

METALINGUISTIC AWARENESS AND MULTI-LITERACY IN UNDERGRADUATES: DOES TIME MATTER?

Sonia El Euch, Ph.D.

Université du Québec à Trois-Rivières (Canada)

Maria Antonietta Pinto, Ph.D.

Università di Roma La Sapienza (Italy)

Luc Ostiguy, Ph.D.

Université du Québec à Trois-Rivières (Canada)

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○ Introduction

- Metalinguistic awareness (MLA)
- Its relationship with literacy
- Why consider MLA and MULTI-LITERACY in adults?

○ The study

- Research questions
- Method
- Results and discussion

○ Conclusion

METALINGUISTIC AWARENESS (MLA)

- “step back from the comprehension or production of an utterance in order to consider the linguistic form and structure underlying the meaning of the utterance.
- To be metalinguistically aware, then, is to know how to approach and solve certain types of problems which themselves demand certain cognitive and linguistic skills.”

(Malakoff, 1992, p. 518)

THEORETICAL FRAMEWORK

Piagetian

- e.g. Hakes, 1980; Piaget, 1929
- **MLA is part of more general cognitive development**

Neo-Piagetian

- e.g. Bialystok, 1993; Karmiloff-Smith, 1992
- **MLA is an aspect of language acquisition**

- L1 literacy: brings into consciousness the implicit conceptions of language units (e.g. Bryant & Bradley, 1985; Chaney, 1992; Olson, 2001)
- L2 literacy: (e.g. Cheung *et al.*, 2010; Norbert, 2002)
- MLA is related to the early learning of an L2.
- Early exposure to the arbitrary character of language (L1 or L2) sows the seeds of MLA. Reading and writing contribute later on to its development (Tunmer *et al.*, 1984).
- Bilingualism is a strong factor in the development of MLA (e.g. Bialystok, 2001; Lasagabaster, 2000; Pinto *et al.*, 2002, 2004).
 - Knowing more than one language leads to a sharpened awareness of language,
 - the process of becoming bilingual calls for seeing and using language as an object of thought.

STUDIES ON MLA AND LITERACY (READING AND WRITING)

- Strong correlations between reading performance and ML skills (e.g. Apel *et al.*, 2012, Cheung *et al.*, 2010).
- Strong correlations between writing performance and ML skills (e.g. Francis, 2002)
- Certain ML tasks predict performance level on literacy tasks (e.g. Bradley & Bryant, 1983; Kirtley *et al.*, 1989; Zipke, 2007)
- However, most of these studies:
 - young learners
 - single metalinguistic aspects (e.g. phonological awareness, word awareness)
 - one language or at best two.

- Studies that involved individuals with more than two languages have looked at the ML benefits of bilingualism on L3 development (e.g Klein, 1995; Rauch et al., 2011; Sanz, 2000).
- Therefore, limited research has examined the relationship between MLA and adult multi-literacy.

WHY CONSIDER MLA AND MULTI-LITERACY IN ADULTS?

- With adults, MLA involves more complex aspects
 - understanding different types of relations,
 - grammatical judgement or acceptability,
 - understanding figurative language.
- As MLA develops in plurilinguals due to their increased contact with languages (Jessner, 2006), it is worth asking **how reading and writing in their different languages relate to their MLA.**
- Whether a similar pattern of relationship exists across languages and skills is still unknown.

THE STUDY

RESEARCH QUESTIONS

1. Does MLA relate to reading and writing performance in all the languages of a plurilingual adult?
2. If so, are there similar patterns of relationships across languages?
3. Does the relationship (if any) between MLA and literacy change over time?

METHOD

Participants

- 28 French-speaking Canadians
- Mean age: 27
- Undergraduates in different humanities programs
- Trilingual (French-English-and an additional language),
- Academic or educational trilingualism in that the curriculum involved more than 2 languages (Valencia & Cenoz, 1992)
- 13/28 French-English-Spanish trilinguals
- All participants used French and English interchangeably in the oral and written modes inside and outside university.

