<u>Phonology</u> is the linguistic system that characterizes the <u>sound patterns</u> and <u>pronunciation</u>. A speaker of a language acquires knowledge of the system of phonological rules as part of normal language first language acquisition.

The phonological system of a language involves specifying which sounds a language uses—its <u>sound inventory</u> (English has 14 or so vowels, Spanish only five), classifying sounds into <u>natural classes</u>, and defining <u>phonological phenomena/rules</u> in terms of these classes of sounds.

Example of subdivision of consonants into natural classes, as it affects the contexts for /ay/ monophthongization in Southern varieties:

 In some varieties (basically the lowland South) /ay/ turns into long /aa/ only before <u>voiced consonants</u> (or word finally), but not before <u>voiceless consonants</u>. In other varieties (upland South, parts of Texas) the voiced vs. voiceless is not relevant and /ay/ turns into /aa/ before all consonants:

Examples from the lowland South:

[aa] before voiced	[ay] before voiceless
tide	tight
rise	rice
tribe	tripe
time	
tine	
tile	
tire	

Other natural classes:

What is the most important division of sounds into classes? <u>Vowels and consonants</u>

Consonants have significant constriction in vocal tract with consequences for acoustics, vowels have less of a constriction.

R-dropping (r-vocalization) and the consonant-vowel distinction

What is the context for r dropping? 'Context' refers to the phonological properties of sounds that precede and follow the r. R doesn't drop in just any context. Speakers know this implicitly, this is revealed in their behavior, yet they are not necessarily about to articulate this knowledge . A little training in linguistics helps this knowledge come to light.

R does not vocalize when a vowel follows it
        Mary, current, real, arise, forest, restraint

R does vocalize before a consonant
        mart, court, appears, doors, cared, feared

R does vocalize at the end of the word, if it's before a pause
        car, four, appear, door, care, fear

Looking next at words in sequence in a sentence, we see that word-final r does not
vocalize if it is followed by a word-initial vowel and there is no intervening pause

        This tuner isn't cheap.   Compare: As for the tuner, it isn't cheap.
                                       If you make a pause at the comma, the *r* vocalizes.

Word-final R does vocalize if it is followed by a consonant at the beginning of the next
word.

        This tuner wasn't cheap.
        This tuner can't be cheap.

Rule: R vocalizes before a consonant and before a pause (but not before a vowel).

Show Kurath map

So far so good. We have seen that the rule system makes a distinction between
consonants and vowels (i.e. non-consonants). But we need to understand more about this
rule. Just what does it mean for R to "vocalize"? We actually observe two different sorts
of pattern:

(i) R turns into the central vowel referred to as schwa and written as [ə],
        Examples: here, care, four, moor
(ii) R appears to drop entirely (but we have to investigate the factual details further)
        Examples: car, barn, drawer

What *r* does depends on the nature of the preceding vowel.
We have to talk about the classification of vowels, how they divide up into natural
classes. Vowels are classified, in part, according to just where they are formed in the
mouth. Two of the most important dimensions of classification are for the place within
the mouth of the vowel constriction made by the tongue:

tongue height: HIGH/MID/LOW
tongue backness: FRONT/BACK

Basic Northern Vowel System (General American)

	FRONT				**BACK**	
HIGH	fleece	**iy**			**uw**	goose
	kit	**i**			**u**	foot
MID	face	**ey**			**ow**	goat
	dress	**e**			**ʌ**	strut
LOW	trap	**æ**			**ɔ**	cloth
					a	father
Diph-thongs			**ay**	time		
			aw	town		
			ɔy	join		

(Pass the suckers/lollipops around, practice height and backness)

***Vowel height* is relevant for understanding patterns of *r*-vocalization:**

Examples of *r*-vocalizing as schwa: after HIGH and MID vowels

four   [fowə]
care   [keyə]
hear   [hiyə]
poor   [puwə]

Examples of R-dropping not appearing with schwa – after LOW vowels

bar   * [baə]
drawer   * [drɔə]

The star indicates that pronunciations where r has simply been turned into schwa, as written above, are not exactly what one founds after low vowels. What exactly is the pronunciation in these cases? We can find this out by comparing to words that have the same preceding vowel but no r. If the cases on the left below are exactly the same as the cases on the right below, then the R, or the schwa it turns into, has simply deleted, without a trace. But if there's a phonetic difference between the words on the left and the corresponding ones on the right, these means that the r has turned into a schwa, but that the schwa has been absorbed into the preceding low vowel and so is not as discernable as in the cases above.

