

Language attrition and reactivation in childhood. A case study

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Language Attrition in Bilingual Returnees

- ❖ 2nd / 3rd generation migrants, who have lived for an extended period in a migration context (childhood / adolescence) and have, at some point in their life, returned to their (or their parents') country of origin (Daller, 1999).
- ❖ **In the host country:** majority language (L2 / 2L1) » dominant language
heritage language (L1 / 2L1) » weaker language
- ❖ **Return:** substantial input alternation
 - ✓ Increasing exposure to the heritage language: HL becomes the majority language
 - ✓ Decreasing exposure to the once dominant L2: becomes the minority language.
- ❖ Loss of contact may occur during childhood, adolescence, adulthood.
- ❖ **Degree of contact after return** may range from 'less, but still daily contact' to 'total lack of input'

Language Attrition in Portuguese returnees from Germany (Flores 2008, 2010, 2012)

Flores (2010)

- **Participants:** 16 returnees (mean age 20.8; SD: 6.6): Portuguese-German bilinguals who grew up in Germany/Switzerland

Age at return: child returnees (7-10 yrs; mean: 8.4; SD:1.3);

teenage returnees (11-14 yrs; mean: 12,5; SD: 0.9)

Length of residence: 2 to 23 years

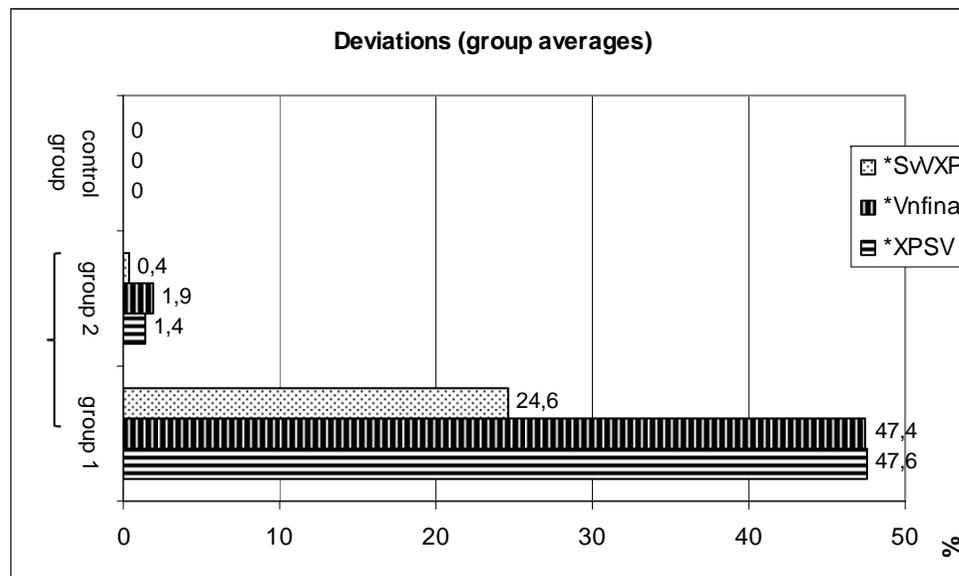
Amount of German input after return: residual – complete loss.

- **Method:** (semi-)spontaneous speech
- *Verb placement:* V2 placement (XP V S)
 - Verb final in embedded sentences (OV)
 - Verb final in complex verb forms (SvOV)

Flores (2010)

Some results

P < 0.001



- (1) *XPSV: *mit neun Jahre ich **kam** zu Portugal.
*at the age of nine I **came** to Portugal*
- (2) *Vnfinal: *wenn wir **willen** in nen Platz gehen
*when we **want** to a place go*
- (3) *SvVO: *(dann) sie will **finden** ein noivo.
*then she wants **to find** a husband*

Flores (2010)

The Results show...

- a) Instability with regard to verb position in the speech data of the informants who returned in early childhood (until age 11);
- b) Stability of this domain in the group of speakers who returned in adolescence, even if there is a long period without exposure to the target language.
- c) The control group demonstrate that in the age span of 6 – 8 early successive bilingual children have acquired verb placement and do not show deviations in this domain.

