Decisions in Phonological Analysis

During the course of a phonological analysis, you make many decisions. The best analysis makes these decisions explicit and supports them in the most elegant way (i.e., parsimonious).

Think: "**Occam's razor**, also known as **Ockham's razor**, and sometimes expressed in Latin as *lex parsimoniae* (the law of parsimony, economy or succinctness), is a principle that generally recommends that, from among competing hypotheses, selecting the one that makes the fewest new assumptions usually provides the correct one, and that the simplest explanation will be the most plausible until evidence is presented to prove it false."
From: http://en.wikipedia.org/wiki/Occam's_razor

It also includes the alternatives (the decisions you did not make) and explains why you opted to not use these alternative analyses.

1) First, you need to decide which sounds to compare. Sometimes this is done for you for problems. We need to know what sounds are alternating with what other sounds. In order to consider that sounds belong to the same phoneme, they have to at least be phonetically similar in some way.

2) Second, you need to identify **minimal pairs** (which prove separate phonemes) or **complementary distribution** (which proves allophones of the same phoneme). To do this, you need to examine the environments of the investigated sounds.

   a. Remember to start with the specific sound before/after the sound you're investigating, and then start to generalize. Don't go too general or you won't find complementary distribution. You cannot force complementary distribution if it isn't there, so don't worry about that. Do worry about NOT finding complementary distribution when it IS there because you stated the environments in too general of a way!
   b. Also, remember that sounds that form natural classes usually behave in similar ways. So, if you find something happening for one voiceless stop in a language, chances are that same thing will be happening for other voiceless stops in the language. Keep this in mind when you identify environments and what may be the trigger (i.e., the sounds responsible for the alternation) for the phonological alternation.

3) The next decision you make is to group allophones into phonemes based on #2 above. Sometimes, there is more than 1 option of you are looking at 3 or more sounds alternating. You need to be able to motivate your decision by using any means possible (i.e., the most parsimonious route to the data, the fewest rules needed, the best phonetic supported analysis, etc.). You also need to show the alternative analyses – that is, the decisions you didn't make and explain why they are poorer choices. Part of this decision is another decision – which sound to select to represent the phoneme. When you have 2 or more sounds in complementary distribution, the phoneme is the least predictable, which means it has the widest/most variable/most random distribution compared to the other sounds. It does not mean that occurs more in the data.