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SEQUENCE AND SYLLABICATION

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Monograph Number 3

The New York Institute for the
Education of the Blind Series

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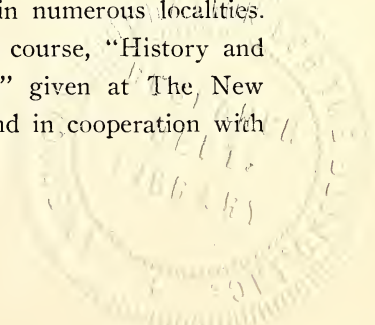
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P R E F A C E

This monograph is the third of a series of contributions to the literature on methods of the education of the blind.

The aim of this series is to make available, to workers and students in the field of the education of the blind, the literature from other languages and worthwhile English publications dealing with the methods of teaching the blind. The Board of Managers, in making this series possible, presents the view of each author as the author's opinion and not the opinion of the Board of Managers of The New York Institute for the Education of the Blind. In some cases it is possible that the philosophy and general educational policy of the school may be quite different from the view expressed by the author of the monograph.

Miss Madeleine Loomis has been a pioneer in the teaching of Braille to lay and professional workers, and is one of the foremost instructors in Braille in the country and was a member of the first class of sighted people in this country to undertake the study of Braille. For ten years she was director of the Department of Braille of the Chicago Chapter, American Red Cross. In 1919 she organized the Braille Department for the American Red Cross in Providence, Rhode Island, and in 1922 instructed the original classes when the work was undertaken by the New York Chapter. She was the first American to hold a certificate from the National Institute for the Blind in London. Miss Loomis has lectured in various cities throughout the country before many types of organizations, clubs, churches, and national conventions of the American Red Cross and organized the Braille work in numerous localities. In 1935 Miss Loomis was instructor in the course, "History and Technique of Braille Reading and Writing" given at The New York Institute for the Education of the Blind in cooperation with



Teachers College, Columbia University. Her other writings on the subject are: "Braille One and One-Half: And How to Learn It in Ten Lessons," published by the Chicago Chapter, American Red Cross; and "Standard English Braille in Twenty Lessons," published by Harper & Brothers.

Miss Loomis has opened an important question which must be decided in the near future if we are to have uniformity and clarity in this important field.

May 15th, 1936

M. E. FRAMPTON, *Principal*
The New York Institute for the
Education of the Blind

Syllabication

Prior to 1932, the official type for general literature in Braille in the United States was Braille Grade One and a Half. This system was composed of forty-four contractions besides the letters of the alphabet, marks of punctuation, numerals, etc. At the time of its adoption it was considered to be the half-way point between Grade One, which is uncontracted, and Grade Two which was used in Great Britain and was very much more highly contracted, containing one hundred and eighty-nine contractions.

Grade One and a Half replaced the two rival systems, New York Point and American Braille, which were both used prior to 1917 and which divided the literature for the blind into two vastly different systems, thereby causing the great and needless expense of duplicating titles. At the time it was decided to adopt a uniform type for the United States a great effort was made to adopt a system that could be used for the English-speaking nations. The United States, however, considered that Grade Two, with its many contractions, would prove discouraging to the average reader accustomed to a less highly contracted system. England, on the other hand, was unwilling to make any drastic changes in her system, which had been in use a great many years and which the readers liked because they preferred a more highly contracted system. England also had a large amount of literature in Grade Two and did not feel in a position to change.

The United States, therefore, adopted part of the English system. The systems were similar except for a few minor differences, but our Grade One and a Half took only forty-four of the one hundred and eighty-nine contractions; the English system was really

a continuation of the one we were adopting. The following forty-four contractions were used:

and	from*	not*	th
ar	gh	of	that*
as*	go*	ou	the
but*	have*	out*	this*
can*	in	ow	us*
do*	ing	people*	very*
ed	it*	quite*	wh
en	just*	rather*	which*
er	knowledge*	sh	will*
every*	like*	shall*	with
for	more*	so*	you*

*Whole word only and never used as a part word.

In adopting Grade One and a Half Braille, the rule was made that no contraction should be used unless all letters of the contraction were in the same syllable, this is known as syllabication. This meant, for example, that the contraction *ar* could not be used in words like *various*, *library*, *military*, *marine*, etc. as they are divided *va-ri-ous*, *li-bra-ry*, *mil-i-ta-ry*, and *ma-rine*; in fact, with the exception of nine words *beg-gar-y*, *blear-y*, *char-y*, *drear-y*, *fri-ar-y*, *glar-y*, *hoar-y*, *tear-y*, and *vin-e-gar-y*, no words ending in *ary* could be written with the contraction. Words ending in *arily*, *arious*, and *aried* were also deprived of this possible contraction. The division of words as given in Funk and Wagnalls Dictionary was the authority selected.

