

Here's an annotated version of part 1 of the Karok homework that I posted. My comments are in red, bold-faced italics.

Karok: HW #2

Part 1:

The data in A show us that Karok adds the prefix *ni-* for the 1st person singular verb conjugation and the prefix *ʔu-* for the 3rd person singular.

This first sentence is good, but it could be slightly improved by giving example forms. For example, the writer could do the following:

*The data in A show us that Karok adds the prefix *ni-* for the 1st person singular verb conjugation and the prefix *ʔu-* for the 3rd person singular, as seen in the example in (1):*

<i>(1) imperative</i>	<i>1sg</i>	<i>3sg</i>	<i>gloss</i>
<i>pasip</i>	<i>ni + pasip</i>	<i>ʔu + pasip</i>	<i>shoot</i>

All of the examples given contain these specific prefixes, while no such prefixes show up in the imperative form.

The only alteration that surfaces throughout the data in part A is the variation between [s] (a voiceless alveolar fricative) and [ʃ] (a voiceless post alveolar fricative). [s] appears word initially and also word medially directly following the non-frontal vowels [a] and [u]. [ʃ] occurs only immediately after the frontal vowel [i].

Again, this is a good, accurate description. Note that the writer describes the alternation clearly without providing an analysis of it. So, s/he doesn't say that /s/ becomes /ʃ/. Instead, s/he simply describes where each alternant occurs.

Anyway, to strengthen the paragraph a bit more, we need example forms to make the case more concrete. Remember, you aren't writing for me. That is, you aren't writing for a teacher who knows the data, but rather, you are writing for a linguistically educated audience that is not familiar with the particular data set at hand. Anyway, here's how examples could be added to the above paragraph. Note that I've only slightly changed the text. (Also, one small point: the technical term is "alternation" rather than "alteration".) Anyway, here's my slight modification:

The only alternation that surfaces throughout the data in part A is the variation between [s] (a voiceless alveolar fricative) and [ʃ] (a voiceless post alveolar fricative). [s] appears word initially, as in [si:tva] 'steal (imp.)' and also word

medially directly following the non-frontal vowels [a] and [u], as in [pasip] 'shoot (imp)' and [ʔusi:tva] 'steal (3rd sg.)', respectively. By contrast, [ʃ] occurs only immediately after the high, front vowel [i], as in [niʃi:tva] 'steal (1st sg.)'.

Since [s] is found both word initially and word medially (except when preceded by [i]), and since [ʃ] shows up only in this one specific context (following the front vowel [i]), the underlying representation must consist of [s] and not [ʃ]. In other words, the latter case seems to be much more restrictive and probably due to some type of predictable phonological rule. For this reason, the two verbs in which alteration occurs must have as roots the un-prefixed imperative forms si:tva and suprih. Apart from this alteration, the imperative forms (posited as the roots) remain the same throughout all the conjugations. They merely add one of the two prefixes to indicate person.

This is a good paragraph and shows both clear thinking and concise writing. One little detail: when you are talking about underlying representations, use angled brackets. So, the forms si:tva and suprih should be written as /si:tva/ and /suprih/ and we need to write "...the underlying representation must consist of /s/ and not /ʃ/" in line 3 of the paragraph.

What's really important to take away from this paragraph is the way that the writer argues for taking /s/ rather than /ʃ/ to be underlying. This can't just be assumed or asserted. Rather, reasons have to be given for choosing one or the other. The reasons here are valid ones based on the distribution of the two sounds in the data.

Given the complementary distribution of [s] and [ʃ] as described above, the phonological rule in Karok must limit the [ʃ] to phonetic environments in which it is directly preceded by a frontal vowel. In any other contexts (word initial/following a non-frontal vowel), one would predict an [s] sound. Hence, the rule can be shown like this:

[s] → [ʃ] / [i] _____

Again, the move here in terms of the expository prose is an excellent one. The writer has taken us from description of the alternations at the top of the page, to a choice of underlying representations based on distributional facts, to a rule that will then map from underlying representation to the phonetic representation--that is, from the posited phoneme to the allophone.

