Heritage Bilingual Acquisition and Syntactic Change

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In contexts in which heritage bilingual speakers show distinctions in their grammars in comparison to monolingual speakers it is often argued that they have undergone
- **incomplete acquisition;**
- **attrition.**
(see e.g. Montrul 2007, 2008; Polinsky 2007, 2008; Silva 2008; Silva-Corvalán 1994, 2003, Sorace et al 2009).

This has been argued specifically in the context of bilingual acquisition in larger communities that are predominantly monolingual, as it is the case in the United States.

Goal of this talk:
To evaluate the nature of the outcomes of bilingual competence under an interdisciplinary perspective, taking into account predictions from syntactic theory and language change in connection with acquisition.

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The linguistic competence of heritage speakers has often been shown to have distinct properties from the competence of monolingual speakers.

Main argument of this paper:
Bilingual heritage speakers' competence in their home/heritage language (HL1, henceforth) can in some cases be formally treated as a new language, partially or significantly distinct from the linguistic competence of monolingual speakers.

Road map:
- Incomplete acquisition/attrition: methodological questions.
Heritage language acquisition and:
- The poverty of the stimulus argument.
- Mechanisms that favor linguistic variation and diachronic change.
- The partial or total absence of the normative effects of language standardization.
- The potential effects of language contact.

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Incomplete acquisition?
Different studies have shown that the linguistic competence of bilingual heritage speakers in L1 (the home heritage language) is deficient in various linguistic domains, when compared to monolingual norms
(e.g. morphology, syntax, interface syntax-semantics).

Methodological approach in different studies:
The linguistic competence of bilingual speakers is compared by different researchers to the monolingual speakers of other speech communities (sometimes the ones where the immigrant parents come from; e.g. bilingual Spanish-English speakers in the US vs monolingual speakers from Latin America).

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Hypothesis in different studies: the final target of the heritage (HL1) and monolingual L1 acquisition are the same, in their structural and formal properties.

In case the heritage speakers do not show competence equivalent to the monolinguals, the difference is assigned either to incomplete acquisition or to linguistic attrition.

Common conclusion: Heritage speakers have incomplete or partial knowledge of their HL1 (e.g. Montrul 2007, 2008).

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Grammar reduction (under conditions of immigration) when it is passed from one generation to the next, i.e. incomplete learning of a language system (e.g. Polinsky 2007:178, 2008).

American Russian (Polinsky 2008), for instance:
- Loss of passives;
- Virtual loss of genitive of negation.
- Preposition-governed obliques are replaced by preposition with nominative (not possible in "Full" Russian).
- Case system reduction to a two-case system, in which nominative becomes multifunctional and accusative is normally used for indirect object (e.g. in double object constructions such as 'The boy told the girl-ACC a story-NOM').

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Generative linguistics perspective

Full linguistic competence as a normal outcome:
Standard view regarding the interaction between the faculty of language and children's linguistic experience is that any normal child can acquire linguistic competence despite significant deficiencies in their linguistic experience.

Plato's Problem: How is it possible for us to know so much, despite so little evidence? (Chomsky 1986).

Poverty of the stimulus: data deficiency at three levels (e.g., Hornstein & Lightfoot 1981, Anderson & Lightfoot 2002, Yang 2006):

The linguistic input a child is exposed to is not uniformly made up of complete grammatical structures.

The available data are limited, but the child acquires the capacity to understand and produce an infinite number of novel sentences.

The child has knowledge of structures for which there is no sufficient evidence in the primary linguistic data (absence of negative evidence in PLD)

In view of these factors, **one should expect that both in monolingual and bilingual contexts the child can obtain native competence of one or more languages.**
Human beings are naturally fit to be multilingual (Meisel 2007).

In parallel…

Variable success rate in the context of bilingual acquisition (see e.g. de Houwer 2007), and continuum of outcomes in the context of heritage bilinguals.

However, evidence beyond heritage bilingualism research indicates equivalence in the linguistic competence of child bilingual speakers and monolinguals in different contexts.

Meisel (2001 and later work): **early differentiation and successful development of two languages in bilingualism** (e.g. early acquisition around age 1;10 of V2 vs. non-V2 properties by German/French bilinguals).

