AJAL

The interaction of verb regularity, L1 and task in the language of Mandarin and Tamil-speaking ESL

Mike Tiittanen
Seneca College, Toronto, Canada

Previous research indicates that ESL learners use irregular past tense verbs more accurately than regular past tense verbs in English, particularly in their oral production. The study reported here examined the level of accuracy in the use of English regular past tense verbs and irregular past tense verbs of two groups of learners of English whose L1 was Mandarin and Tamil respectively. The results reveal that irregular verbs were sometimes used more accurately than regular verbs although this accuracy was influenced by type of task and participants' L1. There was no difference in the accuracy of regular or irregular verb use for either group on a task which was designed to elicit explicit, declarative knowledge of the simple past tense. However, the Mandarin L1 group was more accurate with irregular verb use than with regular verb use on both oral tasks while the Tamil L1 group was more accurate with irregular verbs than regular verbs on only one of the oral tasks.

Keywords: regular verbs; irregular verbs; L1 influence; Mandarin; Tamil

Introduction

Most of the research on regular-irregular verb acquisition within SLA studies suggests there is a difference in accuracy in the use of regular and irregular past tense forms in L2 English. These studies indicate that particularly for participants at an early stage of language development, the acquisition of irregular verb morphology precedes that of regular verb morphology (e.g. Bardovi-Harlig, 2000; Perdue, 1993). However, the majority of such studies have been based exclusively on eliciting oral production of the simple past tense. Few studies have examined the impact that task type (e.g. oral tasks versus tasks that promote a focus on form) may have on the accuracy of use of regular and irregular verbs. In addition, despite research results that suggest that the L1 may influence the accuracy of use of both regular and irregular verbs in the L2 (Bayley, 1994; Lardiere, 1998; Sato, 1990), few studies have compared the accuracy of regular and irregular past tense use by groups of ESL learners with different L1s.

The research reported here examined the level of accuracy in using English regular past tense forms and irregular past tense forms of two groups of ESL learners whose L1 was Mandarin and Tamil respectively. The data was taken from both oral tasks and a fill-in-the-gaps written task.

Literature review

Order of emergence

Previous research indicates that for less advanced language learners, irregular verb morphology precedes regular verb morphology in the order of acquisition (Bardovi-

Harlig, 2000; Perdue, 1993). An analysis of the oral acquisition of temporality by the participants in the longitudinal European Science Foundation (ESF) study revealed that there was a trend for the adult learners of a variety of European languages (with many different L1s) to use irregular verb past tense morphology before regular past tense morphology (Perdue, 1993).

L1 influence in oral production

Lardiere (2003) conducted a longitudinal study of an English L2 speaker whose native languages were Mandarin and Hokkien. This participant was a fluent speaker of English and had lived in the U.S. for ten years. The study revealed that the participant's irregular verb oral production was much more accurate (46%) than her regular verb production (6%). As reported in Goad, White, and Steele (2003), Lardiere (2003) attributed this difference to L1 interference. In particular, L1 influence was attributed to the fact that neither Mandarin nor Hokkien allow final consonant clusters and many English irregular verbs do not end in consonant clusters, unlike English regular verbs.

Such an interpretation is supported by the results of a longitudinal study by Sato (1990) of the L2 acquisition of English by two L1 Vietnamese boys. In their oral production, these boys used some irregular verbs correctly, but almost no regular past tense inflections were detected. It is possible that their L1, which does not permit consonant clusters in syllable-final position (Avery & Ehrlich, 1992), may have played a role in the lack of correct production of regular verbs (Sato, 1990).

In another study on regular and irregular past tense use, Goad et al. (2003) elicited oral production from 12 Mandarin-speaking adult ESL learners who had lived in Canada for between 6 months and 12 months and who produced the irregular past correctly 78% of the time and the regular past correctly 57% of the time. The researchers again concluded that the past tense errors were caused by L1 phonological representation.

