
16. CHILDREN'S NAMES CONTRIBUTE TO EARLY LITERACY A LINGUISTIC AND SOCIAL PERSPECTIVE

IRIS LEVIN AND DORIT ARAM
Tel Aviv University, Tel Aviv, Israel

INTRODUCTION

Family members and caretakers frequently encourage toddlers and preschoolers to recognize their written names, to name the letters included in their names, to print these letters or the total name. Indeed, it has been claimed that for many children their name is the first word they recognize and attempt to write (Clay, 1975). For many years, researchers have argued that a child's knowledge of his or her written name comprises a precursor of early literacy (e.g., Arrow, Fletcher-Flinn, & Nicholson, 2003; Ferreiro & Teberosky, 1982; Martens, 1999; Villaume & Wilson, 1989). Only recently, however, have controlled analyses investigated this claim.

This chapter examines the effect of own name on early literacy from two perspectives: a cross linguistic and a social one. We extend the study of personal name effects on *letter knowledge* carried out among children raised in other languages to Israeli children immersed in Hebrew. Our aim is twofold – to support the generality of previous main findings on letter knowledge but also to search for language-specific variations. Further, we analyze mother-child joint writing to examine *whether mothers utilize children's advanced knowledge on written names when they mediate writing to their children*. Although it is frequently assumed that children's advanced knowledge of their names is an

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Correspondence concerning this article should be sent to: Iris Levin or Dorit Aram, School of Education, Tel Aviv University. irisl@post.tau.ac.il; dorita@post.tau.ac.il

outcome of their caregivers' exceptional preference for involving young children with their own names, no study has analyzed how parents utilize name knowledge in their role of mediating writing to their children.

STUDY I: LETTER KNOWLEDGE OF OWN NAME LETTERS

The preliminary recognition of own written name was explored by Villaume and Wilson (1989), who asked 2–5 year olds US children to recognize their personal name. Some 2 year olds, most 3 year olds, and all 4 and 5 year olds succeeded in name recognition. This extraordinary accomplishment, however, conceals the limitations of these children's name knowledge. Children who recognized their written names did not necessarily understand that the entire series of letters designates the name. Some young children read their names onto the initial letter only. Other children failed to orally dictate the letters composing their names and many failed to write their names conventionally. Hence, initial name recognition does not indicate understanding of the alphabetic principle and may coincide with highly restricted letter knowledge and phonological awareness. Still, the early recognition of own written names may enhance children's knowledge of letters that are included in their names.

Treiman and Broderick (1998) examined whether English speaking children, 4–6 year olds gain knowledge from their forenames on letters. Unexpectedly, the advantage provided by children's own names in letter knowledge was apparent but very limited. Children throughout this age range excelled in naming the initial letter of their personal names, but not in naming other letters in their names. Children were also not advanced in providing the sounds of the letters that belonged to their own names. In directly comparing children's knowledge about the initial letter of their own names and about other letters in their names, it was found that children were better at naming the initial letter and at printing it in response to its name. Recently, Treiman and Kessler (2003) analyzed new data for English speaking children and found again that children gained in naming the initial letter of their names. In addition, children improved slightly, but reliably, in naming the ensuing letters of their names, in comparison with children who did not have these letters in their names.

The conclusion that children learn only to name the initial letter of their own names or, alternatively, that they learn the initial letter's name better than later letters' names, can be explained as an outcome of children's limited memory for letters in a string, which guides them to focus their attention only on some letter(s). By default, they pay most attention to the initial letter, due to its primacy. Further, initial English letters are visually salient due to their capitalization in print. Evans et al. (2003) has lately shown that children's naming of capital letters surpasses their naming of lower-case letters. Further, Treiman and Kessler (2004) recently added that children learn from their given names in English to name upper-case more than lower-case letters. This finding suggests that when children are exposed to their written names, with the initial letter capitalized and the other letters written in lower case, they may focus their attention on the initial letter as they are more familiar with it.

Due to several important differences between English and Hebrew, we expected a broader effect for children immersed in Hebrew. Names written in Hebrew differ

from names written in English in two ways: (1) Hebrew script has no capital letters. Hence, the initial letter in a Hebrew name is not capitalized and is generally the same size as the following letters in the name. In English cursive writing, the capital letter is distinct in size from the rest. (2) Hebrew names are more restricted in length than names in English (and probably other alphabetic languages). Several reasons for this phenomenon suggest themselves. First, Hebrew orthography marks vowels deficiently, i.e., many vowels are unmarked by letters (Levin, Ravid, & Rapaport, 1996; Ravid, in press; Share & Levin, 1999). Illustrative examples comprise the biblical names Rachel and David that are prevalent both in English and in Hebrew. These names are spelled with five to six letters in English and with three in Hebrew: RXL and DWD.

Hebrew orthography elicits shorter spellings because of two other more local reasons: Hebrew spellings include no grapheme of two letters or more. In English orthography such graphemes are prevalent among consonants (e.g., 'th', 'ck',) and vowels (e.g., 'ou' 'ie'). Further, Hebrew spellings include no doublets, whereas English does. Two-letter graphemes and doublets increases word/name length in English.

A fourth reason may exist for the smaller variance in Hebrew names' length, related particularly to names. Currently, many Hebrew names are unisex, applied to males and females alike. These names, though, as a rule, were originally male names or male nouns. No boy is named with a typically girl's name, even not by a feminist mother! For instance, Tal (masculine nouns/names meaning dew) is a popular name nowadays for boys and for girls. Male names are shorter than female names, both in English (Cassidy, Kelley, & Sharoni, 1999) and in Hebrew. Male nouns in Hebrew are shorter because they are unmarked, whereas female nouns often carry a gender morpheme. See, for example, yeled (boy) and yalda (girl) that are spelled as YLD and YLDH. Consequently, the trend of giving male names or masculine nouns to girls shortens the length of modern, Hebrew names.

If children immersed in English are often exposed to names with more letters than they can easily memorize, they focus by default on the salient letter, where saliency is determined by primacy and capitalization. Shorter names may encourage children to distribute their attention to the entire series of letters, rather than focus on the salient letter. Hence, Israelis would show knowledge gains for more letters in their names.

Children are more advanced in knowledge of letters' names than of letters' sounds (Evans et al., 2003; Mason, 1980; McBride-Chang, 1999; Treiman, Tincoff, & Richmond-Welty, 1996; Worden & Boettcher, 1990). The reason may be related to the way adults treat letters. Parents orally spell names (or words, for that matter) predominantly by naming the letters rather than by uttering their sounds, probably because letter names are more distinct than letter sounds.

The same trend of spelling words by letter names should typify Israeli adults' discourse with children because of the prevalence of homophonic Hebrew letters. About half of the Hebrew letters have a homophone (e.g., /k/ spelled with Kuf or Kaf) (Share & Levin, 1999). Consequently, guiding a child in spelling a word by dictating sounds in Hebrew often remains obscure with respect to the letter to be printed. In sum, due to adults' mediation of writing by naming letters, and probably also to limited phonemic awareness among kindergartners, we expect in Hebrew, just like in English, a higher

performance on naming letters than on providing their sounds. This should apply to own-name letters and to letters in general.