<div align="center">Compare</div>

bar	? [ba]	*baa*	[ba]
drawer	? [drɔ]	*draw*	[drɔ]

What are the facts? Native speakers of the dialect can inform us on this.

Context for comparison: "I am going to say _____".
Native speakers of the r-dialect should be listeners and speakers for this little experiment.

Additional example those with an "old-fashioned" pronunciation of *corn*, compare

corn	?[kɔn]	*con*	[kɔn]

If there is a trace of difference between the r-dropping cases and the cases that had no r to begin with then the following is the revision we need to make in our rule:

Revised formulation of rule(s) I:
   a. *r* turns into a schwa if it precedes a consonant or a pause
   b. schwa gets partially absorbed by a preceding low vowel.

If on the other hand, there is no trace of difference between *bar* and *baa*, then we should revise the formulation differently, to call for complete deletion of the schwa:

Revised formulation of rule(s) II:
   a.   *r* turns into a schwa if it precedes a consonant or a pause
   b. schwa deletes after a preceding low vowel.

****The facts show that the pronunciation of *bar, baa* and *drawer, draw* are identical. This means that Revision II is the correct one.

What about the r in words like the following (call them the 'er' words)? Do you pronounce them with r, or without it, namely as schwa?

A. Syllabic R does not appear as schwa (for most speakers, but there may be some subdialects that need to be investigated)

first	Myrna	
jerk	Ferdinand	
lurk	fur	
work	curse	(cf. cuss)
stir	burst	(cf. bust)
insert	Turk	
word		

This is a syllabic *r,* meaning that there is no vowel preceding the r in that syllable.

But other cases of syllabic r do turn into schwa in this dialect.

B. Syllabic R appears as schwa

mother
water
inner
persuade
pernicious

What's the difference? In the cases where syllabic *r* appears as schwa it is not stressed. In the cases where syllabic *r* fails to turn into schwa it is stressed.

How do you know if a syllable is stressed? Listen for the high melody peak in pronouncing the word in isolation. (Hum the word to yourself.) Compare: *export*$_{verb}$ to *export*$_{noun}$. The location of stress is different in the verb and in the noun.

Rule:
- **When a syllabic r carries stress, it does not vocalize (turn into schwa), even though it may precede a consonant or a pause.**
- **When a syllabic r does *not* carry stress, it will vocalize (turn into schwa) before a consonant or a pause.**

Talk about changes in this feature, how maintaining syllabic r is an innovation in r-vocalization contexts: MAP and overheads

Final Topic: Intrusive R

The following pairs are pronounced in the same way in the R-dropping dialect.

The tuner isn't any good.
The tuna-r isn't any good.

The drawer isn't strong enough
The draw-r isn't strong enough

Rule: Insert an *r* at the end of a word if
   a. **that word ends in a low vowel, and**
   b. **the following word begins with a vowel**

OVERHEAD: r intrusion is also an innovation….

Let's test our mastery of all of the rules covered :
What do our rules predict about the pronunciation of *law and order*

Attached is a homework exercising the system of rules that characterize the behavior of *r* in the Eastern New England dialect. Hand in the homework by Wednesday October 3.

Plan for further study of r-dropping:
   • Part 1—revised questionnaire designed to get at question of positive/negative evaluation of r-dropping (to complete over the weekend)
   • Part 2-- Group investigations of the actual speech of r-droppers in different contexts or styles of speaking (during the month of November)

Plan for these two weeks—revision in the syllabus

We are going to look at the general question of how differences between dialects develop. In doing this we will look at examples from a variety of dialects. We will be accumulating additional information about the dialect of Eastern New England at the same time, and part of the questionnaire that you will do over the weekend will include questions about these additional features.

Cancel the movie planned for Friday—will do it later. Important information on Friday related to the questionnaire to be completed over the weekend.