Similar results were found in Bayley's (1994) study of 20 adult native speakers of Mandarin living in the U.S. In addition, Bayley revealed that both the high group (a score of 550 or more on the old version of the TOEFL) and the low group (a score of less than 510 on the old TOEFL exam) exhibited the same pattern of production, that is, the greater the phonetic difference between the base form of the verb and its past tense equivalent, the greater the accuracy in past tense production.

Simple past tense in English

The English simple past tense has both regular and irregular verbs. The regular past tense suffix has three allomorphs:

1. /-əd/ after verb that ends with a /t/ or /d/ sound
2. /d/ which occurs after final voiced sounds except for /d/
3. /t/ which occurs after final voiced sounds
   (Avery & Ehrlich, 1992).

Past tense forms which do not adhere to the above rules are irregular (Pinker, 1999). English is estimated to have between 150-180 irregular simple past tense forms, many of which are more frequent in the language than the regular forms (Pinker, 1999). Most irregular verbs in English undergo one of the following types of changes from the base form to create the past tense form:

1. A change of the final consonant to /t/ or /d/ (e.g. have / had)
2. Both an internal vowel change and the addition of /t/ or /d/ to the end of the verb (e.g. leave / left)
(Bayley, 1994).

Past tense in Tamil

Like English, Tamil has both regular and irregular past tense verbs (Lehmann, 1989). A wide variety of classification schemes for Tamil regular verbs, which are morphologically and phonologically conditioned, have been proposed. The language is seen as having between two and thirteen regular verb classes depending on the analysis of the phonological conditioning (Asher, 1982).

The traditional analysis of Tamil regular verbs recognizes seven categories of verbs (Schiffman, 1999). These seven categories are grouped into weak, middle and strong verbs (Pillai, 1992), which are characterized by different phonological changes to their respective stems when inflectional suffixes beginning with vowels are added. A weak verb has "a verb stem which is not augmented when an inflectional suffix beginning with a vowel is added" (Lehmann, 1989, p. 54). A middle verb has a stem "which is augmented by the single stop *k* when an inflectional suffix beginning with a vowel is added" (Lehmann, 1989, p. 53). A strong verb has a stem "which is augmented by the double stop *kk* when an inflectional suffix beginning with a vowel is added" (Lehmann, 1989, p. 53). Verb classes 1 to 4 are classified as being weak; verb class 5 is middle and verb classes 6 and 7 are strong (Pillai, 1992).

In addition to the seven classes described above, there are also a small number of irregular verbs in Tamil which fall into two additional classes:

1. Verbs that take an irregular tense marker.
   Example: *collu* (say) which takes *-n-* as a past tense suffix to form *con-n-een* ([I] said) in the past tense.
2. Verbs that undergo irregular changes to the phonemic shape of their verb stem when an inflectional suffix is added.
   Example: *caa* (die), which "changes its verb stem to *ce* when inflected for past tense: *ce-tt-een* ([I] died)" (Lehmann, 1989).

Past time in Mandarin

Mandarin does not have a grammatical tense. Thus, unlike English and Tamil, it does not have regular and irregular past tense verbs. Mandarin speakers make past time interpretations of events through the use of lexical items such as time adverbs, aspect markers or pragmatic interpretation (Smith & Erbaugh, 2005).

The research

The research reported here was part of a larger study looking at cross-linguistic influences in the use of the English simple past tense (Tiittanen, 2011). This paper will draw on data from that study but will focus only on the accuracy of use of regular and irregular past tense verbs. For discussion of other aspects of the larger study see Tiittanen (2013a, 2013b).The research questions addressed in this study are:

1. Are there differences in the accuracy of regular and irregular verb use in English by L1 Mandarin and L1 Tamil ESL learners?
2. Does task type influence the accuracy of use of regular and irregular verbs?

Methodology

Participants

The participants in this study were 21 native speakers of Mandarin and 21 native speakers of Tamil. They were primarily students of ESL at about the intermediate level of proficiency in language schools where the researcher worked or had access. Most of the participants were students in adult immigrant schools funded by the federal Canadian government. The two L1 groups were similar in their gender make-up (a ratio of 3:1 females to males), and the means of their age at the time of the study, age of arrival in an English-speaking country (Table 1). Independent samples t-tests show no statistically significant differences between the two groups in terms of age at the time of the study, age on arrival and length of stay. Thus, in terms of these variables, the two L2 groups were very similar. However, there were some differences between the two groups which may be relevant for this study (Table 2).