Flores (2012)

‘Narrow syntax’ property (verb placement) vs. ‘interface property’ (object realization)

		Pronominal Object	*Null Object	Topic-Drop
Group 1 child returnees	Mean	41,5	47,3	11,2
	Std. Deviation	16,6	16,2	8,6
	Range	20-70	30-80	0-24
Group 2 teenage returnees	Mean	50,6	34,4	15,0
	Std. Deviation	10,2	5,2	10,5
	Range	33,3-65,3	28-43	4,1-33,3
Adult Control Group	Mean	88	1,9	10,1
	Std. Deviation	1,6	2,7	3,4
	Range	86-90,3	0-5,6	5,6-14
Child Control Group	Mean	90,2	0	9,8
	Std. Deviation	10,7	0	10,7
	Range	77,8-100	0	0-22,2

‘Teenage returnees’ have *no problems* with verb placement (**narrow syntax**) but show deviations in the domain of object realization (**interface property**)

- Linguistic domains are differently affected by attrition (Köpke & Schmid 2004; Sorace 2004)

Table 4. Object expression. Mean values (in %), standard deviation and minimal / maximal values per group. (Flores, 2012)

The data lead to the conclusion that...

- ❖ Verb placement has been acquired:
 - Bilingual controls have no problems with V2/OV;
 - All speakers produce V2 and OV-structures.
- ❖ But it seems that acquired knowledge needs to be stabilized over time in order to become less vulnerable (to cross-linguistic influence). / Children need enough contact with the target language until a certain age span.
 - This stabilization process seems to end around age 10 – 11 in the case of ‘narrow syntax properties’ (verb placement in German). After this age limit certain grammatical aspects are no longer susceptible to attrition
- ❖ Other domains (pronominal object realization) are more vulnerable to decreasing input – attrition occurs also in older attriters (no maturation).

Remaining questions:

- ❖ When do first attrition effects in these domains appear? Within the first year?
- ❖ Can we observe a progressive decline?
- ❖ What about other domains (e.g. nominal morphology; subject expression)?

Flores (2015): Longitudinal case study

Child returnee [Ana]

- Lived in Germany since the age of 1;02 years.
- Returned to Portugal when she was **9;04** years old.
- Was highly proficient in German (=dominant language); Portuguese = heritage language.
- Lack of contact with German after return.

Period of data collection:

- 3 weeks – 5 months – 13 months - 18 months after return (4 sessions)

Method:

- (semi) spontaneous oral production (conversation, interviews, story telling, picture descriptions) + sentence completion task

Linguistic domains:

- Morphosyntax: word order (verb placement); object + subject realization; verb and nominal morphology (gender, case)

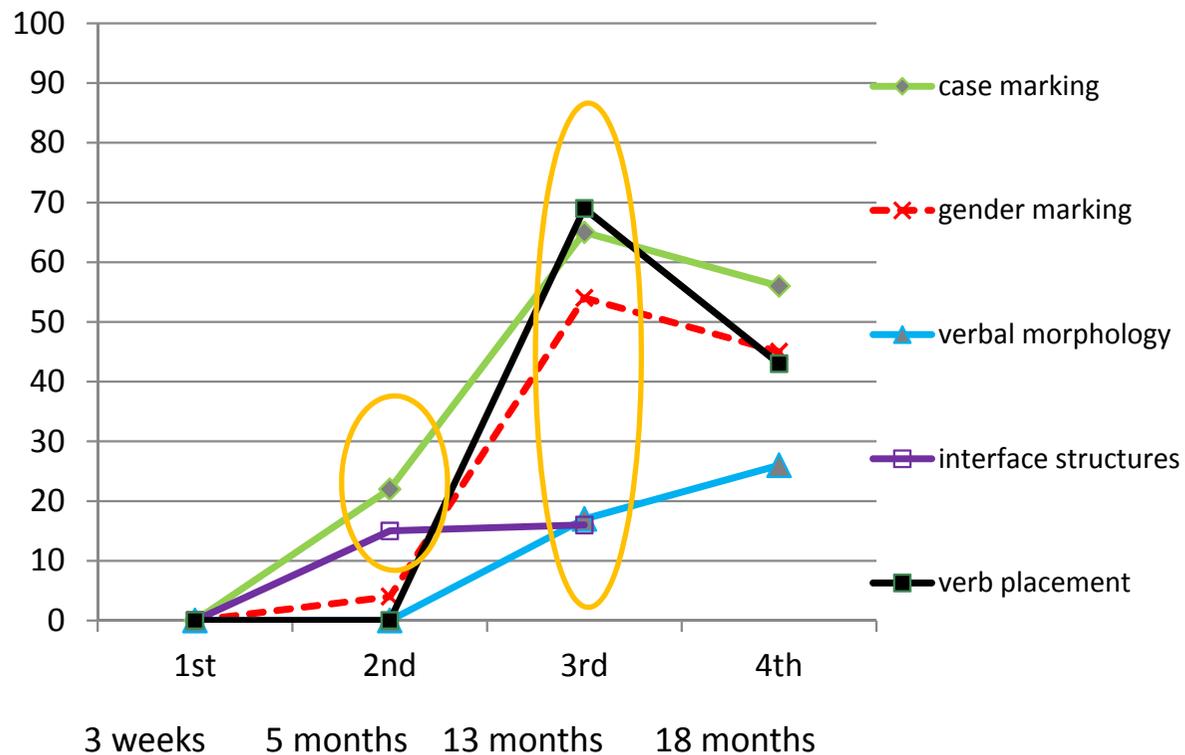
Flores (2015)

