

The Tham's, Portuguese Version of Mat's - Assessment/Intervention Metalinguistic Awareness Resource

Ana Paula Couceiro Figueira^{a*}, Antonieta Pinto^b, Célia Ribeiro^c

^aFaculty of Psychology and Educational Sciences, University of Coimbra, Portugal

^{bb}Universidade de Roma "La Sapienza", Roma, Itália

^cUniversidade Católica portuguesa, pólo Viseu, Itália

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***Corresponding author:** Ana Paula Couceiro Figueira, Faculdade de Psicologia e de Ciências da Educação, Universidade de Coimbra, Portugal; Tel: (+351)239851450, DOI: <https://doi.org/10.36266/JCMHR/101>

Abstract

We present resources for assessment and intervention at the level of metalinguistic awareness provided for three distinct and specific age groups: children, adolescents and adults. We rehearsed the Portuguese version of the MAT's (Metalinguistic Ability Test), the THAM's (*Testes de Habilidades Metalinguísticas*), the THAM1, THAM2 and THAM3. The THAM-1, for children from 4-6 years old garden for children's transition to school the 1st cycle of basic education, the THAM-2, for children from 9-13 years of age 1 transition to the 3rd cycle, and the THAM-3, for adolescents and adults, in the transition from secondary to higher education..

Keywords: Metalinguistic Awareness; Assessment; Intervention; Resources

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Introduction

Since the mid-1970s, researchers in the field of linguistics have been showing great interest in behavior, which reveals the ability to reflect on the structures and functions of language. This behavior has been designated in several ways, among others, of capacity, ability, consciousness or metalinguistic awareness. In the review of the theoretical and empirical contributions concerning metalinguistic consciousness, it is easy to note a considerable degree of terminological and conceptual variation. This extensive terminological fluctuation is indicative of the variety of disciplinary approaches that have been made to metalinguistic dimensions in the last twenty years and deserve differentiated attention [1]. In the analysis of the topic metalinguistic knowledge, three approaches are considered relevant: a) linguistics, b) psycholinguistic development, and c) educational psycholinguistics. It is to linguistics that we owe the creation of the adjective "metalinguistic" and its corresponding noun, "metalanguage", although both terms are associated with the meaning that is distinct [1].

Although metalinguistic abilities arise in children of 4 or 5 years of age as a prerequisite for the acquisition of reading and writing skills, the subsequent application of writing skills to activities that initially determine basic linguistic-cognitive processes is not excluded. Pinto et al. consider that the extension of metalinguistic development is much broader, progressive and at the same time structured in significant phases than what has been explored or equated so far. The lower limit can be identified in the first

significant behaviors that appear between 5 and 6 years of age. Its upper limit consists of the abstract, sometimes useless or even pernicious formalizations that only a restricted category of adults (especially linguists) is able to construct [1]. Between these two extremes are intermediate forms of metalinguistic consciousness, for example, 12-year-olds, better equipped with grammatical categories, than 6-year-olds, though at a disadvantage when compared to high school or college students, if the phrases that require familiarity with certain cultural references are analyzed. What separates metalinguistic behaviors from the hypothetical six years of the hypothetical secondary school student is equivalent to the difference between preoperational behaviors in the conservation task and the problem-solving capacity that requires formal operations [1].

The three evaluation/intervention resources

In order to overcome the evaluation gap, the three metalinguistic evaluation instruments (THAM-1, THAM-2 and THAM-3) emerge, which allow an exploration of the different phases of this development. Maintaining the original structure (Pinto et al., 1999), making linguistic adaptations, we have:

The THAM-1 consists of 7 headings: Word Order, Word Extension, Lexical Segmentation, Rhymes, Symbol Substitution (Words for Words), Word Identification, Written/Printed Letters and Numbers, and Morphology and Function of Written Signs.

The THAM-2 consists of 6 sections: Comprehension, Synonymy, Acceptability, Ambiguity, Grammatical Function and Phonemic Segmentation, for a total of 96 items. The THAM-3 consists of

two parts, divided according to the types of meaning: the first is directed to denotative and normative use of the language; the second for markedly connotative use: I. Understanding and Acceptability and II. Understanding of Figurative Language [2].

