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ABSTRACT

The phenomenon of "invented spelling" in young children, observed in many preschool age children who produce written messages using words that are generated through an original system of orthography, was researched with Spanish-speaking children. The following conclusions were made from previous research with English-speaking children concerning the central features of the invented spelling phenomenon: (1) it is systematic, (2) it is based initially upon phonetic principles, and (3) the major principles of invented spelling are virtually identical among children at the same developmental stage. Any non-standard spellings that the children produced were studied to see if they had been generated by principles similar to those that had been observed in the invented spelling of English-speaking children. The first, second, and third graders from the Dominican Republic in this study used generalizations or concepts about spelling as a system to generate their spellings. Even when they guessed, they rarely guessed wildly. The children produced a very small subset for any given word of all the possible variations of letters that might have been produced to spell the word. This study indirectly demonstrated the shortcomings of an orthography based largely on phoneme-grapheme correspondence. (NCR)

Learning to Spell in Spanish

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YUTS A LADE YET FEHEG AD HE KOT FLEPR* (Young writer from Cambridge, Mass.)

EL PERRO CUADO ETABA HICITO CE ALIMETABA DE LA MADRE# (Young writer from La Romana, Dominican Republic)

*"Once a lady went fishing and she caught flipper." (From C. Chomsky, 1975)

#"El perro cuando estaba chiquito se alimentaba de la madre." (Collected by the author)

Learning to Spell in Spanish

In recent years a few researchers have made note of the phenomenon of "invented spelling" in young children. They have demonstrated that many children of preschool age are capable of producing written messages using words that are generated through an original system of orthography--using clear patterns for combining letters to make words; words that obviously have not been imitated from adults. Charles Read was the first to bring a linguistic analysis to bear on invented spelling Edmund Henderson and his students--Jim Beers, Jerry Zutell, Shane Templeton, Richard Gentry and Elizabeth Stever--have carried the work a bit further, especially with school-aged children.

By now we can assert that invented spelling is a widespread phenomenon, and we can list some of its central features:

a) it is systematic: at any one time a child appears to have a pattern to the way he/she spells words. A young speller employs a small subset of all possible letters that could represent parts of words, and he makes the same choices repeatedly and consistently.

b) it is based initially upon phonetic principles--upon associations between sounds in words and graphemes. Later the spelling of most children moves away from a direct phonetic representation to honor other features of standard spelling, such as conventions for marking vowels, grammatical features, morpheme boundaries, and

eventually a whole (as yet little explored) set of lexical relationships among words. But in the early stages children's invented spelling is phonetic, and it involves a surprisingly sensitive set of phonetic judgments.

c) even though early spelling is so clearly divergent from standard spelling as to appear bizarre to adult eyes, nevertheless, the major principles of invented spelling are virtually identical among children at the same developmental stage. A child living in Boston and a child living in South Texas will often invent the same spellings for the same words even though these spellings look not at all like standard forms..

It is this last aspect of invented spelling--its widespread occurrence--that has especially intrigued the present writer. Does the occurrence of children's invented spelling strategies generalize to languages other than English? The writer undertook to see if he could elicit invented spelling from children who are native speakers of Spanish. Any non-standard spellings that the children produced would be studied to see if they seemed to have been generated by principles similar to those that had been observed in the invented spellings of English-speaking children.

Spanish was chosen as the language to be investigated in this study for two reasons. First, its writing system is characterized by a markedly greater degree of phoneme-to-grapheme regularity than English.. In fact, among alphabetic languages, Spanish and English are often said to occupy different ends of the spectrum of abstract/direct phoneme-to-grapheme representation (cf. Read,

1975; Laubach and Laubach, 1960; Gelb, 1956). A second reason for choosing Spanish was that the investigator had often heard Spanish speakers claim they had no trouble learning to spell in their language, and that they had difficulty remembering their teachers' efforts to teach them to spell. This is certainly different from the typical experience of English-speakers with their own writing system.

Procedure

The subjects chosen were approximately fifteen first graders, thirty second graders, and thirty third graders attending a parochial school in the Dominican Republic. The writer composed a list of twenty words to have the children spell. The words were selected according to three criteria: first, they were in the spoken vocabulary of the subjects (as attested to by their teachers); secondly, they were not on any of the children's spelling lists; and thirdly, they embodied a cross section of the types of phoneme-grapheme correspondences found in the Spanish language.