Table 1. The participants

	Tamil	Mandarin	p	d	Effect size (r)
Gender	16 F, 5 M	15 F, 6 M	n.a.	n.a.	n.a.
Mean Age at time of study M (SD)	33.3 years (11.2)	35.7 years (7.1)	0.417	-.256	-0.127
Mean Age on Arrival M (SD)	31.1 years (11.1)	34.2 years (7.2)	0.291	-.331	-0.163
Mean Length of Residence M (SD)	2.08 years (2.03)	1.61 years (1.81)	0.429	.244	0.121

p = statistical significance of t-test, d = Cohen's d for effect size

Table 2. Use of English outside the formal learning environment

Differences	Tamil L1 Group	Mandarin L1 Group
Use of English in the home environment	5	2
Use of English in professional, social or educational environments outside of formal study	12	8
Used English to watch TV, listen to radio or read books	0	4

Data collection and analysis

The data reported here were collected using the following data elicitation methods: a) the grammar section of the Oxford Placement Test; b) an oral film retell task; c) interview questions; and d) a fill-in-the-gap task. A range of data collection methods was used to elicit both declarative and procedural knowledge because earlier research had found a gap between them (DeKeyser, 1997; Witton-Davies, 2004). All of the data was collected by the researcher. Collection mostly took place after hours at the school the participants attended, but some was done at the college where the researcher works. The data collection instruments are described below in the same order in which they were used.

OPT grammar test

The OPT grammar test is a 50-minute multiple choice test of grammatical structures. It consists of 100 multiple choice items each offering three choices (e.g. Water is to boil / is boiling / boils at 100°C.). Participants were not allowed to use exam aids such as dictionaries. Test items were marked as either correct or incorrect.

Oral film retell task

This 7 minute ESL video consisted of a short story in which a man joined a health club, did various types of physical exercise and spoke to the owner of the gym. The researcher pre-taught the relevant vocabulary to the participants individually. The participants were shown the video individually twice. The participants individually orally retold the events of the ESL video to the researcher in a quiet room, usually after regular school hours. The researcher did not collaborate with the participants in the retelling of the story.

A token analysis of the verbs in an obligatory environment for the simple past tense was used. The researcher did the token analysis for all verbs requiring regular and irregular past tense verb forms in order to determine the correctness of their use by the participants. The verb tokens were classified as being correct, incorrect or partially correct.

Interview

The participants were interviewed using a pre-determined list of questions although where necessary, further questions were used to elicit more verb tokens in obligatory simple past tense environments and to add a greater natural coherence to the sequence of questions. A token analysis of the verbs was used on the interview transcript in the same manner as that in the film retell task.

Fill-in-the-gap task

A fill-in-the-gap included 16 regular and 16 irregular verbs amongst the simple past tense forms (Table 3) and 10 distractors. To ensure participants would have encountered the simple past tense forms used, they are all on the list of the 200 most common simple past tense forms in the American National Corpus, which contain approximately 22 million words of written and spoken American English (Davies, 2008). All of the target simple past tense forms are within the 900 most frequent lexemes in American English according to the Corpus of Contemporary American English.

Table 3. Target simple past tense verbs in the fill-in-the-gap task

Irregular past (Davies, 2008) (n = 16)	know	write	tell	choose
	feel	eat	buy	get
	think	speak	drive	find
	see	stand	give	fall
Regular past (n = 16)	want	study	call	decide
	need	watch	ask	start
	look	play	show	stop
	enjoy	continue	walk	arrive

This was an untimed activity and no exam aids were allowed. Participants' answers on the target simple past tense verbs were counted as being correct, incorrect (e.g. "choose" instead of "chose") or half-correct (e.g. "choosed" instead of "chose"). Spelling errors were discounted and items with "minor" spelling errors were classified as being correct if the intention of the participant was clear (e.g. "stoped" rather than "stopped").

