Relative clause island effects:  
An experimental investigation of native and nonnative Japanese  
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A wh-question whose wh-phrase originates inside a relative clause (RC) is ungrammatical in English (1) (Ross, 1967). Linguistic research (e.g., Nishigauchi, 1990) shows that wh-in-situ languages, such as Japanese (2), Korean, and Mandarin Chinese, lack such RC island effects. While there have been many studies on island constraints in the L2 acquisition of English by L1 speakers of wh-in-situ languages, little attention has been paid to the reverse scenario (Belikova & White, 2009), and none focusing on RC islands. This study addresses this gap by examining whether adult L1-English L2ers of Japanese can come to know that wh-questions like (2) are possible in Japanese, despite the ungrammaticality of their L1 counterparts. The Full Transfer/Full Access model (Schwartz & Sprouse, 1996) hypothesizes that the initial state of L2 acquisition is the L1 grammar (“Full Transfer”) but subsequent development is constrained by Universal Grammar (“Full Access”); under this framework, L1-English L2ers of Japanese are expected to demonstrate RC island effects initially but be able to converge on the target Japanese grammar later in development.

Study: Sixteen adult L1-English L2ers of Japanese—split into two groups based on the results of a cloze test (Marsden, 2004), Intermediate (n=11) and Advanced (n=5)—and 16 L1-Japanese controls completed an acceptability judgment task with a 2x2 factorial design (modeled on Sprouse, Wagers & Phillips, 2012): EMBEDDED-CLAUSE (RCs vs. finite complement clauses) x QUESTION (wh-questions vs. yes/no-questions); this yields the four conditions in (3). Crucially, all four should be acceptable in Japanese according to previous work, but only condition (3a) does not have an acceptable English counterpart. We thus expect a significant interaction between EMBEDDED-CLAUSE and QUESTION—associated with the superadditive lower rating of (3a)—for Intermediate L2ers but not for native Japanese speakers and Advanced L2ers. There were 40 test items (k=10 per condition, Latin-squared) and 40 fillers (grammatical, k=20; ungrammatical, k=20). Participants rated items on a 4-point scale (plus “I don’t know”).

Results: All three groups show the superadditive effect, indicated in Figure 1 as the interaction of EMBEDDED-CLAUSE and QUESTION (data fitted to linear mixed effects models: Native Japanese speakers, β= .61, SE=.15, t=3.97, p=.001; Intermediate L2ers, β=.93, SE=.17, t=5.37, p<.001; Advanced L2ers, β=1.45, SE=.19, t=7.75, p<.001). Interestingly, the native Japanese results contradict prior linguistic work on Japanese, making the results hard to interpret. However, the original design included ungrammatical fillers in which naze ‘why’ occurs in situ inside an RC, like (4) (k=10), because they are attested to be island sensitive in both Japanese and English (e.g., Richards, 2008). A post-hoc analysis reveals that native Japanese speakers rated critical items like (3a) significantly higher than fillers like (4) (β=−1.33, SE=.18, t=−7.56, p<.001) but L2ers gave them equally low ratings. This finding suggests two points: First, L2ers show the RC island effect transferred from their L1 with types like both (3a) and (4). Second, native Japanese speakers’ lower ratings on (3a) (compared to (3c)) are likely not a true indication of an RC island effect and thus further research is necessary in order to understand the native Japanese results.
(1) * What did Momoko see [the man [that __ bought <what>]]?

(2) Momoko-wa [[ __ nani-o katta] otokonohito]-o mimashita ka?
    Momoko-TOP [[ __ what-ACC bought] man]-ACC saw Q
    ‘What did Momoko see [the man [that __ bought <what>]]’

(3) A factorial design for measuring RC island effects: EMBEDDED-CLAUSE × QUESTION

   a. Critical: [+RC, +WH]
      Momoko-wa [[ __ nani-o katta] otokonohito]-o mimashita ka?
      Momoko-TOP [[ __ what-ACC bought] man]-ACC saw Q
      ‘What did Momoko see [the man [that __ bought <what>]]’

   b. Control 1: [+RC, −WH]
      Momoko-wa [[ __ kaban-o katta] otokonohito]-o mimashita ka?
      Momoko-TOP [[ __ bag-ACC bought] man]-ACC saw Q
      ‘Did Momoko see [the man [that __ bought a bag]]’?

   c. Control 2: [−RC, +WH]
      Momoko-wa [otokonohito-ga nani-o katta]-to iimashita ka?
      Momoko-TOP [man-NOM what-ACC bought]-C said Q
      ‘What did Momoko say [that the man bought <what>]’?

   d. Control 3: [−RC, −WH]
      Momoko-wa [otokonohito-ga kaban-o katta]-to iimashita ka?
      Momoko-TOP [man-NOM bag-ACC bought]-C said Q
      ‘Did Momoko say [that the man bought a bag]’?

(4) * Akemi-wa [[ __ kaban-o naze nusunda] dansee]-o sagashimashita ka?
    Akemi-TOP [[ __ bag-ACC why stole] man]-ACC looked for Q
    ‘Why did Akemi look for [the man [that __ stole the bag <why>]’?

Figure 1. Interaction plots per group (error bars represent 95% confidence interval).

References