

L3 French Conceptual Transfer in the Acquisition of L2 English Motion Events among Native Chinese Speakers

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Abstract

The theory of conceptual transfer investigates the extent to which the perception of a previously learned language influences the conceptualization of a language learned subsequently. To provide further evidence supporting such hypotheses, the present study invites three groups of native Chinese-speaking college students to finish selected language tasks with an aim to explore whether the perception of L3 French motion verbs presents itself in the acquisition of L2 English path particles. All three participating groups have learned English as L2 and reached intermediate level, with one group being Chinese majors and the other two specializing in French with different proficiency levels. The findings suggest L3 would exhibit negative transfer in the acquisition of motion events in L2 English. Based on the analysis of participants' retrospective data and the comparison between Chinese group and French groups, the nature of such transfer is claimed to be conceptual. Results also reveal L3 proficiency exerts no influence on conceptual transfer.

Keywords: conceptual transfer, motion events, lateral transfer

1. Introduction

Conceptual transfer (henceforth referred to as CT) became a technical term referring to research on crosslinguistic influence that is grounded in theories and empirical findings on the nature of conceptual representations within the human mind and

on how these are accessed and processed during language comprehension and production (Jarvis, 1998; Pavlenko, 1998). As a theoretical construct, CT suggests that the surface structure of a language is constrained by underlying conceptual structure, be it lexicon, grammar, semantics or other linguistic aspects. Pavlenko and Jarvis (2002, p. 193) claimed that CT was causing bidirectional effects which were generally complementary rather than convergent. Jarvis and Pavlenko (2008, p. 287) further specified the directionality of CT, manifesting as forward transfer from L1 on L2, reverse transfer from L2 to L1 and lateral transfer (henceforth referred to as LT) between two post-L1 languages. Existing literature focuses predominantly on forward transfer, leaving reverse transfer and LT under-explored. Among the few studies on Chinese L2 learners, cross-linguistic influence between L2 English and L1 Chinese is most visited. Other language combinations are rarely seen. The present study attempts to explore LT from L3 French to L2 English among native Chinese speakers in hope of filling out the gaps in related literature both in terms of directionality and language combination.

2. Related Literature

The emergence of CT switches the study of language transfer from the perspective of linguistics to the layer of cognition. Early studies mostly presented CT unidirectionally, seeing transfer going from L1 to L2. For example, Ijaz (1986) examined how native languages influenced the acquisition of six English spatial prepositions and found that the ESL learners differed substantially from the native speakers in both judgments of semantic relations and choices of prepositions, with the explanation found in the internal structure of spatial prepositions in their native languages. Similarly Jarvis (1994) measured L1 background as a variable which significantly affects lexical reference pattern of object and event, thus providing evidence of CT. Talmy focused on the domain of motion and proposed motion event frame, defining motion event as “a situation containing motion and the continuation of a stationary location alike” (2000, p. 25). The event basically consists of one object (the figure) moving or located with respect to another object (the reference object or ground). Talmy pointed out that besides figure and ground, another two semantic components would also be touched upon when analyzing a motion event: motion and path. “Path” refers to the route followed or site occupied by the figure with respect to the ground, and the element of “motion” (or location) refers to the presence of motion or locatedness in the event. Talmy’s work on the cognitive semantics of motion events rose as a frequently-visited

framework of cognitive linguistics in the years that followed. Slobin (2004, 2005, 2006) was among those proponents, seeing a close tie between his notion of thinking-for-speaking and Talmy's motion events.

Von Stutterheim (2003) and Brown and Gullberg (2008) explored the influence of L1 on the lexical choices of event and path. They asked their subjects to relate a silent film or a cartoon and further verified CT. The latter study provided a compelling justification for reverse transfer: on a certain level the acquisition of a second language results in restructuring in both the L1 and L2 regarding processes of preverbal planning. Jarvis (2011, p. 7) commented on such an outcome signifying "a trend toward convergence in the preverbal-planning processes associated with both languages in the minds of individual bilinguals".

