



Japanese and Thai L2 Acquisition of English Tense and Aspect Agreement

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Tense and Aspect in English

Binnik (1991)

Past simple

Last year, Jill wanted to get married ...

Present perfect

For months now, Jill has wanted to get married ...

Past simple tense form locates the reference time in the past (the event time), whereas the present perfect form locates the reference time in the present (the speech time), thereby having a current relevancy.

Tense and Aspect in Japanese

Sugaya and Shirai (2007)

Past simple with past tense marker -ta

Boku-wa kinoo ano shiai-o mi-ta.

I-TOP yesterday that match-ACC watch-PAST

'I watched that match yesterday.'

Present perfect interpretation with past tense marker -ta

Boku-wa mo ano shiai-o mi-ta.

I-TOP already that match-ACC watch-PERFECTIVE

'I have watched that match already.'

Present progressive / perfective interpretation with -te-i-ru

John-ga hon-o yon-de-i-ru.

John-NOM book-ACC read-TE-I-PRESENT

'John is reading the book / John has read the book.'

Tense and Aspect in Thai

Iwasaki and Ingkaphirom (2009)

Past simple with temporal adverb yesterday

muawaan Mary paj talaat.

Yesterday Mary go market

'Yesterday, Mary went to the market.'

Present perfect interpretation with léew

Mary im léew khráp.

Mary full ASP SLP

'Mary is full already.'

Present progressive interpretation with yùu

Sarah kamlan lian yùu.

Sarah ADV study stay/PROG ASP

'Sarah is now studying it.'

Table 1. Summary of tense-aspect morphology

	English	Japanese	Thai
Tense	Non-past	-Ø / -s	-(r)u -Ø
	Past	-ed	-Ø
	Perfective	have + en	-ta léew
Grammatical Aspect	Imperfective	be + ing	-te-i-ru yùu

NB: Due to the transitional nature of Japanese -ta, there are disagreements on whether -ta is an aspect marker or a tense marker (e.g., Takahashi, 1976; Ando, 1986).

Present Study: Participants

	Age	Proficiency
English Native Speaker (NS) controls (n=18)	Undergraduates Range: 19-22	-
Japanese L2 learners (n=16)		TOEIC mean 872, SD 65 Range: 770 - 965
Thai L2 learners (n=21)		TOEIC mean 777, SD 58 Range: 648 - 857

Present Study: Research Questions

[RQ1]. Are Japanese and Thai L2 learners able to distinguish between past simple match and mismatch conditions in off-line and on-line tasks? [RQ2]. Are Japanese and Thai L2 learners able to distinguish between present perfect match and mismatch conditions in off-line and on-line tasks?

Prediction

If L1 transfer plays an important role, we predict that the Japanese learners' performance will resemble native speakers. Thai learners are predicted to be more target-like in the present perfect than the past simple.

Order of Administering Tasks

1. Self-Paced Reading Task
2. Acceptability Judgement Task
3. Grammaticality Judgement Task

Acceptability Judgement (Off-line) Task (AJT)

Past Simple

match: Last year, Jill wanted to get married...

mismatch: *For months now, Jill wanted to get married...

Present Perfect

match: For months now, Jill has wanted to get married...

mismatch: *Last year, Jill has wanted to get married...

- Four versions of the the AJT were created.
- Each version has 24 test items and 26 distractors.
- The AJT used a 5-point Likert scale

Examples of match and mismatch with fronted temporal adverbial:

Last year, Jill wanted to get married. -2 -1 0 +1 (+2)

Last year, Jill has wanted to get married. (-2) -1 0 +1 +2

Table 2. Acceptability judgements for past simple and present perfect conditions

	match	mismatch
past simple		
NS controls	1.72	-1.10
Japanese L2 learners	1.41	-0.87
Thai L2 learners	1.60	-0.96
present perfect		
NS controls	1.57	-1.44
Japanese L2 learners	0.86	-1.05
Thai L2 learners	1.32	-1.00

Results of AJT

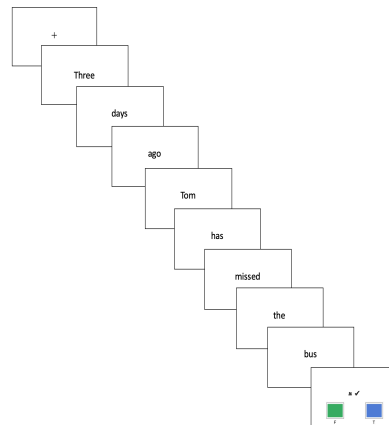
One-way ANOVAs and post-hoc tests for each condition show the following: Past simple match: F(2,254) = 3.211, p=.04; sig. diff. between Japanese and NS controls. Past simple mismatch: F(2,404) = 1.572, p>.05; no sig. diff. between groups. Present perfect match: F(2,278) = 7.725, p=.001; sig. diff. between Japanese and NS controls and Japanese and Thai. Present perfect mismatch: F(2,284) = 3.604, p=.02; sig. diff. between Thai and NS controls.

