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An implicational universal to defy: typology $\supset \neg$ phonology $\equiv$ phonology $\supset \neg$ typology
$\equiv \neg (\text{typology } \land \text{phonology}) \equiv \neg \text{typology } \lor \neg \text{phonology}$

Abstract: The purpose of this chapter is twofold: first, to assess how typology has been dealing with phonology (§2), from early days (§2.1) to the present (§2.2); second, focusing on phonology (§3), to ask about an imbalance of phonology and syntax-inflection in general (§3.1) and about typological concerns in phonology itself (§3.2). Looked at from both angles, the phonology–typology relationship is seen to be special, and the impression is confirmed that, in comparison especially with syntax, phonological typology as well as typological phonology are behindhand in the quest for system in linguistic diversity. (Though not all is well about the syntax–typology relationship, either.) Explanations are suggested in terms of the substance of subject matters (§3.1) and of the attitudes to description and theory in different subcommunities in linguistics (§3.2).

1 The typological programme and where it is in arrears

In linguistics, typology is a research programme, not a subfield or a theory, and its remit is (i) to chart linguistic diversity, (ii) to discover order or indeed unity in diversity, and (iii) to make sense of what has been charted and discovered. Regrettably but perhaps understandably, given how this enterprise has usually been named after Gabelentz (1894, 1901) and given the meanings of this term in other fields, typology has sometimes been taken to be about the classification of the discipline’s cherished cardinal individuals, namely languages, into types; but for linguistic typology “type” in this sense of “class” is really a secondary and indeed expendable concept. First and foremost typology’s objective is to identify elementary variables where languages (or, to avoid this moot concept, mental lexicons and grammars) can differ, and then to examine whether these variables vary independently or vary together: when variables are found to co-vary, this means crosslinguistic variation is in this respect limited. It is not to be seriously expected that literally TOUT se tient, other than in a Saussurian logical sense of all sign values in a sign system being interdependent.

Since lexicons and grammars are as diverse and uniform as they have become over time – during the lifespan of individual speakers; across generations of language acquirers; through contacts between speech communities; in the evolution of our species – typology’s closest association is with developmental linguistics. To the extent that linguistic diversity is limited and orderly rather than being without limit and
random, and to the extent that any order that we are able to discover is not the result of non-linguistic contingencies of the histories of populations (itself a fascinating research field), patterns of diversity could be shaped (i) by timeless typological laws constraining states of mental lexicons and grammars and/or (ii) by laws of historical change and stability, constraining transitions between states. The evidence points to both being effective, although constraints are not always easily recognised as clearly being of one kind or the other.

By its very nature the typological research programme is all-inclusive: elementary variables, from ALL structural domains should be examined for co-variation. It is an empirical issue, not one to be resolved a priori, whether some domains are in fact less tightly interconnected than others, showing independent variation rather than co-variation.

This is the lofty idea. Here we are asking about an imbalance in workaday practice: Within typology, on its own or in association with developmental linguistics, is phonology different? Contextualising the other way round: Within phonology, synchronic and diachronic, is typology different? And these are not quite the same question, notwithstanding the logical equivalence of the first two implications of the title when flipping antecedent and consequent in contraposition under negation. Is there too little phonological typology and/or too little typological phonology? Should, and could, there be more of either or both?

When diagnosing typology as phonologically deficient or healthy, or phonology as typologically challenged or up to the mark, what is phonology being compared with? Obviously the other structural domains into which grammar is compartmentalised: syntax and morphology, the latter with its subdomains of inflection and word formation. There is semantics/pragmatics, too, with the construction of complex meaning as the job of morphology and syntax. And there is the lexicon, storing the basic building blocks for all constructing, the material for grammar to work with (plus everything else that is non-compositional and therefore not taken care of by the grammar). Word formation as the lexical part of morphology, semantics/pragmatics, and the lexicon hardly compare any less unfavourably than phonology in their typological involvement. It is really only in explicit or tacit comparison with syntax and with the syntactic part of morphology, inflection, that phonology can possibly have grounds for complaint. To assess the situation correctly, phonology, as the grammar of sound, should perhaps be kept apart from phonetics; but then, typological contexts seem especially conducive to a blurring of this distinction, thereby strengthening the typological presence of the amalgamated domains.¹

Now, ask around among experts – as I’ve informally done for years, working with an editorial board of a typological journal and helping with the programming of many a typological event, but sometimes also mingling with phonologists with or

¹ As a test, consult the World atlas of language structure (WALS, http://wals.info/) and decide for yourself whether the variables labeled “Phonology” are phonological or phonetic, as you would draw the line.
without typological sympathies – and they will very likely agree, especially when active in both phonology and typology, that, yes, the relationship between typology and phonology is special, namely less intimate or at any rate different, in comparison with syntax and inflection. Is this a misperception?²

2 The evidence
2.1 Early typology

In the past, as the typological programme was gaining momentum, inflection and syntax were distinctly in the limelight. Phonology was on the stage, too, but was more of a sideshow. Historically speaking, anybody complaining about an imbalance would have a point, then. Here is a bird’s-eye view of the record.³

2.1.1 The pioneer years

The first typologist in my history was Tommaso Campanella (1568–1639). A Dominican monk, philosopher, astrologer, and utopian social theorist, he was the first to methodically do, among all his other activities, what today’s typologists are doing, too – namely to take stock of linguistic diversity and to determine whether it is limited insofar as the values of certain grammatical variables, although logically independent of one another, co-vary rather than varying independently. Campanella’s results, for the variables that he studied, were positive (or else they would presumably have gone unreported). His attention was attracted by parts of speech and “accidence”, central to linguistic theory and descriptive grammars of the day. Universal or Philosophical Grammar took for granted that parts-of-speech grammar was in essence universally uniform; this was one of the dogmas Campanella doubted, and his doubt was not global and vague. He had evidence, coming from languages hitherto inaccessible (such as Vietnamese, as described by missionaries of his acquaintance) or neglected (such as the Romance vernaculars), that there was diversity where contemporary linguistic theory decreed uniformity; but in light of this evidence he could also identify specific

² Syntax-and-inflection typologists will sometimes, upon reflection, express surprise that they had not noticed before how little phonology there was to be met with in their own circles. Perceptions similar to mine have been reported in Hyman 2007, and also in this volume.

³ This whole subsection 2.1 draws on earlier historiographic writings of mine, in particular Plank 1991, 1992, 1993, 1998, 2001, where the reporting and referencing are more conscientious. My history is intended as an “inside narrative” (to borrow a term of Herman Melville’s), and thereby differs from historians’ histories of typology, which standardly begin with nineteenth century German Romanticism, a period that in my view produced little of substance that was novel or profound. Let me just emphasise that the typological speculations and insights referred to here were not private musings or only shared in private correspondence (subsequently buried in archives, if surviving at all), but saw contemporary publication.
constraints on diversity. Campanella discovered that nouns were not words which universally inflected for case and number, nor were verbs words which universally inflected for some such categories as tense and person-number. His crosslinguistic evidence suggested to him that although such inflection was an option, though not a necessity for either nouns or verbs, variation was yet not random. He was aware of languages where verbs inflected, but nouns did not (at any rate not for case: witness the Romance vernaculars), but not of languages where nouns inflected (for case), but verbs did not inflect. Thus, for all he knew, inflectional systems could not differ in all conceivable ways, given the elementary variables of word classes and inflectional categories: it looked like noun inflection implied verb inflection, but not vice versa.