Nevertheless, there is room to expect that Israeli children will also gain knowledge about letter sounds from their own names. In alphabetic languages, letter names are iconic, i.e., mostly include the major sound for which the letter stands (Ehri, 1983; Treiman & Kessler, 2003). An experimental study that controlled for prior letter knowledge recently showed that iconic letter names facilitate children's acquisition of letter sounds (Share, in press). Hebrew letter names are not only iconic but also acrophonic, i.e., they include the marked sound in their initial position (Levin et al., 2002). Specifically, the names of *all Hebrew letters* start with the sound that they most often represent. For instance, Lamed marks /l/. Four Hebrew letters (Aleph, Hei, Vav, and Yud - AHVY), which function both as vowels and as consonants, differ in the sense that the letters' names indeed start with their consonantal sound. Two of these letters (Vav and Yud) do not include at all the vowel sounds that they represent. The other two letters stand for various vowel sounds, and the names do not include the major sound that they represent.

In English, some letter names (like B) start with the designated phoneme, other letters (like L) end with the sound that the letter represents, and still others (like H) do not even contain the major designated phoneme in the letter's name. In a series of studies, Treiman and her colleagues, and more recently Evans and colleagues, showed that acrophonic letter names in English facilitate children's acquisition of these letters' sounds (Evans et al., 2003; Treiman, Weatherston, & Berch, 1994; Treiman et al., 1998). Evans dealt separately with vowels, under the assumption that their names tell the sounds that they often stand for. She showed indeed that children's knowledge of the sound of vowels surpassed their knowledge of sounds of letters with non-iconic names (like L or H). Hence, Hebrew's acrophonic letter names should be exceptionally facilitative in helping children learn letters' sounds from their names. Further, if Hebrew speaking children do learn letter names from their own forenames, once the children reveal the acrophonic principle that applies to all Hebrew letters, they can also derive the sounds of the letters of their own names.

METHOD

Participants

A total of 122 preschoolers and kindergartners from middle to middle-high SES contributed to this data set. Of these, 91 children completed both the *Name Task* and the *Sound Task* in an almost counterbalanced order. Thus, we tested 101 children on the *Name Task* (Age: $M = 62$ months, $SD = 5.5$, Range = 52 to 75) and 102 children on the *Sound Task* (Age: $M = 62$ months, $SD = 5.6$, Range = 52 to 75).

Tasks

We presented the children with a total of 22 Hebrew letters, printed on cards. We did not include the five final-word position Hebrew letters, which appear only in the final position of words and are acquired later (Levin et al., 2002). In the *Name Task*,

we asked the child to name each letter (e.g., Lamed for ל), and in the *Sound Task* we asked the child to provide its phonemic sound (e.g., /l/ for ל). For each task, letter cards were presented in a random order that changed from one presentation to the next. For the first four letters in each task, we provided corrective feedback when the child erred.

Results

To assess the advantage gained from given names on naming/sounding Hebrew letters, we divided the sample for each of the 22 letters in the alphabet into children whose names contained that letter and those whose names did not. For instance, in the *Name Task*, Aleph (the first letter in the Hebrew alphabet) appeared in the names of 27 children and did not appear in the names of 74. Among those 27 who had Aleph in their name, 89% named this letter correctly in the *Name Task*. Among their 74 counterparts, 77% named Aleph correctly. We excluded from the analysis any letters that did not appear in any of the children's names or that only appeared in a single child's name. We conducted paired *t*-tests, with letter as the unit of analysis, to compare success on naming or sounding letters for children with and without the letter in their personal names. This method was developed by Treiman and Broderick (1998).

Name task

The mean success in naming letters was higher for name-letters than for non-name-letters, respectively ($M = 61$ vs. $M = 36$, $t(18) = 4.60$, $p < 0.001$). To examine whether the advantage was limited to the initial letter of the name, as found for English speaking children, or if it applied to more letters, as we expected for Hebrew speaking children, we divided the children into those whose names contained the specific letter in the initial position versus all the other children, i.e., whose names contained the letter in another position or did not contain it at all. A paired *t*-test comparing success in naming letters of initial-name-letter vs. non-initial-name-letter revealed a significant advantage of initial-name-letter ($M = 71$ vs. $M = 42$, $t(14) = 4.12$, $p < 0.001$). The same trend appeared for naming the second-name-letter ($M = 56$ vs. $M = 37$, $t(12) = 2.26$, $p < 0.02$), and for the third letter ($M = 56$ vs. $M = 44$, $t(12) = 1.85$, $p < 0.05$). Inasmuch as our expectations were directional, we applied a one-tailed significance test. (See Table 1). The fourth position was not examined because Hebrew names of 4 letters or more were too scarce to afford this analysis.

These results may suggest a decrease in the advantage provided by name letters, from the first position in the name to the second or third. Thus, we conducted a direct test of letter position effect using a 2-way ANOVA. This 2 (name-letter/non-name-letter) X 3 (first/second/third position in name) analysis did not reveal a significant decrease. Neither the effect of letter position nor its interaction with the variable of name-letter vs. non-name-letter was significant. In sum, children were better at naming letters when those letters appeared in their personal names, whether the letters were in the first, second, or third position in the name, with no significant advantage to the initial letter. The lack of advantage for initial letter suggests that Hebrew speaking children may gain more from their names than do English speaking children.

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Table 1. Means, standard deviations, and *t* values across letters, for correct letter naming by children whose names did or did not contain the letter, in the entire name and by letter position

	First round			
	Performance on name-letters <i>M</i> (<i>SD</i>)	Performance on non-name-letters <i>M</i> (<i>SD</i>)	<i>t</i> (df)	<i>p</i> < (1-tailed)
Entire name	0.61 (0.25)	0.36 (0.16)	4.60 (18)	0.001
1st letter in name	0.71 (0.24)	0.42 (0.17)	4.12 (14)	0.001
2nd letter in name	0.56 (0.29)	0.37 (0.17)	2.62 (12)	0.02
3rd letter in name	0.56 (0.30)	0.44 (0.17)	1.85 (12)	0.05
	Second Round			
Entire name	0.68 (0.20)	0.37 (0.16)	6.91 (18)	0.001
1st letter in name	0.75 (0.21)	0.43 (0.17)	5.36 (14)	0.001
2nd letter in name	0.54 (0.24)	0.38 (0.17)	2.09 (12)	0.03
3rd letter in name	0.56 (0.21)	0.46 (0.18)	1.85 (11)	0.05

Note: The analyses included only those letters that appeared in at least 2 children's names for that round.

Sound task

We conducted a parallel analysis to examine children's success in providing the letters' sounds. For example, among the 19 children who had Tav (the last letter in the Hebrew alphabet) in their names, 47% provided the correct sound for Tav - /t/. Among the 87 children without Tav in their names, only 20% provided the correct sound. The mean success in providing the sounds of letters was higher on name-letters than on non-name-letters respectively ($M = 34$ vs. $M = 19$, $t(19) = 3.00$, $p < 0.004$). Similar analyses referring separately to those who had each letter in the first, second, or third position of their names indicated a significant advantage for name-letters in the first position ($M = 43$ vs. $M = 22$, $t(15) = 3.33$, $p < 0.005$) and in the third position ($M = 32$ vs. $M = 22$, $t(12) = 1.80$, $p < 0.05$). For the second position, results differed. Performance on sound retrieval was very similar among those who had the letter in their names and among those who had not.