Petitto & Kovelman 2003 – **The bilingual paradox**
"On the one hand, we freely marvel at the seemingly effortless ways that young bilinguals can acquire two or more languages if they are exposed to them early in life.
On the other hand, we also fear that exposing a child to two languages, too early, may cause developmental language delay and, worse, language confusion."

Children acquiring Langues des Signes Québécoise and French, or acquiring French and English (e.g. Petitto & Kovelman 2003, Petitto et al. 2001)

both groups:
- **achieved their early linguistic milestones in each of their languages at the same time, and similarly to monolinguals** (first word, first two word sequences, first 50 words).
- Produced a substantial number of semantically corresponding words/translation equivalents in each of their two languages from their very first words or signs (see also Pearson et al 1995).
- Were sensible to the interlocutor's language by altering their language choices.

In sum, precise evidence of success of native bilingual acquisition by different populations.

Parallel evidence for the success of the acquisition task from Adult L2 acquisition.

On the one hand…
Critical period hypothesis: adult and child language acquisition differ in route and outcome (e.g. Long 2005, Hyltenstam 1992).

On the other hand, **different studies in generative second language acquisition provide evidence that the critical period hypothesis does not apply uniformly to different phenomena, across sets of adult learners.**

Increasing evidence that there is no critical/sensitive period for adult L2 acquisition of syntax and semantics:

Montrul & Slabakova 2003: evidence that adult learners of L2 Spanish (L1 English) acquired interpretive properties of grammatical aspect (preterit vs Imperfect) considered to be POS knowledge.

(1) El vestido me   quedó/ quedaba bien.
   the dress to-me fit-PRET/ *fit*-IMPF *well*
      "The dress fit me well."
(2) *Pedro   leyó/   leía en el jardın.*
   Pedro read-PRET/*read*-IMPF *in the yard*
      "Pedro read in the yard."

Montrul & Slabakova 2003:

70% of the near-native group performed like native speakers on all sentence types in all tasks.

Sentence conjunction task:
(1) *La clase **era** a las 10 pero empezó a las 10:30.*   **logical**
     "The class was-IMPF at 10 but started at 10:30."
(2) *La clase **fue** a las 10 pero empezó a las 10:30.*   **contradictory**
     "The class was-PRET at 10 but started at 10:30."

Rothman, Judy, Fuentes & Pires 2010: adult L2 acquisition of Spanish [N, Adj] ordering and corresponding semantic distinctions.

L1 English advanced (n=24) and L1 English intermediate (n=21) learners of L2 Spanish, compared to a control Spanish monolingual group (n=15).

Semantic interpretation task

(1) *A Juan le gustan __las mujeres fuertes__.*
 'Juan likes strong women.' **(set-denoting)**

| He likes women who have the characteristic of being strong. | He likes women in general because all women are by definition strong. |

(2) *__Los valientes incas__ resistieron a los conquistadores.*
'The brave Incas held off the invaders.'
(kind-denoting)

| Only the brave Incas, e.g. not the cowardly ones, resisted the conquerors. | The Incas, who are all brave, resisted the conquerors. |

Context-based collocation task

(3) **Prenominal Adjective (kind-reading)**
No hay super-héroe que no sea conocido por su coraje y fuerza; es decir ser super-héroe es tener mucho poder.
*Los _____ super-héroes _____ nunca tienen miedo de nada. (**valiente**)*

Figure 1: Results of the Semantic Interpretation Task
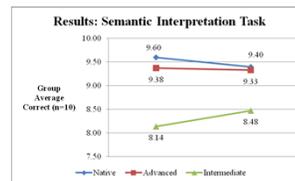
Statistical tests revealed no significant difference between the NS group and the AS group (p=1.00);

Significant differences were found only between the NS group and the IS group (p=0.001) as well as between the AS group and the IS group (p=0.001).

Song & Schwartz (2009)

Korean: wh-in-situ language, with an option to apply wh-phrase scrambling in most cases.

However, wh-phrase scrambling becomes obligatory when licensed by negation in the context of negative polarity items (NPI):

(1) SOV (Non-scrambled)
Amwuto mwues-ul mek-ci anh-ass-ni?
 Anyone **what-acc** eat **neg-past-q**
'Did no one eat something?' *'What did no one eat?'

(2) OSV (Scrambled)
Mwues-ul amwuto mek-ci anh-ass-ni?
What-acc anyone eat **neg-past-q**
'What did no one eat?'