Results

OPT grammar test results

Both groups had very similar results on their OPT grammar test (Table 4) with mean scores of 53.1% (Mandarin L1 group) and 49.8% (Tamil L1 group). A t-test of independent samples indicated that this difference was statistically non-significant. Thus, the level of declarative knowledge of the two L1 groups appeared to be very similar.

Table 4. OPT grammar test results by L1

L1	N	Mean score	Standard deviation	t value	p value
Mandarin	21	53.1 %	15.3	.708	.483
Tamil	21	49.8%	15.3		

Results on fill-in-the-gap task

Intra-coder reliability was high for frequency of errors in the fill-in-the-gap task answers. It was calculated for a sample of 3 L1 Mandarin and 3 L1 Tamil participants. Pearson *r* was highly statistically significant (.996) and Cohen's Kappa was excellent (.978).

For all participants, regardless of L1, there were no statistically significant differences between regular and irregular verbs in obligatory environments for the accuracy of use of the simple past tense (Table 5). Grouped together, regardless of L1, the participants had a mean accuracy of 81.8% with regular verbs and 78.3% with irregular verbs (p = .110; z = -1.600; Wilcoxon). In addition, for both L1 groups, there

were no differences in accuracy between their use of irregular verbs and regular verbs in obligatory environments (Table 5). The Mandarin L1 group had a mean accuracy of 87.2% with regular verbs and 82.4% with irregular verbs (p = .074; z = -1.787; Wilcoxon). The Tamil L1 group had a mean accuracy of 76.4% with regular verbs and 74.3% with irregular verbs (p = .484; z = -.701; Wilcoxon).

Table 5. Differences in accuracy by verb regularity

Type of verb	All participants	Mandarin group	Tamil group
Regular Verbs Mean Score	81.8% (SD = 21.4) (N = 42)	87.2% (SD = 14.8) (N = 21)	76.4% (SD = 25.7) (N = 21)
Irregular Verbs Mean Score	78.3% (SD = 21.0) (N = 42)	82.4% (SD = 13.0) (N = 21)	74.3% (SD = 26.4) (N = 21)
Statistical significance (of intra-group difference)	p = .110 (Wilcoxon) z = -1.600	p = .074 (Wilcoxon) z = -1.787	p = .484 (Wilcoxon) z = -.701
Effect size (of intra-group difference)	r = -.08	r = -.17	r = -.04

Film retell and interview questions results

To check coding reliability, 6 transcripts of the 42 participants' oral production (14.3% of the total transcripts) were double-coded by a second rater. The procedure required the second rater to code verbs for correctness that the researcher had identified as being either regular or irregular in an obligatory simple past tense environment. On the film retell task, inter-rater agreement on whether the verbs in obligatory simple past tense environments were correct or incorrect was perfect (1.00). On the interview questions, the inter-coder agreement on correctness was very high (0.986).

The L1 Mandarin participants were more accurate with irregular verbs than regular verbs in L2 English on both the film retell task and the interview questions (Figures 1a and 1b). On the film retell task, the Mandarin participants used irregular verbs correctly in 36.2% of obligatory environments while their mean accuracy with regular verbs was only 16.3% (Table 6). This difference was statistically significant (p < .001; z = -3.662; Wilcoxon). In addition, the effect size was close to a large value (r = -0.42). In the interview questions, the Mandarin participants' mean rate of correct irregular verbs was 30.1% while their mean rate of correct regular verbs was 19.4% (Table 7). This was also statistically significant (p < .05; z = -1.999; Wilcoxon) and the effect size was of a medium value (r = -0.29).