A teacher in the school composed sentences to illustrate each of the words on the spelling list. When the list was tested, the subjects' respective classroom teachers read the words and the sentences, and encouraged the children to spell the words as they thought they might be spelled, without fear of being penalized if they made errors. The writer tape recorded the testing sessions, and later had several children from the classes read the test words, the sentences, and the names of the letters of the alphabet into the tape recorder. These were used later to aid in the intepretation of the results. The study received a high degree of cooperation

from the subjects and the teachers.*

While preparing the spelling list for testing, the researcher made a list of all of the phoneme-grapheme units that were tested in the study. After testing, the students' papers were examined and their responses for each phoneme-grapheme unit were tabulated. Subsequently, a comparison was made among the responses of first, second and third graders for each phoneme-grapheme unit.

An aside about Spanish orthography

Since the children's treatment of the phoneme-grapheme units in the Spanish writing system is the focus of our study, it will be worthwhile to make some general points about these units before proceeding further.

The majority of the phonemes in Spanish are represented in print by only one grapheme, respectively. The majority of the graphemes in Spanish represent only one phoneme, respectively. Most of the names of the letters of the alphabet in Spanish are closely related to the sounds those letters represent in words. To illustrate: the letter called [ay] in English very often has the value [I] in print. In Spanish, the corresponding letter is called [i] and it always has the value [i] when it occurs in printed words. [i] rarely, if ever, has any other value in Spanish.

Because of the close relationship between phonemes, graphemes, and alphabetic letter names in Spanish, a child should be able to

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invent spellings for most words quite accurately after some exposure to the letter names in the alphabet.

However, there are several conditions that make for exceptions to the close phoneme-grapheme relationships already described. In fact, these "wrinkles" occur often enough to make young children's untutored writings appear quite different from standard Spanish. The first set of exceptions is built into the orthographic system.

First, there are what we shall call "ambiguous" consonants: letters for which more than one pronunciation is possible, and phonemes which may conversely have more than one representation. The phoneme /s/, for instance, may be realized in print either as C, S, or Z, depending (to some extent) upon whether it is followed by a front or back vowel. If it is followed by a back vowel, either S or Z (the latter is rare) may be used. But if it is followed by a front vowel, either C, S, or Z may occur. As it happens, the letters B and V have the same pronunciation in all but the most self-conscious speech. Spanish-speaking teachers will often attempt to reinforce a pairing of the phoneme /v/ with the spelling V, and /b/ with B. In casual speech, though, not even the teachers observe the distinction. (Dalbor, 1969)

Another exception built into the orthographic system is the occurrence of what we shall call conventional consonants. These are a handful of consonant spellings, usually consonant diagraphs, which do not bear an intuitable relationship to phonology. An example is the spelling Ch for /č/, which also occurs in English. Another is the spelling of the phoneme /j/. There are two spellings for this phoneme in Latin American Spanish: LL (called [éle éle]) and Y (called [igiéga]). Neither of these letter names bear an

obvious relationship to the phoneme in a word. Nor is there a reliable way to decide which spelling should be supplied for the phoneme, making this spelling both conventional and ambiguous.

Another source of exceptions to the clarity of the phoneme-grapheme relationship is the relative de-emphasis of phonemes occurring in certain environments in words. Unlike English, Spanish sees very little reduction of vowels in unstressed syllables. Where Spanish does show reduction is in consonants that occur word-finally or before other consonants. Thus in speech the formal second person singular pronoun usted is sometimes heard as [uteh].

One feature that might make the presence of a word final consonant easier to remember in Spanish is its status as a morpheme. Very often word final consonants are parts of bound morphemes. In tienen the final N shows that this verb is third person plural; in libertad the D is part of a nominalizer -ad. If children are aware that these letters are part of a morphemic unit that is necessarily spelled a certain way, we would expect to see fewer omissions of word final consonants in these environments.

Results and discussion

The results of the analysis of the children's errors is tabulated below. The children's responses on each spelling unit will be discussed separately. A sample of a second grader's writing, which illustrates how many of these errors appear in text, is included in the appendix.

Table 1

Spelling of Pure Vowels

Test Vowel		Grade 1			Grade 2			Grade 3		
		Response			Response			Response		
E [e]	Spellings:	E	A	Ø	E	A		E		U
	Number:	48	5	3	264	2		258		1
	Percent:	86%	9%	5%	99%	1%		99.9%		.01%
O [o]	Spellings:	O	A		O	A		O	A	U
	Number:	43	1		366	1		349	2	3
	Percent:	98%	2%		99.8%	.02%		98%	.05%	.08%
A [a]	Spellings:	A	E		A			A		O
	Number:	33	2		442			351		1
	Percent:	94%	5%		100%			99.8%		.02%
I [i]	Spellings:	I			I	IE	U	I		
	Number:	24			175	1	1	165		
	Percent:	100%			99%	.05%	.05%	100%		
U [u]	Spellings:				U	A	Ø	U	A	
	Number:	No Exemplar			35	1	1	32	1	
	Percent:				95%	2.5%	2.5%	97%	3%	

These vowels occurred in words other parts of which were often misspelled. The vowels themselves were spelled correctly a high percentage of the time, and there appeared to be no particular pattern to the errors that these vowels did invoke..

