Alex Cherici

Topic-drop vs. *pro*-drop Null Subjects in Chinese Native Speakers' L3 Italian

Introduction

What happens when topic-drop meets pro-drop?

L1 Mandarin Chinese – L2 English – L3 Italian

Null arguments available in both L1 and L3

Why over-use of overt pronouns → L2 transfer??

Learners at initial stage of L3 level with different L2 proficiency levels tested via AJT

pro-drop VS. Topic-drop

Distribution and reference of null arguments → 2 parameters (Huang, 1984)

1. ***pro*-drop**
2. **Topic-drop**

1. ***pro*-drop languages**: Null <u>subjects</u> - but NOT null objects - allowed

   – ***pro* governed by INFL** and identified through the rich agreement specification, i.e. ϕ-features;

2. **Topic-drop languages**: Null <u>subjects & objects</u> licensed by discourse

   – **Null subjects and objects as dropped topics**

Null Arguments in Italian

Italian is a ***pro*-drop language** → null subjects (*pro*) are the default, i.e. required in unmarked utterances.

(1) *Ultimamente* pro *leggo   molto.*
     Lately   (I)   read.1.SG much
     'I've been reading a lot lately.'

(2) *Marco ha detto che* pro *arriva   domani.*
     Marco has said   that (he) arrive.3.SG tomorrow.
     'Marco said he'll be back tomorrow.'

(3) pro *Nevica.*
     (It) snow.3.SG
     'It's snowing.'

Null Arguments in Italian

Overt and null subjects **not** in **free distribution**!

- Marked utterance (e.g. contrastive focus (4), cleft, topicalization)

(4) *Oggi io ho   lavorato sodo, tu   invece non hai   fatto niente*
Today I have.1.SG worked hard you instead not have.2.SG done nothing
'Today **I**'ve worked hard, whereas **you** have done nothing.'

- Switch references

(5) *Marco$_k$ dice   che lui$_{j/*k}$ farà   tardi   .*
Marco say.3.SG that he do.3.SG late
'Marco$_k$ says he$_{j/*k}$'ll be late.'

- Impoverished verb morphology (e.g. subjunctive);

- Subject followed by a determiner (e.g. numeral, relative clause, etc.)

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!!! NB: OBJECTS must be always overt

Null Arguments in Chinese

Chinese is a **Topic-drop language** → both subjects and objects can be dropped if inferable or recoverable from the context.

(6) *Zuotian   zai waimian Ø chi le   fan.*
Yesterday at   outside   (I) eat PFV rice
'Yesterday I ate out.'

(7) **A:** *Ni   renshi Zhangsan ma*?
You   know   Zhangsan PRT
'Do you know Zhangsan?'

B: *Ø Renshi Ø*
(I) know   (him)
'Yes, I do'

(8) *Ø Hao   leng   a!*   **NO EXPLETIVES!!**
(It) good cold   PRT
'It's so cold!'

Null Arguments in Chinese

Identical subject pronouns in close proximity are omitted, however…

Pronominal subjects can be overtly realized even in unmarked sentences (≠ Italian)

(9) a. *Zuotian   Ø   kan   le   liang   ben shu.*
       Yesterday (I) read   PFV   two   CL   book
    b. *Zuotian   wo kan   le   liang   ben shu.*
       Yesterday   I   read   PFV   two   CL   book
       'Yesterday I read two books.'

Different pragmatical use → different frequency of production

Proportion of null to overt subjects (Valian, 1991, Wang et al., 1992):
- ~50:50 in Chinese
- ~70:30 in Italian

L1 Acquisition of Null Arguments

Phenomenon: omission of sentential subjects observed in child-English

Parametric approaches

– Pro-drop account (Hyams, 1986)

– Topic-drop account (Hyams, 1991)

Non-parametric approaches

– Variational Model (Yang, 2002, 2018)

▪ NO abrupt switch

▪ Reliance on the less complex (i.e. UNMARKED) system available in UG

Non-native acquisition of null arguments

Null arguments acquired relatively swiftly…
(Phinney, 1987, Kanno, 1998, Pérez-Leroux & Glass, 1999, Rothman & Iverson, 2007, Rothman & Cabrelli-Amaro, 2010, Judy, 2011)

