



## Evidence for and against Rexeisen's Boomerang Hypothesis among study abroad returnees

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*This paper compares three studies offering partial support of Rexeisen's Boomerang Hypothesis (2012-2013) with four contrastive studies suggesting not all study abroad gains readily erode. It concludes by considering factors that appear to reduce the likelihood of study abroad gains attriting, and also conditions that may make such erosion more likely.*

### The Boomerang Hypothesis

It is not uncommon in the social sciences for one term to have multiple meanings. The concept of a "boomerang hypothesis" is no exception. This term first appeared in the field of social psychology in the 1950s to describe a reaction to a persuasive message, prompting some receivers to act conversely to the message. It seems some social messages will be resisted, causing at least some to behave contrary to a desired outcome (Hovland, Janis & Kelly, 1953). Sensenig and Brehm (1968) regard boomerang effects as a type of anti-conformist "social reactance" against a perceived loss of freedom. This notion is illustrated in the film *Harold and Maude* (1971), in which the main character goes out of his way to do things his mother disapproves of. Research on boomerang effects is common in the drug abuse literature (Synder & Blood, 1992; MacKinnon & Lapin, 1998; Hornik, Jacobsohn, Orwin, Piesse, & Kalton, 2008). It has also been documented in other types of consumer behavior: appeals to consume product-X can sometimes backfire and lead to a preference for product-Y. *Reverse psychology* (MacDonald, Nail, & Harper, 2011) and *paradoxical marketing* – making a product difficult to obtain in order to increase the desire for it – (Brown, McDonagh, & Shultz, 2013) both skillfully attempt to manipulate boomerang effects.

In the field of study abroad, the boomerang hypothesis may have a different meaning. Rexeisen (2012-2013) describes it as a return to a baseline behavior and form of attrition. He conducted a longitudinal study of 139 American undergraduates who spent a semester abroad in London. Those respondents took Hammer and Bennett's (2002) *Intercultural Development Inventory* (IDI) four months prior departure, just prior to returning home, and again four months after their return to the USA. Cross-cultural sensitivity as measured by that instrument improved significantly towards the end of the study abroad (SA) experience. However, after a semester home a significant erosion occurred: cross-cultural sensitivity declined to a level of almost no net improvement. The process by which short-term SA gains tend to erode over time in post-return settings can be described as a "boomerang effect."

Rexeisen's study focused on cross-cultural sensitivity, yet the erosion process he observed may prompt us to consider whether or not other study abroad gains also tend to diminish over time. Let us consider some research supporting Rexeisen's notion of a "boomerang effect" with other studies suggesting this may not be true under all conditions.

### Studies in Favor

#### Cohen (1989)

Cohen explored the vocabulary attrition of his own children at one-month, three-month, and nine-month intervals after completing a one-year sojourn in Brazil. The children (aged 10 and 14) were asked to complete a picture-based storytelling task in Portuguese, and then in their native English and Hebrew. Their lexicon appeared to shrink over time. In particular, their ability to use nouns decreased. Interestingly, they could passively recognize many of the words that they were

unable to actively employ. Cohen also described how his children adopted various compensation strategies for their shrinking Portuguese language vocabulary. Increased reliance on their English and Hebrew L1s, circumlocution, and word approximation became more prevalent as their L2 vocabulary dwindled.

A cautionary note regarding this study is that childhood L2 attrition might not parallel adult L2 attrition. It should also be noted that his children's L1 use also declined with each session. It is quite possible that the informants simply got bored of describing the same picture-story over and over. Despite this probable design artifact, Cohen suggests how L2 vocabulary loss can occur following an overseas sojourn, which can be interpreted as a "boomerang effect."

### **Merino and Avello (2014)**

In this study, a group of 28 Catalan/Spanish EFL learners and a group of 26 native speakers of English were examined for changes in intercultural awareness after a three-month study abroad period. The Catalan/Spanish speakers were university students who had completed a compulsory study abroad program in an English-speaking country, and the native English speakers were university students learning Spanish as a second language and participating in an exchange program in Spain. A composition test on the theme of adapting to the customs and way of life of a foreign country when living abroad was analyzed for positive indicators of intercultural awareness. The Spanish speakers were tested four times: when entering university, after a six-month formal instruction period in their home university, immediately after returning from their study abroad, and 15 months after their return. The native English speakers were tested once for comparison at the end of their study abroad in Spain.

Although no increase was found in the Spanish speakers after the formal instruction period at home, a significant number of learners in both groups showed positive intercultural awareness following the SA period. A subset of 18 Spanish speakers who were available for the delayed post-test 15 months later showed a reversion to the pre-study abroad level of intercultural awareness as measured by a Cochran's Q analysis. The authors concluded that, "the positive short-term effects which had resulted from the SA experience were not maintained in the long run, given the absence of further immersion in the L2 community" (Merino & Avello, 2014, p.304).