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Song & Schwartz (2009)

Wh-question reading is blocked if there is no scrambling in such contexts, as the result of an 'Intervention Effect' (Beck & Kim 1997), which S&S take to be evidence of a poverty-of-the-stimulus property.

Korean L1 children as well as high-proficiency L2 (English L1) adults and children do not differ statistically from the adult native controls with respect to relevant interpretation of wh-phrases.

Elicited productions showed that all L1 Korean adults/children, all L2 adults (and many, but not all, L2 children) do not scramble wh-phrases in positive wh-questions.
All L1 Korean adults/children and part of the L2 adults/children scramble wh-phrases in negative NPI-context wh-questions with very little variation.

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In sum, evidence from different SLA studies indicate that even in the context of adult L2 acquisition learners overcome poverty of the stimulus problems in attaining native-like acquisition.

Should bilingual heritage language (child L1) learners be any different?

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Types of heritage speakers
Division of heritage speakers in at least two groups:

Functional HL1 speakers/HL1 overhearers – individuals who did not have sufficient linguistic experience in the HL1, and who show significant limitations in their proficiency, even when they are compared to proficient HL1s, regarding production or comprehension (often 3rd or later generations of speakers of heritage languages e.g. *HL1 overhearers,* individuals who can understand the HL1, but cannot produce it, see Au et al. 2002, 2008).

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(Fully)native HL1 speakers – individuals who acquired native competence in the HL1, and are proficient both in its comprehension and production. In general the 2nd generation of speakers of minority/heritage languages (see e.g. Silva-Corvalán 1994, 2003 about Mexican-Americans).

From a formal and cognitive standpoint, the competence of at least a subset of such speakers must be taken as linguistically equivalent to the any (monolingual) native L1.

In the case of minority/endangered languages, a parallel treatment applies, in the context of language shift, despite different levels of linguistic attrition and/or loss of the (H)L1.

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Methodological arguments

1) **Heritage speakers are not limited in their capacity to attain linguistic competence in their heritage language** (e.g. Pires & Rothman 2009b, Montrul 2010 and references therein).

Poverty of stimulus problems encountered in bilingual heritage language should not be qualitatively worse than what is found in monolingual and other bilingual contexts (e.g. adult L2 acquisition).

Crucially, the native competence of heritage speakers, even given differences from a monolingual norm, should not be seen a priori as qualitatively inferior to monolingual competence.
- Extending arguments regarding equality among [native] languages, including non-standard dialects (e.g. Bauer & Trudgill 1998).

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Methodological arguments

2) **The linguistic competence of heritage speakers should in principle be treated independently**, as representing distinct competence from the monolingual competence.

Factors favoring this proposal:
- Natural mechanisms that favor dialectal variation and diachronic change (e.g. Lightfoot 1991, 1999; Labov 1994, 2000; Tarallo 1989).

- Partial or total absence of the normative effects of linguistic standardization.

- Potential effect of language contact, which is absent or limited in the monolingual context (e.g. Thomason & Kaufman 1988, Thomason 2001).

Note: this does not preclude the relevance of comparative studies evaluating heritage vs. monolingual competence.

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Methodological arguments

3) **The grammars acquired by heritage speakers are naturally prone to variation and linguistic change**, in a manner that can be distinct and independent of the corresponding monolingual L1.

One should expect to find evidence of more significant variation and/or diachronic change (distinct from the L1 monolingual norms) in the HL1 competence.

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Mechanisms favoring linguistic variation and diachronic change

The geographical (or social) isolation between two speech communities that share the same language is one of the predominant factors that allow diachronic change to affect their grammars distinctively.

In addition, independently of linguistic contact between the monolingual community and the bilingual community of heritage speakers, socio-cultural differences among the different groups also favor dialectal variation (e.g. Lipski 2008).

 e.g. "dialects" of French, Portuguese, Spanish and English in Europe and in the Americas.

Papua New Guinea – geographical isolation (territory with about 600 islands) among different communities lead to what is considered the country with the greatest linguistic diversity: 830 languages (Lewis 2009).

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Factors affecting specifically the development of heritage grammars:
a. Possible interference from the child L2 (dominant language of the community);

b. L1 PLD from caregivers who may already show interference or attrition in their own production;

c. (Possibly?) limited input from the L1, especially after more frequent exposure to the L2 (a reinterpretation of the incomplete acquisition/attrition argument).

d. Reduced or lacking normative effects of standardization in the PLD from the L1.

