The stone that the builders rejected has become the chief cornerstone. (Psalms 118: 22)

It is a common perception that artistic and scientific works tend to fall into a sequence. Somebody who knows Renaissance music, for example, can accurately guess the date and provenance of an unfamiliar work simply by attending to its characteristics, like a dialectologist identifying a dialect using known isoglosses. Of course, some works are relatively conservative (‘‘1550? As late as that? I would have guessed 1520.’’) and others are ‘‘progressive’’ for their time, meaning they have certain features that do not become prevalent until a few years later.

The appearance of an orderly progression is somewhat surprising—why can’t somebody come up with something that looks like it belongs to an entirely different era? It just doesn’t happen. This sequencing can be partly attributed to the fact that each field has its own inner logic and challenges, and so certain developments must logically precede other ones. More than this, an idea has to make sense to contemporaries, and what makes sense in one era doesn’t in a different one.

Over a hundred years ago Hermann Paul (1890: xlvi–xlviii) wrote the following:

It has been objected that there is another view of language possible besides the historical. I must contradict this...If we attempt to characterize the so-called inner form of language, in the sense in which it is employed by Humboldt and Steinthal, we can only do this by going back to the origin of the forms of expression employed, and to their fundamental meaning. And so I cannot conceive how any one can reflect with any advantage on a language without tracing to some extent the way in which it has historically developed.

‘‘I cannot conceive...’’ Here is a key to the appearance of orderly progress in fields. It is not enough simply to propose a new idea: one must make it intelligible to contemporaries. Paul was well aware of Humboldt’s hypothesis of an ‘‘inner form’’ of language, which most readers today, following Chomsky (1966), would immediately identify with synchronic mental representations. But the idea of a purely synchronic account of language made no sense to Paul.

Modern linguistic theory provides many examples of ideas ‘‘ahead of their time,’’ insightful observations that could not be integrated into the theory of the day. An interesting case is that of syllable structure, a traditional notion that nevertheless did not fit into the phonological theory of Chomsky and Halle 1968 (SPE). We can observe the evolution of this notion within generative phonology by looking at a succession of phonology textbooks. Textbooks are intended to reflect the consensus of the field as their authors understand it, so they provide a good snapshot of the state of the field at a given moment.

The first phonology textbook written in the generative framework is Harms 1968. Most of the book is devoted to two concepts: distinctive features and formal rules. These concepts are connected in their participation in the simplicity metric, which assigns the highest value to the grammar with the least number of symbols. The emphasis is mainly on the formalism: over one quarter of the book is
occupied with abbreviatory devices, such as parentheses, braces, angle brackets, and the use of variables and indices of various sorts.

Two pages are concerned with the syllable. Harms recognizes that casting all rules in segmental terms is open to the objection that generalizations may be lost. He cites McCawley (1965), who uses syllables as well as moras in his phonology of Japanese. However, it was not clear how syllable boundaries could be integrated into the system of morpheme and word boundaries, or how they were to be readjusted in the course of a derivation. Thus, they stood outside the theory proper.

This problem becomes more evident in Schane’s Generative phonology (1973). Schane states that syllable structure is one of the major motivating forces of phonological processes. In words that strike a reader in 2003 as remarkably prescient, he writes (1973: 52):

We shall consider CV syllable structure – a syllable containing a single consonant and vowel – to be basic. Any process which takes a more complex syllabic structure and reduces it to the CV pattern leads to a preferred syllable structure. [emphasis original/BED]

Schane’s text, however, could never be confused with one from the 1990s. For Schane was stuck with the same formalism as Harms (1968). Therefore, syllable structure is nowhere mentioned in the formal apparatus of his theory. Schane (1973: 117) can only propose a metatheoretical principle “that we expect to find rules which lead to simpler syllable structure.” As there was no theory of metatheoretical principles, this solution could gain no traction. The idea was “ahead of its time,” but it was expressed in a work that can be securely dated to the late 1960s/early 1970s.

Hyman’s (1975) text, Phonology: Theory and analysis, aims to present the basic tenets of generative phonology “set against the background of earlier phonologists” (Hyman 1975: v). The section on suprasegmental phonology contains a more extensive discussion of the syllable than previous generative texts, drawing on insights of nongenerative phonologists and phoneticians. He cites, among other ideas, the hierarchical syllable of Pike and Pike (1947): a syllable is divided into an onset and core, and the core expands to a peak and coda. He also includes proposals by Pulgram (1970), Hooper (1972), and Vennemann (1972) for incorporating syllable boundaries into phonological rules. But the problems such boundaries posed remained fundamental obstacles to incorporating the syllable into phonological theory.

The beginning of a breakthrough can be seen in Kenstowicz and Kisseberth’s (1979) Generative phonology: Description and theory. The syllable does not make its entry until page 255, but when it does appear the work of Kahn (1976) is prominently featured. Kahn argued for representing the syllable not as a boundary symbol, but as a separate layer of structure superimposed on the segmental representation. A leading argument for this move was the phenomenon of ambisyllabicity: if a segment (such as the n in English money) could belong to two syllables at once, then a boundary notation is inadequate.

