

From Chapter 3

3 Simple Addition and the Three Changes

Chapter two discussed the analysis of words into their elements. Chapter three will discuss how to combine elements into words. Combining elements into words is controlled by certain procedures. When you can write clear and reliable directions for a spelling procedure, you have one kind of spelling rule. One kind of spelling rule is simply a clear and reliable set of directions to a procedure.

Simple Addition

Usually when elements combine into words, they go together without any changes in the spelling of the individual elements:

re + paint + ed = *repainted*
ad + ject + ive + s = *adjectives*
book + keep + ing = *bookkeeping*

This is the most common procedure in English spelling. In fact, the first and most powerful spelling rule is that usually you don't make any changes when you combine elements into words. Unless you have a definite reason for changing the spelling of any elements when you combine them, don't make any changes. Just add them together. This first rule of spelling is called the **Rule of Simple Addition**.

The Rule of Simple Addition

Unless you know of a definite reason for making a change, simply add the elements together.

In all of the words that combine via the Rule of Simple Addition, the spelling of the word is the sum of the spelling of its elements. If you can spell those little short elements, you can spell the word — no matter how long it may be. That is one reason why compound words like *blackbird* and *fireplace* are so easy to spell: Compound words regularly combine through simple addition. For more on simple addition see *AES*, pp. 10-12, "Unity, Variety, and Analogy."

The Three Changes

But things are not always so simple. Often when you combine elements into words, the spelling of one or more of the elements changes. Earlier we described elements as having a consistent meaning and spelling from one written word to another. We say that a spelling is consistent if, even though it changes slightly from word to word, it follows patterns and rules so that we can predict and understand the changes. There are three kinds of changes that can occur when elements combine into words:

(i) an extra letter can be put in, or inserted;

(ii) a letter can be taken out, or deleted;

(iii) one letter can be replaced by another — which really means that one letter has been deleted, and another has been inserted in its place.

In the following a letter is inserted:

tap + ing = tap + p + ing = tapping
panic + y = panic + k + y = panicky

In the following a letter is deleted:

tape + ing = tapé + ing = taping
free + est = freeé + est = freest

In the following a letter is replaced:

ad + pear = ad + p + pear = appear
try + ed = try + i + ed = tried

Exercise 3.1

The First Change: Insertion

Twinning. A word like *tapping* can be analyzed into the stem *tap* plus the suffix *-ing*, with a <p> inserted between the stem and suffix: *tapping* = tap + p + ing. A word like *taping* can be analyzed into the stem *tape* plus the suffix *-ing*, with the <e> in *tape* deleted: *taping* = tapé + ing. In Table 3.1 the words in the left column are analyzed to show any changes that occurred. Each of the sets of three words contains two different stems, which are listed in the right column. In the Words column the underlined letters are letters that have been inserted. The v's and c's are explained later:

Table 3.1

Words	Analyses	Stems
cvccv sham <u>mm</u> ing	sham+m+ing	sham
vcv sham <u>ing</u>	shame+ing	shame
shameful	shame+ful	
cvccv scrap <u>ped</u>	scrap+p+ed	scrap
vcv scrap <u>ed</u>	scrape+ed	scrape
scrapes	scrape+s	
cvccv rid <u>d</u> ance	rid+d+ance	rid
rids	rid+s	
vcv rid <u>able</u>	ride+able	ride
cvccv bid <u>d</u> er	bid+d+er	bid
cvccv bid <u>d</u> able	bid+d+able	
vcv bid <u>ing</u>	bide+ing	bide

The analyses in Table 3.1 lead to the following conclusions. If any of them are not evident to you, check them against the table:

1. In the words in which a letter is inserted, the inserted letter is a twin to the final letter of the stem.
2. The stem of each word in which insertion occurs contains one syllable, or one vowel sound.

Now go back to Table 3.1 and look at the underlinings and v's and c's, which demonstrate the following conclusions:

3. Each inserted letter is preceded by the sequence CVC (consonant-vowel-consonant), in which the vowel is short, as is the vowel in the stem.

4. The suffix after each inserted letter starts with a vowel.
5. **A First Twinning Rule:** You twin the final consonant of a stem that has one syllable, or vowel sound, and ends with the string CVC when you add a suffix that starts with a vowel. **Exercise 3.2**

Two Important Patterns: vcc and vcv. Now in Table 3.1 examine the words in which a letter is deleted. The words in the table should demonstrate the following conclusions:

6. The vcv pattern occurs in all the words in which a letter is deleted, and the first vowel in the vcv pattern is always long, as is the vowel in the stem.
7. The vcc pattern occurs in all the words in which twinning occurs, and the vowel in the vcc pattern is always short, as is the vowel in the stem.