Monolingual PLD > L1: Spanish, Russian, Portuguese...
(H)L1 PLD of the heritage speech community (+L2 PLD, e.g English) >
HL1-Spanish, HL1-Portuguese, HL1-Russian....

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Absence of the normative effects of linguistic standardization

Standardization or fixation of a linguistic norm for multiple speech communities in general requires that the speakers adopt formal properties of a distinct dialect.
"Being taught to replace one's native dialect with someone else's dialect can be disorienting, even if the new standard variety is not presented as better than the native dialect." (Koven 2007)

The challenge in this replacement also has to do with the fact that **the standard dialect is for many individuals akin to an L2**, which may require similar effort to be mastered by adults (see e.g. Kato et al 2009).

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The context of acquisition of a language HL1 is often characterized by the **absence of formal education** (sometimes including literacy) of the heritage speakers in the L1.

Heritage speakers should not acquire, or acquire only exceptionally, properties that characterize the standard norm of the L1, and which are also not part of the colloquial dialects of the L1 (or of the HL1).

Expectation is confirmed by Pires & Rothman 2009b, in comparison between heritage speakers of European Portuguese and of Brazilian Portuguese in the United States, regarding grammatical competence in the properties of inflected infinitives (see also Rothman 2007, and Pires & Rothman 2009a, Pires, Rothman and Santos 2010 for independent evidence regarding child acquisition).

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Verbal Paradigm of Portuguese

Uninflected Infinitives	Inflected Infinitives		Present Indicative	
	eu	fal+a+r+**Ø**	(eu)	fal+(a)+o
	(tu)	fal+a+r+**es**	(tu)	fal+a+s
Fal+a+r **'to speak'**	ele ela você	fal+a+r+**Ø**	(ele) (ela) (você)	fal+a+**Ø**
	(nós)	fal+a+r+**mos**	(nós)	fal+a+**mos**
	(vós)	fal+a+r+**des**	(vós)	fal+a+is
	(eles) (elas) (vocês) **'to speak–AGR'**	fal+a+r+**em**	(eles) (elas) (vocês)	fal+a+**m**

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Acquisition of inflected infinitives

- **GCT/Grammaticality Judgment/ Correction Task:** (adjusted for dialect) including contexts with inflected infinitives, non-inflected infinitives and finite morphology, to ensure a three way contrast.

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GCT conditions (n=4 each type)

Inflected infinitives as complements of factive matrix verbs

Inflected infinitives as complements of declarative matrix verbs

*Inflected infinitives in matrix clauses

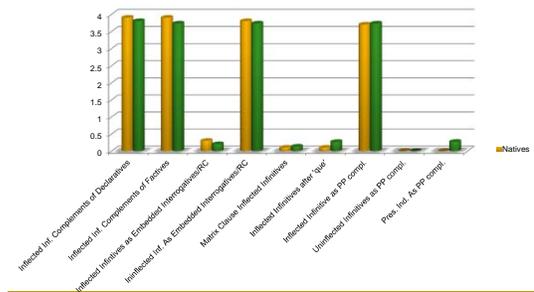*Inflected and uninflected infinitives w/the complementizer 'que'

Inflected & uninflected infinitives as embedded interrogatives /relative clause.

Inflected and uninflected infinitives in complement of PP w/ overt subject.

Present indicative and subjunctive controls.

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EP HSs -- GCT with Correction (n=4 each type)

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Acquisition of inflected infinitives

- **IMT/ Interpretation Matching Task :** testing obligatory and non-obligatory control properties, to distinguish between inflected and non-inflected infinitives.

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Interpretation Matching Task: Conditions

Properties distinguishing inflected and non-inflected infinitives in Portuguese (Pires 2006): obligatory vs. non-obligatory control

1) Lack of c-commanding antecedent
   Inflected infinitive, *uninflected infinitive

2) Ellipsis Contexts
   Sloppy reading =*Inflected, Uninflected
   Strict reading= Inflected,*Uninflected

3) Split Antecedent Interpretations:
   Inflected infinitive, *Uninflected infinitive.

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Interpretation Matching Task

*IMT Story***:** O Miguel estava em casa com o Ronaldo e a Margarida. O carro estava muito sujo e precisava de uma limpeza.