These results may suggest a decrease in the advantage provided by name-letters to the child's ability to retrieve the letters' sounds, from the first position in the name to the second or third. Thus, we conducted a direct test of letter position effect using a 2-way ANOVA: 2 (name-letter/non-name-letter) X 3 (first/second/third position in name). This analysis did reveal such a decrease ($F(2, 16) = 4.96$, $p < 0.02$) and an interaction with the variable of name-letter vs. non-name-letter ($F(2,16) = 4.15$, $p < 0.04$). This interaction reflected the finding that children were better at providing the

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Table 2. Means, standard deviations, and *t* values across letters, for correct letter naming by children whose names did or did not contain the letter, in the entire name and by letter position

	First round			
	Performance on name-letters <i>M</i> (<i>SD</i>)	Performance on non-name-letters <i>M</i> (<i>SD</i>)	<i>t</i> (df)	<i>p</i> < (1-tailed)
Entire name	0.34 (0.24)	0.19 (0.12)	3.00 (19)	0.004
1st letter in name	0.43 (0.24)	0.22 (0.13)	3.33 (15)	0.003
2nd letter in name	0.21 (0.31)	0.22 (0.12)	-0.05 (11)	ns
3rd letter in name	0.32 (0.24)	0.22 (0.10)	1.80 (12)	0.05
	Second Round			
Entire name	0.37 (0.26)	0.21 (0.14)	3.10 (18)	0.003
1st letter in name	0.53 (0.24)	0.25 (0.17)	3.94 (14)	0.001
2nd letter in name	0.24 (0.31)	0.27 (0.12)	-0.26 (11)	ns
3rd letter in name	0.30 (0.23)	0.23 (0.11)	1.28 (12)	ns

Note: The analyses included only those letters that appeared in at least 2 children's names for that round.

Table 3. Mean percentage of name-letters and non-name-letters written as random letters and as phonetic letters, in low and middle-high SES groups

	Name-letters	Non-name-letters	<i>t</i> (df)	<i>p</i> < (1-tailed test)
	Low SES			
Random letters	9.50	3.55	6.13 (20)	0.001
Phonetic letters	7.30	4.19	1.88 (20)	0.04
	Middle-high SES			
Random letters	8.44	3.95	1.96 (19)	0.04
Phonetic letters	4.22	3.86	0.85 (19)	ns

sounds of letters that appeared in their forenames than the sounds of non-name-letters, regarding the first-position letter ($M = 40$ vs. $M = 23$) and the third-position letter ($M = 41$ vs. $M = 24$). Regarding the second-position letter, no such trend emerged, with children whose names did not contain the letter performing somewhat better than those whose names did ($M = 16$ vs. $M = 24$). In sum, children were better at providing the sounds of letters in the first and the third position in their given names. (See Table 2).

The finding that the second letter in a name did not promote provision of its sound deserves interpretation. Note that in many Hebrew names the second letter is either

Yud or Vav. For instance, on the *Sound Task*, Yud or Vav appeared in the second position of 57% of the names. In contrast, these letters appeared in the first position of only 9% of the names and in third position in only 19% of the names.

Yud and Vav function either as consonants (Yud marking /j/ and Vav marking /v/) or as vowels (Yud marking mainly /i/ and Vav standing for /o/ or /u/). However, the role of these letters partially depends on its position in the word. In the first position, these letters always stand for consonants, because Hebrew vowelizing letters cannot appear without being preceded by a consonant. In the second position, they most frequently stand for vowels. In the third position, they may stand either for vowels or consonants. Preschoolers and kindergartners are substantially more advanced with the sounds of consonants than of vowels, as apparent in their invented spellings (Levin, Ravid et al., 1996; Levin, Share et al., 1996). Hence, for letters that can function either as consonants or as vowels, children almost always respond with the consonantal sounds. Children of these age groups are very often ignorant with respect to the vowelizing sounds of these letters (Levin, unpublished).

Consequently, children with Yud or Vav in their names in the role of a consonant should be facilitated by their own forenames in providing the sounds. However, children whose names contain these letters in the role of vowels should not be equally helped by their forenames in sounding these letters. Inasmuch as Yud and Vav appear very often in the second position of names, and here they almost always function as vowels, they do not contribute to children's knowledge of their sound, either as vowels or as consonants. This finding may suggest that Israeli preschoolers and kindergartners learn from their names the consonantal sound of a letter rather than the vowelizing sound. This hypothesis waits to be studied.

Naming versus sounding

We expected that children would gain more knowledge about letter names than about their sounds from their own given names. We conducted a 2-way ANOVA, with letters as the unit of analysis: 2 (task: *Name Task/Sound Task*) X 2 (letter type: name-letter/non-name-letter). Percent of correct performance was close but not identical to the data presented in Tables 1 and 2, because the current analysis included only data of those children who completed both the *Name Task* and the *Sound Task*. Performance on letter names surpassed that of letter sounds ($M = 49$ vs. $M = 28$, $F(1, 18) = 35.91$, $p < .001$), and performance on name-letters surpassed that of non-name-letters ($M = 49$ vs. $M = 28$, $F(1, 18) = 21.47$, $p < .001$). However, no significant interaction emerged ($F(1, 18) = 2.92$, $p < 0.11$), thus showing no advantage for letters' names compared to letters' sounds, gained from children's own names. In sum, the data somewhat suggested that children gained more knowledge from their given names about shape-name associations than about shape-sound associations. To establish this conclusion, more studies should be conducted.

Surnames

Analyses carried out concerning family names showed no advantage gained from surnames either in naming letters or in providing their sounds (Treiman & Broderick,

1998). Our study with Hebrew speaking children found the same result. Performance on naming surname-letters did not surpass significantly naming of non-surname-letters ($M = 42$ vs. $M = 37$, $t(21) = 1.36$, *ns*) or on sounding them ($M = 25$ vs. $M = 20$, $t(21) = 1.60$, *ns*). In sum, the advantage provided by the child's name seems to be broader in Hebrew than in English. It applies to naming at least three letters of the given name (which for many children involve all the letters in their names). As to providing letter sounds, the advantage of Hebrew forenames seems to be somewhat broader than in English but more prominent for the initial letter. Family names in Hebrew, like in English, do not contribute to letter knowledge. This limitation probably reflects the rare attention devoted to family names in adults' mediation of literacy.

(B) STUDY II: MATERNAL USE OF NAME IN MEDIATING WRITING

Children's special attraction to their given names makes them probably highly receptive to learning about literacy through experimenting with its written form and letters. Nevertheless, this mere attraction would probably not suffice to increase their knowledge about their names without parents' and teachers' frequent writing of names on children's artwork, encouraging children to copy their names, naming the letters in the children's names, and the like. Except for a few case studies that commented on parental input (Ferreiro, 1986; Martens, 1999), no study till now examined how adults utilize children's interest in their names to promote child literacy, using a controlled quantitative method. Study II provides a start in this direction.