In their book *Crosslinguistic Influence in Language and Cognition* published in 2008, Jarvis and Pavlenko stated that CT could be systematically studied from eight conceptual domains: objects, emotions, personhood, gender, number, time, space and motion. The first five domains present language-mediated concepts, while the last three involve events that help to perceive and categorize the world. Brown and Gullberg (2011), Daller and Treffers-Daller (2011) and Sharpen (2016) dealt with the construal of motion events in relation to path. Though findings resonate with previous research, language environment was weighed as a variable. Bilinguals present similarity with either target or source language they are living in, again speaking of CT "being characteristically bidirectional and convergent in a way that appears to reflect bilinguals' attempt to accommodate both languages within a single system" (Jarvis, 2011, p. 6).

Empirical investigations on CT among native Chinese FL learners mostly focus on the domain of space. Luo (2005) examined the semantic acquisition of five related spatial prepositions (*on top of, onto, over, on, above*) and identified the influence of the L1-based conceptual system on the structure of L2 English. Wang (2012) also explored CT in the domain of space by analyzing the subjects' narration of a silent film clip, revealing that conceptual transfer did occur in the productive language of Chinese L2 learners. These studies were all devoted to forward transfer from L1 Chinese to L2 English, while few studies are concerned with reverse transfer or LT. The study of Wang (2013) was exceptional in that it investigated possible LT from L3 Spanish to L2 English among native Chinese majoring Spanish.

In view of this, this study attempts to explore possible lateral transfer of L3 French motion verbs on L2 English path particles under the guidance of Talmy's Motion Event Frame. Underlying causes for such transfer are also analyzed on basis of both

language task performance and retrospective interview, in hope of adding to existing literature of the transfer directionality, especially in the scenario of foreign language learning in China.

3. Research Design

To explore possible conceptual transfer from L3 French to L2 English, the present study is designed to address the following four research questions:

- (1) Does L3 French transfer present itself in later constructed L2 English motion events?
- (2) Does the transfer manifest itself across three cognitive levels, namely recognition/judgment, understanding, and application?
- (3) Does L3 proficiency have any impact on the transfer?
- (4) How could such transfer be explained?

3.1 Participants

A total number of 126 college language majors were included at the beginning of the study and they were asked to provide demographic information, including their foreign language learning experiences and self-reported competence. In view of the research questions, we recruited three groups of 30 who all speak L1 Chinese and have acquired English as L2 at an intermediate level (recorded “outstanding” in College English Test Band 4). Among the three groups, one includes 30 Chinese major sophomores with no other foreign language learned other than English (henceforth referred to as G1). Two other groups are French majors with 30 being sophomores and seniors who both started L3 French as a major in the second year of college with English as a minor (henceforth referred to as G2 and G3).

3.2 Materials

A language task is designed on the basis of Talmy (1985) to find out how the participants use the target English path particles (*on, out, past, into, through, up, above, down, over*). The task consists of three parts: multiple-choice, gap-filling and translation, corresponding respectively to one cognitive level of language learning defined by Jarvis (2011) and Talmy (1991, 2000): recognition/judgment, understanding, and application.

There are eight sentences in the multiple-choice task, each containing an English path particle in bold face. Participants are expected to choose the right explanation of

the word from the given choices which demonstrate how well they could recognize the marked words. Here is a sample of a multiple-choice task:

*Tim had climbed **up** a tree to get a better view.*

A. Into an upright or raised position.

B. Towards a higher place or position.

The gap-filling task is cognitively more demanding in that the understanding of tested English path particles are dependent on a longer passage embodying “motion verb+path particle” structures. The participants should read and understand the context first, then choose the proper one(s) from the tested path particles given in the bank. An example of a gap-filling task: *The old lady was glad to be back at the block of flats where she lived. Her shopping had tired her and her basket had grown heavier with every step of the way home. In the lift her thoughts were on lunch and a good rest; but when she got ___ at her own floor, both were forgotten in her sudden discovery that her front door was open.*

These first two tasks are identical between three groups. The third task differs, with both French groups completing French-English translation and the Chinese group doing Chinese-English translation, with all tasks sharing the same English translations. The translation task aims to test participants’ application of the target language items; therefore, cognitively, it is most challenging. The target-like translations verified by two native English speaking language teachers are exemplified below along with literal translations of the Chinese/French constructions, marked with an asterisk.