'Miguel was at home with Ronaldo and Margarida. The car was very dirty and needed cleaning.'

1. Test sentence with inflected infinitive (targetting lack/presence of antecedent):

      O   Miguel ficou satisfeito por lavarem   o carro.

      The Miguel was   happy   for **wash-INF-3PL** the car

      'Miguel was happy that (they) washed the car.'

a) *Wrong description***:** O Miguel lavou o carro sozinho (c-commanding antecedent)
                    'Miguel washed the car alone.'

b) *Correct description***:** O Ronaldo lavou o carro juntamente com a Margarida.
                    'Ronaldo washed the car with Margarida.'

c) Neither of the options above. What happened then?

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Sloppy vs. Strict Ellipsis

1) As meninas lamentam   **ter**   chorado e o Rui também.
(= Rui lamenta ter chorado)
    The girls$_i$ regret   PRO$_{i/*j}$ have-INF cried   and the Rui too.
 (= Rui regrets having cried).
    'The girls regret having cried and Rui does too.' **(sloppy reading)**

2) A Maria lamenta   **termos**   chorado e o Rui também.
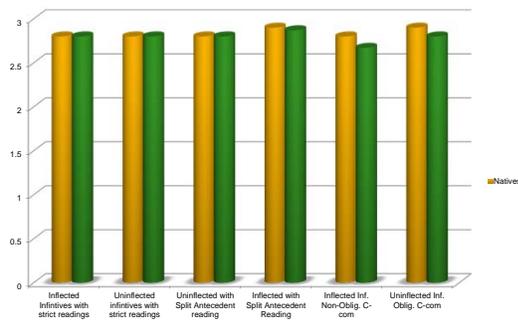(=Rui lamenta nós termos chorado).
    The Maria$_i$ regrets *pro*$_k$ have-INF-1PL cried and the Rui too.
(= Rui regrets our crying).
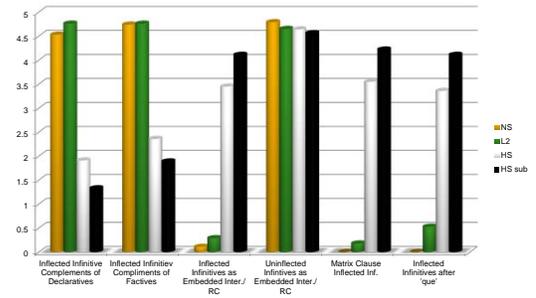'Maria regrets our having cried and Rui does too.' **(strict reading)**

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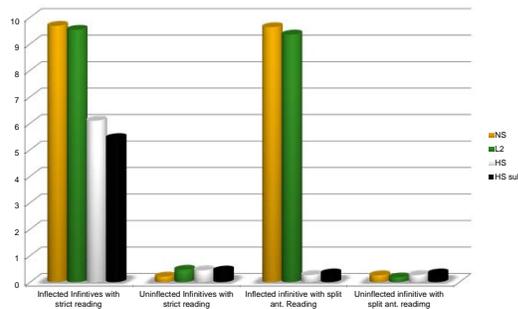## EP: Interpretation Matching Task (n=3 each)

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Grammaticality Correction Task: Results from BP HSs (Rothman 2007)

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Context Matching Task (BP HSs)

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EP vs. BP heritage speakers

- Neither group of HSs were formally educated in Portuguese.

- **EP HSs performed exactly like the native controls at the group and individual level (crucially, differently from the BP HSs).**
- Occurrence of inflected infinitives in caregiver input to monolingual children (Santos 2006/2009 CHILDES corpus):
  - all utterances produced by adults were analysed: **55,591 utterances**
  - **Total number of inflected infinitives: 374**

- **BP HSs didn't reliably acquire inflected infinitives because these are only productive in the standard dialect of Brazilian Portuguese.**

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Other phenomena that are prone to the same sort of variation, considering Brazilian Portuguese:

Verbal and nominal agreement:
Chegaram dois pacotes pra você.
Chegou dois pacote pra você.
Arrived two packages for you

a. Os tijolos vermelhos estão ali.
b. Os ***tijolo vermelho*** estão ali.
   The-PL brick(PL) red(PL) are there.