Table II

Conventional Consonants

Test Consonant		Grade 1			Grade 2			Grade 3	
		Response			Response			Response	
CH [č]	Spellings:	CH	H	HC	CH	H	LL	CH	LL
	Number:	21	5	4	118	12	5	128	2
	Percent:	70%	17%	13%	87%	9%	4%	98%	2%

Conventional consonants showed a far lower correct rate than single-letter, non-ambiguous consonants. There was also a definite pattern to the errors they evoked. For the /č/ phoneme, conventionally spelled CH (called /se áče/) the letter H appearing alone was the most frequent error, accounting for 17% of the errors at first grade and 9% at second. This error can be explained by the letter-name spelling strategy. If one were searching for a single letter of the alphabet whose name contained most closely resembled the phoneme one wished to spell, then the letter H (called /áče/ in Spanish) would be the best bet, since it does indeed contain the alveolar affricate sound of /č/. Even the reversed spelling HC might be attributed to this strategy: if one sensed that the sound element one were looking for were contained in the letter H, and if one had been taught that the phoneme were conventionally represented by the letter C and H together, it would be defensible to put H--the really important element--right up in first position. Examples were HOCE or HCOCE for choque.

At second and third grade there was interference from another conventional spelling, LL. In Dominican Spanish, the /j/ phoneme

is very strident pronounced, so that a slight affrication is sometimes sensed. /č/ and /j/ sound sufficiently alike to become confused in spelling. An example is LLECE for cheque.

Table III

Ambiguous Consonants

Consonant		Grade 1		Grade 2			Grade 3					
		Response		Response			Response					
B [b], [b]	Spellings:	B	V	B	V	D	B	V	P	D	F	G
	Number:	9	14	109	23	1	115	4	1	1	1	1
	Percent:	39%	61%	82%	17%	1%	93%	3%	1%	1%	1%	1%
V [b], [b]	Spellings:	V	B	V	B	D	P	V	B	D		
	Number:			40%	25	1	1	21	36	1		
	Percent:			60%	37%	1%	1%	36%	62%	1%		
C [s]	Spellings:	No exemplar		C	S		C	S				
	Number:			10	21		18	14				
	Percent:			32%	68%		56%	44%				
S [s]	Spellings:	S	C	S			S					
	Number:	16	1	35			32					
	Percent:	94%	6%	100%			100%					

Ambiguous consonants caused the most difficulty. In general the children appeared to choose one letter to represent a phoneme and stick to it regardless of the word. Note that with the spelling of V for /b/, the children's error rate actually increased with grade level so that by third grade two out of three spellings for this consonant were incorrect. A clear preference for the letter S as a spelling for /s/ is also evident. Examples are VANO (bano), SERRAL (cerrar).

Table IV

Pre-Obstruent Continuants

Consonant		Grade 1			Grade 2				Grade 3			
		Response			Response				Response			
S/T	Spelling:	No Exemplars			S	Ø	R	C	S	Ø	P	
	Number:				39	26	1	1	56	8	1	
	Percent:				58%	29%	1%	1%	86%	12%	1%	
R/D or T	Spelling:	R	Ø	L	R	Ø	L		R	Ø	L	NN
	Number:	10	7	3	62	22	15		82	6	6	1
	Percent:	50%	35%	15%	62%	22%	15%		86%	9%	9%	1%
M - /B	Spelling:	No Exemplars			M	Ø	N	L	M	Ø	N	
	Number:				5	5	20	1	12	3	17	
	Percent:				16%	16%	65%	3%	38%	9%	53%	
N - /C̆	Spelling:				N	Ø	M	L	N	Ø	M	L
	Number:				44	3	4	9	58	2	2	1
	Percent:				73%	5%	7%	15%	92%	6%	6%	1%

Whereas English has many cases where a continuant consonant occurs before an obstruent within a single syllable, Spanish does not. At the junction of two syllables, however, this combination may occur. When it does, the pronunciation of the continuant is indistinct. Often the subjects omitted the continuant in such cases, but sometimes they substituted other continuants. Examples are: TRITE (triste), ILHADO (hinchado).