Like the L1 Mandarin participants, the L1 Tamil participants had a large difference in accuracy between irregular verbs and regular verbs on the film retell. In contrast to the L1 Mandarin participants, the L1 Tamil participants' rate of accuracy between regular and irregular verbs on the interview questions task was very similar. On the film retell, the Tamil participants used irregular verbs correctly in 47.2% of the obligatory environments for the simple past but their mean accuracy with regular verbs was only 21.1% (Table 6). This difference was statistically significant (p < .001; z = -3.702; Wilcoxon). In addition, the effect size was also close to a large value (r = -0.44). In the

interview questions, the mean rate of accuracy with irregular verbs was 52.7% and with regular verbs it was 48.9% (Table 7). This was not statistically significant (p = .664; z = -.434; Wilcoxon).
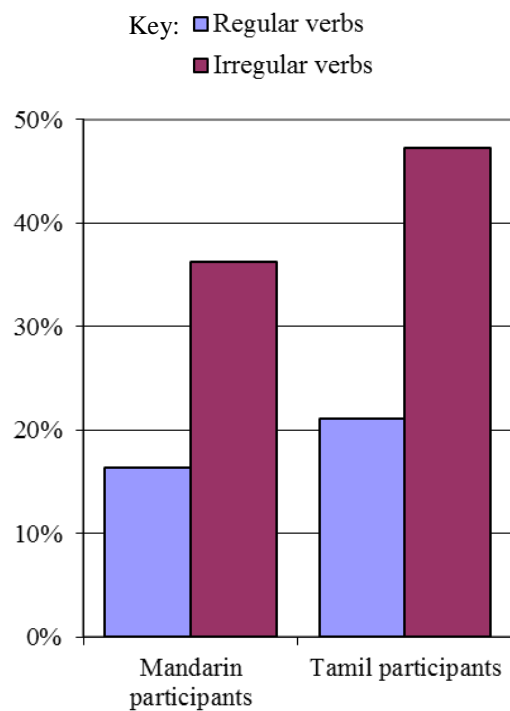

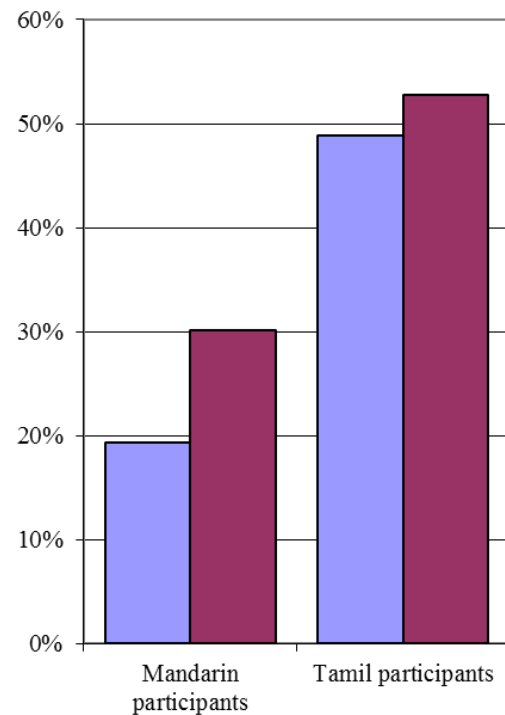Figure 1a: Film retell: Accuracy with regular and irregular verbs

Figure 1b: Interview questions: Accuracy with regular and irregular verbs

Table 6. Film retell: Accuracy with regular and irregular verbs

Type of verb	All participants	Mandarin group	Tamil group
Regular Verbs Mean Score	18.8% (SD = 21.1) (N = 41) 41.7% (SD = 27.1) (N = 42)	16.3% (SD = 19.3) (N = 20*) 36.2% (SD = 23.5) (N = 21)	21.1% (SD = 22.8) (N = 21) 47.2% (SD = 29.8) (N = 21)
Irregular Verbs Mean Score	41.7% (SD = 27.1) (N = 42)	36.2% (SD = 23.5) (N = 21)	47.2% (SD = 29.8) (N = 21)
Statistical significance (of intra-group difference)	p < .001 (Wilcoxon) z = -5.199	p < .001 (Wilcoxon) z = -3.662	p < .001 (Wilcoxon) z = -3.702
Effect size (of intra-group difference)	r = - 0.43	r = - 0.42	r = - 0.44

*   One Mandarin participant did not use any regular verbs. This participant only used irregular verbs.