- **English NSs:** early near-native command of L2(s) null arguments
- *pro*-**drop NSs:** obligatory subjects still omitted at higher proficiency levels

… but NOT problem-free→ More complex pragmatics

- Beginners overproduce overt subjects
  (Polio, 1995, Montrul & Rodriguez-Louro, 2006)
- Advanced learners overproduce/overaccept null subjects
  (Pérez-Leroux & Glass, 1999, Montrul & Rodriguez-Louro, 2006)

Non-native acquisition of null arguments

Polio (1995): L1Japanese/English--L2Chinese.
- NO significant between-group differences
- Learners' use of null arguments increases with proficiency
- Overt arguments used for clarity and to "take time", classroom input

Liceras & Díaz (1999): L1En/Fr/Ge/Ch/Jp--L2Spanish
- NO significant between-group differences
- Japanese NSs produced the highest number of overt subjects
- CAUTION: spontaneous production + 3 participants per group

Kong (2015): L1Chinese--L2English--L3Spanish/French
- Spanish L3ers allowed null subjects in both matrix and embedded clauses; accepted null objects across the board
- French L3ers rejected null subject in matrix but not in embedded clauses; accepted null objects across the board

Models of L3 Acquisition

<u>Typological Primacy Model</u> (Rothman, 2011, 2013)

– Wholesale transfer of language PERCEIVED as typologically closer to TL

– The decision/choice is made early on, once and for all

<u>Scalpel Model</u> and **<u>Linguistic Proximity Model</u>**
(Slabakova, 2015)   (Westergaard et al., 2016)

– Property-by-property transfer; no definite and immutable decision

– Order of acquisition and general typological grouping not relevant

– Importance of experiential and input factors (esp. Scalpel Model)

Research Questions and Hypotheses

RQ1. Will learners at initial stages of L3 Italian acquisition show knowledge of null subjects?

RQ2. Will L2 English proficiency influence acceptance of overt subjects in L3 Italian?

H1. **Yes**. The availability of null arguments (i.e. dropped topics) in Chinese will likely exert a facilitative influence in the acquisition of Italian null subjects, despite the different licensing strategies of the two types of empty categories

H2. **Yes**. If the level of English proficiency is high enough, transfer triggered by the perceived typological proximity between L2 and L3 might occur and it will show in the overacceptance of overt subjects.

Predictions made by models of L3 acquisition

- **TPM → wholesale transfer from the typologically more similar language**

  - if English: high acceptance of overt subjects
    low acceptance or total rejection of null subjects
    high acceptance of overt expletives
  - if Chinese: high acceptance of null subjects
    relatively high acceptance of overt subjects
    total rejection of overt expletives

- **Scalpel model/LPM → property-by-property transfer based on similarity of abstract linguistic properties**

  - from Chinese: high acceptance of null subjects
    relatively high acceptance of overt subjects
    total rejection of overt expletives

Method

Participants

Experimental Group: 45 learners (L1Chinese–L2English–L3**Italian)**

- Recruited from an intensive language program in Italy

- Comparable L3 Proficiency: A1 CEFR (i.e. lowest level of the program)

- Tested during the 8th week of class (170-180 hrs of contact instruction)

- Comparable Intensity of Interaction (Bardovi-Harlig & Bastos, 2011)

Controls: 15 Monolingual Italian NSs

L2 English proficiency assessment: C-test

- Adapted portion of the Oxford Placement Test (Allan, 1992)

- Used by Kong (2005, 2015)

- 35 blanks that had to be populated with subject pronouns

- Participants' scores: 0 – 33 (out of possible 35)

- 4 proficiency levels identified:

  - advanced group (L2ADV, score range: 26-33, n=9)
  - intermediate group (L2INT, scores range: 20-23, n=10)
  - elementary group (L2ELE, score range: 12-18, n=12)
  - pre-elementary group (L2PRE, score range: 0-9, n=14)

Acceptability Judgment Task

- **32 test items**

  - **4 types:** Matrix subjects, Embedded subjects, Expletives, *wh*-sentences

  - **8 tokens each**

    - 4 acceptable/natural; 4 unacceptable/unnatural

  - 1 – 4 likert scale:

    - 1 = absolutely unnatural/unacceptable;

    - 4 = absolutely natural/acceptable

  - Signal the problematic portion/item in the flawed utterances

- **14 Distractors**

Stimuli

Matrix Subjects

*Simone è pigro e   di solito pro/?*lui dorme   tutto il   giorno.*

Simone is lazy   and usually   *pro* / he sleep.3.SG all   the day

'Simone is lazy and he usually sleeps all day long.'