There is one little thing we can fix up regarding the use of the term "frontal vowel". It's more standard to refer to /i/ as a "high, front vowel" rather than a "frontal" vowel. In the case of these data, /i/ is the only front vowel. The language appears to have a three vowel system consisting of /i, a, u/, so in the context of this data set, we could also simply refer to /i/ as the "front" (not "frontal") vowel with no danger of confusing it with either /a/ or /u/. If the

system possessed an /e/ vowel, we'd need to be more specific and would have to refer to /i/ as both "high" and "front".

To verify our rule, let us take a few examples from the data and submit them to what we have postulated:

Root:	<i>pasip</i>	<i>si:tva</i>	<i>suprih</i>	
1 st sg. prefix:	<i>ni pasip</i>	<i>ni ʃi:tva</i>	<i>ni ʃuprih</i>	[s] → [ʃ] / [i] _____

In *pasip*, although we have added the prefix *ni-*, the [s] remains an [s] because it is still preceded by the non-frontal vowel [a]. With the other two words, however, the frontal vowel [i] of the prefix directly precedes the [s] sound, and thus, as our rule predicts, changes it to [ʃ].

The writer has done two excellent things in this final part of the write-up of part 1 of the data. The first is that s/he has supplied relevant derivations. That is, s/he hasn't felt the need to derive every one of the forms in the data, but rather, has shown derivation for enough forms to show the reader how the posited rule works.

The second, and equally important thing here, is that the writer immediately proceeds to explain for us as readers what we've seen in the derivation. The writer has not made the mistake of simply assuming that the derivation speaks for itself. In fact, derivations, charts, tables, and so forth never actually speak for themselves. Rather, it is our job as writers to explain to the reader what is illustrated in charts, derivations, tables and such. This is why I really focus on your expository prose and not just on your "finding" the "right solution".

Having said all that, we can make the derivation a bit clearer. Specifically, a derivation should consist of 1) an input, i.e. our underlying representation (UR), 2) a rule component, and 3) an output or phonetic representation (PR). As the derivation is set up above, there is an implicit confusing or interleaving of morphology and phonology. That is, it looks like the writer is adding prefixes and also applying phonological rules. What I want you to do at this point is not worry about affixation. Rather, simply assume that all of the affixes are added so that your input to the derivation looks like the sample derivations I'm going to supply right here for the same forms discussed above:

UR	<i>/ni-pasip/</i>	<i>/ni-si:tva/</i>	<i>/ni-suprih/</i>	Rule(s)
	<i>n.a.</i>	<i>ni ʃi:tva</i>	<i>ni ʃuprih</i>	<i>[s] @ [ʃ] / [i] _____</i>
PR	<i>[ni pasip]</i>	<i>[niʃi:tva]</i>	<i>[ni ʃuprih]</i>	

Note how these derivations are slightly different from the ones provided by the writer in the actual homework write-up. The top line gives us our URs, in angled brackets so that we clearly see that we are dealing with underlying representations. In these URs, I've included the prefixes, so the input to our

derivations includes all of the morphological information. This way, we only need to apply phonological rules. In this case, we have one rule, the one that palatalizes underlying /s/. In the first case, that of /ni - pasip/, the palatalization rule fails to apply, since its environment is not met. For this reason, I've marked it as not applicable in the derivation (n.a.). In the other two cases, the rule applies, so the intermediate forms reflect the change from underlying /s/ to surface [ʃ]. Note that I haven't enclosed the intermediate forms in the derivation in any kind of brackets. That's because they are just that, intermediate forms. That aren't URs, because they've had phonological rules applied to them. And they aren't PRs, technically speaking, because the derivation could contain more rules. Multiple rules, of course, are needed for the data in Part 2, which require three rules, two of which must be crucially ordered.

In Part 1, there are no more rules, so we pass down to the level of phonetic representation or PR. Here, we now enclose the forms in square brackets in order to indicate that we've finished applying the phonological rules, i.e. that we've got the forms with all of their surface allophones. Hopefully, this little discussion should serve as a clear example of how a derivation works.