_CzeL1EngL2)

(24) *A child throws a ball* *to a slide* *in the garden*
Endpoint Location
(Sub16_CzeL1EngL2)

(25) *Five geese are walking* *along a road* *in front of an old building*
Path Location
(Sub13_EngL1)

Events with Resultant State. In Figure 5 data of narrations are presented based on situations with resultant state produced by L2-speakers and L1-speakers of English (*Poststate+* = resultant state encoded; *Poststate−* = resultant state not encoded).

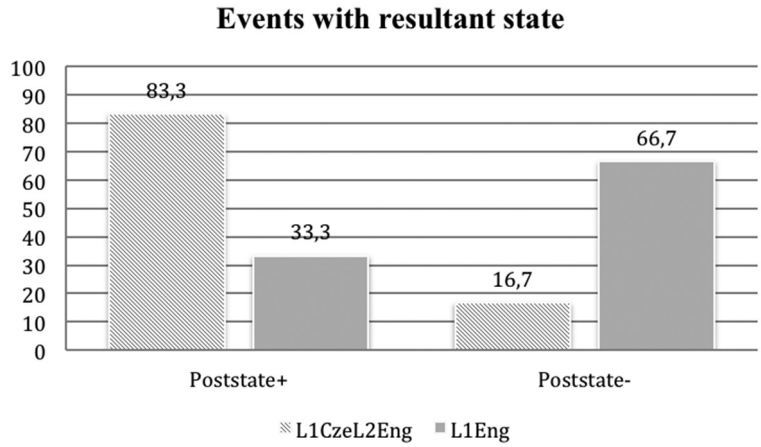

Figure 5. *Percentage of poststates mentioned for critical items with resultant state*

From the data in Figure 5 we can conclude that Czech L2 speakers of English encoded the poststate of the presented situation more often than native speakers of English ($\chi^2(1) = 52.1$, $p < .05$). In other words, when Czech learners of English construe events with resultant state they prefer to mention the poststate of such a situation. For this type of event, however, the preferred strategy in L1 English is to encode it in the process, with no mentioning of a poststate ($\chi^2(1) = 25.35$, $p < .05$). The following examples show the differences in preferences applied by L2 and L1 speakers for the encoding of events with resultant state:

(26) *He is putting the letter inside of a letter box* (poststate) (Sub01_CzeL1EngL2)

(27) *Someone pours pieces of paper into a big wooden box* (poststate) (Sub04_CzeL1EngL2)

(28) *Someone is posting a letter* (process, no poststate) (Sub04_EngL1)

(29) *A girl drinks a glass of water* (process, no poststate) (Sub11_EngL1)

The use of Tense/Aspect Forms. The last part of the result section deals with the use of different tense/aspect forms. Table 2 summarizes the results from speakers of L2 English and L1 English.

Irrespective of speaker group and type of situation, the most frequently used form is the progressive (L2 speakers in 74.2 % on average; L1 speakers in

Table 2. *The use of different tense/aspect forms in L1 speakers and L2 speakers of English (in %)*

Type of Situation	Simple Form	Progressive	Past Form
L2 English			
Control Items Locomotion	18,8	62,5	18,7
Critical Items Locomotion	6,3	89,2	4,5
Resultant State	10,4	70,8	18,8
L1 English			
Control Items Locomotion	13,3	71,7	15
Critical Items Locomotion	0,7	94,3	5
Resultant State	9,2	83,3	7,5

83.1 % on average). The statistical analysis revealed a reliable difference between Czech L2 speakers and L1 speakers of English with respect to the use of past forms for the encoding of events with resultant state ($\chi^2(1) = 5.18$, $p < .05$). In addition, Czech L2 speakers of English used reliably more simple forms for critical items depicting goal-oriented locomotion than native speakers of English ($\chi^2(1) = 4.53$, $p < .05$).