Embedded Subjects

*Lui sa   che pro/?*lui   deve   fare i   compiti   tutti i   giorni.*

He know.3.SG that pro / he   must.3.SG do   the homework all   the days

'He knows he has to do his homework every day.'

Stimuli

wh-questions

Che cosa pro / *voi   *mangiate stasera?*

What   *pro* / you.ᴘʟ eat.2.ᴘʟ   tonight

'What are you guys gonna eat tonight?'

Expletives

pro / *si *tira   molto vento oggi.*

pro /   sɪ blow.3.sɢ   much   wind   today

'It's very windy today.'

Data Analysis

- 9 of the 54 participants discarded

- Binary coding:
    - Ratings of 1 and 2 collapsed and considered as rejections (0)
    - Ratings of 3 and 4 collapsed and considered as acceptances (1)

- Acceptances with correction and rejections without correction or with an inappropriate correction not considered

- Separate analyses run for different conditions/types

Results

Statistical model

- Logistic mixed model in SPSS
- Independent variables:
  - Matrix and Embedded subjects (biclausal declaratives): Group, Null, and Matrix
  - Wh-questions: Group, Null
  - Expletives: Group, Null
- Dependent variable: Acceptance
- Random intercepts included for Participants and Item
- Satterthwaite approximation used to calculate F statistics.
- Pairwise comparisons: p values adjusted using Sequential Sidak correction
- Model backwards-fit: non-significant fixed effects and interactions removed
- Model estimates of probability of acceptance

Biclausal Declaratives
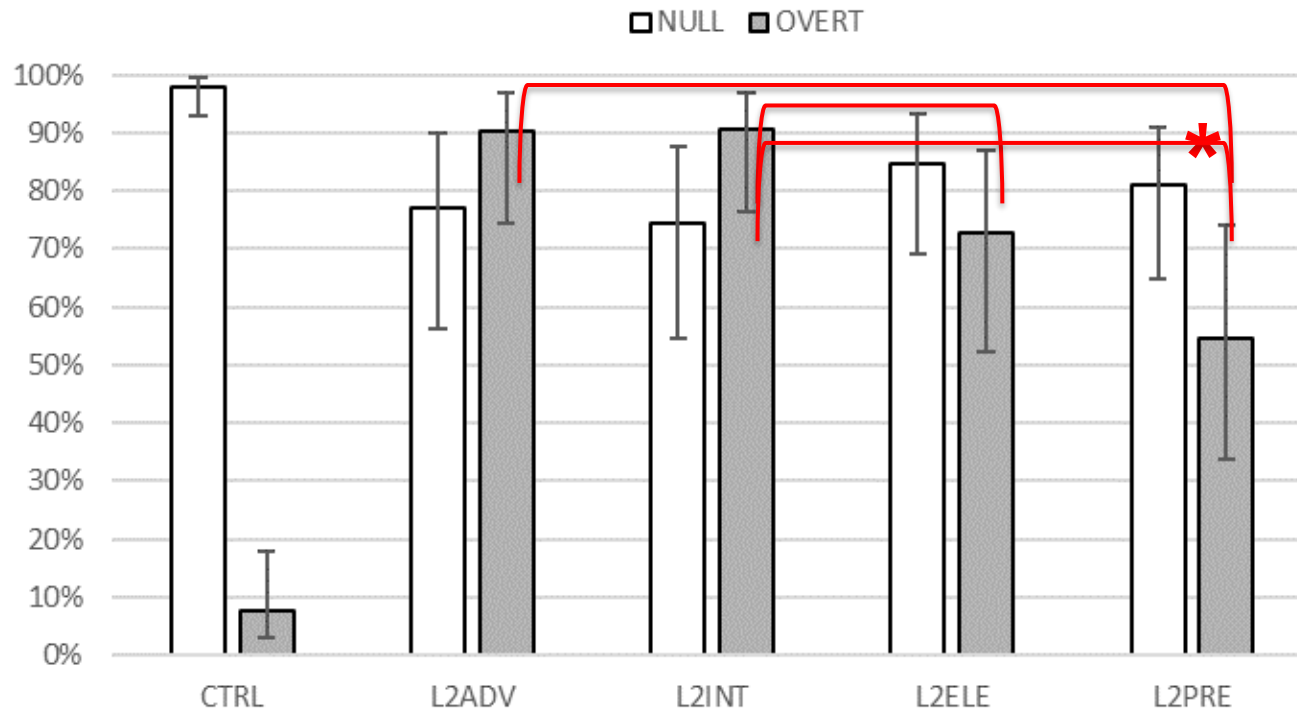## (Matrix and Embedded Subjects)