Further, turning from a connection between parts of speech to one between inflectional categories, nouns did not universally have to inflect for both case and number. They could (as in the Classical languages or also in Turkish); but they could also inflect only for number (as in the Romance vernaculars) or for neither (as in Vietnamese); but there was no language in Campanella’s smallish, yet diagnostically instructive sample where nouns only inflected for case. Hence, by inductive generalisation, diversity was limited here too, insofar as case inflection implied number inflection, but not vice versa.

There was no continuity of typological research into inflection after Campanella – which is not surprising because it would take a while before you could be a morphologist or indeed linguist by profession. Nonetheless, a wide range of individual inflectional categories as well as properties of inflectional systems were frequently on the agenda when diversity and its possible limits were examined, in whatever wider intellectual context. By the end of the nineteenth century the typological distinction between agglutination and flexion/fusion was well entrenched: a rich network of implications was assumed, on deductive as well as inductive grounds, to be connecting individual inflectional categories within and across word classes with regard to variables such as separation vs. cumulation of categories, invariance vs. variance of exponents, looseness vs. tightness of bonding between stems and morphological markers, distinction vs. non-distinction (syncretism) of term oppositions.

Words had always been principal units for linguistic theory and descriptive grammar, and the structure of constructions most obviously consisted in how words were ordered one after another. One did not have to be a serious polyglot to be able to observe that they were ordered differently in different languages, or also at different historical stages of one and the same language. Familiarity with the right kind of languages would soon suggest that there was indeed system to such differences. A traveller and diplomat with profound Oriental expertise, François (de) Mesgnien (or, Polish-style, Meninski, ca. 1620–98), apart from noting diversity in many grammatical particulars where current linguistic theory had decreed universal uniformity, discovered that different syntactic constructions did not have their constituent parts ordered randomly: across all kinds of constructions where one member was a head and the other a dependent (verb–object, noun–genitive, noun–attributive adjective, adposition–noun phrase, etc.), dependents would uniformly either precede or follow their heads.
There were as many variables as their were kinds of head–dependent constructions; instead of varying independently, these variables all tended to co-vary.

Word order would remain at centre stage in the eighteenth century, although with a focus now on its relationship to inflection and periphrasis: rich inflection, notably for case and agreement, was hypothesised to license inversions, while impoverished inflection was hypothesised to necessitate rigid syntactic ordering, especially of dependents (or determiners) after their heads. This was how Abbé Gabriel Girard (ca. 1677–1748) and, a rare grammarian by profession, Nicolas Beauzée (1717–89) had been elaborating the old Scholastic theory of a universal ordo naturalis of ideas and words expressing them. Publicised through the Encyclopédie française, such typological schemes (like also those involving inflectional systems, circulated by the Encyclopedia Britannica) were gaining currency, while Mesgnien’s more discerning discovery that rigid word order itself permitted of orderly variation – head before dependent throughout, as per ordo naturalis, but also dependent before head throughout – was temporarily falling into oblivion.

Beginning with occasional early sightings in Greenlandic, Basque, and elsewhere of a special case (eventually called “ergative”) which marked only transitive subjects, as opposed to intransitive subjects, which would receive the same case as direct objects of transitive verbs, the universal uniformity of such central syntactic concepts as subject and object came into question. But relational alignment would acquire typological significance only slowly, when it was realised that the potential for diversity was indeed vast here, because there were numerous patterns of relational identification across transitive and intransitive clauses, and alignments could in principle differ from verb to verb, from nominal to nominal, from tense/aspect to tense/aspect, and between different rules making reference to syntactic relations (e.g., case marking, verb agreement, constituent ordering, clause combining). At any rate, when Georg von der Gabelentz (1840–93), a professor of Oriental languages and general linguistics but originally trained in law and administration, set out a methodology for getting ahead with the typological programme (posthumously published in 1894), he used alignment and word order for illustration. His two variables were ergative vs. accusative alignment of case marking and the ordering (uniform or divergent) of genitives and adjectives relative to their heads. Of the four possible

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5 Beauzée was employed by the École Royale Militaire in Paris, where they still maintain a Centre linguistique (http://www.rma.ac.be/clng/fr/index.html). Although, unlike his latter-day successors, Beauzée was a grammairien rather than a grammatiste (language teacher), his job was not to train future linguists of the kind he himself was one. Probably August Friedrich Pott (1802–87) – better known as a historical-comparative Indo-Europeanist despite his numerous Humboldt-inspired contributions to typology – was the first to have been trained as a general linguist (at least insofar as his doctoral dissertation at Göttingen was about general linguistics, dealing with the semantics of prepositions across languages) and whose academic responsibilities at the university of Halle an der Saale then included the training of future general linguists (Plank 1995).
combinations of values, he found one underrepresented: ergative alignment and uniform ordering of genitives and adjectives; and for one he could presently cite no single attestation: accusative alignment and divergent ordering of genitives and adjectives. (In future, committees of experts, drawing up comprehensive checklists of variables and calculating the statistics of co-variation, would have to confirm such gaps and strikingly unequal value distributions.) The “conjunctures” to be inductively inferred thus were these: if a language has ergative-absolutive alignment for case marking, it will, with more than chance probability, also have divergent genitive and adjective ordering; if a language has divergent genitive and adjective ordering, it will, with considerably higher probability (if not certainty), also have ergative-absolutive alignment.

Gabelentz was optimistic that it would eventually be established, rather than continue to be merely decreed, that tout se tient – including even das Lautwesen (Die Sprachwissenschaft, posthumous 2nd edition of 1901: 481). But he did not live to flesh out how phonology was supposed to be internally and externally interconnected and to duly downscale his grandiose hope, for surely, unless you were thinking of Saussure’s “values” of signs within a system, not EVERYTHING would turn out to cohere with EVERYTHING else.

2.1.2 Sounds different

Actually, languages had long been observed, if often dimly, to differ in their Lautwesen, and some such differences had begun to be presumed, if not methodically established, to be systematically interconnected.

Updating Biblical descent stories, languages were distinguished (most influentially by Bishop Isidore of Seville, ca. 560–636) depending on which classes of sounds or “letters” they featured as somehow the most prominent: guttural (the Semitic East), palatal (Greek and other Eastern Mediterranean), or dental (the Romance West). It likewise betrayed some awareness of sound inventories as harmonious and symmetrical systems of contrasts that sounds felt to be indispensable were occasionally deplored to be missing, such as the labial nasal in Iroquois; while, conversely, uncommon kinds of seemingly difficult-to-produce sounds would sometimes be reported from far-away regions, such as clicks from southernmost Africa.