A question often asked is, "Why was this rule adopted?" It stands to reason that the use of the contraction *ar* in the cases just cited could in no way have been confusing to the reader; but in many other cases and in many other instances the use of contractions would have led to very bad overlapping if the rule of syllabication had not been adopted. Many educators felt that words should be accurately divided for readers, although one of the chief purposes of contracted Braille is to use as few signs as possible without sacri-

ficing the clarity of the text. It is said that the fewer signs a word contains the more easily it is read—and the more naturally—, for a reader can sense the entire word without being obliged to put a series of syllables together, thereby sensing the entire word with less speed. When fingers pass over a word more rapidly and a full sentence can be read in less time, the reader more readily obtains a complete thought and his method of reading more closely resembles that of the sighted person.

In syllabication the contraction *and* was not used in *can-dle*, *can-dy*, *a-ban-don*, *bran-dy*, *can-did*, *gran-deur*, *chan-de-lier*, *man-do-lin*, *scan-dal*, *ve-ran-da* and a great many others. Here again is a group of words in common usage suffering as a result of syllabication, and three letters were written out when one sign representing *and* could have been used and the reading greatly facilitated. Another large group of words was deprived of the contraction *er*, among them were *se-rene*, *se-ri-ous*, *in-fe-ri-or*, *ex-te-ri-or*, *ex-pe-ri-ence*, *ve-ran-da*, etc. Here again appears the word *veranda*, this time deprived of the contraction *er* as well as the contraction *and*. Hence in syllabication this word requires seven signs; by allowing the syllables to overlap, and they could never be considered serious overlapping, the word could be expressed with four signs. This is only one of many words made needlessly long for the reader. *Every* as a complete word could be contracted, but the rules governing this contraction, of necessity, prohibited the contraction being used as a part word. The contraction for this reason has to be omitted in *everything*, *everybody*, *everywhere*, *everyday*, *everyone*, etc.; but there still remained the possible *er* contraction. Complete syllabication was adopted and, as Funk and Wagnalls was the authority, it was considered an error to contract *er* in these words; however, lexicographers do not agree and Webster divides the words *ev-er-ybody*, etc.

Without syllabication the contraction *in* would have been used in words like *bus-i-ness*, *bush-i-ness*, *con-tra-ri-ness*, *diz-zi-ness*, *eas-i-ness*, *hand-i-ness*, *hap-pi-ness*, etc., and the contraction *en* would have been used in *cute-ness*, *im-pres-sive-ness*, *fee-ble-ness*, *ab-so-lute-ness*, *dire-ness*, etc.

Many words were made unnecessarily long for readers, but to disregard syllabication entirely meant some very bad overlapping and some that was not quite so serious. Now let us take some of the words that would suffer the most had syllabication not been adopted. The contraction *er* if used in *be-rate*, *be-reave*, etc. might be questioned, and also the contraction *en* in *be-neath*, *be-numb*, *be-nign*, etc. The possible *ed* in *be-drabble*, *be-deck*, *pre-dict*, *be-dim*, *be-drag*, etc. is bad, and the overlapping of syllables in compound words as *gh* in *foghorn*, *er* in *storeroom*, *stateroom*, *rareripe*, and the *th* in *foothill*, *priesthood*, *penthouse*, *hothouse*, etc., is the worst of all.

Without syllabication the contraction *ed* would be used in *re-duce*, *redouble*, *predominate*, *predestine*, etc. Other instances of bad overlapping would, without syllabication, occur with the *ing* contracted in words like *ingathering*, *ingenious*, *ingrate*, *inglorious*, *ingredient*, etc.; in common usage there are about forty-three words in this group.

With syllabication *moth-er* and *fa-ther* were not contracted in the same way, the contraction *the* being used in the latter, but not in the former. *Ei-ther* and *oth-er* were also treated differently, the contraction *the* appearing in the former but not in the latter.

Words used as whole words only, naturally, never overlapped, for syllabication does not ever affect them. In this effort to protect the reader from anything that might be considered illiterate or confusing, one thing was always permitted and never questioned: *the use of the contraction irrespective of its sound or pronunciation*. A contraction was considered as a group of letters and the contraction *of* was permitted in *soft* and *proof*, despite the change in sound. The contraction *in* was used in *pin* and also in *pine*, a fact which to many might almost prove as confusing as the overlapping of syllables. If this did not hinder the reader in any way, it does seem as though he did not need the protection of complete syllabication.

There was a great deal in favor of syllabication, as has been shown, and like all rules and laws, the good had to suffer with the bad.