The vcv and vcc patterns, which mark long and short vowels respectively, motivate the twinning procedure in English spelling: We twin in order to keep the preceding short vowel "looking" short. Twinning gives us the vcc pattern and avoids the vcv pattern when adding a suffix that starts with a vowel.

VCV

If we didn't twin, we would get sham + ing = *<shaming>, with the long vowel sound, [ā], which is the wrong pronunciation.

VCC

But when we twin, we get sham + m + ing = *shamming*, with the short vowel sound, [a], the correct pronunciation.

Expanding the Twinning Rule. We now have a first twinning rule that is accurate for stems that are one syllable long and that end CVC, a string in which the vowel is regularly short. To write a more comprehensive final rule we need to look at a wider variety of words.

As you've seen, the word *vowel* can refer either to a sound or a letter. The stems in Table 3.2 all contain a single vowel sound spelled with more than one vowel letter. Notice what happens (or doesn't happen) when the suffixes are added to the stems to form longer words:

Table 3.2

Stems	Suffixes	Longer Words
dead	-er, -est, -en	deader, deadeat, deaden
cook	-able, -ery, -ed	cookable, cookery, cooked
deaf	-er, -est, -en	deafar, deafeat, deafen
brawl	-ing, -ed, -y	brawling, brawled, brawly
fraud	-ulent	fraudulent
broad	-eat, -en	broadeat, broaden
daub	-er, -y, -ed	daubar, dauby, daubed
blood	-ed, -ing, -y	blooded, blooding, bloody
gawk	-ish, -y	gawkish, gawky
taut	-eat, -en, -er	tauteat, tauten, tauter

Table 3.2 demonstrates that you do not twin the final consonant of a stem that contains a single vowel sound spelled by two vowel letters: It's *deader*, not *<deadder>.

The stems you've worked with so far have all ended with a single consonant letter that spelled a single consonant sound. All but two of the words in Table 3.3 end in one consonant sound that is spelled with two consonant letters. The other two words end in a combination of two consonant sounds spelled with a single consonant letter:

Table 3.3

Stems	Suffixes	Longer Words
bomb	-ed, -er, -ard	bombed, bomber, bombard
yacht	-ing, -ed	yachting, yachted
fix	-ate, -ity	fixate, fixity
graph	-ic, -ite	graphic, graphite
stick	-er, -y, -ier	sticker, sticky, stickier
talk	-ative, -y	talkative, talky
rock	-iest, -er, -y	rockiest, rocker, rocky
fox	-ed, -ing, -y	foxed, foxing, foxy
myth	-ical, -icize	mythical, mythicize

Stems	Suffixes	Longer Words
rich	-er, -est, -en	richer, richest, richen
flash	-ed, -ing, -y	flashed, flashing, flashy

Table 3.3 demonstrates the following:

1. The single consonant letter that spells a combination of two consonant sounds is <x>, which spells [ks] at the end of words. (Notice that both [k] and [s] are voiceless sounds; in some words, especially when it is surrounded by voiced vowels, <x> spells the corresponding voiced consonant combination [gz]: *exist*, *examine*, *auxilliary*.)
2. When adding a suffix that starts with a vowel, you do not twin consonants that consist of two letters or two sounds. (You might try twinning some of these — and see what funny-looking spellings you get: *<bombmbing>, *<richcher>, *<yachtchting>.)
3. **A Revised Twinning Rule:** You twin the final consonant of the stem when you add a suffix that starts with a vowel to a stem that has just one vowel sound and that ends in a single vowel sound and letter followed by a single consonant sound and letter.

Primary Word Stress. In words with two or more syllables some vowel sounds are usually louder than others. For instance, in *alone* the second vowel sound, [ō], is louder than the first, [ə]. In *bacon* the situation is reversed: The first vowel sound [ā], is louder than the second, [ə]. These different degrees of loudness are word stress. The loudest sounded vowel in a word is said to bear primary stress. When it is significant, we will print vowels with primary stress in boldface: *alone* and *bacon*.

Each word below contains two vowel sounds. In each one the vowel with primary stress is in boldface. Read each word aloud, being sure you hear the stress difference. If you find it hard to hear primary stress, here is a hint that may help: Exaggerate the difference in stress between the vowel sounds. For instance, in a word like *lovely*, pronounce the first vowel sound very loud and the second very soft: "LOVE-ly!" Then try it with the first syllable very soft and the second very loud: "love-LY!" You should find that one version sounds less grotesque than the other. The less grotesque version is the one that will have the proper stress pattern.

Table 3.4

barren	foreign	compel	alive
achieve	hoping	really	leisure

barren	foreign	compel	alive
exceed	descent	decent	region
fiery	conceive	written	relieve
equip	likely	decide	exist

And remember: The pronunciation your dictionary gives of your word includes the proper stress pattern.