Words were heard, and described, to be stressed partly similarly and partly differently, and sentences to be intoned and rhythmically organised partly similarly and partly differently, in different languages; but not much seems to have been made of this in early typology, when prosodic analysis was still in its infancy and hard enough to practise on even the most familiar languages closest to home. Once the awareness spread that pitch could not only be employed for intonation, but also lexically, “tone languages” would earn themselves a prominent place in galleries of linguistic curios. But these exhibits long remained something like monolithic erratic rocks of enigmatic provenance, obviously instantiating crosslinguistic diversity, but of little apparent significance for seekers of patterns of co-variation.
The length of words as measured in segments or syllables, and how sounds could and could not be combined to articulate them, were variables whose early typological standing was more assured. Although the words of a language would differ as to their length and composition, there seemed to prevail some consistency on both counts within languages, but not across them. Further, there seemed a prospect especially of word length correlating with something else, namely the richness or poverty (i) of sound inventory (including prosody) and (ii) of inflectional morphology. It was at something along these lines that such an early and inscrutable distinction as that between naturales linguae and grammaticæ linguae as championed by Guillaume Postel (1510–81), a Renaissance polymath with first-hand experience of languages of the East, appeared to be driving.

Going beyond inventories and phonotactics, it was noticed in early grammars of languages such as Turkish that certain similarity requirements were imposed upon the vowels of the constituent parts of words. That such vowel harmony conspicuously distinguished such languages from most others where words could ostensibly make free use of the entire inventories of sounds available to them was commented on at least as early as by Mesgnien-Meninski; but it was not suspected to be implicated in constraints on diversity. Elementary variables such as the dimensions for harmony (e.g., front–central–back, rounded–unrounded), its progressive or regressive direction, or vowels allowed to escape it, were not highlighted in early comparisons. Arguably this precluded the recognition that such phonological processes, regardless of the morphological and syntactic environments in which they were embedded, themselves gave ample room for variation – and that the empirical question was whether or not it was actually exploited by different languages.7

An early apogee of holistic typology was reached with the developmental scenario of James Burnett (1714–99, who as judge at the High Court of Scotland took the title Lord Monboddo). For him, as for other “conjectural historians” of the Scottish Enlightenment, language development from its first origins consisted in increasing “articulation”, and “material” and “formal” articulation were proceeding in tandem: the extent of material articulation, pertaining in particular to (a) the elaboration of sound inventories, (b) the complexity of syllable structures, (c) word length, (d) accentual differentiation (as opposed to not-so-articulated tonal modulation), would therefore correlate with the extent of formal articulation, pertaining in particular to (a) the differentiation of parts of speech, (b) the elaboration of inflectional and derivational systems, (c) analytic syntax (as opposed to polysynthesis, where sentences are not yet articulated into words). In Burnett’s comprehensive scheme little remained of Latin-inspired Universal Grammar: just about all of morphosyntax and phonology/phonetics had become themes with variations. But for him, too, variation was not random but harmonious, and the reasoning was developmental: co-variation was the result of the

7 A “conjuncture” of vowel harmony and agglutinative morphology, where word cohesion is otherwise rather loose, was suspected by Jan Baudouin de Courtenay in the 1870’s.
co-evolution of all individual manifestations of ultimately one single fundamental human capacity, that of separating wholes into parts and imposing ever finer structure on the unstructured. Burnett’s immensely influential Scottish contemporary Adam Smith (1723–90) had, in his occasional linguistic writings, preferred the term “analysis” to Burnett’s “articulation” – whence the typological triad of analytic, synthetic, and polysynthetic (or “incorporating”) languages to emerge soon after, finding equal favour among speculative and comparative grammarians. Burnett ventured further into the articulation of sound matter than others at his time, and he was also uncommonly well informed about contemporary languages, especially of North America, which were taken for representatives of different developmental stages of the human capacity for articulation. His inductive generalising about co-variation/co-evolution was not hastier than was customary; but in his case there were just too many languages, often ill described, and too many variables, material as well as formal, to keep under control.

2.1.3 Where sounds matter

Although the early protagonists of typology, from Campanella to Gabelentz, were doing, within their means, what typologists are still doing today, they were not academically trained professional linguists. Comparative linguistics as an academic discipline emerged over the nineteenth century, and what was being professionally compared then were sounds, words, and inflections among the languages of primarily one family, Indo-European. The remit there was to work out the history of these sounds, words, inflections with the aim of reconstructing ancestral languages and the genealogical relationships between their descendents, preferably visualised through family trees. Sound matters couldn’t have mattered more: sound laws (so-called) after all were the crowning achievements in this comparative enterprise, with the study of inflection and especially syntax taking a back seat. Despite its intellectual triumphs, academic historical-comparative linguistics remained precariously poised vis-à-vis the philologies; but it at least managed to eke out a niche for itself – and in the process marginalised typological comparison. Universal co-variations between variables, often morphosyntactic, rarely phonological, continued to be suggested, usually elaborating on old themes rather than breaking new ground; but they were no match for sound laws, too far were they lagging behind in the methodological rigour of their continually amateurish investigation. Obviously, detecting order in variation is more demanding the larger and the more diverse the set of languages to be compared – all languages ever spoken (well, a hopefully representative subset of them all) or only one family. Still, one can see why, at the end of the century, Gabelentz would issue his rallying cry for typologists to get their act together, at long last.

To do what the likes of Rasmus Rask, Jacob Grimm, Karl Verner, and the

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8 Morpurgo Davies 1997 is a masterful portrait of this century, an “inside narrative” in a class of its own. Morpurgo Davies 1975 highlights the relationship between historical and typological comparison. For further details also see Plank 1991, 1995.
Neogrammarians were famously doing, likewise building on seventeenth and eighteenth
century amateur predecessors, required phonological expertise. Morphology, syntax,
even semantics were not wholly outside the scope of the new professionals; but
practising the Comparative Method, the tool that gained historical-comparative
linguistics the scholarly respectability that as yet eluded typology, at heart meant being
a phonologist. The languages under comparison, for the purpose of ascertaining
whether or not they had “sprung from some common source”, had to be searched for
words or morphemes that might be cognates, then regular sound correspondences
(more often differences rather than identities) had to be identified; then plausible stories
had to be constructed for how a state of systematic difference, as between the daughter
languages, could have resulted from a postulated state of uniformity, as in the proto-
language, with regular sound change effectuating the transition. Latterly, reconstructed
phonological systems and hypothesised phonological changes would sometimes be
considered suspect if they were crosslinguistically uncommon or indeed unique: but
how could typology convincingly serve as a control, when its own results were not
beyond methodological doubt and what it delivered on the phonological front was so
little to begin with?