Clitic system and placement:
a. A Maria se encontrou com o Paulo?
b. Não, ela ainda não **o** conhece.
   No, she yet not **3P.CL** know
a. O Paulo, A Maria não conhece.
   'Paulo, Maria does not know **(pro)**'
a. Não, ela ainda não conhece ***ele***.
   No, she yet not know **him**

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Modality distinctions - subjunctive vs. indicative:
1) a. Se as pessoas **pudessem**, moravam no campo
                  can-subj.past
   b. Se as pessoas ***podiam***, moravam no campo.
                  can-ind.imp
   'If people **could/can-IMP**, they would live in the country side.'

2) a. O que vocês querem fazer hoje quando nós **chegarmos** a Boston
                                                arrive.fut.subj
   b. O que vocês querem fazer hoje quando nós ***cheguemos*** no Boston?
                                                arrive.??
                                      (Silva 2008, Boston HSs)
   'What do you want to do today, when we arrive in Boston?'

a. A Maria vai esperar que eu **termine** o projeto (present subjunctive)
b. A Maria vai **me** esperar **terminar** o projeto.
c. A Maria vai esperar **eu terminar** o projeto. (personal inf., non-standard)
'Maria is going to wait for me to finish the project'

a. Se você **disser** isso, você vai se arrepender. (future subjunctive)
b. Se você **dizer** isso, você vai se arrepender. (infinitive – non-standard)

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The effect of language contact

Speakers exposed to acquisition in bilingual contexts are potentially subject to effects in their L1 and L2 competence that result from contact (interference, in its simplest form) between the two linguistic systems.

Extreme case of contact-induced change, but conceptually expected:
Rise of a new language
e.g. O'Shannessy (2008) and references therein.

Lajamanu community, Australia:
Children exposed to English and to Warlpiri, which the parents insist that the children also speak.

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O'Shannessy (2008 and references therein) has investigated the rise of a new mixed language in this community: **Light Warlpiri.**

Children use Light Warlpiri daily since they start speaking and, later, between 4 and 6 years of age, they start producing Warlpiri as well (in parallel to Light Warlpiri).

The two languages have a large part of their vocabulary and grammatical structures in common. However, they differ mainly in the verbal system and in the distribution of inflectional suffixes (specially case) in the pronominal system (O'Shannessy 2008).

Karnta-pawu-ng i-m pud-um beibi juwing-rla [...]
woman-DIM-ERG 3SG-NFUT put-TR baby swing-LOC
'The woman put the baby in the swing.'
Kuuku-ng i-m ged-im jarntu
monster-ERG 3SG-NFUT get-TR dog
'The monster got the dog.'

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In addition:
- in **Light Warlpiri** there is **loss of the V2 property of Warlpiri.**
- **The ergative case marker (-ng) is used more in Warlpiri than Light Warlpiri.**

Comparable situation for American Russian (heritage language used as home language among descendants of Russian immigrants in the United States):

Language change in the aspectual system (Pereltsvaig 2005, 2008, cf. Polinsky 1998, 2006).

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Conclusion:

Despite substantial arguments in the literature in favor of explanations in terms of incomplete acquisition or attrition, such arguments tend to characterize bilingual speakers as intrinsically deficient regarding native competence in the heritage language.

The hypothesis of linguistic change distinguishing the competence of heritage speakers from monolingual competence is an alternative that needs to be consistently considered.

HL1 grammars acquired by heritage speakers can be treated as new dialects/languages (new I-languages).

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Various factors in favor of this argument:

The context of bilingual acquisition can be as favorable to native language acquisition as monolingual contexts (poverty of the stimulus argument);

Mechanisms of language variation and diachronic change can have a more significant effect in the context of use and acquisition of the heritage languages;

Absence of the normative effects of language standardization can distinguish the ultimate attainment of the heritage language from their monolingual counterpart (in a way similar to the way it also distinguishes speakers in the monolingual community).

Language contact introduces additional sources of potential diachronic change in the heritage bilingual context, differently from the monolingual context.