The THAM-1

It is an instrument for evaluating metalinguistic abilities, for children from 4 to 6 years old. It consists of seven tests. The seven sections were divided into two groups: one containing five tests of a general nature (GML); the other has a more specific character (SML). The distinction between the two groups (GML and SML) is based on the following criteria: In the GML group tests, reflection on signals is subordinated to the reciprocal action of the syntagmatic and paradigmatic relations and the lexical and grammatical meaning they convey. For this reason, the test can be administered by exclusively oral presentation of the items, except for a few cases. In the SML group tests, on the other hand, the structure and function of the signals are placed in the foreground, focusing the graphemes more as an object of knowledge than as a vehicle of meaning. Rather than just assessing the degree of familiarity of children with different types of conventions regulating writing and reading, these tests evaluate the understanding of the oppositional function that is established between each grapheme relative to all others that reveal affinity with it. For this reason, the SML group tests can only be administered in written (printed) format [1,2].

Despite the differences mentioned earlier, the two groups are related in that both measure the ability to reflect on certain types of meanings, albeit at different levels, rather than mere familiarity or ability to recognize certain elements. Although the SML tests were clearly related to the children's reading and writing abilities, they were not selected as predictors of success in this area. THAM-1 is not intended to predict success in the early stages of literacy, but rather an assessment of more general cognitive-linguistic abilities [3-10]. Thus, the GML test group consists of five tests, each containing a variable number of items (between eight and ten): 1.G) Correction of the Order of Words; 2.G) Evaluation of Word Extension; 3.G) Lexical segmentation; 4.G) Rhyming Test; 5.G) Symbol Substitution. The SML group contemplates: 1.S) Identification of Words, Letters and Written/Printed Numbers and 2.S) Morphology and Function of Written Signs. This test has four parts: A) Legibility of Numbers, B) Legibility of Articles, C) Legibility of Punctuation, D) Legibility of Texts.

The three levels of performance in THAM-1 are: Level 0 which corresponds to the responses that indicate that the child has not yet entered the system (defined by the structural coordinates outlined in the presentation of each test), in which it should be operating at that age level; Level 1 refers to possible/acceptable behaviors that denote the intuition of the principles underlying each test (e.g., the dissociation of signifier and meaning), which is not consistently applied, yet to conflict, with more basic processes still operate; Level 2 indicates the mastery of the structural dynamics of each item in the test.

The THAM-2

It is an instrument for the evaluation of metalinguistic abilities, for children from 9 to 13 years of age (i.e. for children in the second half of elementary school, 1st cycle of EB).

THAM-2 consists of 6 sections: Understanding, Synonymy, Acceptability, Ambiguity, Grammatical Function and Phonemic Segmentation, for a total of 96 items.

The Comprehension test includes six sentence pairs. The first sentence of each pair (A) establishes a repeated syntactic relationship in the second sentence (B), with some variations.

The Synonym section includes five pairs of syntactically different phrases, four synonymous pairs, varying only in their construction. The fifth pair presents two phrases that apparently differ only in their structure, although they are also different in meaning or meaning. The Acceptability test includes six items that contain various types of anomalous sentences. The first five are characterized by semantic anomalies, due to violation of rules of lexical compatibility, articulated on human/nonhuman, animate/inanimate and other oppositions (e.g. transitive/intransitive).

The Ambiguity test is divided into two parts: the first presents a set of sentences that contain semantic ambiguities, while the second reveals ambiguities at the structural level. Semantic ambiguities derive from polysemy (homonyms, homonyms) of a single/simple term, in which the various meanings can modify the meaning of the whole sentence, although the grammatical functions of all other elements remain unchanged. The subject is asked (and how many) meanings have, or may have, the term/polysemy word (homonym; homograph) presented (L). If more than one meaning is given, the examiner must ask the meaning of the whole sentence that result. This must be done for each of the meanings assigned.

The Grammar Function test is composed of six items: the first three tests the comprehension of the grammatical functions of the subject, object and predicate. The L (language) questions focus on an analysis of both action and related roles. The following ML (metalinguistic) questions assess the fundamentals of this analysis.

The section Phonemic Segmentation is structurally different from that which precedes it in a very different way. The basic difference concerns the level of linguistic analysis: the phrase and its restrictions on syntagmatic relations disappear. The subject is invited to analyze phonemes, syllables and lexemes, according to paradigmatic relations. The meaning of the ML dimension therefore changes relative to the L dimension. The L-ML distinction is relevant only in two of the four parts of this section:

1. Phonetic-phonological similarities and differences in minimal word sets
2. Metric syllabic division
3. Identification of repeated phonemes within a word
4. Formation of words composed of a variable initial phoneme and a word, fragmented, fixed.

As in the case of THAM-1, the time is not counted, although there is a limit during the administration of the test. However, a

maximum interval of time is given for each session. More specifically, the Comprehension, Ambiguity, Acceptability and Phonemic Segmentation tests are given a maximum of 50 minutes, while the Synonymous and Grammatical Functions sections are limited to 30 minutes.

In any situation, the time begins to be counted after the presentation of each test item.