Figure 1. Model estimates of probability of acceptance of null and overt subjects in **biclausal declaratives** and 95% confidence intervals.

CTRL=Controls

L2ADV=Chinese NSs w/advanced L2 proficiency

L2INT=Chinese NSs w/intermediate L2 proficiency

L2ELE=Chinese NSs w/elementary L2 proficiency

L2PRE=Chinese NSs w/pre-elementary L2 proficiency

wh-questions

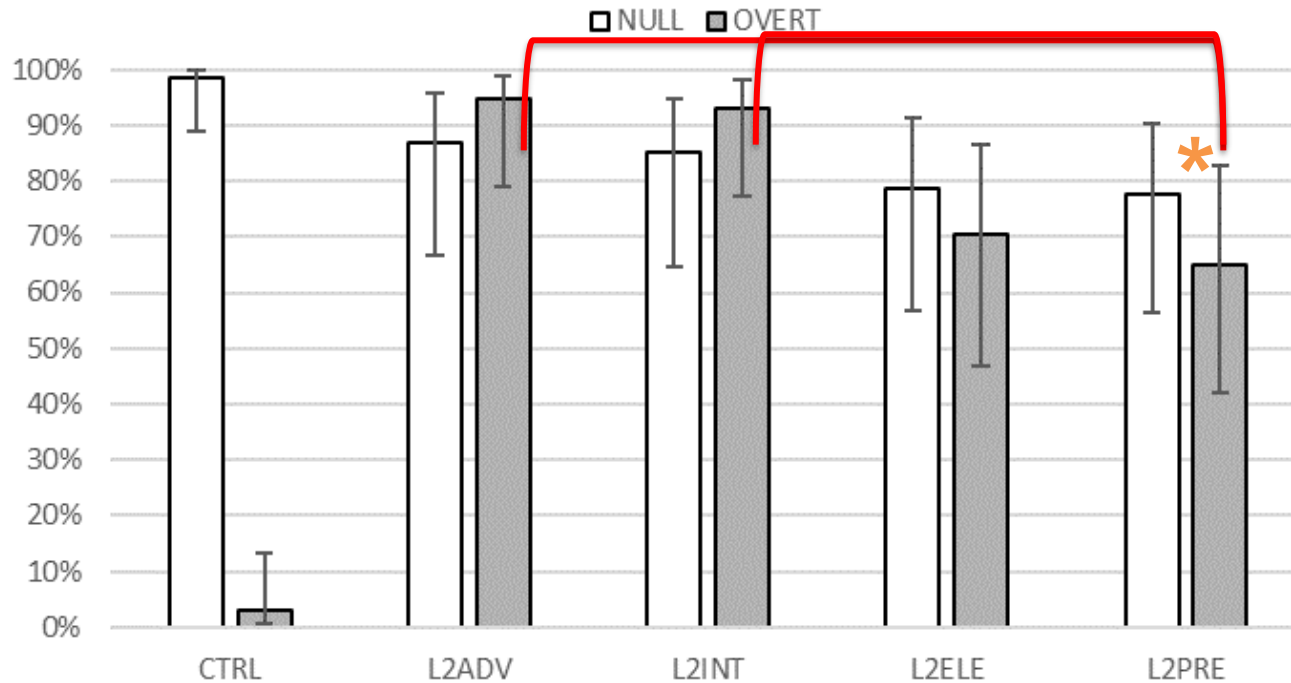**Figure 1.** Model estimates of probability of acceptance of null and overt subjects in *wh*-**questions** and 95% confidence intervals.