Some specific research questions

- ❖ When do the first effects of attrition appear? Does the data confirm proposal that the **onset of attrition is set by the fifth month** after the loss of input in childhood (e.g. Kuhberg 1992)?
- ❖ If the linguistic domains under investigation are affected by attrition, does the child show difficulties in all domains at the same time or is there an order of proficiency decline?
- ❖ Which properties are affected first? Does the informant display more difficulties in the domain of subject expression (interface property) than in the domain of verb placement (‘narrow’ syntax)?

Flores (2015)

Summary of the results



Fast decline of Ana's linguistic competence (in German):

- First attrition effects after **5 months** – some word retrieval difficulties (inappropriate subject omission, case errors), no verb placement + verbal agreement deviations
- Severe attrition effects in all domains after **13 months**.
- Severe inhibition /loss of productive skills **18 months** after return
- Controlled sentence production task in the last session.

Flores (2015)

Some examples

5 months after return

(4) I: Was machst du so am Wochenende?

'What do you do at the weekend?'

A: * \emptyset Spiel mit meine Freunde. ----- Subject omissions
play with my friends ----- Case problems (dative)

'I play with my friends.'

[Correct: Ich spiel(e) mit meinen Freunden.]

(5) I: Mit wem warst du denn da?

'With whom have you been there?'

A: *War ich mit die Tante von meine Mutter da. ----- Subject-verb inversion
was I with the aunt of my mother there ----- Case problems (dative)

'I was there with the aunt of my mother.'

[Correct: Ich war mit der Tante meiner Mutter da.]

Flores (2015)

Some examples

13 months after return

- (6) *Vielleicht hat \emptyset ein Kind. ----- *Subject omissions Use of infinitives
probably has a child
'Probably she has a child.'
- (7) *Dann der Hund **ist** Krankenhaus für Tiere. ----- *V3 (9) . . . , weil meine Mutter **arbeiten** acht Uhr.
then the dog is hospital for pets because my mother workINF eight o'clock.
'Then the dog is in the animals' hospital.' 'because my mother works until eight o'clock.'
[Correct: Dann ist der Hund im Krankenhaus für Tiere.] [Correct: . . . , weil meine Mutter bis acht Uhr arbeitet.]
- (8) *dass **die** Junge und das Mädchen sich **setzen** auf ein Stuhl. ----- *SVO in subordinate clauses
that the boy and the girl them sit on a chair ----- *gender (random assignment)
'That the boy and the girl sit on a chair.'
[Correct: . . . , dass der Junge und das Mädchen sich auf ein Stuhl setzen.]

Ana's language competence 18 months after return

- ❖ Severe lexical retrieval difficulties, which constrain production.
- ❖ Instable / variable knowledge of verb placement patterns, gender and case morphology, use of non inflected verb forms, inappropriate subject omissions.
- ❖ Comparison with previous data from Flores (2008, 2010, 2012) suggests maintenance of this instable knowledge over the lifetime in the case of continued lack of contact.
- ❖ Attrition effects appear in the first years after return (input reduction), when it occurs in childhood (Olshtain 1983) – further length of residence does not play a role.

➤ What happens in case of re-immersion in the German environment?

Follow-up study: Re-immersion in the L2 environment

- ❖ Return to Germany at the age of **13 years** (7th grade).
- ❖ Data collection (same methodology): 11 months after re-immersion in the German environment.
- ❖ Corpus: 26:53 min, 1147 words, 264 sentences (free speech) + 30 sentences (elicited production)

Questions:

- ❖ Does Ana's linguistic competence in German re-stabilize 11 months after immersion in the German environment?
- ❖ In all domains at the same level?
- ❖ Or are there more vulnerable domains? If so, is the 'first-out' property (subject expression + case) the 'last-in' domain?
- ❖ Is it reactivation or relearning?

Results

❖ Some **lexical retrieval difficulties**, but overall fluent speech.