On the other hand the English, who used Grade Two and never adopted Grade One and a Half, had sequence, which was the use of the contraction when the letters of the contraction appeared in sequence, regardless of the division of the syllables. They had one exception to this rule, and that was that contractions should not overlap the component parts of a compound word. This removed the contraction *er* from *hedgerow*, *stateroom*, *storeroom*, etc., *th* from *lighthouse*, and *sweetheart*, etc., and *gh* from *foghorn*. This rule eliminated the larger part of the words in which the use of the contraction was most detrimental to the reader. There remained, however, some words in which the use of the contractions might be considered bad, such as *ea* in *reappoint*, *readmit*, and *en* in *renew*, *prenuptial*, *renominate*, etc. But these words were greatly in the minority, the use of the contraction did not confuse the reader, and the English claimed that to attempt to make a rule that would eliminate the use of the contractions in these cases would be most difficult and that the few words did not warrant the additional confusion that would naturally ensue. Sequence in Grade Two is not as serious as in Grade One and a Half, and this important point will be explained later. Our educators were very much against sequence from an educational point of view, but on the other hand, complete syllabication in Grade Two is impossible and a very different matter, for in this system there are many contractions of two syllables, as *ation*, *ity*, *ally*, *ever*, *under*, and the double letter signs as *bb*, *cc*, *dd*, *ff*, and *gg*. The double letter signs almost always overlapped, for they were governed by rules which did not permit them to begin nor end a word, and therefore in nine cases out of ten they overlap a syllable as *ff* in *waf-fle*, *gg* in *strug-gle*, *dd* in *pud-dle*, and *cc* in *oc-cur* and *oc-cu-py*.

As time went on the readers of Grade One and a Half soon desired more contractions and more and more books were ordered from England to satisfy the growing demand of readers who much preferred a more highly contracted system. Such books, being written in the English system, adopted the use of the contractions in sequence, but the readers of Grade Two still increased in number despite the fact they had been accustomed to syllabication.

In 1932 the American and British appointed Committees to see if they could not agree on a uniform type for the English-speaking nations, so that plates for books could be exchanged, thereby giving the blind of these countries a greater variety of literature.

Standard English Braille, Grade Two A More Liberal Use of Contractions

In the same year, 1932, a meeting was held in London and Standard English Braille, Grade Two, was the result. This is practically the same as the former English Grade Two. It contains almost the same number of contractions; nine of the original Grade Two contractions were dropped and five new ones substituted, leaving the new system with one hundred and eighty-five contractions. A few minor changes were made and the Americans decided to continue the use of the capital sign which England did not use in general literature. None of the contractions of Grade One and a Half was dropped, and besides the addition of seventy-three abbreviated words, the following contractions were added to those already used in Grade One and a Half:

ally	ea	ment	there
ance	ence	mother	these
ation	enough	name	those
bb	ever	ness	through
be	father	one	time
ble	ff	ong	tion
by	ful	ought	to
cannot	gg	ound	under
cc	had	ount	upon
ch	here	part	was
character	his	right	were
child	into	sion	where
com	ity	some	whose
con	know	spirit	word
day	less	st	work
dd	lord	still	world
dis	many	their	young

The subject of syllabication and sequence was, of course, the important question. The English could not see their way clear to adopt syllabication, and the Americans considered that sequence was, for them, out of the question. A compromise was the one hope and they both agreed to avoid the use of contractions under certain conditions. The Committee appointed to conclude the negotiations with the British consisted of Mr. George F. Meyer, Supervisor, Department for the Blind, Board of Education, Minneapolis, Minn., appointed by the American Association of Workers for the Blind. Mr. Louis W. Rodenberg, Illinois School for the Blind, Jacksonville, Ill., appointed by the American Association of Instructors of the Blind, and Mr. Robert B. Irwin, Executive Director, American Foundation for the Blind, New York City, appointed by joint action of the presidents of the American Associations of Workers for the Blind and the American Association of Instructors of the Blind, and the American Foundation for the Blind.

Mr. Rodenberg was asked to draft the new edition of rules and worked with Miss Pain of the British delegates. As a compromise between syllabication and sequence, Rule 34 was drafted, and is as follows: *Contractions forming parts of words should not be used when they are likely to lead to obscurity in recognition or pronunciation, and therefore they should not overlap well-defined syllable divisions. Word signs should be used sparingly in the middle of words unless they form distinct syllables. Special care should be taken to avoid undue contraction of words of relatively infrequent occurrence.*

SUPPLEMENT TO RULE 34.

Some Examples Illustrating Preferred Usage of Contractions.

SPECIFIED CONTRACTION	USED	NOT USED
ed	edit	predict
ever	clever	fever
	several	persevere

SPECIFIED CONTRACTION	USED	NOT USED
here	adhere	heretic
	herewith	sphere
ity	fortuity	fruity
of	profit	profile
one	money	colonel
	honest	pioneer
	alone	anemone
some	handsomely	blossomed
time	timed	centimeter
under	undertake	underived
	thunder	
ow	towards	

In 1935 the American Braille Commission issued some supplementary rules and suggestions, and more clearly defined the conditions under which certain contractions should and should not be used. It cites *shingle* as a word in which the *ing* contraction may be used; it then naturally follows that the same contraction may be used in *tingle*, *mingle*, and *single*. The contraction *ong* is allowed in *mongrel*, the *ance* contraction is allowed in words like *cancel* and *dancer*, the *er* is allowed in *serious* and *inferior*, the *and* is allowed in *candle*, *abandon*, etc., and the *ea* is allowed in *cereal*, *Crimean*, etc. A very liberal use of contractions is allowed and the words that suffered the most in syllabication are now being contracted; an attempt was made, however, to preserve word form. This latter attempt has its drawbacks as, in many instances, it removes a contraction when the letters are in the same syllable and at other times it allows the contraction when the contraction overlaps syllables. As Rule 34 is an attempt to prevent bad overlapping and allow a liberal use of contractions, the idea of word form is more or less defeating its own purpose when it prevents the use of contractions when all the letters are in the same syllable. Word form seems like a solution to the problem and was a protection for *renew*, *redress*, *readmit*, etc., for if the word is written as it was before the addi-

tion of the prefix there could be no contracting of the *en* in *renew*, the *ed* in *redress*, and the *ea* in *readmit*.