(Chinese) 女孩 从 这把 梯子上 慢慢地 走 下来了。

Girl from this ladder slowly walks down

(French) La fille monta l’escalier en courant.

(English) The girl walks slowly from the ladder.

*The girl gets off the ladder [by] walking.

3.3 Procedure

To guarantee the reliability of the language task, a pilot study was conducted and 15 qualified participants (5 from each group) took part in it. Based on the result of the pilot study, the total number of language tasks and their difficulty coefficient were adjusted. Then the study was conducted in the classroom under the supervision of a language professor and the researcher herself. The purpose of the study and its content were explained to the participants.

Upon the completion of the language task, we started with the grading. The multiple-choice task and gap-filling are both close-ended tasks, so participants scored 2 points when they hit the right answer. The scoring of the translation task was done by the two native English speakers who helped to work out the target-like translation. A score of 4 was awarded in each translation task as long as the elicited English path particle conformed to the target-like version. As the present research aims exclusively at investigating participants' acquisition of L2 English path particles instead of verb forms or other linguistic forms, any mistake concerning tense, spelling and even the omission or addition of other linguistic forms would not influence the scoring, whereas any misuse of English path particles that might cause misunderstanding in sentence comprehension would lead to a score of zero. That is to say, all the participants would finally get a score of either 4 or 0 in each of the 16 translation exercises. Literal translations among French majors were also counted and investigated further in the interview. Based on the above-mentioned scoring criteria, the mean scores of the three groups were processed by SPSS Statistics 22.0. Inter-group comparison and analysis were conducted by independent samples t-test to see whether there would be significant differences between groups.

Aside from the language task, a retrospective interview was conducted immediately after the language task to further investigate the cognitive process beyond the answers. As Cai (2009) claimed, besides contrastive analysis, language transfer could also be studied on the basis of retrospective evidence. He suggested retrospective interview as a means to discover L2 learners' thinking process. To help triangulate test result, 15 participants volunteered (5 from each group) to take part in the interview, which centered around their detailed trains of thoughts and strategies in completing the language tasks, the potential causes of their being able or unable to get the right answer, how well they have mastered the use of English path particles before the test, and whether they would receive any classroom instruction on comparing linguistic rules of French and English.

4. Major Findings

The first research question aims to find whether the additional language background of French would have a significant effect on the overall acquisition of L2 English path particles. An independent *t*-test shows the average test score of Group 1 (Mean=43.483) is significantly higher than those of Group 2 (Mean=32.550; $t(58)=2.793$, $p=0.007 < 0.05$) and Group 3 (Mean=32.467; $t(58)=2.857$, $p=0.006 < 0.05$). The result indicates

the acquisition of L3 French motion verbs exerts an influence on the application of L2 English path particles, suggesting the existence of transfer from L3 to L2 in the overall performance.

To detect whether such transfer presents itself consistently across three cognitive levels, independent samples *t*-tests were conducted between Group 1 and Group 2/Group 3 in all three parts of the language test. Group 1 (Mean=25.867) performed significantly better than Group 2 (Mean=14.533; $t(58)=3.140, p=0.003 < 0.05$) and Group 3 (Mean=12.933; $t(58)=3.547, p=0.001 < 0.05$) in the translation task, which speaks of the fact that the acquisition of L3 French motion verbs would noticeably lead to LT in the application of L2 English path particles. We also counted the elicited translation of both French groups, finding that 68.2% of responses involved participants directly transferring the grammatical structure of motion events in L3 French by literally translating the individual constituents and thus producing parallel translated versions. However, no such literal translation was detected in the responses of Chinese majors.