Some words in English have one stress pattern when they are used as nouns and another when they are used as verbs. The following sentences contain examples. Pronounce each pair of sentences, listening carefully to the stress differences in the pairs of words printed in italics:

Table 3.5

<p>1a. Doris and Bob's oldest son is a real <i>rebel</i>.</p> <p>1b. He will <i>rebel</i> against most anything.</p> <p>2a. There has been an <i>increase</i> in crime lately.</p> <p>2b. Do you think it will <i>increase</i> even more?</p> <p>3a. He used to be a <i>convict</i>.</p> <p>3b. When did they <i>convict</i> him?</p> <p>4a. That farm grows a lot of <i>produce</i>.</p> <p>4b. What do they <i>produce</i> besides cabbage?</p> <p>5a. This present is an <i>insult</i>!</p> <p>5b. Why did he <i>insult</i> her so?</p> <p>6a. When did they <i>present</i> you with the gold watch?</p> <p>6b. That <i>present</i> is an insult!</p>
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Table 3.5 demonstrates that in such noun-verb pairs, primary stress falls on the first vowel sound of the noun but on the final vowel sound of the verb. In general, English prefers the strong stress close to the front of the word, which explains the strong stress at the front of noun stems. But English also likes to alternate quite regularly between weaker and stronger stress. Since verbs often have weakly stressed suffixes like *-ing*, *-ed*, and *-es* added to them, it makes sense to have the stress on the final syllable of the verb, to avoid having two consecutive weak syllables—which explains the strong stress at the end of verbs stems. (It is the tendency to alternate fairly regularly between weaker and stronger stress that makes the iambic meter so natural to English poetry.)

In Table 3.6 all of the words in the Stems column end with a single consonant letter that is spelling a single consonant sound and is preceded by a single vowel letter. All the stems contain two vowel sounds, or syllables. The derived and inflected words are formed by adding suffixes to the stems. Vowels with primary stress in each word are in boldface, and inserted twin consonants are underlined. Pronounce all the words in the table carefully, listening for primary stress:

Table 3.6

Stems	Derived and Inflected Words		
defer	de <u>ffer</u> ed	de <u>fer</u> ence	de <u>fer</u> ment
begin	be <u>gin</u> ning	be <u>gin</u> ner	be <u>gin</u> s
control	con <u>tr</u> olled	con <u>tr</u> olling	con <u>tr</u> oller
commit	com <u>mit</u> ted	com <u>mit</u> tee	com <u>mit</u> ment
final	final <u>ity</u>	final <u>ist</u>	final <u>ly</u>
limit	lim <u>it</u> ed	lim <u>it</u> ation	lim <u>it</u> less

Table 3.6 demonstrates that in stems with two vowel sounds, you twin the final consonant only when there is stress on the final vowel sound of the stem both before and after you add the suffix.

In Table 3.6 one-third of the stems have stress on the first vowel, two-thirds on the final vowel. That distribution is not typical of English. Like nouns, two-syllable adjectives and adverbs tend to have strong stress on the first vowel,—as do many two-syllable prepositions, like *after* and *under*— so stress falls on the first vowel of most two-syllable English words. **Exercise 3.3**

Secondary Stress. So far we've spoken in terms of only two levels of word stress: primary and weak. Most dictionaries show three levels of stress: primary, secondary, and weak. Primary is the heaviest; weak is the lightest, and secondary is the one in the middle. We will not mark vowels with weak stress, but we will print vowels with secondary stress in grey bold.

Each word in Table 3.7, whether it contains two vowel sounds or three, contains just one primary stress. Most contain a secondary stress. Notice that as the position of primary and secondary stress shifts in words, there is often a shift in meaning, just as the meanings shifted in words like *rebel* and *rebel* in the sentences in Table 3.5. For instance, **overflow** is a verb, but **overflow** is a noun.

Table 3.7

Stems	Derived and Inflected Forms		
circular	circularity	circularize	circularly
overlap (vb.)	overlapped	overlapping	overlaps
overrun (vb.)	overrunner	overrunning	overruns
humbug	humbugged	humbuggery	humbugging
inherit	inherited	inheritance	inheriting
liberal	liberalism	liberality	liberalness

Table 3.7 demonstrates the following:

1. In stems in which twinning occurs, the final vowel sound has either secondary or primary stress both before and after you add the suffix.
2. **The Final Twinning Rule:** You twin the final consonant of a stem if you are adding a suffix that starts with a vowel, and if the stem ends in a single vowel sound and letter followed by a single consonant sound and letter, and if there is at least secondary stress on the final vowel sound of the stem both before and after you add the suffix.

We assume that monosyllabic stems have primary stress. For more on the twinning rule, see *AES*, pp. 161-76. **Exercise 3.4**