Children's elaborate knowledge about their forenames can be viewed as the peak of their advanced knowledge about names in general, of siblings and peers. In preschools and kindergartens, teachers encourage children to functionally use their written names on cubby holes, cups, hooks, and the like. For this purpose, the names of all children in the group are printed on these objects. Consequently, children are exposed to their peers' names daily, and from time to time use these names to fetch something from another child's cubby hole. Share and Gur (1999) drew attention to the role of peers' names in early literacy by developmentally analyzing the strategies that children use for recognition of their own and their peers' names.

Share and Gur (1999) provided substantial evidence that preschoolers and kindergartners exhibit advanced knowledge with respect to their classmates' written names. These researchers asked children to read their peers' names on cubby holes and on cards, and to recognize these names, with either the first or last letter concealed. For comparison, the study included asking children to read a few novel names, written on cards, which were composed of letters that the children could name. Preschoolers, who could read no novel names, read several of their peers' names in context (on cubby holes) and a few names out of context. Kindergartners showed a clear advantage in reading their peers' names over reading the novel names.

The purpose of our current study consisted of exploring whether mothers, when mediating writing to their young children, were sensitive to and utilized children's advanced knowledge with respect to the children's own names and their peers' names.

METHOD

Participants

This data set derived from Aram and Levin's (2001) study of mother-child joint writing activity as a context promoting early literacy. Forty-one kindergartners (age: $M = 5;8$, range: 5;6-6;2) and their mothers were recruited from a townships populated mainly by low SES.

Tasks

In home visits, we asked the kindergartners to perform two tasks: a *Name Task* and a *Word Task*. In the *Name Task*, we asked children to write a list of guests to be invited to their birthday party. In the *Word Task*, we asked children to write four pairs of dictated words. The mothers were asked to help their children to perform the tasks as best as they could. The two videotaped sessions of joint writing took part on two separate afternoons.

Analysis

Maternal mediation of writing underwent analysis mainly in terms of the steps in the encoding process of each written letter for which the mother intervened (for details of scoring mediation, see Aram & Levin, 2001). Quality of mediation varied from the lowest level, where the mother wrote the items on her own, to the middle levels where the mother wrote the items for the child to copy or dictated letter by letter, to the advanced level where the mother encouraged the children to map sounds of the word/name with the required letters and to retrieve their shapes.

The quality of mediation emerged as related to children's independent literacy skills assessed in kindergarten. Even after controlling for a variety of socio-cultural factors, including SES variations and literacy related tools at home, connections emerged between the quality of the mother's mediation of writing and her child's independent word writing, word recognition, and phonological awareness. In a follow up study, 2 $\frac{1}{2}$ years later, maternal mediation of writing in kindergarten predicted children's broadly assessed literacy in school. Further, after controlling for children's literacy in kindergarten, maternal mediation preserved its prediction of children's spelling and linguistic knowledge (Aram & Levin, in press).

Here, we analyzed mother-child joint writing from the new perspective of how mothers referred to the child's own name and to peers' names in general, as a source of knowledge utilized on letters for mediation of writing. When children were trying to discover the name of a letter or to retrieve the shape of a letter that they had just named in order to print it, the mothers often scaffolded them. A major maternal strategy, labeled a mnemonic event, involved mothers' suggestion of a mnemonic stimulus (name or word) that included the required letter. Mothers who used mnemonic events seemed to assume that their children were implicitly familiar with the written form of the mnemonic name/word, as well as with the name and shape of the required letter. Hence, mothers reminded the children of the letter using the reference to the mnemonic stimulus. For instance, one mother guided her daughter in writing 'Smadi'

(a nickname) by dictating letters. To help the child to retrieve the shape of Dalet (D), the mother used a mnemonic name: "Dalet like for Dina" (name). Another mother tried to help in retrieving Pei for writing 'mapa' (map), by a mnemonic word: "Pei like in para" (cow).

At times, mothers enriched the mnemonic device with additional scaffolds. This occurred either in advance, or afterwards when the mention of the stimulus did not suffice. Mothers described the letter's shape, modeled its writing with a finger, or mentioned the letter's position in the mnemonic stimulus. For instance, a mother tried to mediate the letter Lamed, required for writing the nickname Raful, and used the name Lital as a mnemonic name along with letter's description: "Raful—Lamed. Do you remember Lamed with the candle on its head (ל)? like that of Lital." Another mother tried to mediate Aleph using the name Itamar as a mnemonic device along with ordinal position, thus: "Aleph, like the first letter in Itamar."

We examined maternal use of mnemonic devices from three perspectives:

Kind of mnemonic stimulus used by mothers

If mothers are sensitive to children's advanced knowledge with respect to children's own given names, then mothers should use children's forenames rather than other stimuli (names or words) when mediating a target letter that appears in their child's name. In most cases, though, the child's own name cannot serve as a mnemonic device, because the name includes only a few letters. Thus, if mothers are aware of their children's greater accessibility to written names than to written words, they should tend to more often use names of peers or siblings or the like than to use words as mnemonic stimuli.

Ordinal position of the target letter in the mnemonic device

Among English speakers, children gained from their given names the ability to name the initial letter more than other letters (Treiman & Broderick, 1998; Treiman & Kessler, 2003). We found in Study I that Hebrew speaking children substantially improved from their forename in the ability to name letters.

With respect to other names, findings are inconsistent. Share and Gur's (1999) study of name recognition among Israeli preschoolers and kindergartners demonstrated a similar extent of success in guessing what was written in a name, when either the first or the last letter was concealed. In contrast, in recent studies by Jamui (2003) and Peled-Haim (2003), similar age groups of Israelis were found to pay greater attention to the initial than to the final letter in names. Names of peers were transformed by exchanging either the first or the last letter of the name with another letter. Kindergartners erred by reading transformed names as the original names, to a greater extent when the final letter was exchanged, showing their greater attention to the first letter in the name. Masonheimer, Drum, and Ehri (1984) used this method of letter exchange to show how little attention preschoolers pay to the identity of the letters when they recognize environmental print.

With respect to written words, findings indicate a developmental shift. According to the model of word reading proposed by Ehri (2002), a great divide occurs between *pre-alphabetic* readers and *partial alphabetic* readers. The pre-alphabetic readers recognize

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written words by contextual cues (Gough, Juel, & Griffith, 1992; Masonheimer et al., 1984) or by salient visual cues in the print, which do not carry a phonological meaning for these youngsters. Hence, they have not yet developed the knowledge-base for reading. The partial alphabetic readers recognize words on the basis of partial connections formed between letters and sounds; hence, these children are involved in forming a repertoire of familiar written words. Pre-alphabetic children pay no special attention to letters at large, and do not tend to focus on the initial, medial, or final letter (Masonheimer et al., 1984), whereas partial alphabetic readers are particularly attentive to the initial or final letter in the word, rather than to medial letters (Ehri, 2002). The saliency of initial letter in a word in the process of word reading and word spelling has repeatedly been noticed among preschoolers, kindergartners, and first graders (e.g., Beers & Henderson, 1977; Marchbanks & Levin, 1965; Morris, 1980, 1983; Read, 1971). In Ehri's terms, these children are either partial alphabetic or even alphabetic readers.