In hindsight, it is evident that Kahn’s (1976) syllable structure was more rudimentary than that of Pike and Pike (1947). Also, ambisyllabicity is a far more marginal phenomenon than the hierarchy of syllable complexity discussed by Schane (1973). Nevertheless, Kahn’s work resonated with the emerging nonlinear theories of the day, which resulted in the autosegmental theory of tone (Goldsmith 1976) and the metrical theory of stress (Liberman and Prince 1977; Halle and Vergnaud 1978). The important thing in the success of these proposals was not that nobody had ever had similar insights before; rather, they showed how to incorporate them into the evolving theory of phonology in ways that made sense to contemporaries.

Jumping forward to more recent texts, we see the results of this trend. In Spencer 1996, the syllable makes its appearance in Chapter 3 (“Syllables and syllabification”), even before the chapters on distinctive features and rules and domains. In Gussenhoven and Jacobs 1998, the chapter devoted to syllabification appears later in the book, but the syllable itself, with the structure proposed
by Pike and Pike (with core changed to rhyme), is introduced on page 27, and is assumed throughout. The notion of preferred and dispreferred syllable structures also makes an appearance though somewhat tangentially, in an exposition of stress in Optimality Theory (Prince and Smolensky 1993). Barely two pages are given to abbreviatory conventions.

Harms 1968 strikes us now as overly formal and monolithic. But Gussenhoven and Jacobs 1998 would likely appear to readers in 1968, were it to materialize in that era, as hopelessly unruly and heterogeneous. Internal developments alone do not account for this change in the reigning aesthetics of what makes a satisfying theory. There is also the matter of how the ideas in a field relate to what is going on in other fields. In a preface to a collection of music by Hotteterre (ca. 1680–1761), the editors write:

This music reflects the epoch after the reign of Louis XIV i.e. the period before and during the reign of Louis XV. The combination of elegance and discipline and of improvisation and ordered restraint in this style of flute-playing corresponds to what one associates with the name of Louis XV in the spheres of artistic furniture and porcelain.

Discussing the convergence of painting, literature, and music that goes under the name of Impressionism with certain scientific ideas, Schapiro (1997: 228) cautions against assuming that painters were directly influenced by the science of the time, in the sense that they read scientific papers, or were even consciously aware of similar themes in other arts and sciences; similarly, scientists were not explicitly guided by painting or literature. Rather, “scientists and artists belonged to the same moment in Western culture and may well have reinforced each others’ attitudes.”

To put this in terms of a current metaphor that all of us understand, it is as if every work is a node in a vast connectionist network, contributing a relatively small input that affects all the other nodes, resulting in the whole network gradually and imperfectly converging toward a certain output.

Any individual work is related to a large network of other works, some more closely and others more distant. It is no coincidence that the statement by Paul cited above was written toward the end of the nineteenth century—the “century of history” (Lightfoot 1999: Chapter 2)—in which historical explanation was the dominant mode in diverse fields (cf. Marx, Darwin).

Does it follow, then, that influences from music and furniture making make themselves felt in the pages of GLOT International? Based on the above observations, the answer must be yes. Our sense of what constitutes a satisfying explanation derives not just from linguistics. The trajectory of phonological theory sketched above can be roughly characterized as moving from an aesthetic that put a high value on formal, sequential, and homogeneous concepts to one that, relatively speaking, prefers substantive, parallel, and diverse concepts. Can such a trajectory be observed anywhere outside phonology? Readers will have to answer this question for themselves, but let me cite a few suggestive parallels.

There is no doubt that computers and computer languages have exerted some influence on the way we think about cognition. So consider that in 1968 the dominant programming languages were Fortran, LISP, Basic, Snobol and ALGOL; all of these are procedural (sequential) languages. PROLOG, a declarative language based on constraint satisfaction, was invented in 1970, and was part of a new way of thinking that has connections with changes in phonological theory.

Ranging further afield, let us consider art music, not commonly associated with the practice of phonology. In the 1960s musicians such as Steve Reich and Philip Glass began composing in a style that became known as minimalism. Gann (1998) describes it as follows:

...minimalism means the stripped-down, diatonically tonal, pattern-repetitive style that arose in the ‘60s...Minimalism’s first appeal was its audaciousness, its in-your-face refusal to seek conventional subtlety or variety...Still, the young did not consequently embrace minimalism with
open arms and closed ears...Who wants to be limited to one idea, one texture, one sound-concept, in every work? Not very many composers.

Gann goes on to describe postminimalist music, which flourished in the 1980s and 1990s. This music draws on diverse sources and styles; some listed by Gann are: shaped-note hymns (a traditional American form with roots in England); Balinese music; music of native peoples; political folksongs; melodies from Madagascar; and so on. This tendency to eclecticism can be found in many types of contemporary music: the boom in early music, traditional music, world music, the rise of sampling in popular music, and so on.

Finally, we need hardly mention the group of ideas that go under the rubric of postmodernism (ideas do not have to be correct, or even coherent, to be influential). The reaction against ‘‘hegemonic’’ ‘‘master narratives’’ in favour of diverse voices and nonexclusive frameworks may at first seem to have little to do with developments internal to linguistic theory. But all these currents in the air contribute to that little voice we hear, when we see something we find particularly convincing, saying, yes, this must be right, this is how things really are.

References