CTRL=Controls   L2ELE=Chinese NSs w/elementary L2 proficiency
L2ADV=Chinese NSs w/advanced L2 proficiency   L2PRE=Chinese NSs w/pre-elementary L2 proficiency
L2INT=Chinese NSs w/intermediate L2 proficiency

Condition#1: Biclausal declaratives & Condition #2: Wh-questions

- L2PRE accepted overt sbj at the lowest rate

- Only for L2PRE, null and overt sbj acceptance rates differed significantly

- "Two-by-two" trend:
  - L2ADV and L2INT accepted overt sbj at a higher rate than null sbj
  - L2ELE and L2PRE accepted null sbj at a higher rate than overt sbj

- L2ADV and L2INT's overt sbj acceptance rates differed significantly from L2PRE

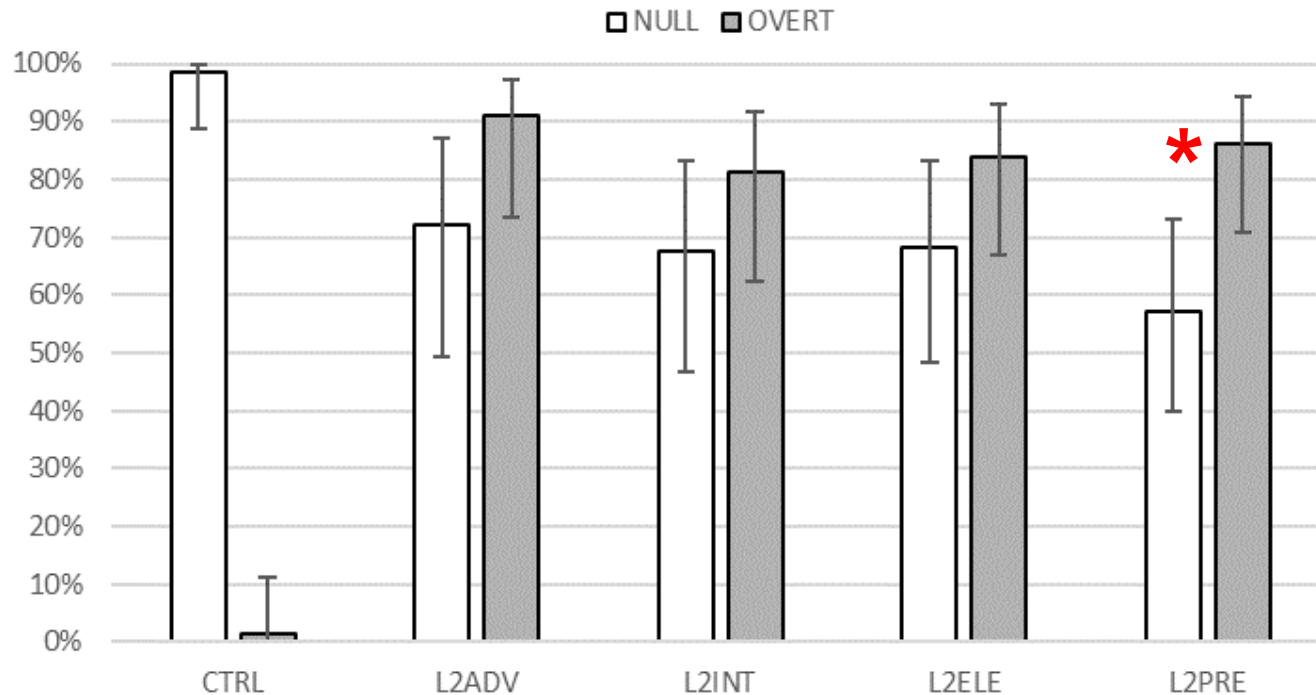# Monoclausal declaratives featuring Expletives

Figure 1. Model estimates of probability of acceptance of null and overt **expletives** in monoclausal declaratives and 95% confidence intervals.