If Israeli mothers are sensitive to the fact that children's greater accessibility to initial letters is characteristic for words but is perhaps less so for names, and is probably inapplicable for children's personal names, then mothers should select mnemonic devices accordingly. Mothers should prefer mnemonic words that contain the target letter as their first letter. With respect to names, though, and particularly with respect to children's personal names, this effect should be weaker if mothers assume correctly that children are familiar with all the letters in the name to a similar extent. Mothers may still prefer names with the initial target letter, but the reason may lie in their own retrieval processing. In searching for a mnemonic stimulus for a specific letter, it is possible that the first stimulus that comes to the mother's mind has this letter in its initial position (see Koriat & Lieblich, 1975).

Congruity between the role of target letter in the mnemonic device and in the word/name to be written

Vowels are marked in Hebrew orthography by letters and by diacritic marks. The system of diacritics, which is optional, is acquired predominantly in school, and as a rule the vast majority of kindergartners fail to understand its function (Levin, Share et al., 1996; Ravid, 2003). In the current study, we referred only to vowels marked by letters. Ancient Hebrew orthography did not mark vowels at all. In modern Hebrew, AHVY letters, termed *matres lectionis*, mark vowels in a deficient way. Researchers have offered two reasons for vowels' deficiency. First, consonants in Hebrew carry the main lexical content of the word (Ravid, 2003), and secondly, historically, Hebrew orthography started out as a syllabary and later on became phonemic (Coulmas, 1989). Although the letter-phoneme mapping of these letters as consonants is quite transparent, and applies to all positions in the word, the letter-phoneme mapping of these letters as vowels is rather obscure and position dependent.

To specify, the four letters mark five canonical vowels: /a/ and /e/ are marked only in the final-word position by either Aleph or Hei; /i/ is marked across positions except the initial by Yud; /o/ is marked across positions except the initial by Vav; and /u/ is marked by Vav in all word positions. To complicate things further, however, these letters' two roles are not used to a similar extent in Hebrew orthography. Aleph is used

predominantly as a consonant and very rarely as a vowel. Hei and Vav are frequently used as vowels, but quite seldom as consonants. Yud functions often in the two roles, probably more as a vowel.

In mediating a letter meaningfully, the mother should take into account the vowel versus consonantal role of the letter in the mnemonic stimulus and in the word/name to be written. In mediating one of the four letters that function both as vowels and as consonants (AHVY), the mother who takes into account the letter's role in the current word/name, by using a vowel to mediate a vowel or a consonant to mediate a consonant, helps her child to understand symbol-sound relationships. If mothers are sensitive mediators, they should tend to mediate AHVY letters congruently, using mnemonic stimuli in which the letters share the same role as the target letters to be written.

Results

Type of mnemonic stimulus

Thirty-three mothers (80.5% of the sample) used mnemonic events to remind their children of the shape and/or the name of a required letter on either one or both of the two tasks. Out of these, 27 mothers used 194 mnemonic events in the *Name Task*, and 30 mothers used 231 mnemonic events in the *Word Task*. These events constituted the data base for the current analysis. In the *Name Task*, the mean number of mnemonic events per mothers who used them was 7.2 (range: 1–20), and in the *Word Task* the mean was 7.7 (range: 1–29). We conclude that mnemonic events occurred frequently enough to be conceived as a spontaneously occurring strategy in mother-child joint writing.

As mentioned above, if mothers are sensitive to children's greater accessibility to written names than to written words, mothers will tend to use names as mnemonic devices rather than words. However, mothers may use a name or a word that the child has just written, as a mnemonic device for the writing of a required letter. The two tasks differed in terms of the recently written stimuli that they offered as mnemonic devices to mothers, because the *Name Task* comprised guests' names and the *Word Task* comprised dictated words. Therefore, in our analyses, we excluded the mnemonic events that referred to the child's recently written text during the task. Hence, all mnemonic devices in this analysis comprised words or names that the child needed to retrieve from memory. If mothers are aware that their children possess a greater repertoire of written names than written words in their mental lexicon, mothers should prefer names as mnemonic devices, on the two tasks. Indeed, mothers more often used a name than a word as a mnemonic device both in the *Name Task* ($M = 2.22$ vs. $M = 0.59$, $t(26) = 4.36$, $p < 0.001$) and in the *Word Task* ($M = 3.48$ vs. $M = 1.06$, $t(32) = 5.71$, $p < 0.001$).

Among names, children are most knowledgeable about their own given names. If mothers are aware of children's outstandingly advanced familiarity regarding their own names, then the mothers may use the name in mediating writing. The child's name, though, can serve as a mnemonic device for a limited number of letters. To examine maternal tendency to utilize the child's name, we selected mnemonic events

Table 4. Mean percentage of mnemonic stimuli, according to the position of the mediated letter in the stimulus, for given names, other names, and words

Stimulus type	Target letter's position in the stimulus			<i>F</i>	<i>p</i> <
	Initial	Medial	Final		
Given name	32.66	43.96	23.38	1.42	<i>ns</i>
Other name	54.33	24.14	21.53	5.34	0.008
Word	55.18	36.48	8.33	4.38	0.02

Note: For other names, significant contrasts emerged between initial and medial letter, and between initial and final letter. For words, a significant contrast emerged between initial and final letter.

that involved a letter present in the child's name. As expected, mothers preferred the child's given name as a mnemonic device over any other name or word, both in the *Name Task* ($M = 1.78$ vs. $M = 0.85$, $t(26) = 2.48$, $p < 0.02$) and in the *Word Task* ($M = 1.18$ vs. $M = 0.30$, $t(32) = 3.43$, $p < 0.002$).

However, in some cases, the child's written name was displayed during the task. Some children wrote their own names in the list of guests to be invited to their birthday party. A few wrote their name to designate their ownership over the text. In the next analysis, we examined whether mothers preferred the child's own name in those cases where the child's name was not yet written by the child during the task. Here again, mothers preferred the child's given name as a mnemonic device to any other name or word, in the *Name Task* ($M = 1.37$ vs. $M = 0.22$, $t(26) = 4.97$, $p < 0.001$) and in the *Word Task* ($M = 1.03$ vs. $M = 0.12$, $t(32) = 4.32$, $p < 0.001$). In sum, as sensitive mediators of writing, mothers utilized children's advanced knowledge regarding their own names when the name included the required letter, and more generally mothers preferred names to words as a source for reminding the child of a letter's name or shape.

Ordinal position of letter

The ordinal position of the required letter in the stimulus may affect maternal tendency to use this stimulus for the required letter. Specifically, mothers may prefer mnemonic words that include the target letter in the initial position. They may be less guided by letter position in selecting mnemonic names, and particularly with respect to the child's own name.

We divided the mnemonic events according to three possible ordinal positions of the target letter in the mnemonic stimulus: initial, medial, or final position. Table 4 presents the percentages of mothers' mnemonic devices that employ letters in each of the three positions, for the three types of mnemonic stimuli: given names, other names, and words. We combined the *Name Task* and *Word Task* data and included only mnemonic stimuli that had not been written during the task, but rather needed to be retrieved from memory.