Despite the disparity in the translation task, no such difference is found in the multiple-choice between the Chinese Group (Mean=10.867) and French Groups (Group 2: Mean=12.067; $t(58)=-1.749, p=0.086 > 0.05$ / Group 3: Mean=12.200; $t(58)=-1.780, p=0.080 > 0.05$). Similarly, lateral transfer projects no apparent role in the gap-filling task, with the Chinese group (Mean= 6.750) scoring approximately to Group 2 (Mean=6.083; $t(58)= -.717, p=0.476 > 0.05$) and Group 3 (Mean=6.083; $t(58)=-1.780, p=0.080 > 0.05$).

The third research question is predicated on the assumption that the longer one learns French the more likely the French-to-English transfer will present; consequently, the participants in Group 3 might have a poorer performance than those in Group 2. However, that is not the case. The statistical results present no significant differences between Group 2 (Mean=32.550) and Group 3 (Mean= 32.467) in the overall test ($t(58)=0.025, p=0.980 > 0.05$), which suggests L3 French proficiency would not significantly affect the performance of French-to-English transfer in the use of L2 English path particles. Similarly, no significant difference exists between the two French groups across all three tasks in the language test (translation: $t(58)=0.527, p=0.600 > 0.05$; gap-filling: $t(58)=-1.374, p=0.175 > 0.05$; multiple-choice: $t(58)=-0.184, p=0.854 > 0.05$ with equal variances assumed). Thus it can be assumed that at any cognitive level of word acquisition, proficiency of L3 French would not have a significant influence on L3 French-to-L2 English transfer.

To disclose the underlying causes for demonstrated transfer from L3 French

to L2 English, we recorded and analyzed participants' retrospective interviews. It turned out that the interviewees expressed many similar views. When responding to how they reacted to the tasks in general, all participants said they had no difficulty understanding the tasks and completed each task based on careful thinking instead of giving an arbitrary answer. The French majors stated they have already learned about the meaning of the tested English path particles and the French motion verbs that appeared in the language tasks (*sortir, entrer, monter and descendre*) and they admitted they would "unconsciously" (a word frequently uttered by the interviewees) think of relevant French knowledge previously acquired, saying: "I don't think it is necessary to add any other component here" or "I do feel that the motion verb should be followed by something else, but I just couldn't figure it out, as it is okay with French to employ only the motion verb without any supplementary element..."

As for the difficulty of the three tasks, all French majors, regardless of their L3 French proficiency, reported the translation task as the most difficult one and stated confusion rising from previously-acquired French motion verbs. This impact proved negative in the completion of this task. Besides, all three groups scored relatively lower in the gap-filling task than the multiple-choice task. Both Chinese and French majors claimed that the correct answer was missed when they failed to make full sense or understand the linguistic context.

5. Discussion

The present study focuses on cross-linguistic effects between L3 French and L2 English. These two languages, according to Talmy (2000), are respectively a verb-framed language and a satellite-framed language, thus differing in perception or construal. Research data shows that under the influence of L3 French, whose cognitive component of path is expressed by the main verb *per se* rather than a verb particle, the participants tend to see no need for adding any English verb particles after the motion verb (Talmy, 2000). As a result, both French major groups underperformed those from the Chinese major group in the language task, presenting effective transfer of L3 concepts onto L2 framing. Jarvis (2007) defines CT as cross-linguistic effects arising from differences in the structure or internal make-up of the concepts stored in the minds of speakers of different languages. As French is a typical representative of verb-framed languages, it expresses path by a verb *per se* rather than a verb+particle as found commonly among satellite-framed languages like English. The French group failed to add a necessary English path particle after the motion verb

and under-performed the Chinese group in the overall test, indicating the perception of L3 French motion verbs would observably lead to cross-linguistic influence in the acquisition of L2 English path particles. This finding suggests an affirmative answer to the first research question, proving lateral transfer happens to the language items tested in the study.