CTRL=Controls

L2ELE=Chinese NSs w/elementary L2 proficiency

L2ADV=Chinese NSs w/advanced L2 proficiency

L2PRE=Chinese NSs w/pre-elementary L2 proficiency

L2INT=Chinese NSs w/intermediate L2 proficiency

Condition #3: Monoclausal declaratives w/ **Expletives**

- Overall diminished accuracy

- ALL GROUPS: null sbj acceptance rate lower than overt sbj

- No between-group differences

- Only for L2PRE, null and overt sbj acceptance rates differed significantly, but… **Non-target-like trend!!**

Discussion

- Learners' null subject acceptance rate always above chance →L1 transfer?
  →UG (i.e. unmarked system acquired more "swiftly")?
  →Naturalistic Input?

- Learners' overt subject acceptance rate always significantly higher rate than the controls → L1 transfer?
  → Classroom input?
  → Textbook input?

- Two-by-two trend →L2 transfer?

Back to the L3 models' predictions:

- <u>No wholesale transfer</u>:
  - If English how to explain high acceptance rate of null sbj?
  - If Chinese how to explain high acceptance rate of overt expl?

- At least for groups with a higher L2 proficiency, both L1 and L2 involved in L3 acquisition of null subject:
  - L1 Chinese: high null sbj acceptance although more tolerant towards overt sbj use
  - L2 English: high overt sbj acceptance | possible obligatory-sbj ILG developed while learning English which takes time to inhibit

- <u>NO property-by-property transfer</u> based on linguistic similarity (Scalpel Model/LPM)

  - If Scalpel Model/LPM hold → all learners, irrespective of their L2 proficiency, should have "carved out" the relevant property, i.e. availability of null arguments, from Chinese

  - If this happened, how to explain high acceptance of overt expletives?

To do's:
- Look at null object acceptance rates
- Test production

Conclusion

RQ#1: Will learners at initial stages of L3 Italian acquisition show knowledge of null subjects? >> knowledge of availability of null sbj but not of their distribution

RQ#2: Will L2 English proficiency influence acceptance of overt subjects in L3 Italian? >> IT LOOKS LIKE it did, because of the "two-by-two" trend on two conditions

References

Alexiadou, A. & Agnostopoulou, E. (1998). Parametrizing AGR: Word order, V-movement, and EPP-checking. Natural Language and Linguistic Theory, 16, 491–539.

Allan, D. (1992). The Oxford Placement Test. Oxford: Oxford University Press.

Bardovi-Harling, K. & Bastos, M.T. (2011). Proficiency, length of stay, and intensity of interaction, and the acquisition of conventional expressions in L2 pragmatics. Intercultural Pragmatics, 8(3), 347–384.

Barr, D.J., Levy, R., Scheepers, C. & Tily, H.J. (2013). Random effects structure for confirmatory hypothesis testing: Keep it maximal. Journal of Memory and Language, 68(3), 255–278.

Clements, M. & Domínguez, L. (2017). Reexamining the acquisition of null subject pronouns in a second language: Focus on referential and pragmatic constraints. Linguistic Approaches to Bilingualism 7(1), 33–62.

Domínguez, L. (2013). Understanding Interfaces: Second language acquisition and first language attrition of Spanish subject realization and word order variation (Vol. 55). Amsterdam: John Benjamins.

Flynn, S., Foley, C. & Vinnitskaya, I. (2004). The Cumulative-Enhancement Model for Language acquisition: Comparing adults' and children's patterns of development in first, second and third language acquisition of relative clauses. The International Journal of Multilingualism, 1, 3–16.

Guasti, M.T. (2002). Language Acquisition: The Growth of Grammar. Cambridge, MA: MIT Press.

Guasti, M.T. (2016). Language Acquisition: The Growth of Grammar. Cambridge, MA: MIT Press.

Hermas, A. (2015). The categorization of the relative complementizer phrase in L3 English: A feature re-assembly account. International Journal of Bilingualism, 19(5), 587–607.

Huang, J. C-T. (1984). On the distribution and reference of empty pronouns. Linguistic Inquiry, 15, 531-574.

Hyams, N. (1986). Language acquisition and the theory of parameters. Dordrecht: Reidel.

Hyams, N. (1992). A reanalysis of null subjects in child language. In J. Weissenborn, H. Goodluck & T. Roeper (Eds.), Theoretical issues in language acquisition: Continuity and change in development (pp. 249–268). Psychology Press.