7. Discussion

Overall, the findings of the present study show that advanced learners when construing different event types in the target language rely on conceptual preferences from their L1. The results largely confirm the hypothesis formulated in Section 5, which stated that Czech L2 speakers of English will follow the conceptual patterns preferred in the L1 when speaking the L2. This is demonstrated on the basis of the following results:

Czech L2 speakers of English encoded endpoints in goal-oriented motion to a much larger extent than English L1 speakers. In other words, Czech L2 speakers use a holistic perspective while native speakers of English view goal-oriented motion by focusing on its process. Given the fact that native Czech speakers also show a preference for a holistic perspective when construing goal-oriented locomotion in their L1 (Schmiedtová et al. 2011; von Stutterheim et al. 2012), the L2 findings can be explained in terms of L1 influence on event construal in the L2. Another finding of the present study reinforces this position: Czech L2 speakers of English employed in goal-oriented locomotion simple present forms more often than native speakers of English. The simple present form though in some cases with perfective marking (e.g., cze. *Pán v-jede do vesnice* – 'A man is driving *in* to a village') is also frequently

used by native Czech speakers for the encoding of motion event in L1 Czech (Schmiedtová 2012). So we see here another parallelism between the Czech L2 pattern in English and the Czech L1 pattern.

As for events with resultant state, the present study has shown that Czech L2 speakers encode in the target language significantly more poststates in this event type than native speakers of English. That means that from the perspective of the L2 speakers the situation is presented as coming to an end or as completed (depending on the tense form used) while the perspective preferred by the L1 speakers depicts the situation in the process, with no final boundaries implied or expressed. Furthermore Czech learners of English employed for this event type reliably more simple past forms than native English speakers. As in the previous point (a), both L2 findings can be explained as influence of the conceptual strategy from the L1: In Czech the preference for the encoding of events with resultant state is based on the inclusion of a poststate.

Moreover, native speakers of Czech frequently use past tense forms, often marked for perfective aspect, for the encoding of events with resultant state (Schmiedtová and Sahonenko 2008). Since in English there is no perfective grammatical marking comparable to that in Czech, Czech L2 speakers of English make use of the simple past form, implying completion of the presented situation within a given topic time, instead. Interestingly, a similar transfer mechanism of aspectual features and related underlying concept (i.e., completion) was observed in advanced Russian speakers of German (Schmiedtová and Sahonenko 2012).

The impact of the conceptual patterns on event construal in a second language becomes even more visible when drawing on findings from other relevant L2 studies. In the following, the L2 findings of the current investigation will be compared to the results of two studies (Study 1: Schmiedtová and Sahonenko 2008; Study 2 Schmiedtová 2011) addressing event construal in advanced Czech L2 speakers of German.

Study 1 compared event construal strategies (goal-oriented motion and events with resultant state) of a group of Czech and a group of Russian L2 speakers of German to each other as well as to native speakers of German. In addition, conceptual preferences of both learner groups were contrasted to preferences of native speakers of the respective L1. As for events with resultant state, both learner groups encoded the poststate, yet they employed different strategies to this end, adhering to strategies used in the respective source language. Czech learners of German relied on the use of prepositional phrases (e.g., Ger. *einen Brief in den Briefkasten werfen* – 'to throw a letter into a mailbox') whereas Russian learners combined a prepositional phrase with a prefixed verb (e.g., *einen Brief in den Briefkasten <u>rein</u>werfen* – 'to throw *in* a letter into a mailbox'). The latter way of encoding is not completely absent in L1 German but is dispreferred by native speakers of German; at the same time,

combining a PP and a prefixed verb represents a preferred encoding of this event type in L1 Russian. For L1 Czech the Study 1 showed that native speakers of Czech use both strategies, a PP alone and in combination with a prefixed verb, to construe events with resultant state. Since Czech L2 speakers showed in the target language a straight preference for the use of a PP on its own (in 93 %), it is a bit tricky to argue for a straight influence of the L1on the L2. A possible interpretation of this finding would be a strengthening of one of the possible L1 options in the direction of the preference of the target language. Relevant in the current context is that Czech L2-speakers of German had a preference for encoding a poststate in events with resultant state and that this preference is clearly confirmed by the L2 results of the present investigation.