In addition, such transfer demonstrates itself as negative, being more noticeable on tasks involving a higher level of cognition, such as translation task. The interview confirms such an assumption. The French majors all rated the translation task as the most difficult task, saying it is more likely to activate their perception of French motion verbs. They simply failed to recognize the need to add a particle after the verb, or even when recognizing the gap, they were unable to figure out a proper one. Comparatively, the effect is no longer significant with less challenging cognitive tasks among the three groups when recognition/judgment and understanding are involved. The Chinese interviewees reflected when they failed to make full sense of the context, they had no other choice but to give up. Considering the language combination of the present study, it might be understood that the Chinese majors are not likely to resort to any other language, for the case being their L1 Chinese, when L2 English exhausts itself. The interview recorded no reference to Chinese either with Chinese majors or French ones. Thus, though all the three groups live and study in a discourse community where Chinese is the dominant language, the internal construal of motion event is not determined by L1. Rather, their perception is dependent either on L2 English or L3 French when preparing expression in L2 English.

This finding differs from that of Daller and Treffers-Daller (2011) which suggests the internal make-up of a perceptual category is largely determined by whether a person is immersed in a discourse community where that particular perceptual category is frequently expressed. Bylund and Jarvis (2011), Athanasopoulos (2009), and Athanasopoulos et al. (2011) all supported such impact of dominant language both in receptive and productive skills. The different findings in the present study, however, might be caused by the distance between L1 Chinese and the other two foreign languages. Among the three languages, French and English are rather close relatives in the Indo-European language family while Chinese with typical written codes represents the Sino-Tibetan language family. Thus the perceptualization of motion event in Chinese presents much dissimilarity. As a consequence, other than L1 Chinese, when deficiency happens with L2 English production, for the Chinese majors, they find no other frames to rely on if the single channel of English gets blocked; whereas for the French majors, they access L3 French for possible solutions.

This strikes in particular with a more cognitively challenging task, when completing the translation task.

Though the French groups under-performed the Chinese group in either the overall performance or any of the three tasks, there is no gap in the mean scores between the two French groups. Thus it could be assumed L3 French proficiency does not affect French-to-English LT. That indicates once the conceptualization of French motion verbs is acquired, it is rather likely to exert influence on the performance of relevant language items in the previously learned L2. This is also true with the notion of thinking-for-speaking. According to Slobin (1993, 2004), prior to verbalization, speakers organize and structure the content of their thoughts in language-specific ways, even if at a more general level their patterns of thinking and perception might not be language-specific. In this case, the perception of motion events with the French majors has been structured in accordance with French which they are more often exposed to, though they might not be aware of such construal. Upon verbalization, this construal is retrieved and determines the ultimate output, regardless of which language it is represented in.

6. Conclusion

This study verifies the existence of L3 French-to-L2 English LT in the conceptual domain of motion exemplified with the use of L2 English path particles (*on, out, past, into, through, up, above, down, over*). The perception of L3 French motion verbs has been found to have a noticeable influence on L2 English path particles in particular at the highest level of language cognition. Nevertheless, in the recognition/judgment and understanding of L2 English path particles, no significant effect is exerted by the structure of L3 French motion verbs. In addition, L3 French proficiency has no effect on LT. In terms of language combination and directionality of transfer, the present study adds to existing literature of transfer study. Besides, the study is conducted in foreign language learning context in China where foreign language learning sees a rapidly growing population. It is advisable that future research could use more diversified means for data collection, for instance, picture description. Advanced technique such as eye-tracking may also be helpful in finding what the bilinguals attend to as they describe events. Furthermore, as Jarvis (2011) suggests, it is also worthwhile to investigate whether conceptual transfer can be avoided, or at least overcome at some point, during the process of acquiring another language.

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