Table 7. Interview questions: Accuracy with regular and irregular verbs

Type of verb	All participants	Mandarin group	Tamil group
Regular Verbs Mean Score	34.1% (SD = 27.4) (N = 42)	19.4% (SD = 19.4) (N = 21)	48.9% (SD = 26.6) (N = 21)
Irregular Verbs Mean Score	41.4% (SD = 24.6) (N = 42)	30.1% (SD = 15.3) (N = 21)	52.7% (SD = 27.2) (N = 21)
Statistical significance (of intra-group difference)	p = .048 (Wilcoxon) z = -1.976	p = .046 (Wilcoxon) z = -1.999	p = .664 (Wilcoxon) z = -.434
Effect size (of intra-group difference)	r = -0.14	r = -0.29	r =-0.07

Discussion

The research reported here looks at the differences in accuracy between irregular and regular verbs and the interaction between this accuracy and L1 and task type. The L1 Mandarin participants were more accurate with irregular verbs than regular verbs on both oral tasks. The L1 Tamil participants were more accurate with irregular verbs than regular verbs on only one of the oral tasks. There was also an interaction between task and the accuracy of use of regular and irregular verbs. The low accuracy with regular verbs may possibly have been influenced by participants' L1. Nevertheless, the small size of the sample groups (21 in each group) precludes generalizations to the wider populations of Mandarin and Tamil ESL learners. Still, the results do suggest that that task and L1 may impact on learner accuracy with regular and irregular verbs.

Effect of task

The lack of a difference in accuracy between regular and irregular verbs on the fill-in-the-gap task may have been influenced by two factors – a) the task may have allowed the participants to access their explicit knowledge of the simple past; and b) the explicit focus on form of this task may have induced the learners to pay more attention to correct forms of the verbs.

The literature supports the proposition that learners who have explicit knowledge of L2 grammar rules perform better when they have access to their explicit knowledge than when they do not have access to explicit knowledge (DeKeyser, 2003) and that regular past tense verbs are arguably produced by a grammar rule (Pinker, 1999; Ramscar, 2002);. In one case of learners of Dutch as a second language, Hulstijn and Hulstijn (1984) found that they were much more accurate in their use of word order rules in a story retell task when they were able to access their explicit knowledge of those rules. Macrory and Stone (2000) found that their participants were able to provide explicit rule statements of the French *passé compose* (past tense) and they scored highly on a gap-filling task, but that they had poor accuracy in the use of this form in semi-structured interviews.

The fill-in-the-gap task reported here was untimed, and this task may thus have given the participants the time they needed to refer to their explicit knowledge of the simple past, including the rule for the use of the regular past tense. This supposition is plausibly supported by data collected in the form of stimulated recalls of four Mandarin participants and four Tamil participants. The stimulated recalls were conducted after all of the other data had been gathered. They required participants to verbalize in their first language what they were thinking as they were doing the items on the fill-in-the-gap task. The most common verbalization by both the Mandarin and Tamil participants about what they were thinking as they were doing the items on this task was "past tense". In addition, there were verbalizations related to the -ed form of regular verbs by two of these eight participants. Thus, the stimulated recall task data arguably supports the interpretation that the learners had explicit knowledge of the simple past tense during the fill-in-the-gap task, including possibly the rule for regular verbs.

In addition, the fact that the fill-in-the-gap task required the participants to write the correct form of the verb probably induced them to pay more attention to the correct form of the verb. This is relevant as previous studies have shown that focus on form tasks and techniques often result in greater accuracy in learner use of the simple past tense than tasks and techniques which do not focus on form (Doughty & Varela, 1998). Moreover, the learners may have paid less attention to form in the oral production tasks due to the fact that they also needed to focus on other aspects such as meaning. Therefore, the participants may have had difficulty in efficiently applying the past tense rule (i.e. add "-ed" to regular past tense forms) in their oral production (J. Kormos, personal communication). This difference in production between the oral tasks and the fill-in-the-gap task is in line with the general finding that in more spontaneous production, there may be a big gap between explicit knowledge and use (DeKeyser, 2003).