References

Jin, F. (2009). Third language acquisition of Norwegian objects: Interlanguage transfer or L1 influence? In Leung (Ed.), *Third language acquisition and Universal Grammar* (pp. 144–161). Clevedon: Multilingual Matters.

Judy, T. (2011). L1/L2 parametric directionality matters: More on the null subject parameter in L2 acquisition. *EUROSLA Yearbook*, 11(1), 165–190.

Kanno, K. (1998). Consistency and variation in second language acquisition. *Second Language Research*, 14, 376–388.

Kong, S. (2005). The partial access of universal grammar in second language acquisition: An investigation of English subjects by L1 Chinese speakers. *Journal of East Asian Linguistics*, 14, 227–265.

Kong, S. (2015). L3 initial state: Typological primacy driven, L2 factor determined, or L1 feature oriented? *Taiwan Journal of Linguistics* 13(2), 79–116.

Leung, Y-k. I. (1998). Transfer between interlanguages. *Proceedings of the 22nd Boston University Conference on Language Development* (pp. 477–48). Somerville, MA: Cascadilla Press.

Liceras, J. & Díaz, L. (1999). Topic-drop versus pro-drop: Null subjects and Pronominal subjects in the Spanish of Chinese, English, French, German and Japanese speakers. *Second Language Research*, 15, 1–40.

Montrul, S. & Rodríguez-Louro, C. (2006). Beyond the syntax of the null subject parameter. In Torrens & Escobar (Eds.), *The acquisition of syntax in Romance languages*, (pp. 401–418). Amsterdam: John Benjamins.

Park, H. (2004). A minimalist approach to null subjects and objects in second language acquisition. *Second Language Research*, 20, 1–32

Pérez-Leroux, A.T. & Glass, W. (1999). Null anaphora in Spanish second language acquisition: probabilistic versus generative approaches. *Second Language Research* 15, 220–249.

Phinney, M. (1987). The pro-drop parameter in second language acquisition. In T. Roeper and E. Williams (Eds.), *Parameter Setting* (pp. 221–246). Boston: D. Reidel Publishing Company.

References

Polio, C. (1995). Acquiring nothing? The use of zero pronouns by nonnative speakers of Chinese and the implications for the acquisition of nominal reference. *Studies in Second Language Acquisition*, 17, 353–77.

Rizzi, L. (1986). Null Objects in Italian and the theory of *pro*. *Linguistic Inquiry*, 17(3), 501–557.

Rothman, J. & Iverson, M. (2007). On L2 clustering and resetting the null subject parameter in L2 Spanish: Implications and observations. *Hispania*, 90(2), 329–342.

Rothman, J. & Cabrelli-Amaro, J. (2010). What variables condition syntactic transfer? A look at the L3 initial state. *Second Language Research*, 26,189–218.

Rothman, J. (2011). L3 syntactic transfer selectivity and typological determinacy: The typological primacy model. *Second Language Research*, 27: 107–127.

Schwartz, B.D. & Sprouse, R.A. (1996). L2 cognitive states and the full transfer/full access model. *Second language research*, 12(1), 40–72.

Slabakova, R. (2016). The Scalpel Model of third language acquisition. *International Journal of Bilingualism*, 21(6), 1–15.

Wang, Q., Lillo-Martin, D., Best, C.T. & Levitt, A. (1992). Null subject versus null object: Some evidence from the acquisition of Chinese and English. *Language Acquisition*, 2(3), 221–254

Valian, V. (1991). Syntactic subjects in the early speech of American and Italian children. *Cognition*, 40(1), 21–81.

Westergaard, M., Mitrofanova N., Mykhaylyk R. & Rodina Y. (2016). Crosslinguistic influence in the acquisition of a third language: The Linguistic Proximity Model. *International Journal of Bilingualism*, 21(6), 666–682.

Yang, C. (2002). *Knowledge and learning in natural language.* Oxford: Oxford University Press.

Yang, C. (2018). A Formalist Perspective on Language Acquisition. *Linguistic Approaches to Bilingualism*, 8(6), 665–706.

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Questions? Comments?

acherici@iu.edu