In the past, linguistic and phonetic theories have been thought helpful to interpret language acquisition data, in particular L1 acquisition. The more sophisticated the model, the more sophisticated the interpretational possibilities offered to students in language acquisition. This hope seems unwarranted because currently available theories have been developed for fully fledged adult languages and not for learners, children and/or adults. The inadequacy of this approach derives from the fact that learners very often react to properties of the target language which do not figure in the linguist's formal description of the particular language at all, or which do so much less prominently than they deserve in view of their importance for language acquisition. It is suggested that language acquisition be explored as to what insights it may offer for linguistic theorizing. As for phonetics/phonology, it is suggested that acquisition data, in particular from L2 acquisition, will throw light on the problem of phonetic similarity, and that, perhaps, transcription systems should be revised to accord with such insights. Consider the L2 acquisition of the various types of "r". In general, L2 learners replace the L2 targets by the closest equivalent of their L1 repertoire. If not interfered with by teaching or orthography, such learners will first replace the uvular [ʁ] or [ɾ] by [χ] or [ħ], even if their L1 "r" is the retroflex [ɾ], the frictionless [ʃ] or the rolled alveolar [ɾ]; and the retroflex L2 [ɾ] or the frictionless [w] will be replaced by [w], even if the learner's L1 "r" is [ɾ ɾ]. Obviously, to the learner [ɾ ɾ] are more similar to [χ ʰ] than to [ɾ ɾ], and [ɾ ʃ] more similar to [w] than to [ɾ ɾ]. Since such observations are not anecdotal but systematic in the sense that they are specific to all learners of a specific acquisitional type, these phonetic regularities should be reflected in the phonetic transcription. As for the various "r"s this can easily be done via appropriate feature specifications. This approach will be extended to other phonetic elements.