Differences between regular and irregular verbs on the oral tasks

The fact that the participants in the current study often had greater accuracy with irregular verbs is consistent with many other studies of L2 oral production. As discussed earlier, participants in previous studies were more accurate in their oral use of irregular verbs than regular verbs (Bayley, 1994; Goad et al., 2003; Lardiere, 1998; Perdue, 1993; Sato, 1990). These studies reveal that the frequency and saliency of irregular verbs may play a facilitative role in their acquisition by learners.

The greater frequency of irregular verbs in input may be one factor in the participants' higher accuracy with irregular verbs as found elsewhere by Bybee and Slobin (1982) and Pinker (1999). It is possible that if the participants had been exposed to the irregular verbs they used in their oral production more frequently than regular verbs, this may have increased their accuracy in their irregular verb production.

Saliency may also have contributed to the participants' greater accuracy with irregular verbs. Saliency as conceptualized by Goldschneider and DeKeyser (2005) is a constellation of interrelated factors and irregular past tense verbs are more salient than regular past tense verbs. This saliency may have made the irregular verbs that the participants used in this study more noticeable to them. This is important as some L2 researchers claim that noticing plays a crucial role in L2 acquisition (Doughty, 2003; Schmidt, 2001).

L1 influence

Another possible influence in these differences in accuracy of use between irregular and regular verbs on the oral tasks may be L1 syllable structure. Mandarin does not allow final consonant clusters and more English regular verbs end in consonant clusters than irregular verbs (Goad et al., 2003). In addition, Tamil does not permit consonant clusters in word-final position (Annamalai & Steever, 1998). Thus, the L1 syllable structure of both groups may have influenced their accuracy with L2 regular verbs on the oral tasks. Nevertheless, the effect of consonant clusters on accuracy in this study cannot be stated with certainty as it was not a focus of the data analysis.

In addition, it is possible that the differing structures of Tamil and Mandarin may have played a role in the L1 Tamil group accuracy with regular past tense verbs. Tamil has a bound inflectional past tense suffix (Pillai, 1992), similar to the bound English past tense bound inflectional suffix, but Mandarin does not. It is also important to remember that more L1 Tamil participants than L1 Mandarin participants reported using English or being exposed to English at home, school, work or for social purposes. This may also have contributed to differences in results.

Conclusion

The small group size within this study precludes definitive claims about the relevance of its findings. Nevertheless, the findings appear to suggest that the participants tended to be more accurate in their use of irregular verbs than regular verbs on the oral tasks. This study also shows that task type appears to have an influence in accuracy of verb use. On the oral tasks there was a difference in accuracy of use between regular and irregular verbs. On the fill-in-the-gap task, which allowed the participants to focus on the form of their answer, there was no difference in the accuracy of use between regular and irregular verbs. The results also suggest that the lack of consonant clusters in word-final position in both L1s influences the use of regular verbs while speaking in English.

The results of this study, although tentative, suggest that differential accuracy of regular and irregular verbs may interact with task type and learners' L1. This interaction may impact on ESL students' learning the simple past tense. Further research is needed to clarify the interactions and should be extended to cover ESL learners from a wider spectrum of first languages.

About the author

Mike Tiittanen is the coordinator of the part-time TESL program at Seneca College in Toronto, Canada. His research interests are primarily in second language acquisition and L1 influence.

References

Annamalai, E., & Steever, S. B. (1998). Modern Tamil. In S. B. Steever (Ed.), *The Dravidian languages* (pp. 100-128). London and New York: Routledge.

Asher, R. E. (1982). *Lingua descriptive studies*. Amsterdam: North-Holland Publishing Company.

Avery, P., & Ehrlich, S. (1992). *Teaching American English pronunciation*. Oxford: Oxford University Press

Bardovi-Harlig, K. (2000). *Tense and aspect in second language acquisition: Form, meaning, and use*. Oxford: Blackwell.

Bayley, R. (1994). Interlanguage variation and the quantitative paradigm: Past tense marking in Chinese-English. In E. Tarone, S. Gass, & A. Cohen (Eds.), *Research methodology in second-language acquisition* (pp. 157–179). Hillsdale, N.J.: Lawrence Erlbaum.

Bybee, J. L., & Slobin, D. I. (1982). Rules and schemas in the development and use of the English past tense. *Language, 58*(2), 265-289.