With the second type of event, goal-oriented motion, Study 1 showed that conceptual patterns in L1 Czech were in line with those in L1 German and not, as one might have expected, on the basis of typological similarities, with L1 Russian. With regard to Czech L2 speakers and Russian L2 speakers of German the study provided evidence for the use of different ways for the encoding of locomotion events in the L2: Czech learners relied on a holistic strategy (focus on possible endpoints), Russian learners on phasal strategy (focus on process). Czech learners of German encoded inferable endpoints in critical scenes[17] on average in 71 % of all cases while Russian learners of German mentioned inferable endpoint on average in only 38 % of all cases. These preferences were in turn highly correlated with the preferences in the respective mother tongue (inferable endpoint encoded in critical items: Czech L1 in 64 % of all cases; Russian L1 in 25 % of all cases, German L1 in 68 % of all cases.

In the present study, the average frequency with which inferable endpoints are mentioned in critical scenes is by Czech L2 speakers of English is around 77 % of all cases (for native English speakers 23 % of all cases). These findings are very much compatible with the pattern found for Czech L2 speakers of German. Note that both learner groups were comparable in terms of their proficiency in the L2 as well as a number of extra-linguistic variables generally accepted as affecting the attainment of proficiency in a second language.

The construal of goal-oriented motion by advanced Czech L2 speakers in comparison to advanced Russian L2 speakers of German was also the focus of Study 2. As well a linguistic analyses, this study, in contrast to Study 1, also included data from eye-tracking and a memory task. The findings of Study 2 further support the results of Study 1: Czech learners of German rely on a *holistic* perspective. This was not only apparent from the linguistic encodings

17. The video clips used in Study 1 were identical to those used in the current study. The video scenes in Study 2 were not identical but of the same type (goal-oriented motion events).

(about 52 % of all cases)[18], but also from the eye-tracking data (e.g., significantly more fixations in the area of interest than Russian L2 speakers) and a better ability to remember endpoints in critical scenes (memory task). In all tested domains Czech L2 speakers' conceptual patterns were similar to those of native German speakers and differed from those of Russian L2 speakers of German. The outcome of Study 2 is once again in agreement with the findings of the present study: Czech L2 speakers in German or in English view goal-oriented events from a holistic perspective, which means inferring, selecting, mentioning, and remembering possible endpoints as relevant parts of the depicted situation.

In summary, the findings from Study 1 and Study 2 largely confirm the results of the present study and its core argument, i.e., Czech L2 learners, even at a very advanced level of proficiency, use conceptual strategies that are compatible with the target language (German), but not necessarily preferred (English). These conceptual preferences can be clearly linked to the preferences native speakers of Czech use when construing a goal-oriented motion event in Czech. In other words, the "Czech" pattern can be tracked down in the productions of the L2 speakers, whether in L2 English or L2 German.

It was stated in the beginning of this paper that to "think" like a native speaker is part of near-native command in a foreign language. It was also suggested that the acquisition and use of conceptual preferences in a target-like way is part of such a competence. The findings of our study demonstrate the difficulties, challenges and restrictions related to learning and also using conceptual preferences in the target language. The data indicate that even for highly proficient L2 speakers who are, in terms of formal accuracy, comparable to native speakers, conceptual restructuring in the direction of the L2 is possible but limited. This point can be nicely illustrated by the use of multiple marking in Czech L2 speakers of English: Some L2 speakers would start encoding a goal-oriented motion event using the target language preference (the marking of path), i.e., *Two women are walking along a road*, immediately adding (without any pause) a prepositional phrase marking an inferable endpoint, ending up producing the following account: *Two women are walking along a road to a building*. Examples of this type show that both conceptual patterns are present in the L2 speakers' mind, they both seem to be active and "in competition". Although L1 English can express both path or endpoint our data show that native

18. There is a difference in the frequency of endpoint mentioning by Czech L2-speakers of German in Study 1 (77 %) and Study 2 (52 %), which is most likely to be attributed to using different video sets of goal-oriented events. What matters, however, is that in both studies Czech L2-speakers mentioned inferable endpoints as often as native German speakers and reliably more often than Russian L2-speakers of German.

speakers of English hardy ever combine different information pieces in one and the same description.