2.1.4 Interim summary

At the heart of doing typology, as an amateur or eventually with an academic license,
always lay the identification of elementary linguistic variables and their examination for
correlation or independent variation. There is no inherent reason why this enterprise
should have disfavoured phonology, or, as the Comparative Method did in the case of
historical-comparative linguistics, have favoured phonology. If anything it should ceteris paribus have been easier to do phonological than
morphosyntactic typology, because the methodological issue of the tertium
comparationis is generally felt to be less of a problem here. Assuming that “genitives”,
“adjectives”, or “direct objects”, for example, are the same kinds of thing in all
languages under comparison just because they bear the same name is riskier than taking
crosslinguistic equivalence for granted for many descriptive terms in phonology, where
they are often phonetically grounded, hence have a more solid claim to be universal.
Still, for the pre-academic times of typology as covered in the précis above,
phonology was indisputably a runner-up to inflection and syntax. We have more than a
century of phonology-in-typology and typology-in-phonology yet to size up to bring us
up to date: Has the balance shown signs of shifting as typology was coming of age?

2.2 Typology these days

And sounds mattered even before one got started: there was an inbuilt historical
limitation to the Comparative Method, insofar as cognates, if not lost, would at some
point (after 8,000 years or so) become impossible to recognise, as the sound shapes of
morphemes would inexorably change over time.
Easing the task of the historian, it was really only some sixty or seventy years into the twentieth century when the tide for typology turned rather dramatically from ebb to full flow. Still, instead of accompanying typology’s march into modernity, with the typological programme advancing through wider and deeper knowledge of languages, through more penetrating linguistic analysis, and through refined typological methodology, let’s zoom in on what we know best: ourselves. There are several kinds of indicators that, with us today, typology and phonology have remained the uneasy bedfellows that they had always been.10

2.2.1 Centers and projects

Typology’s overdue rise to global prominence was heralded by several local research cooperations, usually gathering around a senior figure, focusing on selected structural domains, holding workshops, and publishing working papers and collective volumes.

In Prague the Linguistics Circle had a typological section, with Vilém Mathesius’s pupil Vladimír Skalička (active from the 1930’s to 60’s) as the eventual mastermind. From the 1960’s onwards, the St. Petersburg/Leningrad school of typology produced a long series of collective monographs on grammatical categories, overseen by Aleksandr A. Xolodovič, Viktor S. Xrakovskij, and Vladimir P. Nedjalkov. Roughly concurrently, though with only modest interaction, there were the Language Universals Project at Stanford, directed by Joseph H. Greenberg (1967–76), and UNITYP (“Sprachliche Universalienforschung und Typologie unter besonderer Berücksichtigung funktionaler Aspekte”) in Cologne under Hansjakob Seiler (1972–92). In Paris, a little later (1984), RIVALC got going, lead by Gilbert Lazard, and its remit was rather more specific: “Recherche interlinguistique sur les variations d’actance et leur corrélats”.11

No phonology appears to have been on the typological agendas in St. Petersburg/Leningrad, Cologne, and Paris. In Prague, phonological traits, from segment inventories and phonotactics to rhythmic patterns, would be conjectured to be implicated in Skalička’s “ideal” types, whose most conspicuous hallmarks were syntactic and morphological, but which were after all meant as holistic. However, the phonological typologising of Nikolaj S. Trubetzkoy and Roman O. Jakobson, earlier members of the Prague Cercle, would echo more resoundingly in Stanford, largely owing to Joseph Greenberg himself, where phonology was equally represented with

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10 A similar point has been made on similar grounds by Hyman 2007 (and elsewhere, including in this volume).
11 These research initiatives are instructively portrayed by group leaders in Shibatani & Bynon 1995. Paris did see groundbreaking research on phonological typology, namely work centred around André-Georges Haudricourt’s Phonologie panchronique (1940 etc., with an interim summary in La phonologie panchronique by Claude Hagège & Haudricourt, Paris: Presses Universitaires de France, 1978); but it was only later that this attained formal project status.

Eventually, funding was secured from the European Science Foundation for a large-scale international typological research programme. From 1990–95, the nine theme groups of EUROTYPO brought together over a hundred collaborators from Europe in the EU sense and beyond, eventually producing eight tomes, published in Mouton de Gruyter’s series *Empirical Approaches to Language Typology* (forming its collective volume 20). One somewhat isolated group and one volume of EUROTYPO were on a phonological theme, *Word prosodic systems in the languages of Europe* (coordinated/editing by Harry van der Hulst); the rest was syntax and inflection.

### 2.2.2 Results on record

The net results of the typological programme are instances of co-variation among particular variables: How many of those on record, however confidence-inspiring or dubious, are phonological and how many syntactic and inflectional? Although incomplete and not updated over the last decade, the **UNIVERSALS ARCHIVE** at Konstanz (http://typo.uni-konstanz.de/archive/intro/) still gives an impression that should not be far off. Of the over 2,000 universals documented, some age-old, others novel, the domain Syntax accounts for 1129, Inflection and Morphology for 789+157 (with the intended domain distinction somewhat unclear), Phonology (including phonetics) and Prosodic Phonology for 543+62. (For completeness: Lexicon 158, Word Formation 51, Semantics, Pragmatics, and Discourse 142+14+11.) Without disentangling assignments to multiple domains, there are more than three times more syntactic and inflectional than phonological universals deposited in this archive. Discarding the possibility that far more phonological than morphosyntactic universals have inadvertently escaped archiving, this can mean two things: (i) crosslinguistic diversity is far more copiously constrained in syntax and inflection than in phonology; or (ii) typologists have strongly preferred syntax and inflection to phonology when prospecting for universals.

### 2.2.3 Conferences and journals

In typology, like in other academic enterprises, it is at conferences and in journals that new ground is broken. (Amateurs used to work in isolation or corresponded.) How does phonology stand its ground on these occasions?

The learned society devoted to the advancement of the scientific study of typology, the Association for Linguistic Typology (ALT; http://www.linguistic-typology.org/index.html), has held biennial conferences since its foundation in 1994. At ALT 1, in Vitoria-Gasteiz in 1995, 44 papers were given, and a mere two and a half

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12 Not without initial opposition: some reviewers of the programme proposal sought to block it as pointless; for them, the only respectable comparison was historical.

13 Regrettably, over the centuries, negative results – demonstrations that variables do **NOT** co-vary – have continually been deemed less worthy of reporting and recording.
(or two halves) of these were on phonology. (One by the present writer, eventually to mature into Plank 1998: not original research, but a historiographic piece meant as encouragement.) This was certainly not an auspicious start of phonology in organised typology. Subsequently phonology was to pick up slightly, but a modest 5–10% of presentations used to be the limit from ALT 2–10. Only most recently, at ALT 11, in Albuquerque in 2015, did phonology (and phonetics), while remaining a distant second to syntax and inflection, account for as many as 16% of the papers given (13 out of 81, including theme and poster sessions). \(^{14}\)

This last figure is getting close to the routine proportion of phonology papers at the International Conferences on Historical Linguistics (ICHL), biennially organised by the International Society of Historical Linguistics. ICHL 22, convened in Napoli in 2015, had 29 phonology papers out of 246 papers accepted for general session as well as workshops; but 12% for phonology is relatively low for ICHL’s, where the average over the years has been closer to 20%, a proportion that is also confirmed by the selections of papers published in the ICHL proceedings. Thus, the conference circuit does not see mass migrations of phonologists to either historical or typological fora of the kind of ICHL and ALT meetings. You are likely to meet quite a few typologists you know from ALT at ICHL, though, but what they have to say about the relationship between typology and diachrony typically concerns morphosyntax rather than phonology, even when their topic is grammaticalisation.