Davies, M. (2008). The corpus of contemporary American English (COCA): 385 million words, 1990 – present. Retrieved from http://www.americancorpus.org

DeKeyser, R. (1997). Beyond explicit rule learning: Automatizing second language morphosyntax. *Studies in Second Language Acquisition, 19*(2), 195-221.

DeKeyser, R. (2003). Implicit and explicit learning. In C. Doughty & M. Long (Eds.), *The handbook of second language acquisition* (pp. 313–348). Oxford: Blackwell.

Doughty, C. J. (2003). Instructed SLA: Constraints, compensation, and enhancement. In C. Doughty & M. Long (Eds.), *The handbook of second language acquisition* (pp. 256-310). Oxford: Blackwell.

Doughty, C. J., & Varela, E. (1998). Communicative focus on form. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 114–138). Cambridge: Cambridge University Press.

Goad, H., White, L., & Steele, J. (2003). Missing inflection in L2 acquisition: Defective syntax or L1-constrained prosodic representations? *The Canadian Journal of Linguistics, 48*(2), 243-263.

Goldschneider, J. M., & DeKeyser, R. M. (2005). Explaining the "Natural Order of L2 Morpheme Acquisition" in English: A meta-analysis of multiple determinants. *Language Learning, 55*(S1), 27-77.

Hulstijn, J. H., & Hulstijn, W. (1984). Grammatical errors as a function of processing constraints and explicit knowledge. *Language Learning, 34*(1), 23-43.

Lardiere, D. (1998). Case and tense in the 'fossilized'steady state. *Second Language Research, 14*(1), 1-26.

Lardiere, D. (2003). Second language knowledge of [+/- past] vs. [+/- finite]. In J. Liceras, H. Zobl, & H. Goodluck (Eds.), *Proceedings of the 6th Generative Approaches to Second Language Acquisition Conference (GASLA 2002)* (pp. 176- 789). Somerville: Cascadilla Press.

Lehmann, T. (1989). *A grammar of modern Tamil*. Pondicherry, India: Pondicherry Institute of Linguistics and Culture.

Macrory, G., & Stone, V. (2000). Pupil progress in the acquisition of the perfect tense in French: The relationship between knowledge and use. *Language Teaching Research, 4*(1), 55-82.

Perdue, C. (Ed.). (1993). *Adult language acquisition: Cross-linguistic perspectives (Volume II, the results)* Cambridge: Cambridge University Press.

Pillai, N. (1992). *A syntactic study of Tamil verbs*. Mysore, India: Central Institute of Indian Languages.

Pinker, S. (1999). *Words and rules*. London: Weidenfeld and Nicolson.

Ramscar, M. (2002). The role of meaning in inflection: Why the past tense does not require a rule. *Cognitive Psychology, 45*(1), 45-94.

Sato, C. J. (1990). *The syntax of conversation in interlanguage development*. Tubingen: Gunter Narr.

Schiffman, H. F. (1999). *A reference grammar of spoken Tamil*. Cambridge, Cambridge University Press.

Schmidt, R. (2001). Attention. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 3-32). Cambridge: Cambridge University Press.

Smith, C. S., & Erbaugh, M. S. (2005). Temporal interpretation in Mandarin Chinese. *Linguistics, 43*(4), 713-756.

Tiittanen, M. (2011). *Cross-linguistic influence in the use of the English simple past tense: The case of Tamil and Mandarin learners.* (Unpublished doctoral dissertation), Lancaster University, Lancaster.

Tiittanen, M. (2013a). Cross-linguistic influence in the use of the English simple past tense: The case of Tamil and Mandarin learners. *TESOL Review, 5*, 89 - 112.

Tiittanen, M. (2013b). L1 influence in simple past tense errors –The case of Mandarin and Tamil ESL learners. *Modern Journal of Applied Linguistics, 5*(1), 42 – 68.

Witton-Davies, G. (2004). *Past tense variability in the oral narratives of university students*. Paper presented at the 2004 International Conference and Workshop on TEFL and Applied Linguistics.