When mothers mediated the retrieval of a letter's shape or a letter's name with the given names of their children, they did not prefer initial, medial, or final letters

($F(2, 44) = 1.42$, ns). In contrast, when mothers used other names as mnemonic devices, ordinal position of the letter did affect selection ($F(2, 50) = 5.34$, $p < 0.008$). Contrast test for significance indicated that mothers significantly preferred mnemonic names with the initial over the medial letter, or the initial over the final letter in the stimulus. Similarly, when mothers used mnemonic words, ordinal position demonstrated a significant effect ($F(2, 32) = 4.38$, $p < 0.02$). Contrast test for significance indicated that mothers significantly preferred mnemonic words with the initial than the final letter in the stimulus. Note that the medial position is not strictly comparable to the initial position because words/names of only two letters contain no medial letter, and words/names of more than three letters contain more letters in the medial positions than either in the first or the last position.

In sum, although mothers preferred mediating a letter by using a name or a word containing that letter in its initial position, this was not the case when mothers used children's personal names. In this case, mothers referred to all the letters in the name as a source for helping the child in letter retrieval.

Role of letter as vowel or consonant

Our analysis here of maternal mediation of letters referred to mothers' attention to the role of AHVY letters. Mothers who mediate letters meaningfully should use mnemonic stimuli with AHVY letters playing the same role as in the word to be written. We classified those mnemonic events that each mediated one of the AHVY letters as either congruent or incongruent events. Congruent events used either a vowel to mediate a vowel, or a consonant to mediate a consonant. Incongruent events used either a vowel to mediate a consonant, or a consonant to mediate a vowel. By using congruent mnemonic devices, the mother takes advantage of the child's knowledge about letters' shape-sound connection, or alternatively helps the child to establish this connection.

We must note that the letters to be mediated were partly restricted by the tasks. In the *Word Task*, the eight dictated words did not include all four of the AHVY letters in their dual functions. Aleph appeared neither as a consonant nor as a vowel. Hei and Vav appeared only as a vowel. Yud appeared both as a consonant and as a vowel. In the *Name Task*, all four letters appeared in the guests' names written by the mother-child dyads either as consonants or as vowels, but not to a similar extent in each role. However, for each of these letters to be mediated, mothers could have mentioned words or names that use each letter either as a vowel or a consonant.

Taking this limitation into account, the data indicated that mothers mediated AHVY letters congruently, mediating mainly vowels by vowels and consonants by consonants. Table 5 presents the mean percent of congruent and incongruent maternal mediation, for each AHVY letter separately. In sum, congruent mediation occurred in 86 and 73 percent of the cases, in the *Name Task* and *Word Task*, respectively. Two *t*-tests, one per task, showed that congruent mediation prevailed over incongruent mediation, $t(20) = 4.92$, $p < 0.001$; $t(18) = 2.32$, $p < 0.03$; in the *Name Task* and *Word Task*, respectively.

Table 5. Frequency of using AHVY letters that function as vowels or as consonants in mediating writing of AHVY letters that function as vowels or consonants

Letter	No. of mothers	No. of mnemonic events	Percent congruent mediation		Percent incongruent mediation	
			C-C	V-V	C-V	V-C
Name Task						
Aleph	9	14	100	0	0	0
Hei	6	8	33	42	0	25
Vav	11	18	0	100	0	0
Yud	11	23	3	73	14	11
Overall	21	63	33.6	52.1	3.8	11.5
Word Task						
Aleph	0		—	—	—	—
Hei	13	22	0	73	0	27
Vav	9	15	0	89	0	11
Yud	9	11	17	50	11	22
Overall	19	48	3.4	69.4	0.9	26.3

Note: C-C = A consonant used to mediate a consonant; V-V = A vowel used to mediate a vowel; C-V = A consonant used to mediate a vowel; V-C = A vowel used to mediate a consonant. *Name Task* across letters: $t(20) = 4.92$, $p < 0.001$. *Word Task* across letters: $t(18) = 2.32$, $p < 0.03$.

DISCUSSION

Research on young children's literacy is embedded in different theoretical frameworks. Some researchers describe children's "emergent literacy" as fuelled by children's self-initiated curiosity, hypothesis generation, and constructive attempts to find solutions to disequilibrium between their growing conceptions (e.g., Burns & Casbergue, 1992; Martens, 1999; Ferreiro & Teberosky, 1982). Other researchers analyze "early literacy" as largely shaped by adults' mediation, which promotes children's curiosity and interest in literacy events while providing inputs and feedbacks concerning language and the written system (e.g., Aram & Levin, 2001; Bus, van IJzendoorn & Pellegrini, 1995; Evans, Shaw, & Bell, 2001; Hiebert & Adams, 1987). Yet another perspective views the development of literacy in the young as shaped by the oral and written language in which the child is immersed (Harris & Hatano, 1999).

Within the framework of early literacy skills dealt with here (letter knowledge and early writing), variations in orthography and letters' names have received special attention in a series of studies (e.g., Evans et al., 2003; Levin et al., 2001; Tolchinsky & Teberosky, 1997, 1998; Treiman & Broderick, 1998; Treiman & Kessler, 2003, 2004; Treiman et al., 1994, 1996, 1998, 2001). Our stance is that all three points of view capture important factors shaping literacy development, and should be viewed as complementary and interactive. In line with this stance, we employed a cross linguistic perspective to evaluate children's developing literacy skills derived from their knowledge about their own names. We searched for similarity across languages, extending into Hebrew those analyses carried out by others for English speaking children, and we concomitantly looked for variations dependent on the orthography and letter characteristics. Furthermore, we shed light on a neglected topic: maternal mediation

of writing. Currently, we examined mediation as a context affording mothers the use of the child's knowledge about names to promote understanding of the written system.

Children immersed in Hebrew seem to profit relatively more than English speaking children from their advanced knowledge regarding their own names. Whereas English speakers with own-name knowledge improve only in naming the initial letter of their given name (Treiman & Broderick, 1998) or more in naming initial than later letters (Treiman & Kessler, 2003), Hebrew speakers improve in naming at least three letters, which for many constitutes all the letters that the name offers. Moreover, English speaking children do not learn from their name the sounds that the letters represent, whereas Hebrew speaking children do learn the sounds, although this advantage is probably limited to consonantal sounds and not to vowel sounds. These facilitative effects of Hebrew probably accumulate with other features of Hebrew to make the learning of word decoding in Hebrew easier than in English (Share & Levin, 1999).

We suggested three factors to explain the relatively limited knowledge gained in English. First, considering that many English words are longer than four letters or so, young children may find it difficult to attend to the entire string of letters. Hence, they focus by default on the salient letter. Saliency is often determined by position (with initial and final letters more salient than medial letters; Ehri, 2002) and by capitalization. Capital letters are more salient for two reasons: their larger size compared to the ensuing lower-case cursive letters, and young children's greater acquaintance with their shapes, partly because of greater exposure to capital letters.