The rules governing the contraction *ea* do not allow its use at the beginning nor at the end of a word; the contraction may be used if the letters *ea* appear between other letters or contractions in the same word and in the same line. The contraction, therefore, must not be used in *tea*, but in *teas* the rules permit the use of the *ea* contraction in the plural as it then falls between two letters. In preserving word form the *ea* contraction therefore, is omitted in *teacup*, *teas*, *teapot*, etc. because it destroys the original word form. Hence the contraction has to be dropped when all the letters are in the same syllable, and it is used in *cereal* when the contractions overlap a syllable. It seemed for a time as though word form might be the answer to the problem of knowing just when to omit a contraction, but further study and analysis show the idea is more complicated than is supposed and it is, therefore, not being adopted by many stereotypers. Besides eliminating the use of good contractions that were allowed under the rules governing the contractions, it was also eliminating contractions that could even be used with the adoption of syllabication.

Complete word form in Grade Two is as impossible as complete syllabication, and for this reason rules governing the contractions continually force the alteration of certain words when affixes are added. Take, for example, the word *come*. In Grade Two this word is written with the contraction *com* and the letter *e*, but *income* is written with the contraction *in* and the letters *c*, *o*, *m*, and *e*. Thus word form is destroyed and the original method of writing *come* must be altered in writing *income*. This change must take place as the contraction *com* is used only at the beginning of a word, for the sign representing it is the same sign that is used to express the hyphen. If the sign appeared after letters or contractions it would be read as a hyphen, thus the contraction *com* is used and can only be used at the beginning of a word or at the beginning of a line in the case of a divided word.

Take as another example the word *consider*. This is written with the contraction *con*, the letters *s*, *i*, *d*, and the contraction *er*.

But when a prefix is added and the word is changed to *reconsider* the word form has to go and the word is written with the letters r, e, c, o, n, s, i, d, and the contraction *er*. This change must also take place and, in this case, the reason is because *con* as a contraction may be used only as a first syllable, for the sign representing it also represents the contraction *cc*; the reader determines its meaning by its location in the word; if used as a first syllable the sign means *con* and if used between other letters or contractions it means *cc*. Therefore, in the word *reconsider* the contraction cannot be used and if the sign is used the word reads *reccsider*. Complete word form, therefore, is an impossibility and the rules rendering it so cannot be altered. To attempt to preserve something that is already partially destroyed does not seem a satisfactory solution to the problem.

The decisions as to the use of contractions as rendered by the Commission were most liberal and met with the approval of almost everyone, the one complaint being that too much had to be left to the decision of the individual and that uniform Braille was not possible.

The liberal use of contractions permits the use of the contraction *ar* in the words ending in *ary*, *arily*, *arious*, and *aried*; the contraction *ble* is used in *problem* and *tablet*. In *sponge* and *long* the contraction *ong* is used, a complete change in the sound of *ong* but quite in keeping with the policies of Grade One and a Half which allowed the change in using *in* in *pin* and *pine*. On the other hand, word signs are somewhat restricted, for *ever* is used in *sever* but not in *fever*. The *one* is contracted in *lone*, *money*, *stone*, etc., but not in *colonel*, *anemone*, and *pioneer*. This is not an attempt to criticize the decisions, but merely to call the reader's attention to the fact that the change of sound is now being taken into consideration, a point which had not before been questioned. The change of sound, however, is being taken into consideration in certain cases only. *Pine* with the sound of *in* changed and the contraction treated as a sequence of letters is written with three signs and always has been; if the contraction for *ever* were used in *fever* the latter word would be written with three signs and the sound of the contraction

also changed. One sometimes wonders if the reader is able to grasp the meaning of *pine* why he is considered unable to sense the change of sound in *fever*. Is the additional confusion from so many rules and restrictions really warranted?

While the liberal use of contractions is approved by almost all, as will be noted by the organizations represented by the members of the Commissions, many printing houses however, feel that Rule 34 still leaves too much to the judgment of the stereotyper, and that with so many different individual interpretations, uniform Braille is not possible under the existing conditions, and for this reason many of them feel obliged to continue to adopt syllabication. This point is expressed in an article by a proof-reader in one of the printing houses. He writes: "When Standard English Braille was adopted, we naturally expected there would be a uniformity among the various printing houses for the blind, but unfortunately, this has not resulted. Personally, I have read books from five different presses, and have found variations in every one. While this does not work any undue hardship upon the individual reading for pleasure or study, it does, however, cause tremendous confusion among proof-readers, as it entails almost a necessity for each plant to require its proof-readers to refrain from reading books from other Braille printing plants, as it has a tendency to confuse their minds in regard to their own particular work. For these reasons, we have felt that the only way to produce consistent work was to adopt syllabication."

