

Assessing pragmatic prosody in 3- to 4-year-old children

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Prosodic and pragmatic abilities increasingly develop during preschool years and beyond. However, while some prosodic tests have been developed for children (e.g., PROP [1], PVSP [2], DANVA 2 [3], PEPS-C [4], PPAT [5], MNTAP [6]), they primarily serve for clinical use and for an assessment of children with atypical language development. Moreover, they focus principally either on receptive prosodic skills, or on very basic expressive prosodic skills and do not fully integrate the pragmatic functions of prosody. While recent studies demonstrate that prosodic and pragmatic abilities develop hand in hand (see [7], for a review), to our knowledge, none of the available assessment tools consider these abilities in an integrated way in children.

In this study we present a new Audiovisual Pragmatic Test (APT) to jointly assess prosodic and pragmatic abilities in typically developing Catalan-speaking children. The elicitation methodology is based on the Discourse Completion Task. Whereas the DCT is a widely used method for assessing adult intonational grammar and it has been shown to be an applicable instrument to obtain semi-spontaneous data in adults (see [8], for a review), to our knowledge it has not been widely used to assess prosodic development in children. The APT consists of a total of 47 items social scenarios accompanied by images, which require children to produce speech appropriate to the given situation (see Fig 1). For the purposes of the study, given that the test-takers would be 3- to 4-year-old children, only the first 35 items of the test were applied. While some selected items have been extracted from adult DCT questionnaires on Catalan prosody, the main pragmatic coverage has been based on previous pragmatic tests designed for children (e.g., CASL-2 [9], CELF-5 [10], TOPL-2 [11]). The present study aims to investigate (a) whether this elicitation methodology is adequate for use with young children and (b) which areas of pragmatic prosody have been acquired by the age of 3-4 years. One hundred 3- to 4-year-old Catalan-speaking children participated in the study. For each item, a prosodic score and a pragmatic score were given. The prosodic score reflected the child's ability to produce contextually adequate pragmatic prosody and to use direct speech in first-person to answer each item (i.e., to enact the response); the pragmatic score depended on the adequacy, complexity and specification of the response. First, results indicated that the test was adequate and feasible for 3- to 4-year old children. From the total amount of 3500 potential responses (35 items × 100 children), 49,9% (1748 target sentences) of pragmatically appropriate responses and 36,9% of prosodically appropriate responses (1294 target sentences) were obtained. A large majority of the children engaged in the activity to one degree or another, with only 1% of the group failing to enact any item. These results indicate that the APT instrument allows to gather a considerable amount of intonation patterns produced by preschool children starting at three, which confirms the sensitivity and suitability of the measure for the youngest children. Second, results indicate that 3- to 4-year-old children successfully produced non-biased statements and questions, as well as imperatives and vocatives, and had more difficulties with biased sentences (e.g., with expressing uncertainty, incredulity, surprise, obviousness, corrective and contrastive focus, among others).

Overall, we regard this test as a valuable tool for the assessment of prosodic and pragmatic features in language development. Finally, by presenting this tool, we aim at promoting the inclusion of pragmatics as a relevant dimension in the prosodic assessment practice.

- (1) Example item of the APT showing text and illustration.



Figure 1. *Expressing of concern for a friend: “Acabes de veure que el teu amic s’ha entrebancat i ha caigut. Què li diries?”* (‘Your friend just tripped and fell down. What would you say?’).

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