As there was no formal instruction in intercultural awareness pre or post-SA for the participants in this study, it cannot be known whether the attitudinal gains could have been maintained with follow-up instruction on interculturality at home.

### **Fujio (forthcoming)**

This study explored how two Japanese university students who participated in a one-month study abroad program in Canada appeared to change one year after returning to Japan. Specifically, it examined how their linguistic and strategic competence changed following their return, and how their pragmatic turn-taking style may have attrited. Whereas both respondents demonstrated many marked L2 improvements immediately after returning from study abroad, one year later their fluency (as measured by their word count per minute) regressed to nearly the pre-departure level. By contrast, Fujio maintains that sentence level complexity was "somewhat maintained." In other words, students tended to produce longer sentences even one year after returning than prior to departure. However, their speech production rates tended to slow down. This study supports Rexeisen's Boomerang Hypothesis in terms of fluency loss, but questions whether or not syntactic decay attrites so rapidly.

One limitation of this study was the way "complexity" was measured: the category "words only" could imply both pragmatically complete sentences with deictic elision such as "Good" as well as pragmatically incomplete phrases such as "The population . . ." However, a particularly nice feature of this study is how it points out not all aspects of linguistic skill erode at the same rate.

Fujio also emphasized that the attrition process is not linear: substantial information can be forgotten in a short period of time.

### Counter Studies

#### Sasaki (2011)

This 3.5 year longitudinal study explores the effects of SA on 37 Japanese English majors. Twenty-eight of those studied abroad in English-speaking countries for periods ranging from 1.5 to 11 months, while nine remained in Japan during the entire observational period. This research relied on three instruments. First, argumentative essays were collected once a year for four years, then rated independently and blindly by two EFL writing specialists according to Jacobs, Zinkgraf, Wormuth, Hartfiel, and Hughey's (1981) *English Composition Profile*. Second, 30-minute interviews were conducted in Japanese "about their experiences related to English learning over the previous year" (p. 89) shortly after each essay was written. Finally, a 30-60 minute interview was held during each informant's fourth year to discuss their L2 motivation. Data was then interpreted in terms of models proposed by Dörnyei and Otto (1998), Kanno and Norton (2003), as well as Yang, Baba, and Cumming (2004).

Students who studied abroad for less than eight months tended to make short-term writing gains in their second and their years, but they regressed by their fourth years. By that point they had earned most of their required English credits and were then focusing mainly on job-hunting rather than English study. By contrast, Sasaki noted that students who spent more than eight months overseas appear to have become "intrinsically motivated" (p.100) English learners, voluntarily practicing their L2 writing. For those twelve individuals, L2 language loss did not appear to be occurring. This suggests that a "boomerang effect" may not be universal: for students who are extrinsically motivated to study English only to earn academic credits, it might in fact occur. However, those who reach a certain threshold and become motivated to interact with others in a target language are likely to continue learning.

One main limitation of this study is its modest sample size. Sasaki's sample size would be more than adequate for a qualitative study, but it was arguably too modest for a quantitative approach. In addition, participants in this study who went abroad four months or more were required to achieve high TOEFL scores prior to departure. This may have motivated them to study more than others, representing a possible confounding factor.

Despite these limitations, Sasaki's study gives us a guardedly optimistic message that L2 attrition need not occur if SA participants reach a point at which they become intrinsically motivated as lifelong language learners. She also points out how "imagined communities" (p. 99) and socialization in L2 communities can have a decisive impact on L2 writing development. Sasaki's results prompt us to consider the L2 learning "ecology" metaphor espoused by Kramsch: instead of conceptualizing foreign language learning as a primarily cognitive activity, we need to remember "the dynamic interaction between language users and the environment as between parts of a living organism" (as cited in Sasaki, p. 103).

#### Engstler (2012)

The sound perception and speech production of seventeen American students of French who spent a semester in France was assessed at two-, five-, and nine-month intervals after their return to the USA. No evidence of language attrition was discerned during that time period. Indeed, the performance in some tasks such as AX discrimination (which can be likened to a minimal pair contrast) improved within that time frame. In terms of sound production, the only task that did not exhibit improvement in this time frame was word repetition: participants were better at accurately repeating the sounds of recorded French words shortly after returning from France. However, after 5 or 9 months in the USA, their pronunciation tended to be less accurate. The author concluded that,

overall “learning that takes place during an L2 immersion period seems to be robust for at least nine months after the end of the immersion period” (p. 93). Taken together, what the results suggest is that some aspects of foreign language learning (such as phonological awareness) resist erosion. However, other aspects (such as pronunciation) may be more prone to attrite in shorter time frames. This study provides further evidence of how not all L2 linguistic skills erode at the same rate.