The figures for Linguistic Typology (LT), ALT’s journal, show an imbalance, too, although less marked than at ALT conferences. As revealed in the five-yearly editorial reports published in LT, the period of 2006–11 saw 30 submissions on phonology and phonetics and (ca.) 80 on syntax and inflection, of which 15 and (ca.) 30 respectively were accepted; 2001–06 saw 20 submissions on phonology and phonetics and 64 on syntax and inflection, of which 11 and 23 respectively were accepted. Like at ALT conferences, phonology had a really poor start in this environment: 8 phonology and phonetics papers were submitted in 1995–2001 as against 100 for syntax and inflection, of which 2 and 30 respectively were accepted. Interestingly, these figures also show that phonology submissions had higher acceptance rates, reflecting superior quality or at any rate quality that it was easier to reach consensus on.

Spotchecks suggest that the proportion of phonology to syntax and inflection papers is somewhat, though not dramatically lower in LT than in historical linguistics journals such as Diachronica, Journal of Historical Linguistics, Folia Linguistica Historica, or Transactions of the Philological Society. (In traditional-style historical-comparative journals such as Indogermanische Forschungen, Historische

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\(^{14}\) Only the programme committees will know how the rejection rates compared for phonological and morphosyntactic abstracts. There was probably never a bias against phonology at the stage of abstract selection; but there were very few acknowledged phonologists on these ALT committees, and common sense suggests that the perceived expertise of abstract selectors is a factor encouraging or discouraging abstract submission.
Sprachforschung, or Journal of Indo-European Studies, on the other hand, phonology easily holds its own as of old.)

2.2.4 Databases

Since data collections are no longer jealously guarded as the collector’s private property, an increasingly popular research tool in typology are online databases. Among the thirty or so world-wide typological databases I am aware of as recently active, the majority cover domains from syntax and inflection. But it is not as overwhelming a majority as one might have expected, since about a dozen are on phonology or include substantial phonological data:

- UPSID: UCLA Phonological Segment Inventory Database  
  http://www.linguistics.ucla.edu/faciliti/sales/software.htm; http://web.phonetik.uni-frankfurt.de/upsid_info.html
- LAPSyd: Lyon-Albuquerque Phonological Systems Database  
  http://www.lapsyd.dl.ish-lyon.cnr.s.fr/lapsyd/
- PHOIBLE Online: Phonetics Information Base and Lexicon  
  http://phoible.org/
- P-base  
  http://aix1.uottawa.ca/~jmielke/pbase/
- World Phonotactics Database  
  http://phonotactics.anu.edu.au/
- StressTyp2  
  http://st2.ullet.net/?
- XTone: Cross-Linguistic Tonal Database  
  http://xtone.linguistics.berkeley.edu/index.php
- Metathesis in Language  
  http://metathesisinlanguage.osu.edu/database.cfm
- Language Typology Database  
- tds: Typological Database System  
  http://languagelink.let.uu.nl/tds/main.html
- WALS Online: World Atlas of Language Structures  
  http://wals.info/
- SignPhon: A Phonological Database for Sign Languages  

Currently the most popular database is the World atlas of language structures online (WALS, http://wals.info/), created under the auspices of the now-defunct Linguistics Department of the Max Planck Institute for Evolutionary Anthropology at Leipzig. WALS examines numerous lexical and grammatical variables (“features”) across large numbers of languages, with core and extended core samples of 100 and 200
languages and with more than 2,500 languages figuring in one survey or another. This database has been widely used to discover as well as to refute universals; but what you get from WALS directly are geographical patterns of value distributions, and these are of interest to historical linguists for all kinds of reasons. WALS is divided up into 192 chapters, which mostly cover one feature, but some cover several (last accessed 10 March 2016). Breaking down this number by “areas”, there are 20 chapters devoted to phonological (or also phonetic) features – or 22 if “Writing systems” and “Para-linguistic usages of clicks” are added. Inflection (Morphology 12, Nominal Categories 29, Verbal Categories 17) claims 58 chapters, Syntax (Nominal Syntax 8, Word Order 56, Simple Clauses 26, Complex Sentences 7) 97. (The Lexicon gets 13 chapters, of which four are about the sound shape of pronouns, and one is about the sound shapes of the word for ‘tea’.) In sum, almost eight times more morphosyntactic than phonological features were deemed worthy of (or also amenable to) WALS-style treatment, which is once again consistent with the underrepresentation of phonology in typology.

2.2.5 Teaching and texts

Unlike in the days of Campanella, Mesgnien-Meninski, and Gabelentz and indeed up to less than fifty years before present, most modern typologists will have been taught typology at some stage of their university training in linguistics. On the teaching side, practising typologists often design their own courses, with “learning by doing” as the chief didactic element, but there has also been a proliferation of typology textbooks. Concerning the specialist knowledge and know-how that textbook authors want to pass on to their readers, there are differences among them in selection and emphasis; but what virtually all share, with only one exception I am aware of (Moravcsik 2013), is that phonology is not emphasised, if selected at all:


• Velupillai, Viveka. 2012. *An introduction to linguistic typology*. Amsterdam: Benjamins. – Ch. 4: Phonology, on segment inventories, syllable structures, tone systems: 27 of 517 pages, all exclusively based on WALS.

• Moravcsik, Edith A. 2013. *Introducing language typology*. Cambridge: Cambridge University Press. – Ch. 5: Phonological typology, on a par with chapters on lexical, syntactic, and morphological typology!


For some time now, prospective typologists have also been able to benefit from summer (or autumn or winter) schools. Among the earliest I am aware of as exclusively devoted to this subject were the typology schools of the Deutsche Gesellschaft für Sprachwissenschaft at Mainz/Germany in 1998, of the Moscow Typological Circle in or near Moscow in 1998, 2000, 2002, and 2005, of ALT in Cagliari/Sardinia in 2003; the most recent, run by the Fédération Typologie et Universaux Linguistique of the CNRS, will be at the Ile de Porquerolles/France in the autumn of 2016. There have always been one or even two phonology courses at these schools, but one or two dozen were on offer for those typology students keener on other matters, such as inflection and syntax, methodology, and language/family surveys.¹⁵

Seeking guidance beyond the textbook level, apprentice typologists, and whoever else is in need of ready reference about this field, can now also consult specialised handbooks – currently these two:


¹⁵ Details, so far as they could be recovered other than from memory, at: https://linguistlist.org/issues/9/9-874.html; http://listservLINGUISTLIST.org/pipermail/alt/2002-November/000039.html; http://typoling2016.sciencesconf.org/.
With its two weighty tomes, the first is almost a compendium of linguistics in its entirety; its section on “Phonology-based typology” (5 chapters), a chapter on syllable/accent-counting as one “salient typological parameter”, and occasional passing references to sound matters add up to some 90 pages of phonology, out of 1,800. The second has one out of 30 chapters devoted to segment/phoneme inventories, which yields an even worse proportion of phonology (if this is what this chapter is, and not phonetics) to non-phonological typology.