Each section of L and the ML areas are coded differently. The L responses are quoted according to the right or wrong dichotomous procedure (1 or 0 point). The total score of each section is constructed by summing the scores of the individual items. The ML responses, on the other hand, are evaluated item by item, according to three levels. It is a qualitative tripartition that is quantitatively converted into a three-level scale: 0, 1, and 2.

The total score of each section is constructed by adding the results/scores of the individual items.

The qualitative characteristics underlying the mentioned ML levels, valid for the first five sections, and partially for the Phonemic Segmentation test, are as follows: Level 0: Pre-analytic level: The subject has not yet reached the ability to analyze the sum of the semantic indexes And grammar in the presented items; Level 1: Relevant but insufficient analysis: The subject uses a crude method of analysis, isolating, for example, at least one of the semantic-grammatical clues, or rewrapping the content of the item as a relevant paraphrase. The ability to reconstruct the overall architecture of the presented stimulus is not yet developed. The arguments given to the answers are not sufficient to resolve the ambiguity that the sentence contains. Level 2: Pertinent and exhaustive analysis: The subject uses a systematic method of analysis, identifying all relevant semantic and grammatical indices in the item. In this way, it guarantees a complete disambiguation of the problem placed and a consequent independence of linguistic content that can be considered purely "meta" characteristics.

The THAM-3

It is an instrument that aims at the evaluation of metalinguistic abilities in adolescents and adults. Unlike THAM-1 and THAM-2, in which some materials already existent in the Anglophone literature on this subject were used, THAM-3 is original, created exclusively in Italy, at the end of 1989, in the scope of the disciplinary area of Psycholinguistics Educational, at the University of Rome "La Sapienza" [11-14].

THAM-3 is composed of two parts, divided according to the types of meaning: the first is directed to denotative and normative use of the language; the second for markedly connotative use:

- Understanding and Acceptability
- Understanding Figurative Language

The Comprehension test, in the first part, presents eight pairs of sentences, in which each sentence exemplifies different semantic aspects of a lexical and grammatical nature. The first two items evaluate the comprehension of qualitative relations, slightly differentiated, in two sentences that are presented together.

Differences are expressed by certain lexical choices that the subject has to take into account in order to evaluate whether the qualitative relation of identity between the two sentences is of the same type. The third and fourth items evaluate the understanding of temporal relations between two events that are purposely differentially differentiated for each pair of sentences. In the first pair, there is a clear difference in temporal meaning, marked by salient morphosyntactic elements. In the second pair, the difference is less pronounced, and is predominantly attributed to lexical elements, and variations in the word order used for each sentence. The fifth and sixth items are thought of as a small test of morphological understanding, designed to repeat the same element in sentences with different meanings and functions. The semantic dimension here is as important as the grammatical dimension of the morpheme, in terms of the overall comprehension of the sentence. Finally, the seventh and eighth items evaluate the understanding of spatio-temporal relations, namely, those that are inclusive/comprehensive. The differences in meaning in each pair / set of sentences are, in this case, relatively fragile, once again expressed by lexical elements that must be analyzed to determine the identity or the difference between the relations presented.

These first eight items (which total a total of sixteen sentences) make up an understanding test that is totally focused on the problem of synonymy.

The Acceptability section is based on the normative uses of language, based on the subject's knowledge of grammatical rules that are violated in a brief text. The subject should be able to recognize the errors, mainly of a morphosyntactic nature, present in the text, correct them and, later, justify the corrections. Here, the L dimension consists of the ability to identify and correct these errors in order to obtain the complete and correct solution to the problem. The ML dimension, on the other hand, consists of the ability to justify each correction by means of a double recognition: the type of rule violated and the ways in which the correction fits adequately into the context of the sentence.

The second part refers to the understanding of the various examples of figurative language: metaphors, in a strict sense, presented as individual phrases, advertising slogans and brief poetic texts, for a total of six items (two for each type). The L dimension in this part is only relevant in the case of advertising slogans, since an essential part of understanding requires the ability to relate adequately the linguistic formula of the slogan with the social 'meaning' of the object advertised. Since this object is an exact reference, specified in the item, the 'true value' corresponds to the relevance with which the subject relates the slogan and the object. The ML dimension, on the other hand, consists in the ability to analyze the specific linguistic technique that determines the humor of the slogan and, therefore, its figurative aspects. Given that the understanding of metaphorical sentences and poetic texts cannot be related to a specific true value, purely ML interpretations are created on the basis of a more or less profound and plausible analysis of the semantic relationships that link the metaphorical meanings of these items.