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References
BAUER, L. & P. TRUDGILL (1998) *Language myths.* New York: Penguin.
CHOMSKY, N. (2000) *The Architecture of Language.* New Delhi: Oxford University Press
KOVEN, M. (2007) *Selves in two languages.* Amsterdam: John Benjamins.
LEWIS, M. P. ed. (2009). *Ethnologue: Languages of the World, Sixteenth edition.* Dallas, Tex.: SIL International. Online version: **http://www.ethnologue.com/**.
LIGHTFOOT, D. (1991). *How to set parameters: Arguments from language change.* Cambridge, MA: MIT Press.
MONTRUL, S. (2007) Interpreting Mood Distinction in Spanish as a Heritage Language. In K. Potowski and R. Cameron (Eds.), *Spanish in Contact Policy, Social and Linguistic Inquiries.* Amsterdam: John Benjamins.
MONTRUL, S. (2010) How similar are adult second language learners and Spanish heritage speakers? Spanish clitics and word order. *Applied Psycholinguistics* 31, 167–207.
LIPSKY, J. (2008). *Varieties of Spanish in the United States.* Washington: Georgetown University Press.
MONTRUL, S. (2008). *Incomplete Acquisition in Bilingualism: Re-examining the Age Factor.* Amsterdam: John Benjamins.
O'SHANNESSY (2008) Children's production of their heritage language and new mixed language. In J. Simpson & G. Wigglesworth, eds. *Children's language and multilingualism: Indigenous language use at home and at school.* London: Continuum International, p. 261-82.

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PERELTSVAIG, a. (2005). Aspect Lost, Aspect Regained: Restructuring of aspectual marking in American Russian". In P. Kempchinsky and R. Slabakova (eds.) *Aspectual Inquiries.* Dordrecht: Kluwer. Pp. 369-395.
PERELTSVAIG, A. (2008) "Aspect in Russian as grammatical rather than lexical notion: Evidence from Heritage Russian". *Russian Linguistics* 32(1): 27-42.
PEARSON, B., FERNANDEZ, S. and OLLER, D. (1995) Cross-language synonyms in the lexicons of bilingual infants: One language or two? *Journal of Child Language* 22: 345-368.
PIRES, A. (2010) What's Lost When Languages Are? *Science* 328: 431.
PIRES, A. (2006). *The minimalist syntax of defective domains: Gerunds and infinitives.* Amsterdam: John Benjamins.
PIRES, A. & ROTHMAN, J. (2009a). Acquisition of Brazilian Portuguese in late childhood: Implications for syntactic theory and language change. In A. Pires & J. Rothman (Eds.) *Minimalist inquiries into child and adult language acquisition: Case studies across Portuguese.* Berlin/New York: Mouton DeGruyter.
PIRES, A. & ROTHMAN, J. (2009b). Disentangling sources of incomplete acquisition: An Explanation for competence divergence across heritage grammars. *International Journal of Bilingualism 13.2. Special Issue: Understanding the Nature and Outcomes of Early Bilingualism.* 211-238.
POLINSKY, M. (2006). Incomplete acquisition: American Russian. *Journal of Slavic Linguistics* 14, 191-262.
SILVA-CORVALÁN, C. (1994). *Language contact and change.* New York: Oxford University Press.

55

PIRES, A., J. ROTHMAN & A. L. SANTOS. (2009) Infinitives in L1 European Portuguese: A case for intrinsic late acquisition? Paper presented at *GALA Generative Approaches to Language Acquisition,* Lisbon Sep 9-11, 2009.
POLINSKY, M. (2006). Incomplete acquisition: American Russian. *Journal of Slavic Linguistics* 14, 191-262.
QUICOLI, A. C. (1996) Inflection and parametric variation: Portuguese vs. Spanish. In R. Freidin (Ed.), *Current issues in comparative grammar* (pp. 46-80). Dordrecht: Kluwer.
RAPOSO, E. (1987) Case theory and Infl-to-Comp: The inflected infinitive in European Portuguese. *Linguistic Inquiry*, 18, 85-109.
ROTHMAN, J. (2007). Heritage speaker competence differences, language change and input type: Inflected infinitives in heritage Brazilian Portuguese. *International Journal of Bilingualism,* 11(4), 359-389.
SONG, H. S. and SCHWARTZ, B. (2009) Testing the fundamental difference hypothesis: L2 adult, L2 child, and L1 child comparisons in the acquisition of korean wh –constructions with negative polarity items. *SSLA 31: 323-61.*
THOMASON, S. G. (2009) What is lost when a language is standardized? Paper given at the 12th International Conference on Minority Languages. Tartu, Estonia.

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