One thing is noticeable, and that is the fact that blind readers themselves prefer a more liberal use of contractions. The more a blind man reads the more he favors sequence. This fact is substantiated by the superintendent of one of the western schools for the blind. In an article he writes: "As a layman I have always felt that complete syllabication would be essential; however, since talking with a number of expert Braille readers during the past few months I have rather altered my stand on this question. There seems to be a general concensus of opinion among the better readers that complete syllabication is not necessary. The judgment of the adult readers, if not unduly influenced, is the best criterion of the method to be employed or the system to be used."

It has been suggested, and wisely, that school books should be printed with syllabication and that general literature for the adult blind should adopt the most liberal use of contractions. Some advocates of syllabication contend that all words are divided in the dictionary, but this claim does seem irrelevant, for in setting type for letter press books printers do not divide words in groups of syllables; the word is treated as a unit and only at the end of a line in the case of divided words does syllabication become noticeable. In ink print words divided at the end of a line are divided according to syllables, and the same is true of Braille with both syllabication and sequence; in Braille a word divided at the end of a line must be divided according to syllables even though a contraction be sacrificed. Any deviation from this rule is the fault of the transcriber and not of the rules themselves which have always made this point very clear and definite.

In considering the preferences of the blind readers themselves it is always interesting to remember that, before the adoption of Braille, there were countless systems invented for the use of the blind. These various systems represented to a large extent the work and ideas of sighted people. For many years everyone thought that the raised alphabet should bear a resemblance to our alphabet. Boston Line Letter represents this idea. New York Point and American Braille were both point systems and were based on frequency of occurrence, the letters most commonly used having the fewest number of dots. To a sighted person it seemed a very good and sensible idea. But time and experience proved that the signs containing the least number of dots were not the signs most easily recognized by the blind reader, so frequency of occurrence was abandoned. Of all the systems devised in the years gone by, and there were many of them, only two remain in use today. One is Braille, which is used in all countries, and our own Braille alphabet is to-day the same as Louis Braille devised it in 1829. The other system is Moon, which is read largely by the foreign born and those who lose their sight late in life and cannot master the complicated Braille system. These two systems alone survive, and it is most significant that both these systems were devised by blind men.

The present difficulty which arises from Rule 34 is not the fault of any committee which tried to affect a compromise between sequence and syllabication. Theirs was a most difficult and thankless task.

Sequence

Having analyzed syllabication and having followed the rough path of attempts at a more liberal use of contractions, it would not be amiss to go into detail and study more closely the results of sequence. Those who are unfamiliar with all the rules governing the contractions in Grade Two may not be aware of the fact that bad overlapping is very much more restricted than they realize.

Sequence in Grade Two is less serious than in Grade One and a Half, although without careful study, the average opinion would be the reverse. If many cases of bad overlapping occurred in a system of forty-four contractions what, thinks the casual observer, would happen with one hundred and eighty-five contractions without very severe restrictions?

The additional contractions remove to a surprising degree the cases of bad overlapping that would have occurred in Grade One and a Half without syllabication: this statement will be more fully explained in the paragraphs which follow. Of the one hundred and forty-one additional contractions in Standard English Braille, Grade Two, seventy-three of these are abbreviated words, and their use, according to the rules, is limited. Abbreviated words are not used in combination unless they retain their original word form—this rule has always governed them and is not due to the word form attempted to define and simplify Rule 34. The abbreviation for *must* is used in *mustn't*, but not in *mustard*, and the abbreviation for *should* is used in *shouldn't* but not in *shoulder*. These seventy-three words cannot therefore overlap even with the adoption of sequence and will not be considered in these paragraphs.

In Grade One and a Half syllabication prevented the use of the contraction *in* in words like *business*, *easiness*, *happiness*, *dizziness*, etc., and also prevented the use of the contraction *en* in words like *feebleness*, *direness*, *cuteness*, *impressiveness*, etc., what would

happen to these words if we had sequence? In Grade Two there is a contraction for *ness*, a contraction which was not used in Grade One and a Half. The contraction is and should always be used in these words and with its use there is no danger of the bad overlapping that would have occurred in Grade One and a Half without the adoption of syllabication.

Syllabication in Grade One and a Half checked the bad overlapping of the *ing* in words such as *ingenious*, *ingrate*, *inglorious*, *ingredient*, etc.—some forty-three in number—what happens if sequence is adopted? The answer is simple; they continue to be written the same way without the *ing* contracted, this time not because of syllabication, but because in Grade Two there is a rule which forbids the use of the contraction *ing* at the beginning of a word. All danger of bad overlapping in these words is therefore removed.

