Exploring the relationship between prosodic sensitivity and emergent literacy in a sample of pre-readers: A one-year pre-to-post study

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Abstract

A growing literature has demonstrated that prosodic sensitivity (to the rhythmical patterning of speech) is related to phonological awareness (PA) and early forms of prosodic research have shown that prosodic sensitivity and reading development in the period prior to reading instruction are related (e.g., Galaburda et al., 2000). However, in the present study, we investigate the relationship between prosodic sensitivity and reading development in a sample of 3-5-year-olds. The study involved a group of 40 children recruited from three primary schools in the West Midlands, UK. These children were aged between 3 years 6 months and 5 years 6 months (mean age 4 years 6 months) and were in Year 1. At Time 1, the children were tested on a range of measures, including reading accuracy, reading rate, and vocabulary. At Time 2, one year later, the children were re-tested on the same measures. The main findings of the study are that prosodic sensitivity was related to reading accuracy and vocabulary at both Time 1 and Time 2. Furthermore, the results suggest that prosodic sensitivity is a significant correlate of vocabulary and morphological awareness, which are important predictors of reading and spelling. The results also highlight the importance of prosodic sensitivity in the development of early literacy skills.

Introduction

Prosodic sensitivity is a skill that develops in early infancy as part of a progressive attachment to one's first language (Galaburda et al., 2000). In the present study, we investigated the relationship between prosodic sensitivity and reading development in a sample of 3-5-year-olds. The study involved a group of 40 children recruited from three primary schools in the West Midlands, UK. These children were aged between 3 years 6 months and 5 years 6 months (mean age 4 years 6 months) and were in Year 1. At Time 1, the children were tested on a range of measures, including reading accuracy, reading rate, and vocabulary. At Time 2, one year later, the children were re-tested on the same measures. The main findings of the study are that prosodic sensitivity was related to reading accuracy and vocabulary at both Time 1 and Time 2. Furthermore, the results suggest that prosodic sensitivity is a significant correlate of vocabulary and morphological awareness, which are important predictors of reading and spelling. The results also highlight the importance of prosodic sensitivity in the development of early literacy skills.

Method

Participants

All participating children in this study were recruited from three primary schools in the West Midlands, UK. These schools were selected based on their size, geographic location, and the number of children in each year group. The study involved a group of 40 children recruited from three primary schools in the West Midlands, UK. These children were aged between 3 years 6 months and 5 years 6 months (mean age 4 years 6 months) and were in Year 1. At Time 1, the children were tested on a range of measures, including reading accuracy, reading rate, and vocabulary. At Time 2, one year later, the children were re-tested on the same measures. The main findings of the study are that prosodic sensitivity was related to reading accuracy and vocabulary at both Time 1 and Time 2. Furthermore, the results suggest that prosodic sensitivity is a significant correlate of vocabulary and morphological awareness, which are important predictors of reading and spelling. The results also highlight the importance of prosodic sensitivity in the development of early literacy skills.

Results

Table 1 shows the mean and standard deviation scores on measures of general ability, morphology, phonological awareness (PA), prosodic sensitivity (PS), word reading, and spelling.

Table 1. Summary statistics for children on the core assessments in this study. In the present study, a new assessment of prosodic sensitivity was developed and its relationship with measures of vocabulary, phonological awareness (PA), and morphological awareness (morphology) was explored. There were two major research questions in this study:

Q1. What is the bivariate relationship between prosodic sensitivity, vocabulary, phonological awareness, and morphological awareness (taken at Time 1, concurrently) and word reading, and spelling taken at Time 2, one year later?

Q2. Can any of the variables measured at Time 1 (and prosodic sensitivity in particular) make a ‘unique contribution’ (beyond the influences of the other predictors) to word reading and spelling one year later?

Table 2 shows the bivariate correlations (Pearson) between measures of age, general ability, vocabulary, phonological awareness (PA), morphological awareness (morphology), prosodic sensitivity (PS), composite measures of vocabulary, phonological awareness, and morphological awareness, and word reading and spelling. To determine non-null significant correlations, we examined a standard estimate of general ability, phonological awareness, and prosodic sensitivity, a composite measure for these constructs was obtained by calculating z-scores for each of the phonological and prosodic subtests (respectively) and adding them together.

Table 2. Correlation matrix between all core assessments in this study.

Q1. What is the bivariate relationship between prosodic sensitivity, vocabulary, phonological awareness, and morphological awareness (taken at Time 1, concurrently) and word reading, and spelling taken at Time 2, one year later?

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Table 3 shows two standard multiple regression analyses predicting word reading and spelling (at Time 2) from general ability (matrices), vocabulary, phonological awareness composite (PA), morphological awareness composite (morphology), and prosodic sensitivity composite (PS).

Table 3. Multiple regression analyses predicting word reading and spelling one year later.

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Conclusion

These findings add to the growing literature demonstrating that prosodic sensitivity is a significant correlate of vocabulary knowledge, phonological awareness, and morphological awareness (concurrently) and of word reading and spelling (one year later). These preliminary findings indicate that prosodic sensitivity is unable to ‘directly’ predict early reading development beyond its association with other emergent literacy skills (e.g., phonological awareness).

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