In terms of ultimate attainment, conceptual knowledge of the kind presented and discussed in this study seems to pose a last hurdle in the acquisition of a second language. However, when different languages in the mind of a bi- or multilingual L2 speaker are not seen as separate monolingual systems but rather as a *merge* of different systems (cf. Grosjean 1989; Cook 1999; Cook and Bassetti 2011), the question is whether a linguistically multicomponent speaker can ever perform like native speaker operating with only one system.

8. Conclusion

The overall focus of the present paper was on investigating the role of the underlying L1 perspective in the construal of goal-oriented motion and events with resultant state in a non-native language. The study presented results of an elicitation study comprising linguistic data of Czech advanced learners of English and comparisons of these results to previous findings on event construal by Czech advanced learners of German. The findings and comparisons across different L2-populations suggest that L2 speakers do not fully master the target-like perspective and that the underlying conceptualization used for event construal in the L2 can be explained in terms of L1 influence. It was argued that even for highly proficient L2 speakers, conceptual restructuring in the direction of the L2 is possible, however limited.

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Appendix A

Absolute number for all analyzed categories, including the number of items and participants

	L1CzeL2Eng ($n = 16$)	L1Eng ($n = 20$)
Control Items ($n = 6$)	96	120
END+	92/96	110/120
END−	4/96	110 /120
Critical Items ($n = 7$)	112	140
END+	86/112	26/140
END−	26 /112	114/140
Path	8/112	55/140
Location	14/112	12/140
Source	2/112	15/140
Bare VP	2/112	22/140
Manner	0/112	10/140
Events with Resultant State ($n = 6$)	96	120
Poststate+	80/96	40/120
Poststate−	16/96	80/120
Tense/Aspect Forms		
Control Items ($n = 6$)	96	120
Simple Form	18	16/120
Progressive	60	86/120
Past Tense Form	18	18/120
Critical Items ($n = 7$)	112	140
Simple Form	7/112	1/120
Progressive	100/112	132/120
Past Tense Form	5/112	7/120
Events with Resultant State ($n = 6$)	96	120
Simple Form	10/96	11/120
Progressive	68/96	100/120
Past Tense Form	18/96	9/120

Appendix B

Instruction

Task description
You will see a set of video clips, 43 in all, showing everyday events which are not connected with one another.
Each scene is preceded by a blank screen with a focus point.

Task
Your task is to tell *what is happening?*
You can begin as soon as you recognize what is going on.
It is not necessary to describe the scene in detail (e.g. *sky is blue*). Just focus on what is **happening**.

The task takes approximately 15 minutes.

Appendix C

Questionnaire

[Participant Code:]

Thank you very much for participating in our project. We would appreciate it if you could also answer the following questions. (Information is strictly confidential)

Date: _____

Name (first name + first letter of surname: (e.g., Anne S.): _____

Age _____ Male . . . . . Female . . . . .

Place of Birth (town, country) _____

Where did you attend school? (town, country) _____

Further education / (town, country)? _____

What language do you speak with your

Parents _____ Brothers/Sisters _____ Partner _____ Children _____

What languages did you learn at school? For what period of time?

Qualifications (please mark with an ×)

High School Diploma / A-levels

Bachelor . . . . . Masters . . . . . Diploma . . . . . PhD . . . . .

University degree in what field? _____

If employed in what field? _____

In what countries have you been resident? . . . . . Period of time? . . . . .

What languages do you speak actively?

How would you rate your level of proficiency in English? Please mark level with an ×.

	Excellent	Very good	Good	Sufficient	Poor
Reading					
Writing					
Comprehension					
Speaking					

Thanks again for your cooperation!

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