The rules of Grade Two have always, and still do, prevented the use of contractions when they overlapped the component parts of a compound word. This removes the contraction *th* from such words as *penthouse*, *porthole*, *hothouse*, *sainthood*, *sweetheart*, the *er* from *hedgerow*, *stateroom*, *storeroom*, and the *sh* from *hogshead*, the *gh* from *foghorn*, *longhand*, and the *ea* from *pineapple*, *hideaway*, and *firearms*, this overlapping was prevented in Grade One and a Half by syllabication, and in Grade Two is prevented by the rule stating that the component parts of compound words must not overlap by contractions. Thus in sequence the writing of these words does not change.

The present rulings of Standard English Braille, Grade Two, allow the use of the contraction *in* in such words as *China*, *tiny*, *casino*, and the terminal sequences *inal*, *inary*, and *ination*; in syllabication these contractions were not permitted, in sequence they will continue to be written exactly the same as they are now.

In Grade One and a Half there were the words *be-rate*, *be-reave*, *be-deck*, *be-drug*, *be-dim*, *be-night* and a great many others that had a possible *er*, *ed* and *en* contractions which might have been considered objectionable and which were eliminated through syllabication. What happens to these words if all restrictions are dropped

and sequence prevails? In Grade Two, with its many additional contractions, there is a contraction for *be* and it is used as a complete word or as a first syllable only. So with sequence the bad overlapping is avoided as the contraction for *be* is used. Here again bad overlapping is prevented in Grade Two, not because of syllabication but because of the new contractions and rules governing them. So far we must not fail to note that a vast majority of words in which there were possible contractions that would have been objectionable are still protected from the bad overlapping in spite of sequence. What syllabication did in Grade One and a Half the additional rules and contractions of Grade Two are now doing. Sequence and Grade Two are not only removing the possibility of bad overlapping but they are at the same time allowing the use of contractions in words that suffered the most when syllabication was adopted, words in which the contractions were a distinct advantage to the reader, and the omission of which made words unnecessarily long.

Words used only as whole words in Grade One and a Half are still used in the same way in Grade Two, and therefore, are not affected by either syllabication or sequence.

In Grade One and a Half the question of preferences did not arise very often. There were fewer contractions and few instances occurred in which a word could be contracted in more than one way. In *then* there appeared two possible ways of writing the word, *th* and *en* contractions or the contraction *the* and the letter *n*. The same thing occurred in the word *withc*; it could be written with the letters *w*, *i*, and the contraction *the*, or with the contraction *with* and the letter *e*, the latter method in both cases being preferable. In Grade Two with so many additional contractions it is a very common occurrence to find words which, apparently, can be written in several different ways, but the stereotyper has no choice and no decision to make for the rules are complete and the preferences are a very important part of the new system. Uniformity in all Grade Two work is therefore possible. One word *coffee*, for example, contains a possible *of* or *ff* contraction. The preference is given the contraction *of* and the rule is definite and clear that the double letter

sign should not be used if there be an alternative single cell contraction, *of* being a single cell contraction should, therefore, be used. By writing the word this way the overlapping of syllables by the use of the double letter sign is avoided even with the adoption of sequence. *Coffee* is only one of many words which are so protected, *bubble* is written with the sign for *ble*, *meddle* is written with the contraction *ed*, *effort* is written with the contraction *for*.

The present rules of Standard English Braille already allow the the contraction *and* to be used in words like *candy*, *candle*, etc., the contraction *ed* to be used in words like *medium*, and the contraction *er* in the words like *se-ri-ous*, and the *ing* in words like *fin-ger* and *min-gle*. They are already considered advantageous to the reader and sequence does not alter them. As has already been explained, the contraction *ing* does not appear in the forty-three words like *ingrate* and *inglorious*, as Grade Two does not allow the contraction *ing* to be used at the beginning of a word. Sequence does not alter this rule.

The contraction *ar* is already allowed in the terminal sequences *aration*, *arious*, *aried*, and *ary*, and is also used in such words as *a-re-a*, *a-re-na*, and *a-ris-to-crat*; syllabication removed these valuable uses of the contraction which appeared in hundreds of words. They are now allowed and will continue to be used in sequence; but sequence will also allow the use of the contraction in a few additional words in which it does not now appear; these words are *arise*, *arisen*, *arising*, *arose*, *around*, *arouse*, and *arow*. The British interpretation of Rule 34 as shown in their supplementary list, which they also issued after the original rules had been drafted by the joint committees, permits the use of the contraction in words like *around*. It, therefore, remains a highly debatable point as to whether this overlapping is really serious. The pronunciation of the words shows that the contraction cannot be confusing to the reader. There are less than ten of these words. Syllabication removes the contraction from hundreds of words in which it is already permitted. As this contraction is one that is most commonly used, sequence in this case is most decidedly preferable. The word *aright* is not included in the above list as the word, even in sequence, is written with the contraction *right*.