Material and procedures

- A sociolinguistic questionnaire

- A metalinguistic awareness test: the THAM3 (Pinto & El Euch, 2015) in L1
 - **Comprehension of different kinds of relationships (qualitative, temporal, morphological and spatiotemporal)**
 - identify whether meanings are similar or different in 8 pairs of sentences and justify one's answers;
 - **Acceptability (metagrammatical ability)**
 - a short text containing 15 errors.
 - a) to spot errors, b) to correct them, and c) to justify the correction by indicating the type of rule that has been violated and/or the rule that applies;
 - **Figurative language (metasemantic ability)**
 - 2 metaphorical sentences, 2 advertising slogans and 2 short poetic verses.
 - 1/ say in what sense the language used in the items is figurative and 2/ explain the choice of the words that make up these items.

- THAM3: 2 levels of knowledge: a linguistic level (L) and a **metalinguistic level (ML)**.

- Reading and writing test in English: the Michigan English Language Institute College English Test (MELICET).
 - Cloze
 - Reading comprehension section (5 texts + MCI)
 - Writing an argumentative text (choice between 2 topics)
- Reading and writing tests in French and in Spanish: same type of tests as MELICET but with locally built tests, piloted and adjusted.
- The THAM-3 and the writing tests were coded/rated by two raters in conformity with the THAM-3 coding procedures and the MELICET rating procedures.

RESULTS

Table 1: MLA and reading (R) and writing (W) in L1, L2 and L3 over two years

	Time 1 (n=28)		Time 2 (n=12)		T test
	Mean (%)	SD	Mean (%)	SD	
MLA (Total)	28.75	14.13	37.35	15.65	t= -.89, df= 10, p=.39
Comprehension	45.42	24.29	55.72	22.36	t= -.06, df= 10, p=.95
Acceptability	14.71	12.79	19.16	12.95	t= -.78, df= 10, p=.45
Figurative language	41.96	21.66	58.33	26.11	t= -1.06, df= 10, p=.31
R-L1	87.42	7.77	82.12	27.28	t= .91, df= 10, p=.38
R-L2	78.26	14.31	76.59	21.94	t= -.00, df= 9, p=1.00
R-L3	79.23	7.25	78.57	9.09	t= -.89, df= 5, p=.41
W-L1	75.92	9.82	72.36	24.82	t= .74, df= 9, p=.47
W-L2	74.43	7.90	66.63	23.55	t= .91, df= 9, p=.38
W-L3	73.16	5.11	72.71	13.18	t= .80, df= 4, p=.46

CORRELATIONS BETWEEN MLA AND MULTI-LITERACY OVER TWO YEARS

Table 2: Significant correlations (and Fisher Z) between metalinguistic awareness (MLA), reading (R) and writing (W) in L1 (French), L2 (English) and L3 (Spanish) in trilingual undergraduates over a two-year period

	Time 1 (n=28)				Time 2 (n=12)				Fisher Z transformation ZVal (p)			
	MLA (Tot.)	Comp.	Accept	FigL	MLA (Tot.)	Comp.	Accept	FigL	MLA (Tot.)	Comp.	Accept	FigL
R-L1												
R-L2	.45*	.55**	.16		.71*	.72**	.66*		-.94 (.34)	-.69 (.48)	-1.55 (.12)	
R-L3												
W-L1	.46*	.41*			.54	.55			-.24 (.80)	-.43 (.66)		
W-L2	.59**	.55**			.47	.45			.40 (.68)	.31 (.75)		
W-L3												

* $p < .05$

** $p < .001$

DISCUSSION

1/ Low level of MLA overall: confirms evidence from Bloor (1986) and El Euch (2010): first-year undergrads have a surprisingly low level of MLA and particularly of grammar.

Why?

- **Educational issues:** Teaching grammar was ruled out (elementary and secondary levels)
- The **degree of bilingualism/trilingualism** was not high enough to yield increased cognitive or ML benefits.

2/ No significant change in multi-literacy over two years.

Why?

- factors inherent to the educational context. E.g.: lack of courses addressing literacy in the additional languages of the students, and entry and achievement standards.

3/ RELATIONSHIP BETWEEN MLA AND MULTI-LITERACY

- **Findings:**

- 1/ Relationship between MLA and L2 literacy
- 2/ When L1 is concerned, MLA relates to writing only
- 3/ No effect of MLA on L3 literacy

- Explanation 1: MLA is related to different aspects of literacy development in different ways, the key variables being the degree of decontextualization and expressive versus receptive language tasks (Norbert, 1999).