In Hebrew, the majority of names comprise four letters or less, allowing children to distribute their attention to the entire string. The reasons we suggest for this shorter length phenomenon include mainly Hebrew's deficient marking of vowels by letters and the modern tendency of Israeli parents to use unisex male names or masculine nouns for both boys and girls, which are shorter in Hebrew than female names/nouns. This name-length gender difference was documented in English too (Cassidy et al., 1999).

Second, the advantage derived from names regarding letters' sounds emerged only for Hebrew speaking children. The explanation we offered relates to the acrophonic nature of all Hebrew letter names except the AHVY letters, which stand both for consonants and for vowels, and whose names begin with their consonantal sound. Considering English letter names' iconic but not always acrophonic nature, letter names in Hebrew may be more facilitative to deriving letters' sounds from names.

Interestingly, children immersed in either of the two languages under consideration gained knowledge from their given names but not from their family names. This probably reflects a common cultural habit to focus with children mostly on their personal names alone. In socio-cultural contexts where children are absorbed with their family names as often as with their given names, researchers may be interested in studying surnames as literacy precursors.

Deutsch (1998) provided indirect support for the role of the socio-cultural environment on kindergartners' knowledge about their written names. This study analyzed literacy skills of a special group of children, ultra-orthodox Jewish boys in Israel. These

boys study in a “heder,” where they are formally taught to recognize, to name, and to sound out letters from age 3, and several months later to read words. Writing in general, including name writing, is not included in the curriculum. In addition, in the “heder,” boys are not involved in drawing or producing artwork. This tradition serves to prepare boys as early as possible to take part in prayers guided by prayer books.

Ultra-orthodox boys were compared to three age-matched groups of children studying in schools that do not pay formal attention to teaching either reading or writing: ultra-orthodox girls, and boys and girls recruited from state-religious preschools and kindergartners. These other three groups, however, were involved in drawing and artwork and were exposed to and encouraged to copy or write their names on their products. All four groups derived from a middle-low SES and were in the age range of 4;0 to 5;9 years and months.

The ultra-orthodox boys significantly outperformed their counterparts on a series of literacy skills: connecting letter names with their written symbols, writing letters, recognizing singular versus plural written forms of words, and in conventionality of word writing and invented spelling. On one task, though – their own name writing – the three other groups performed significantly better than the ultra-orthodox boys. This peculiar finding suggests that children’s advanced knowledge about their own written name is promoted primarily by consistent mediation of this particular knowledge to young children.

Our chapter is the first to quantitatively examine the role of mothers, a role they share with fathers and teachers, in the process of building literacy skills on the basis of names. We examined mother-child dyadic joint writing of names and words, in a township populated mainly by low SES families. When mothers wanted to help their child to retrieve a letter’s name or its shape in the course of printing names or words, they often used a mnemonic stimulus, i.e., a name or a word that included the required letter. Mothers proved themselves to be sensitive to the child’s repertoire of written stimuli. They knew that their children were predominantly familiar with their written own names and possessed a greater repertoire of written names than written words. Further, they utilized this knowledge by referring to the child’s name and to names in general as a source for letters. When the required letter was present in the child’s forename, this name comprised the ultimate mnemonic device used.

In general, mothers preferred mediating a letter by a name or word that carried this letter in its initial position. Two reasons may be offered: First, it is easier for mothers to retrieve a word or a name that starts with a particular letter that she wishes to mediate (Koriat & Lieblich, 1975). Second, mothers may be sensitive to the fact that children are more acquainted with the initial letter of a written word, and they may take this factor into account during their process of mediation. Interestingly, though, such a preference did not occur when children’s given names were used as a mnemonic stimulus. In this case, mothers referred to all the letters in the name as a source for helping the child in letter retrieval.

Finally, mothers exhibited their sensitivity by mediating AHVY letters in a congruent manner. They used vowels to help children in writing vowels, and consonants to help with consonants. Rarely did they use a vowel letter to help the child to retrieve

this letter as a consonant, or vice versa. Congruent mediation exhibits the fact that mothers take into account not only the shape of the mediated letter but its specific sound. Thereby, mothers help their children not only to print the required letter but also to understand the alphabetic principle underlying the written code.

This preliminary investigation concerning maternal sensitivity toward children's literacy converges with studies that shed light on the parental role. Levin and Bus (2003) reported mothers' awareness of distinctions that very young children create between writing and drawing, and Hiebert and Adams (1987) documented parental accuracy concerning literacy achievements in preschool.

Many more studies are required in this fascinating area. A broader coverage of languages might reveal other factors that determine the course of literacy development, including the role of names. Careful analyses of adult-child interactions concerning names, letters, writing, invented spelling, and attempted reading will illuminate the socio-cultural context of literacy development. This aspect holds importance for theoretical as well as pedagogical purposes.

REFERENCES

- Aram, D., & Levin, I. (2001). Mother-child joint writing in low SES: Sociocultural factors, maternal mediation, and emergent literacy. *Cognitive Development*, 16, 831-852.
- Aram, D., & Levin, I. (in press). The role of maternal mediation of writing to kindergartners in promoting literacy in school: A longitudinal perspective. *Reading and Writing*.
- Arrow, A., Fletcher-Flinn, C. M., & Nicholson, T. (2003). "That's my name": Possible precursors to reading development. *Poster presented at the Annual Conference of the Society for Scientific Study of Reading*, Boulder, Colorado, USA.
- Beers, J. W., & Henderson, E. H. (1977). A study of developing orthographic concept among first graders. *Research in the Teaching of English*, 2, 133-148.
- Bloodgood, J. W. (1999). What's in a name? Children's name writing and literacy acquisition. *Reading Research Quarterly*, 34, 342-367.
- Burns, M. S., & Casbergue, R. (1992). Parent child interaction in a letter writing context. *Journal of Reading Behavior*, 24, 289-312.
- Bus, A. G., van IJzendoorn, M. H., & Pellegrini, A. D. (1995). Joint book reading makes for success in learning to read: A meta-analysis on intergenerational transmission of literacy. *Review of Educational Research*, 65, 1-21.
- Cassidy, K. W., Kelly, M. H., & Sharoni, L. J. (1999). Inferring gender from name phonology. *Journal of Experimental Psychology: General*, 128, 362-381.
- Clay, M. M. (1975). *What did I write? Beginning writing behavior*. City: Heinemann.
- Coulmas, F. (1989). *The writing systems of the world*. Oxford: Blackwell.
- Deutsch, E. (1998). *The effects of early reading instruction on emergent literacy: A comparison between the ultra-orthodox "heder" and state preschool*. Unpublished masters thesis, Sackler Faculty of Medicine, Dept. of Communication Disorders, Tel Aviv University.
- Evans, M. A., Shaw, D., & Bell, M. (2000). Home literacy experiences and their influence on early literacy skills. *Canadian Journal of Experimental Psychology*, 54, 65-75.
- Evans, M. A., Shaw, D., Moretti, S., & Page, J. (2003). *Letter names, letter sounds and phonological awareness: An examination of kindergarten children across letters and of letters across children*. Manuscript under review.
- Ehri, L. C. (1983). A critique of five studies related to letter-name knowledge and learning to read. In L. M. Gentile, M. L. Kamil, & J. S. Blanchard (Eds.), *Reading research revisited* (pp. 143-153). Columbus, OH: Merrill.
- Ehri, L. C. (2002). Phases of acquisition in learning to read words and implications for teaching. *British Journal of Educational Psychology: Monograph Series*, 1, 7-28.
- Ferguson, N. (1975). Pictographs and prereading skills. *Child Development*, 46, 786-789.
- Ferreiro, E. (1986). The interplay between information and assimilation in beginning literacy. In W. H. Teale, & E. Sulzby (Eds.), *Emergent literacy* (pp. 15-49). Norwood, NJ: Ablex.