Now in regard to sequence and the additional contractions, what will happen to them? A glance at these contractions listed on page 8 shows that most of them are complete words or syllables and the cases in which they would overlap are very limited. The contractions of Grade One and a Half caused the most serious overlapping, but as has been shown, the additional contractions in Grade Two have reduced the bad overlapping without the adoption of syllabication.

Among the new contractions we find *to*, *into*, *by*, *was*, *were*, and *his*; these are used as whole words only and never are used as part words, sequence does not alter this ruling and they can never overlap.

Other contractions are *ound*, *ance*, *sion*, *less*, *ount*, *ence*, *ful*, *ong*, *tion*, *ness*, and *ment*. The present interpretation of Rule 34 already allows the contraction *ment* to overlap in words like *fermentation*. With the exceptions of *ance* and *ence* it is quite obvious that, even with sequence, these contractions could never overlap to any serious extent. The contraction *ance* is already permitted in words like *chancel*, *cancel*, and *dancer* and the use of the contraction *ence* in *fences*, and *fencer*. The contraction *ong* is already allowed in words like *mongrel*, sequence could not give these contractions a more liberal use, and there would be practically no change here. Some people may wonder what would happen to the *ong* in words like *congeal*, *congregate*, *Congo*, and *conglomerate*. Surely this is bad overlapping and would not sequence permit it? No, in these words the contraction *con* would be used.

Grade Two also contains the contractions *ch* and *st*. *Ch* could never overlap and *st* is already contracted in words like *mistress* and in the terminal sequence *istic*. In words like *distaste*, *distemper*, *distrust*, *distrain*, *distinguish*, etc., the contraction would not be used even with the adoption of sequence. The contraction *dis* is naturally used in these words and this prevents the abuse of the contraction without syllabication. Here again words are protected by the rules and additional contractions of Grade II and not by syllabication. But sequence will allow the use of the contraction *st* in a few additional words in which it is at present not being used.

These words are *mistake, mistaken, mistakeh, mistell, mistempered, misterm, mistaught, mistook, mistrain, mistranslate, mistreat, mistrial, mistrust, and mistunc*. Here again the British interpretation varies from ours and they allow the use of contraction *st*. This shows that the point is again debatable and that the seriousness of the overlapping is a question on which all do not agree. Sequence will allow the use of the contraction and make the writing of these words uniform.

The contraction *ble*, which is never used at the beginning of a word, is now allowed in words like *problem, tablet*, etc., as well as in words like *marble* and *table*. The use of this contraction in sequence remains unchanged.

The double letter signs *bb, cc, dd, ff, and gg* are already allowed to overlap the syllables in the middle of a word. They retain their original letter form and are not considered to lead to obscurity. Sequence does not alter their use and rules governing them.

The contractions *ally, ation, ity, ever, upon, and under* already consist of two syllables. At present these words have few restrictions. They are now used when the division of the syllable in the sign coincides with that in the word. This removes the *ity* from the word *fruity*, and the *ally* from *squally*. Needless to say these words are greatly in the minority and sequence will allow the use of the contraction in them.

Other new contractions are *one, some, time, work, right, day, under, father, here, know, lord, mother, name, part, young, and ever*. These require two cells in writing them in Braille. It is quite obvious that many of these words could never overlap even with sequence. The contraction for *one is* permitted in *lone, money*, etc. but under present rulings is not allowed in *colonel, pioneer, anemone, and bayonet*. An additional rule was made in the attempt to define Rule 34 which stated that the contraction *one* should not be used in a word when the *n* is the first letter of a new syllable, an additional rule to protect only a very few words. The four now written without the contraction would contain the contraction if sequence were adopted. Words like *stoned, prisoner, atoned*, etc., are not

affected by sequence, for *er* and *ed* are single cell contractions and *one* is a double cell contraction; the preference is given to the single cell contraction and therefore removes the contraction *one* from these words. The contraction *part* is already used in words like *partial*, *partly*, *department*, etc. Our interpretation of Rule 34 does not permit the use of the contraction *partake*, but the British interpretation does. Sequence allows the use of the contraction in all words and makes Braille uniform.

The contraction *time* is used in words like *timely*, *daytime*, *sometime*, etc. It is not used in *centimeter*, or *altimeter*. These words in which the contraction might be confusing are almost negligible and hardly need be considered. In *sentimental* the contraction also appears, but in this case, the alternative *ment* would be used.

Many of the remaining additional contractions are words which may also be used as part words but which could never overlap the syllables, such words as *through*, *where*, *character*, *ought*, *there*, *these*, *world*, *those*, *whose*, *spirit*, *upon*, *had*, *many*, and *cannot*. Although these contractions may be used as part words, any danger of their overlapping to any serious extent is most remote, if not impossible.

Another contraction on which the Americans and English do not agree in their supplementary lists is the contraction *of*. At present we do not use it in words like *profane*, *profess*, and *profound*; they do. They do not use the contraction in *sofa* and we do. As the plates of the Braille books are interchanged it is a pity that uniform Braille does not prevail. Sequence would allow the use of the contraction in all these words and would also give uniformity.