The author conceded that this study might have had some selection bias: there was considerable competition for the SA slots, and the informants who participated in this study all tended to be highly motivated. When interpreting the results, we should remember that this study measured listening ability *only* in terms of AX minimal pairs. It would be incorrect to infer that particular type of sound discrimination accurately measures global listening ability.

### **Llanes (2012)**

This study compared the written and oral English language proficiency of nine 11-year-old Catalan/Spanish bilingual children who participated in a two-month study abroad program in Ireland with seven of their classmates who remained in Barcelona and continued regular instruction during the program. The study abroad participants received an average of six hours of classroom English exposure each week: four hours of English language classes and two hours of Science classes in English. All of the subjects completed a pre-test one week before the study abroad period, a post-test one week after the SA participants returned, and a delayed post-test 12 months after returning.

The tests included a 15-minute written composition; an interview consisting of biographical questions and a picture-elicited narrative task; and a questionnaire administered in Catalan/Spanish to gain information on L2 practice and exposure. Written and oral skill development was determined using measures for written fluency (ratio words per T-unit), oral fluency (pruned syllables per minute), lexical complexity (Guiraud’s Index of Lexical Richness), syntactic complexity (ratio of clauses per T-unit), and accuracy (error-free T-units per T-unit).

The results showed that the SA participants experienced greater gains than the at home participants in the post-test, and the author noted that despite not being statistically significant, “SA participants still registered higher scores in the delayed post-test in most of the variables examined” (Llanes, 2011, p. 185). Although the number of participants in this study was low and, therefore, the results not generalizable, Llanes believes that this study suggests that gains made in a short-term study abroad program can be long lasting for children.

### **Newfields (2012)**

This is a 27-month longitudinal case that juxtaposed the linguistic, socio-cultural, and virtual identities of two Japanese university students who participated in a three-week SA program to Britain in 2009. Using a contrastive convenience sample, one student who did particularly well during that SA experience (as determined by his grades) was compared with another with especially low marks. Based on a systematic analysis of their social network sites and a semi-structured interview two and a half years after their SA return, some striking contrasts were noted.

Whereas the first student was continuing to actively learn (and use) English, the second student essentially stopped learning when her SA program had finished. She did not identify herself as an English user. However, once or twice a year she would exchange messages in English with foreigners. To her, L2 correspondence was less threatening than direct L2 face-to-face encounters because it gave her plenty of time to consult her dictionary and confirm whether or not her grammar seemed correct. By contrast, the first student remarked how using English had become intrinsically fulfilling, and he regularly exploited opportunities to continue to learn that language. The Facebook sites of these two informants reflect the differences in the ways they position themselves vis-à-vis English: whereas Student A’s site contains about 35% English material, Student B’s site is solidly in Japanese.

For Student A, the initial SA experience became a springboard to engage in other English study opportunities. For Student B – who spent most of her time chatting with friends in her L1 while abroad – it was merely a touristic excursion that confirmed her belief that foreign languages were not her forte.

With only two informants, this study has obvious sampling limitations. Moreover, it often lacked detailed time markers and the structured interview should have been repeated several times to give a more precise picture of what sort of longitudinal changes occurred. Nonetheless, this study provides some evidence to suggest that SA linguistic and cultural gains do not necessarily erode.

## Conclusion

This article has highlighted a few of the studies exploring the long-term effects of SA. Even a cursory overview of the literature suggests that some forms of linguistic attrition do tend to occur following an SA experience, but such attrition is not inevitable. In particular, those who are “intrinsically motivated” learners appear to be less likely to attrite than extrinsically motivated learners. Moreover, it would appear that those with robust L2 “imagined communities” and L2 networks of friends are less likely to attrite than those with very limited L2 social networks. Finally, there is evidence to support at least some variation of the Threshold Hypothesis (Neisser, 1984; Hansen, 1999), suggesting that L2 learners who have achieved a high degree of fluency in a target language are more impervious to what Rexeisen (2012-2013) would call a “boomerang effect.”

Conversely, it seems that SA participants with low-levels of L2 fluency, very limited social networks in the target language, and an extrinsic motivation to learn English only to obtain academic credits are more likely to lose many of the linguistic gains they have obtained from overseas study relatively rapidly. The extent to which they will lose other sorts of study abroad gains is an open question. As McKeown (2009, p. 91) has pointed out, many of the main benefits of SA appear to be in non-linguistic domains. Changes in participants’ attitudes towards the host country they visited and/or towards multiculturalism in general might last significantly longer than the specific vocabulary items or grammatical structures that they have learned.

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