That is, the 1st Part, Understanding and Acceptability, there is, in Understanding: A. Qualitative relations, B. Time relations, C. Morphological test, D. Spatio-temporal relations, and Acceptability. The Part 2, Understanding Figurative Language, includes metaphorical phrases, advertising slogans and poetic texts [14-19].

Conclusion

A Portuguese version of the three tests is in the process of being published. The work is not the translation of the referred version. The items of the different tests were adapted following the assumptions of the basic version, taking into account the principles of the Portuguese language. It should be noted that applications or empirical studies are underway to validate the three proposed tests.

References

1. Pinto MA. La consapevolezza metalinguistica. Teoria, sviluppo, strumenti di misurazione, Pisa-Roma, Istituti Editoriali e Poligrafici Internazionali; 1999.
2. Figueira APC, Pinto MA. Consciência Metalinguística (Metalinguistic Awareness). Teoria, desenvolvimento e instrumentos de avaliação. Lisboa, Psiclínica ; 2018.
3. Codemo S, Pinto MA, Trusso F, Iliceto P. Primo sviluppo metalinguistico in bambini bilingui italiano-inglese. Una ricerca in contesto britannico. *Rivista di Psicolinguistica Applicata*. 2007; 7: 105-125.
4. Melogno S, Ardia CD, Pinto MA, Levi G. Explaining metaphors in high-functioning Autism Spectrum Disorders children: a brief report. *Res Autism Spect Dis*. 2012; 6: 683-689.
5. Melogno S, Ardia CD, Pinto MA, Levi G. Metaphor comprehension in Autistic Spectrum Disorders: two case studies in high-functioning children. *Child Lang Teach Therap*. 2012; 28: 177-188.
6. Pafumi ML, Pinto MA, Iliceto P. Habilidades de paráfrasis en alumnos bilingües español-italiano entre 14 y 17 años, Un estudio comparativo entre Argentina e Italia. *Rivista di Psicolinguistica Applicata*. 2007; 7: 127-149.
7. Pinto MA. La consapevolezza metalinguistica. Teoria, sviluppo, strumenti di misurazione, *Rassegna Italiana di Linguistica Applicata*; 1995.
8. Pinto MA, Tittone R, Trusso F. Metalinguistic Awareness, Theory, development and measurement instruments. *Psicologia del bilinguismo*, 2, Istituti editorial e poligrafici internazional, Pisa. Roma; 2017.
9. Pinto MA, Euch S. La Conscience Métalinguistique: Théorie, Développement et Instruments de mesure. Canada: Presses de l'Université Laval; 2015.
10. Pinto MA. Long-term effects of early bilingualism on metalinguistic awareness: a study on young adults. In P. Valore (edn), *Multilingualism. Language, Power, and Knowledge*, Pisa, Edistudio; 2011: 7-21.
11. Pinto MA, Candilera G, Iliceto P. Tam-2. Test di abilità metalinguistiche n.2 (9- 14 anni). La valutazione dello sviluppo metalinguistico tra scuola elementare e scuola media. Manuale di istruzioni. Roma, Scione Editore; 2003.
12. Pinto MA, Iliceto P. TAM-3. Test di abilità metalinguistiche n.3. Fascia adolescenti-adulti. Roma, Carocci Faber; 2007.
13. Pinto MA, Iliceto P, Bracone I, Pontani S. La percezione della lingua italiana in soggetti bilingui in relazione alla percezione di Sé e dell'altro. *Rivista di Psicolinguistica Applicata*. 2005; 6: 129-169.
14. Pinto MA, Iliceto P, Melogno S. Argumentative abilities in metacognition and in metalinguistics. A study on University students. *Euro J Psyc Educ*. 2012; 27: 35-58.
15. Pinto MA, Melogno S, Iliceto P. TCM junior. Test di comprensione di metafore - junior. Scuola dell'Infanzia scuola primaria. Carocci Faber; 2008.
16. Pinto MA, Titone R, Gonzales MD. La consciencia metalingüística. Teoría, desarrollo e instrumentos de medición. Pisa-Roma. Istituti Editoriali e Poligrafici Internazionali; 2000.
17. Pinto MA, Trusso F, Kristiansen K. Metalinguistic abilities in Italian-English adult bilinguals. A comparison with Italian-speaking and English-speaking monolinguals, *Rivista di Psicolinguistica Applicata*. 2002; 2: 77-90.
18. Pinto MA, Melogno S, Iliceto P. TCM. Test di comprensione delle metafore. Scuola elementare e scuola media. Carocci Faber; 2006.
19. Pinto MA, Titone R, Gonzales G. La consciencia metalingüística. Teoría, desarrollo e instrumentos de medición, Roma, Istituti Editoriali e Poligrafici Internazionali; 2000.