Examples:

(10) I: Wie nennt man so eine Person? Weisst du das?

‘How do you call such a person? Do you know?’

A: Warte. Ich wusste. Hab gestern gehört. Warte. [target=Obdachloser / homeless]

‘Wait. I knew it. I heard it yesterday. Wait.’

(11) Und macht so eine **Fotografie** [target= Ultraschall / ultrasound]

‘And made a kind of a photo.’

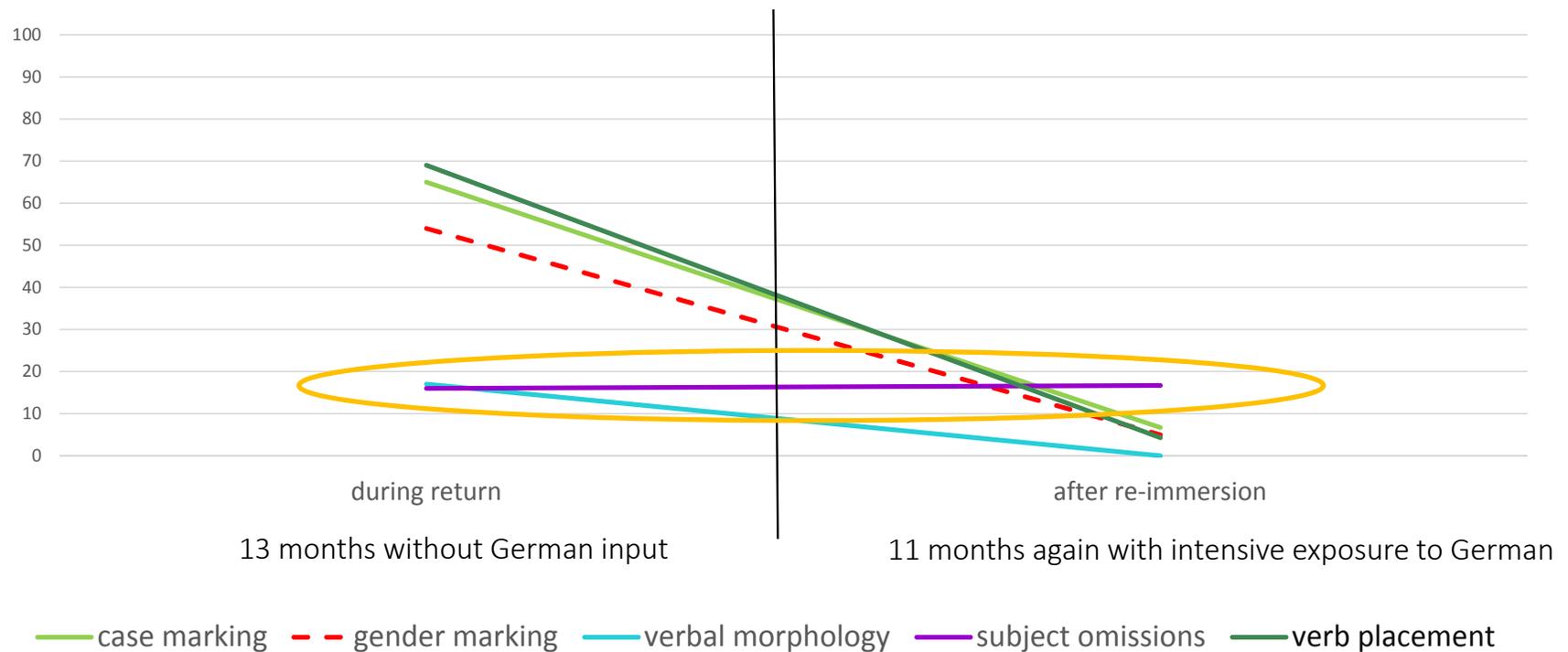
(12) Er **bittet um** Geld

‘He asks for money.’ [target: bettelt / begs]

Results:

comparison during return / after re-immersion

Figure: Deviations (%)



Results

❖ Verb placement – *residual deviation*

- Verb-second: 33 sentences (*SVO not included*) - 2 *XPSV [6.1%]

(13) ***Hier die haben** einen komischen Akzent (aber **da machen sie** Sachen schneller.)
here they have a strange accent (but there do they things faster)
'Here they have a strange accent, but there they do things faster.'

- Verb-final in subordinate clauses: 14 *Vfinal*; 7 *non-final weil-clauses* or with an *appositive adjunct* (*target in colloquial German*).