A handbook of sorts, too, is this set of three volumes – and there is no companion set Language typology and phonological description:


2.2.6 Specialisation

Few linguists who see themselves and are seen by others as typologists, whatever further categorisations they might invite, are genuine all-rounders: some wholly devote themselves to methodology (and might in fact be statisticians), but most specialise in one structural domain or another – and inflection and/or syntax specialists far outnumber phonology (and phonetics) specialists. (Specialisation is not entirely novel in typology: the chief expertise of a pioneer such as Gabelentz, unlike that of most of his Neogrammarian colleagues at Leipzig, lay in syntax.) As crown witnesses I call the five previous presidents of ALT, Bernard Comrie, Marianne Mithun, Nicholas Evans, Anna Siewierska, Johanna Nichols: as typologists all are primarily known for their work in syntax and inflection, although most have a sound component to their work, too. Of the one editor and 27 associate editors who have so far overseen ALT’s journal, *LT*, one was a phonologist (Larry Hyman, though also with morphosyntactic work to his typological credit), one a phonetician (Ian Maddieson), and one divided her time between phonology and morphosyntax (Joan Bybee); syntax and inflection were the main expertise of the rest, with one or the other on rare occasions moonlighting as phonologists (William Croft, Nicholas Evans, Frans Plank, Martine Vanhove). Further evidence pointing in the same direction is conveniently gathered from the ALT membership directory (http://ling-asv.ling.su.se/alt_filer/membership.html): as their “special interests” members do mention phonology or phonetics as such as well as particular phonological/phonetic topics such as tone, nasalisation and other phonological processes, phonotactics, prosody, sound change, speech perception; but these figures cannot compete with mentions of syntax and morphology and particular morphosyntactic topics. Phonologists might of course be doing their typology elsewhere – a question which we need to return to (§3.2) before we can conclude that among today’s linguists with typological interests phonologists are comparatively rare.
3 Reasons why
3.1 Is typology special?
3.1.1 Phonology outside typology

Undeniably, then, however you look at it, typology has been, and continues to be, about co-variation and co-evolution in syntax and inflection much more so than in phonology. Now, what are the reasons for this imbalance? And is it desirable, and possible, to redress it in future?

A first step towards an answer is to raise a further question: Is typology special?

Above (§2.2.4) I compared typology to historical linguistics with regard to the amount of phonology one finds at specialised conferences and in specialised journals, concluding, if tentatively, that it is less than morphosyntax, too. It is probably only among those historical linguists active in comparative (and internal) reconstruction that phonological expertise will be at a premium. Making further comparisons with subfields within linguistics where languages are being studied from some sort of a selective perspective and with some special ulterior motives, the likelihood is that a similar imbalance will be encountered. Take psycho- and neurolinguistics, or sociolinguistics and anthropological linguistics, or computational linguistics, and syntax (but not necessarily inflection) will receive more attention than phonology, although the subject matter supposedly is languages as such and there would not seem to be inherent reasons for some structural domains being prioritised over others. Perhaps dialectology is a rare subfield where the preferences among syntax and phonology(-cum-phonetics) are reversed, with inflection possibly on a par with phonology (and with the lexicon ahead of both).

If phonology is pitched against syntax in linguistics as a whole, it will again emerge as the loser, although it will probably win second place before morphology. Relevant evidence are the contents of general linguistics journals (you name them) or the membership lists of learned societies catering for the discipline as a whole (to name some where I made spotchecks: Societas Linguistica Europaea, Linguistic Society of America, Linguistics Association of Great Britain, Philological Society, Deutsche Gesellschaft für Sprachwissenschaft, Société Linguistique de Paris, Società di Linguistica Italiana, Società Italiana di Glottologia, Australian Linguistic Society, Linguistic Society of India): more linguists specialise in, and publish on, syntax than phonology or also morphology.\footnote{Figures supplied upon request. These figures would be similar for organisations devoted to particular language families. In terms of specialised journals or also specialised conferences, however, syntax does not seem far ahead of phonology and morphology. Significantly, phonetics is the clear winner in this respect, essentially forming a professional world of its own. Even passable all-rounders in linguistics can yet be useless in phonetics (and vice versa).} As a subset of linguists, typologists thus are not ESPECIALLY averse to phonology, then: they are boringly average the way they like and
dislike to specialise. If they are special, it is probably in their idiosyncratic partiality to inflectional morphology.

3.1.2 Quantum sufficit

The question is: Why? Is phonology felt by trainee linguists to be prohibitively difficult? Or too easy, too little of an intellectual challenge? Is the way phonology is being taught too forbidding, with the numbers of initiates and potential future teachers thus dwindling from generation to generation? Does phonology lack the allure of theoretical promise or practical usefulness or do phonologists lack charisma, and does syntax and do syntacticians have it? Whether or not these are plausible considerations, there is also a simpler answer, which is that there just is less phonology to be studied in comparison with syntax and morphology.

As an approximation to what languages are about, take descriptive grammars (and dictionaries, but lexical typology is not our concern here). Framed by an introductory presentation of the language to be described and perhaps a core vocabulary and texts as appendices, they typically have three parts: phonology, morphology (or in fact only inflection, with word formation often set aside for separate treatment), and syntax, in this or more rarely reverse order. Here are a few specimens:

• Kibrik, A. E., S. V. Kodzasov, I. P. Olovjannikova, & D. S. Samedov. 1977. *Opyt strukturnogo opisanija arčinskogo jazyka*. 4 volumes. Moskva: Izdatel’stvo moskovskogo universiteta. – One volume lexicon, word formation, and phonetics, with the latter (the responsibility of Kodzasov) 160 pages out of 350, two volumes syntax, one volume texts and vocabulary.
• Rice, Keren. 1989. *A grammar of Slave* (Mouton Grammar Library 5). Berlin: Mouton de Gruyter. – Seven chapters out of 48 (including an introduction to a typological character sketch of Slave as well as texts) on phonology.


This sample is not entirely random: though differing in many respects, what my dozen grammars have in common is that they were written or co-written by recognised or in fact eminent phonologists. They are a rather select group, because grammar-writing is not a common activity of phonologists, and one could therefore suspect my sample to be biased in favour of phonology: grammar writers with no special phonological expertise could be expected to do worse on this count. But COULD one do worse, purely in terms of numbers of pages or chapters – if phonology experts themselves standardly get along with about a fifth or less of the space that they need for syntax and inflection to set out the phonology of the language they are describing?