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- Ferreiro, E., & Teberosky, A. (1982). *Literacy before schooling*. New York: Heinemann.
- Gombert, J. E., & Fayol, M. (1992). Writing in preliterate children. *Learning and Instruction*, 2, 23–41.
- Gough, P., Juel, C., & Griffith, P. (1992). Reading, spelling and the orthographic cipher. In P. Gough, L. C. Ehri, & R. Treiman (Eds.), *Reading acquisition* (pp. 35–48). Hillsdale, NJ: Erlbaum.
- Harris, M., & Hatano, G. (1999). *Learning to read and write: A cross linguistic perspective*. Cambridge: Cambridge University Press.
- Hiebert, E. H., & Adams, C. S. (1987). Fathers' and mothers' perceptions of their preschool children's emergent literacy. *Journal of Experimental Child Psychology*, 44, 25–37.
- Jamui, O. (2003). *Name reading and writing among pre- and kindergartners*. Unpublished masters thesis, School of Education, Tel Aviv University.
- Koriat, A., & Lieblich, I. (1975). Examination of the letter serial position effect in the "TOT" and the "don't know" states. *Bulletin of the Psychonomic Society*, 6, 539–541.
- Levin, I., & Bus, A. (2003). How is emergent writing based on drawing? Analyses of children's products and their sorting by children and mothers. *Developmental Psychology*, 39, ???.
- Levin, I., Patel, S., Margalit, T., & Barad, N. (2002). Letter-names: Effect on letter saying, spelling and word recognition in Hebrew. *Applied Psycholinguistics*, 23, 269–300.
- Levin, I., Ravid, D., & S. Rapaport (1996). Developing morphological awareness and learning to write: A two-way street. In T. Nunes (Ed.), *Learning to read: An integrated view from research and practice*, 1999 (pp. 77–104). Kluwer Academic Publishers.
- Levin, I., Share, D. L., & Shatil, E. (1996). A qualitative-quantitative study of preschool writing: Its development and contribution to school literacy. In C. M. Levy & S. Ransdell (Eds.), *The science of writing* (pp. 271–293). Mahwah, NJ: Erlbaum.
- Marchbanks, G., & Levin, H. (1965). Cues by which children recognize words. *Journal of Educational Psychology*, 56, 57–61.
- Martens, P. A. (1999). Mommy, how do you write "Sarah?": The role of name writing in one child's literacy. *Journal of Research in Childhood Education*, 14, 5–15.
- Mason, J. M. (1980). When do children begin to read: An exploration of four year old children's letter and word reading competencies. *Reading Research Quarterly*, 15, 203–227.
- Masonheimer, P. E., Drum, P. A., & Ehri, L. C. (1984). Does environmental print identification lead children into word reading? *Journal of Reading Behavior*, 16, 257–271.
- McBride-Chang, C. (1999). The ABCs of the ABCs: The development of letter-name and letter-sound knowledge. *Merrill-Palmer Quarterly*, 45, 285–308.
- Morris, D. (1980). Beginning readers' conception of word. In E. Henderson & J. Beers (Eds.), *Developmental and cognitive aspects of learning to spell: A reflection of word knowledge* (pp. 97–111). Newark, DE: International Reading Association.
- Morris, D. (1983). Concept of word and phoneme awareness in the beginning of reading. *Research in the Teaching of English*, 17, 359–373.
- Peled-Haim, L. (2003). *Name reading and literacy skills among pre- and kindergartners*. Unpublished masters thesis, School of Education, Tel Aviv University.
- Ravid, D. (2001). Learning to spell in Hebrew: Phonological and morphological factors. *Reading and Writing: An Interdisciplinary Journal*, 14, 459–485.
- Ravid, D. (in press). Hebrew orthography and literacy. In R. M. Joshi & P. G. Aaron (Eds.), *Handbook of orthography and literacy*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Read, C. (1971). Pre-school children's knowledge of English phonology. *Harvard Educational Review*, 41, 1–34.
- Share, L. C. (in press). Knowing letter names and learning their sounds: A causal connection. *Journal of Experimental Child Psychology*.
- Share, D.L., & Gur, T. (1999). How reading begins: A study of preschoolers' print identification strategies. *Cognition and Instruction*, 17, 177–213.
- Share, L. C., & Levin, I. (1999). Learning to read and write in Hebrew. In M. Harris, & G. Hatano (Eds.), *Learning to read and write: A cross linguistic perspective*. Cambridge: Cambridge University Press.
- Tolchinsky, L., & Teberosky, A. (1997). Explicit word segmentation and writing in Hebrew and Spanish. In C. Pontecorvo (Ed.), *Writing development: An interdisciplinary view* (pp. 77–98). Amsterdam: John Benjamins.
- Tolchinsky, L., & Teberosky, A. (1998). The development of word segmentation and writing in two scripts. *Cognitive Development*, 13, 1–21.
- Treiman, R., & Broderick, V. (1998). What's in a name? Children's knowledge about the letters in their own names. *Journal of Experimental Child Psychology*, 70, 97–116.

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- Treiman, R., & Kessler, B. (2003). The role of letter names in the acquisition of literacy. In H. W. Reese & R. Kail (Eds.), *Advances in child development and behavior*, Vol. 31. San Diego: Academic Press.
- Treiman, R., & Kessler, B. (2004). The case of case: Children's knowledge and use of upper- and lower-case letters. *Applied Psycholinguistics*, 25, 413-428.
- Treiman, R., Kessler, B., & Bourassa, D. (2001). Children's own names influence their spelling. *Applied Psycholinguistics*, 22, 555-570.
- Treiman, R., Tincoff, R., & Richmond-Welty, E. D. (1996). Letter names help children to connect print and speech. *Developmental Psychology*, 32, 505-514.
- Treiman, R., Tincoff, R., Rodriguez, K., Mouzaki, A., & Francis, D. J. (1998). The foundations of literacy: Learning the sounds of letters. *Child Development*, 69, 1524-1540.
- Treiman, R., Weatherston, S., & Berch, D. (1994). The role of letter names in children's learning of phoneme-grapheme relations. *Applied Psycholinguistics*, 15, 97-122.
- Villaume, S. K., & Wilson, L. C. (1989). Preschool children's explorations of letters in their own names. *Applied Psycholinguistics*, 10, 283-300.
- Worden, P. E., & Boettcher, W. (1990). Young children's acquisition of alphabet knowledge. *Journal of Reading Behavior*, 22, 277-295.