(14) Ja. Wenn ich in den Ferien **bin** im Sommer.
yes. when I in the holidays **am** in+the summer

❖ No deviations in **verbal morphology**

Results

❖ Nominal morphology – *residual deviation*

■ PP / DP – total 135; 21 with some kind of deviation:

* **gender** (7/135) - 5.2%

(15) Und **das**^{NEUT} Rest ist einfach Restmüll. [target: **der**^{MASK} Rest]
and the^{NEUT} remain is only residual waste

* **case** (9/135) – 6.7%

(16) Mit **meine**^{ACC} Mutter manchmal [target: **meiner**^{DAT} Mutter]
with my^{ACC} mother sometimes

* **number** (3/135) - 2.2%

(17) Da sind ältere Büsse. [target: Busse]
there are older busses

* **article omissions** (3/135) - 2.2%

(18) Die schmeißen auch mehr Sachen **in** Boden [target: auf den^{ACC} Boden]
they throw also more things at floor

Results

❖ Subjects, expletives and inversion - *expressive deviation*

ungrammatical null subjects in V2

(19) *aber da sind \emptyset so ein Bisschen schneller und so schlauer.
but there are so a little faster and much cleverer
'But there they are much faster and cleverer.'

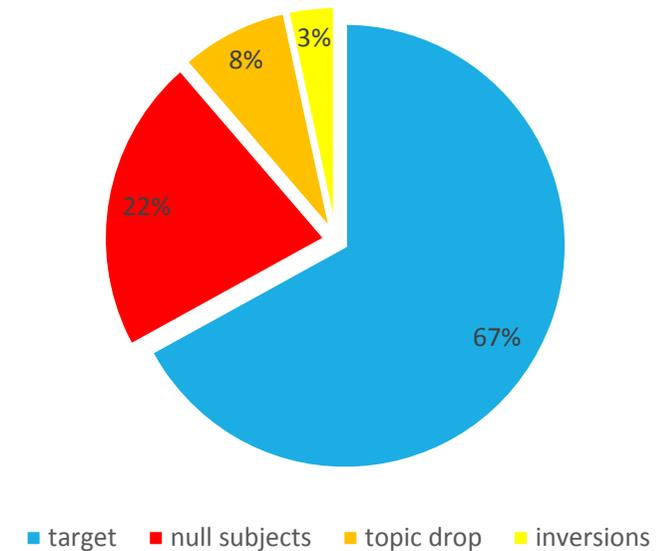
es-Omissions

(20) I: *Das ist eine?* A: Ich weiss nicht, ob \emptyset ein Mann oder eine Frau ist.
I know not if a man or a woman is
'I: *This is a?*' 'A: I don't know if it is a man or a woman.'

Inappropriate inversions

I: *Wie lange warst du in Portugal?* 'I: *How long have you been in Portugal?*'
A: Drei, zwei Jahre. \emptyset Weiss \emptyset nicht so genau. Aber **war es** gut.
but was it good

Topic drop \emptyset Weiss \emptyset nicht so genau
know not so exactly
'Three, two years. I don't know exactly.'



Discussion

- ❖ The attrited language (German) was not 'lost', but highly inhibited during the stay in Portugal, which led to severe word retrieval difficulties, problems in all analyzed grammatical domains.
- ❖ Re-immersion activated Ana's knowledge: properties that are hard to acquire by L2 learners – nominal morphology + verb placement – are almost fully mastered (residual problems). »» No reacquisition but **reactivation** of knowledge that was already acquired.
- ❖ The domain that was first affected by lack of input (subject expression – interface property) remains problematic »» is the most sensitive to input alternations: permeability to **transfer from the dominant language**.
- ❖ Effects may disappear if language dominance changes (switch to German dominance).

Conclusions

- ❖ Linguistic knowledge that is acquired naturally in childhood **is not completely erased** (as proposed, for instance, by Pallier et al. 2003 in the case of international adoptees) if input alternations occur before puberty.
- ❖ But it becomes highly inhibited and vulnerable to dominant language transfer (not stabilized knowledge).
- ❖ This instability remains over the life span if input conditions do not change.
- ❖ Certain linguistic domains are highly vulnerable to language dominance (pronominal realization). Attrition effects appear 5 months after loss of contact and remain even after re-immersion.
- ❖ To distinguish from 'incomplete acquisition' (= properties never fully acquired).
- ❖ Reactivation of knowledge **that was acquired**: ex. Au et al (2002), Bowers et al. (2009), for phonology.
- ❖ Reactivation and not relearning (see also Dahl et al. 2010)

Thank you
Obrigada
Danke schön