17 In other grammars following this format, not written by phonologists, the phonology sections are substantially shorter.

18 Jespersen, Sapir, and Bloomfield were all-rounders, but had substantial phonetic or phonological work to their credit. Hyman has morphosyntax as a sideline. Evans is a part-timer, but the best to be had among Australianists for present purposes.

19 On current evidence, the contributors to the present volume, with a single exception (grammar-writing Hyman), are thus in the company of the likes of Jan Baudouin de Courtenay, Mikołaj Kruszewski, Ferdinand de Saussure, Nikolaj S. Trubetzkoy, Roman Jakobson, John Rupert Firth, Louis Hjelmslev, André Martinet, Kenneth L. Pike, Morris Halle (who did write and co-author what could have formed the phonology chapters of the grammars of two languages, Russian and English).
Sometimes the contrast is even starker in abbreviation. Ten-or-so-page sketches or typological profiles of languages, as often prefixed to full grammars or also published separately as basic sources of information for a general audience, typically reduce phonology to segment inventory tables or omit it altogether, but rarely are quite as laconic in highlighting what is special (or not special, but typologically expected) about the syntax and inflection of the languages concerned. For example, unusual for an introduction to linguistics but true to its title, *How languages work* (edited by Carol Genetti and essentially the work of her department at UC Santa Barbara, Cambridge: Cambridge University Press, 2013) is accompanied by 13 “language profiles”; however, although the body of the book includes three expert chapters on phonetics, phonology, and prosody, twelve portraits give the impression that languages work without phonology, while one, on Kabardian (by the author of the phonetics and phonology chapters, Matthew Gordon), exclusively expands on the phonology of this language.

If such comparisons are something to go by, and if there are no languages reversing these proportions whether fully described or aptly sketched, we can conclude that, given comprehensive grammars, purged of excessive verbiage and reduced to bare statements of units, paradigmatic systems, and rules for and constraints on constructions, the “Minimum Description Length” or “Kolmogorov Complexity” of any language will be substantially less for their phonology than their syntax and inflection.

Owing to this universal, as yet undisconfirmed, it will only be natural, then, if – like elsewhere in linguistics – more research into linguistic diversity and unity is about what there is more of to compare across languages: syntax and inflection.

### 3.2 Is phonology different?

While the conclusion seems credible that there is less phonology to be investigated especially in comparison with syntax, and hence there will be fewer phonologists to investigate it, in linguistics in general and therefore also, with a view to co-variation/co-evolution, in typology, it is not a wholly satisfying diagnosis. There are further symptoms of a deeper disparity that can hardly be accounted for through quantitative differences between subject matters. They become apparent when we turn around the question, from *How much phonology is there in typology?* to *How much typology is there in phonology?* Is there proportionally less than there is in syntax and inflection? While there are quantitative differences here too, they are not the full story.

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20 Don’t be misled by dialect grammars: they tend to background what dialects supposedly do not much differ in, namely syntax. For example, *Die Kerenzer Mundart des Kantons Glarus in ihren Grundzügen dargestellt* by Jost Winteler (Leipzig: Winter, 1876), renowned for its innovative phonology, devotes 147 pages to this subject, 43 to inflection, and not one to the syntax of this Swiss variety of Alemannic, a dialect of High German.
3.2.1 Typology in phonology

Probably, although concrete figures are impossible to obtain, linguists who perceive themselves and are perceived by others as phonologists, of all persuasions combined, are proportionally less likely than syntacticians and morphologists to be members of typological associations such as ALT, to attend conferences advertised as typological, and to publish in journals of a typological profile (such as \textit{LT}, \textit{Studies in Language}, \textit{Sprachtypologie und Universaliensforschung}, \textit{Linguistic Discovery}). But then, there is no monopoly on typology: journals and conferences dedicated to phonology itself (e.g., the Manchester Phonology Meeting, Laboratory Phonology, the journal \textit{Phonology}) surely do not discourage or ostracise typological contributions. But do they get fewer of those than journals and conferences dedicated to syntax get (e.g., meetings like Syntax of the World’s Languages, Wiener Morphologietagung, the journals \textit{Syntax}, \textit{Morphology}, \textit{Word Structure})? Categorising work as typological whenever its theme is the dialectics of diversity and unity and it specifically focuses on co-variation/co-evolution among structural variables, whether or not it has “typology” in its title, I would be surprised if differences turned out to be significant: my impression is that there is relatively little on the recent record that qualifies as typology for all three domains, allowing for certain variations depending on theoretical frameworks.\footnote{If you define typology as only being about diversity, as is sometimes done in phonological circles (and elsewhere), then matters are of course different. More on this point presently, and also in Hyman in this volume.} By contrast, fora for general linguistics, or indeed general science (such as \textit{Science}, \textit{Nature}, \textit{PLOS ONE}), have seen a very tangible increase in typological studies over the last four or five decades, but again it does not look like phonology is conspicuously lagging behind morphology or syntax.

3.2.2 Teaching and texts

In introductions to phonology, to judge by teaching materials that are available on the internet, phonological typology has become an element at many institutions, which may or may not teach introductions to typology as such; morphology and syntax introductions also often have typology components, but perhaps more frequently this is taken care of in separate typology courses. The textbook market would seem to reflect the situation well: for example, picking out two popular series, in the \textit{Cambridge Introductions to Language and Linguistics} both the phonology and the morphology texts, by Odden and Lieber, have chapters on typology, while the \textit{Understanding Language} texts lack such separate chapters for phonology (Gussenhoven & Jacobs) as well as for morphology (Haspelmath (\& Sims)) and syntax (Tallerman), but address typological issues in subsections and en passant, and more extensively for syntax and morphology than for phonology.

3.2.3 Languages and linguistic theory

Over and above such similarities there is a curious and seemingly trivial difference between introductions to phonology on the one hand and those to morphology and syntax on the other: the former consistently serve up more languages. According to their indices, Odden’s and Gussenhoven & Jacobs’s phonology texts in one way or another make reference to some 150 languages, comparing to a little over 100 in Tallerman’s syntax and in Haspelmath (& Sims)’s as well as Lieber’s morphology texts. An early text such as Larry Hyman’s *Phonology: Theory and analysis* (New York: Holt, 1975) had examples from and analyses for over 80 languages, at a time when introductions to syntax would make ends meet with one (often the author’s own) and Peter Matthews’ *Morphology*, the first *Cambridge Textbook in Linguistics* (Cambridge University Press, 1974), got along with a modest 20.

categories (Cambridge: Cambridge University Press, 2005), or The syntax of agreement and concord (Cambridge: Cambridge University Press, 2008), come closest, but they are exceptions. Morphology is in between, as is suggested by the language counts for some works from the morphological Renaissance of the 1980’s: Frans Plank, Morphologische (Ir-)Regularitäten (Tübingen: Narr, 1981) has 20+; Wolfgang Wurzel, Flexionsmorphologie und Naturlichkeit (Berlin: Akademie-Verlag, 1984) 75; Joan Bybee, Morphology (Amsterdam: Benjamins, 1985) 50+; Andrew Carstairs, Allomorphy in inflexion (London: Croom Helm, 1987) 48. The morphological counterpart to SPE, Mark Aronoff’s Word formation in Generative Grammar (Cambridge, MA: MIT Press, 1976), is mostly about one language, English, but is livened up with tangential references to ten others.