Writing tasks are expressive tasks and are more decontextualized than reading tasks (receptive tasks) which explains why MLA relates more to writing (L1 and L2) than to reading (L2 only).

- Explanation 2: Conceptualization of MLA as a mediator between bilingualism and L3 learning (Cenoz, 2003).
 - Bilingualism has a positive effect on MLA.
 - Then, a high level of MLA has a positive effect on L3 learning.
 - Bilingualism has a positive effect on L3 learning; through a positive impact on MLA in the first place.

- Explains why there is no effect of MLA on L3 literacy.
 - MLA level was not high enough to lead to a high level of performance in L3 literacy tasks.
 - The fact that the participants were not fully biliterate (L1-L2 literacy levels) may have had an impact on the MLA measure; and consequently on the correlations between MLA and literacy.

- Explanation 3: the benefits of knowing more than one language on MLA and on cross-linguistic interactions (e.g. Jessner, 2006) depend **not only on cognitive functions but also on social factors** (Moore & Castellotti, 2008; Moore & Gajo, 2009).
- At the adult age, many factors come into play in literacy achievement across languages and in MLA. E.g.: personal history, different curricula, various teaching styles and demands, etc.
- Impossible to control the different factors that may have had an effect on performance at the adult age.

- Explanation 4: limitations in the study
 1. The literacy measures used were not equally validated.
 2. A limited number of participants (28) at the onset of the study and even less (12) after two years.

CONCLUSION

- Overall, MLA correlated significantly with L2 literacy and with L1 writing.
- These correlations persist over time.
- There are no correlations between MLA and L1 reading, and MLA and L3 literacy.

- It is not yet entirely clear where metalinguistic awareness enters language learning in plurilinguals (Jessner, 2008, review of theoretical trends in research on metalinguistic awareness in multilinguals)

Thank you!

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NOTES

- The THAM3 was in the participants' L1 (French):
 1. to avoid the effect of L2 or L3 proficiency levels on the results.
 2. an earlier study (El Euch, 2010) showed no difference between L2 MLA and L3 MLA. So, check if difference in L1 MLA.



Purpose This study examined the contribution of metalinguistic awareness including morphological awareness, phonological awareness and orthographical awareness to reading comprehension, and the role of reading fluency as a mediator of the effects of metalinguistic awareness on reading comprehension from grades 2 to 4. **Methods** Four hundred and fifteen elementary students in China mainland were administered a test battery that included measures of morphological awareness, phonological awareness, orthographical awareness, reading fluency, reading comprehension and IQ. PLOS ONE promises fair, rigorous peer review, broad scope, and wide readership – a perfect fit for your research every time. **Learn More Submit Now.** **About.** Awareness of language structure has been studied in bilinguals, but there is limited research on how language dominance is related to metalinguistic awareness, and whether metalinguistic awareness predicts vocabulary size. The present study aims to explore the role of language dominance in the relation between vocabulary size in both languages of bilingual children and metalinguistic awareness in the societal language. It evaluates the impact of two metalinguistic awareness abilities, morphological and lexical awareness, on receptive and expressive vocabulary size. This is of special interest since most studies focus on the impact of exposure on vocabulary size but very few explore the impact of the interaction between metalinguistic awareness and dominance. "Metalinguistic Awareness and Literacy Acquisition in Different Languages. Technical Report No. 618". Eric.ed.gov. Metacognitions about language skill and working memory among monolingual and bilingual college students: When does multilingualism matter? *International Journal of Bilingual Education and Bilingualism*, 9(6), 728-741. Whitehurst, G. J., & Lonigan, C. J. (1998). Child development and emergent literacy. *Child Development*, 69(3), 848-872. Adesope, O. O., Lavin, T., Thompson, T., & Ungerleider, C. (2010). As metalinguistic awareness grows, children begin to recognize that statements may have a literal meaning and an implied meaning. Phonological Awareness for Literacy – The Phonological Awareness for Literacy (PAL) Program (Burrows, Allison, Barnett, and Savina, 2007) is a commercial literacy therapy program for use by speech therapists designed to improve phonological awareness skills required for literacy in – Wikipedia. Multi-competence is a concept in second language acquisition formulated by Vivian Cook that refers to the knowledge of more than one language in one person's mind.[1] From the multicompetence perspective, the different languages a person speaks are seen as one – Wikipedia.