Self-Paced Reading (On-line) Task (SPR)

(based on Roberts & Liszka, 2013)

- Non-cumulative, word-by-word.
- Speed response (button push) determines underlying processes.
- Word-by-word presentation using SuperLab 5.5 with a Cedrus response pad.
- Each version contained 24 test items with comprehension questions and 16 distractors.
- Comprehension questions, plus making judgements about each sentence (to keep readers 'on task').

SPR Procedure



- ❖ NS controls: 1.5% = outliers (> 4000 msec; < 150 msec).
- ❖ 84% accuracy on comprehension questions.
- ❖ L2 learners: 3.8% = outliers (> 4000 msec; < 150 msec).
- Japanese: 67% accuracy on comprehension questions.
- Thai: 84% accuracy on comprehension questions.

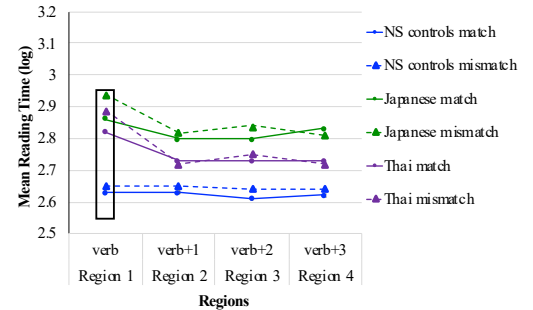
Table 3. Past simple mean RTs in milliseconds (SD)

Participants	Conditions	Region 1	Region 2	Region 3	Region 4
		verb	verb+1	verb+2	verb+3
NS controls (n=18)	match	459 (169)	466 (220)	444 (180)	460 (210)
	mismatch	482 (183)	479 (199)	490 (267)	526 (380)
Japanese L2 learners (n=16)	match	846 (537)	750 (514)	729 (426)	808 (534)
	mismatch	1096 (754)	752 (418)	826 (541)	769 (534)
Thai L2 learners (n=21)	match	755 (442)	632 (478)	627 (443)	637 (512)
	mismatch	953 (644)	598 (323)	651 (394)	621 (445)

Table 4. Present perfect mean RTs in milliseconds (SD)

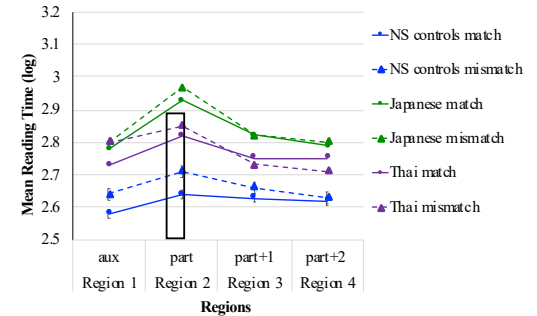
Participants	Conditions	Region 1	Region 2	Region 3	Region 4
		aux	part	part+1	part+2
NS controls (n=18)	match	407 (140)	473 (187)	455 (191)	456 (190)
	mismatch	495 (296)	583 (314)	532 (348)	513 (395)
Japanese L2 learners (n=16)	match	676 (394)	1024 (654)	781 (519)	698 (378)
	mismatch	756 (546)	1147 (776)	805 (636)	753 (581)
Thai L2 learners (n=21)	match	613 (348)	779 (476)	666 (499)	692 (579)
	mismatch	772 (564)	913 (682)	644 (469)	604 (412)

Figure 1. Past simple log-transformed RTs (match & mismatch) on SPR task



match: Last year, Jill wanted (R1) to (R2) get (R3) married (R4) ...
mismatch: *For months now, Jill (R1) wanted (R2) to (R3) get (R4) married...

Figure 2. Present perfect log-transformed RTs (match & mismatch) on SPR task



match: For months now, Jill has (R1) wanted (R2) to (R3) get (R4) married...
mismatch: *Last year, Jill has (R1) wanted (R2) to (R3) get (R4) married...

Results of SPR Task

- The reading time data were log-transformed to correct for left-skewing of the data.
- The residual RTs for the critical and post-critical regions were analyzed via a linear mixed effects model in R.
- For each analysis, we introduced the fixed effects of tense and aspect (past vs. present perfect), match vs. mismatch and random effects of participant and stimuli.
- Independent t-tests on residual RTs, between the L2 groups, reveal significant differences between Past simple R1 (match: t = -5.436, p<.001; mismatch: t = -7.239, p<.001) and Present perfect R2 (match: t = -4.078, p<.001; mismatch: t = -3.993, p<.001).

Grammaticality Judgement (Off-line) Task

Grammaticality judgements for past simple and present perfect conditions (different Japanese L2 English group) showed that both Japanese and Thai L2 learners did not have difficulties.

Summary

- Since Japanese learners appear to have more difficulty, the effect of -ta may be apparent (see Table 1). Learners may have mapped the [past] feature of -ta to -ed, but the [past] feature cannot be directly mapped onto perfective aspect 'aux + V + ed'.
- Thai learners may have used the adverbial to distinguish between the past tense and perfective aspect forms.
- ❖ Thai learners must acquire new features; Japanese learners need to reassemble features. Reassembling features in the L1 to map to L2 morphology is more difficult. This is consistent with the Feature Reassembly Hypothesis (Lardiere, 2009).

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