The words that suffer the most through sequence are *readmit*, *reassure*, *reassemble*, etc. There are about seventy words in common usage that appear with this prefix *re* and with sequence the contraction *ea* is used. This probably is one of the worst parts of sequence and no one disputes this point, although the readers admit that the contraction is not confusing to them. There are also about forty-five words in common usage like *redouble*, *rededicate*, *rediscover*, *redivide* in which the contraction *ed* is used when se-

quence prevails, bad overlapping beyond a shadow of a doubt. These are the words that cause the most discussion and criticism of sequence. There are words in which sequence is, undoubtedly, not perfection, but these words are always cited and too little is said of the many thousands of words in which it preserves good and valuable contractions without the addition of so many rules, and in which we have, above all, uniformity.

Since the words that suffer the most through sequence are so greatly in the minority, the reader soon adjusts himself to the word, especially if the writing of it is always the same. He adjusts himself to the change of sound in *fever* and *sever* quite as readily as the sighted person adjusts himself to the pronunciation of *bough*, *cough*, *through*, *rough*, and *though*. In Braille *ough* is written with the contractions *ou* and *gh*. This complete change in sound is mastered as easily by the reader of Braille as it is by the sighted reader. The average person is hardly aware of this change until the matter is called to his attention and then, and then only, does he realize that, although the last part of these words is spelled the same, he has automatically adapted himself to the unusual changes. The English language itself presents almost as many questionable uses as does sequence in Braille.

The prefix *re* also leads to bad overlapping in sequence, for it allows the contraction *en* to be used in *renew*, *renewe*, *renominate*, *renumber*, etc. The prefix adds more bad overlapping, as in the case of words like *preamble*, *prediscover*, *prerequisite*, in which the contractions *ea*, *ed*, and *er* are used respectively if sequence is adopted. Syllabication prevents this overlapping. But in Grade Two good contractions and thousands of them are sacrificed with syllabication. The contraction *ea* also appears in words like *agreeable*, and *manageable*. Here again the American and British interpretations vary, but sequence would give uniformity.

The majority of words that suffer most through sequence have been mentioned as those beginning with the prefixes *re* and *pre*. These words which cause the most serious drawback to sequence practically all begin with the same letters. With the objectionable

overlapping removed from these words the worst part of sequence has been removed, and the disadvantages of sequence reduced to a minimum. As these words are mostly formed by the prefixes *re* and *pre*, some one rule could be made to prevent the bad overlapping in these words, a rule that would state that the use of the contractions *en*, *ed*, *ea*, and *er* is prohibited when the *e* is part of the prefixes *re* and *pre*. The alternative is, at some future time, to adopt contractions for *re* and *pre* when they appear as a first syllable.

Rules cannot apply to all cases with equal success and justification, and some cases must always suffer and give way to the majority. Through sequence thousands and thousands of words are allowed the use of good and helpful contractions and the reading of them greatly facilitated, while on the other hand, comparatively few words suffer from sequence and at no time is the contraction really confusing to the reader himself. Is syllabication justified on account of these few words? In this article on syllabication and sequence the problem is considered only from the point of view of general literature. Sequence in school books is an entirely different matter and is not considered here.

But at present all presses and others writing Braille should abide by the rules of Standard English Braille, Grade Two, as laid down by the committees and should strive for uniform Braille. All organizations and individuals should abide by the rules and personal opinions should not be expressed in transcribing. Braille is a very cleverly and masterfully devised system, and its very intricacies almost defy alteration. There is too much *mongrel Braille*, as some readers term it, not because of faulty rules but because of the neglect and unwillingness of people to comply with the rules, and because they cannot always resist the temptation to write certain things as they think they should be written. Some have adopted the idea of not using *can* and *will* as both noun and verb. The rules do not and have never made this distinction; *can* is *can* regardless of its meaning and the same is true of *will*. As the contractions for these words are used only as whole words, the blind reader is quite as capable of grasping its meaning as is the sighted reader. If this

idea were followed it would necessitate *read* being designated as past or present tense. Sometimes in our effort to be kind we not only issue contradictory rulings and confuse the students attempting to learn the real rules of Braille, but we also insult the intelligence of the blind reader who is fully capable of making the same distinctions as the sighted reader.

Rule 34, as has been explained, presents problems and, to many, a wide difference of opinion. We should all make a very great effort to follow it and adopt the liberal use of contractions which it gives. The supplementary list issued by the American Braille Commission shows a very liberal use of contractions, and careful study will show that the list answers almost all questions. But while teachers and some transcribers and stereotypers are abiding by the rules, several of the largest printing houses have returned to syllabication. On the other hand, one of the largest groups of hand-transcribers, confronted with the problems of Rule 34, considers sequence most advantageous and has already adopted it in its work.

If uniform Braille is really impossible on account of Rule 34, and some printing houses believe this to be the case, then the pendulum will have to swing either to syllabication or to sequence. Which way will it be? Time alone will tell.