Table V

Word-Final Consonants

Test Consonant	Second Grade			Third Grade		
	Correct	Omit	Substitute	Correct	Omit	Substitute
D	5	61	3	32	30	2
	7%	88%	13%	50%	37%	3%
N_1	19	11	0	29	2	1
	63%	37%		91%	6%	3%
N_2 (verb marker)	41	20	3	46	12	1
	64%	33%	5%	78%	20%	2%
R (verb marker)	15	7	11	12	1	20
	45%	21%	33%	30%	3%	61%

The subjects omitted final consonants at a high rate or alternatively they often substituted another consonant. Whether or not a consonant was part of a morpheme does not appear to have made appreciable difference. Phonetic features of certain consonants made them more salient than the morphemic status of others. Examples: LIBERTA (libertad), SERRAL (cerrar).

Conclusions

The children in this study, all native Spanish speakers, apparently had not been taught to spell the target words. All of them plunged in and attempted to spell words anyway. They clearly used generalizations or concepts about spelling as a system to generate the spellings. Even when they guessed, they rarely guessed wildly; the children as a whole for any given word produced a very small subset of all the possible variations of letters that might have been produced to spell the word.

The subjects could and did take advantage of many close correspondences between phonemes and graphemes in the Spanish writing system to spell many words correctly. However, there were many instances where these correspondences were not close, either because of features of the writing system itself that deviated from the "phonetically regular" norm or because pronunciation sometimes was relaxed. In both such cases, Spanish-speaking children resorted to the same inventive spelling strategies English-speaking children regularly employ in such cases:

--they sought a match between the name of the letter of the alphabet which was closest in place and manner of articulation to the phonemes they wished to represent;

--they observed a kind of threshold criterion for the need to represent a phoneme; if it was very clear, they put it in. If not, they left it out, lest they distort the word by overspecifying it sounds.

This study indirectly demonstrated the shortcomings of an orthography based largely on phoneme-grapheme correspondences. In Spanish, a language highly touted as having one of the world's most regular writing systems, sounds alone are not an adequate guide to correct spelling. The subjects in the study demonstrated a clear need to attend to other sorts of information: morphemes, for example.

Whether older children would demonstrate an awareness of non-phonetic information is not known. Teachers in universities where Spanish is spoken sometimes complain of numerous spelling errors that have a phonetic base (Marcos Marín, F., 1975). Interestingly, at least one authority promotes the study of etymology as a corrective influence on spelling (Alonso, 1965). That good soul is clearly at

odds with the Spanish dictionary writers, who for years have been actively removing etymological vestiges from the spellings of words, all in the name of "el fonetismo", the regularity of phoneme-grapheme correspondence.

References

Alonso, M. Apuntes de ortografia. Merida, Venezuela; Universidad de los Andes; 1965.

Beers, J. and E. Henderson. A study of developing orthographic concepts among first graders. Research in the Teaching of English. 11 (1977): 133-148.

Chomsky, C. Invented spelling in the open classroom. Word. 27 (1971): pp. 499-518.

Dalbor, J. Spanish pronunciation: theory and practice. New York: Holt, Rinehart and Winston, 1969.

Gelb, I. A study of writing. Chicago: University of Chicago Press, 1956.

Gentry, R. A study of orthographic strategies of beginning readers. Unpublished doctoral dissertation, University of Virginia, 1977.

Laubach, F. and R. Laubach. Toward world literacy: The each-one-teach-one way. Syracuse, New York: Syracuse University Press, 1960.

Marcos Marin, F. Linguistica y lingua espanola. Madrid: Editorial Cincel, 1975.

Read, C. Children's categorization of speech sounds in English. Urbana, Illinois: National Council of Teachers of English, 1975.

Templeton, W. An awareness of certain aspects of derivational morphology in phonology and orthography among sixth, eight and tenth graders. Unpublished doctoral dissertation. University of Virginia, 1976.

Zutell, J. Spelling strategies of primary school children in relation to the Piagetian concept of decentration. Unpublished doctoral dissertation, University of Virginia, 1975.

Appendix

The following was extracted from a theme written by a seven-year-old girl early in her second year of school. The teacher discussed the theme with the entire class, and then she wrote. Her spelling is in capitals, with the standard version underneath.

TEMA: EL PERRO

EL PERRO E UTI AL HOMBRE
El perro es util al hombre.

TIENE CUARO PATA
Tiene cuatro patas.

TIENE PELO
Tiene pelo.

EL PERRO CUADO ETABA HICITO CE ALIMETABA DE LA MADRE
El perro cuando estaba chiquito se alimentaba de la madre.

I DEFIEDE A LO BIEJITO
Y defiende a los viejitos.

LLO TEGO SIETE AÑO 7
Yo tengo siete años.