What could seem an idle ranking of publications by language density arguably bears witness to a divergence of research traditions, and of an estrangement of professional sub-communities, between syntax and phonology.22

In syntax, and similarly in morphology, a tradition had developed of elaborating theories and frameworks on a narrow basis: at the expense of confronting crosslinguistic diversity, theorising would be informed by in-depth looks at selected structural phenomena in one or a few particular languages, and not just by utterances and texts, but also by native judgments about them. This was not only the policy in Generative Grammar: a collection such as Syntactic theory 1: Structuralist (edited by Fred Householder, Harmondsworth: Penguin, 1972), assembling 23 classic readings, accumulates a little over 100 languages and families, but most individual chapters make their theoretical points on the basis of individual languages, mostly English, with Ilocano (L. Bloomfield), Bilaan (K. L. Pike), Teleéfoól (P. Healey), Sundanese (R. H. Robins), Vietnamese (P. J. Honey), and Eskimo-Aleut (K. Bergsland) as sporadic co-stars and the rest as bit-part players. (The only multi-language exceptions in this reader are W. S. Allen, Transitivity and possession, and B. L. Whorf, Grammatical categories.)

A pre-structuralist classic, Wilhelm Havers’ Handbuch der erklärenden Syntax (Heidelberg: Winter, 1931), had limited itself to a subset of Indo-European, although with illustrations from spoken modern languages and with occasional comparisons of these “Kultursprachen” to none-too-specific “Natursprachen”.

Eventually, from the 1960’s and 70’s onwards, as typology was beginning, through individual efforts like Joseph Greenberg’s, to attract wider attention than ever before, languages in the plural would re-assert their right to be heard not only for their phonology, but also their syntax. With the Generative paradigm continuing to dominate, a misperception arose of syntax being done in two ways: “theoretically”, engaging with single languages against the backdrop of Universal Grammar (largely taken for granted), vs. “descriptively”, dealing with multiple languages and inductively

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22 The admirable inside history of phonology by Anderson 1985 doesn’t quite highlight this theme of languages and typology in phonology vs. syntax. Nor does the more recent collection of Honeybone & Bermudez-Otero 2006, where similarities between phonology and syntax are emphasised, rather than possible differences in researching phonological and syntactic structures and architectures.
inferring crosslinguistic generalisations about co-variation/co-evolution. When “theorists” were withholding the honorary epithet “theoretical” from the latter line, where theorising was primarily about finding and explaining inductive generalisations, they were probably encouraged by an occasional lack of subtlety in conceptualising syntactic structures and processes and a reluctance to countenance abstract representations. Though far better informed crosslinguistically, syntactic typology as part and parcel of the “descriptive” approach remained theoretically indeed sometimes a bit basic.\(^{23}\) It seemed like grammar was ideally to be conceived of as a checklist of variables, possibly with only two values, plus or minus – OV or VO? Adposition before/after NP? Genitive before/after head noun? Ergative or accusative or other alignment? A definite article, yes or no? Zero copula? Dual? Inclusive-exclusive? Gender, and where applicable: how many? Doing typology then typically meant searching for co-variation among such variables whose values the typologist could easily glean at a glance from lots of descriptive grammars.

In phonology, theory and framework development had never been divorced from crosslinguistic awareness to a similarly alarming extent. There were thus no grounds for a multilingual “descriptive” phonology to split off from a monolingual “theoretical” phonology à la syntax. Languages in the plural remained at the core of phonological theorising. In principle this meant that typology could have been done as part of theoretical phonology, rather than in a separate community where members defined themselves as typologists and where “non-theoretical” syntacticians were setting the agenda. And to some extent it was – namely to the extent that phonological grammar could be conceived of as a checklist and values could conveniently be checked for co-variation/co-evolution:\(^{24}\) Does the language have this segment and that? Does it have quantity contrasts for vowels/consonants? Does it permit onset clusters, and if so which? How do its syllables go beyond CV? Does it enforce final devoicing? Does it have vowel harmony? Is it tonal? Level or contour tones, and how many? Which syllable of the word does it stress? However, this sort of thing – like listing segment inventories and phonotactic templates – was never considered all there is for phonological theory to address, and, when it was a point of departure, it did not represent a theoretical issue or conclusion. Hence, much of what was at the heart of phonological theorising, in variable frameworks but invariably richly informed by diverse languages, has never translated into phonological typology of the checklist-

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\(^{23}\) This overly spartan mode of description arguably prevented such typological syntax from meaningfully engaging with diachronic syntax and from playing a more significant role in experimental psycho- and neurolinguistics.

\(^{24}\) After Greenberg’s “dynamicised” typology and Haudricourt’s “panchronic phonology”, the most determined single effort to explain co-variation as co-evolution in phonology was Juliette Blevins’ *Evolutionary phonology* (Cambridge: Cambridge University Press, 2007). Characteristically, the impact of this book was felt more in phonology, theoretical as well as historical, than in typology, while similar evolutionary work in morphosyntax typically had stronger reverberations in typology than in syntax.
based variety, a style so increasingly popular for syntactic and morphological typology and accounting for the latter-day bulk of it.

When phonology is seen as phonologists see it, aiming at adequate description and at the same time at making theoretical sense of what is being described, the grammar of sound is substantially growing in sheer volume. When syntax chapters in weightier descriptive grammars are compared with monographs on the syntax of the same languages, like those of the Cambridge Syntax Guides, there is no dramatic mismatch. The remit for authors of these Guides, of which a dozen have so far been published (mostly for European languages), is to be both descriptive and theoretical, while the editorial team itself (Peter Austin, Bernard Comrie, Joan Bresnan, David Lightfoot, Ian Roberts, Neil Smith), like the intended audience, is patently divided between “descriptive” and “theoretical” allegiances. The authors of the Phonology of the World’s Languages series of Clarendon/Oxford University Press are likewise instructed, although by a single editor (Jacques Durand), to attend to both description and explanation, to the benefit of a single undivided body of intended readers, which should not be put off by differences between theoretical frameworks – and the resultant monographs, as yet 19, far exceed what would be found in even the most comprehensive of descriptive grammars. Intriguingly, several languages have both a Cambridge syntax guide and an Oxford phonology portrait devoted to them, and the Kolmogorov Complexity or at any rate book length is not necessarily less for the phonology: Arabic phonology (and morphology; author Janet Watson) 336 pages, syntax (authors Joseph Aoun et al.) 260 pages; Catalan phonology (Max Wheeler) 400, Spanish syntax (Karen Zagona) 300; Welsh phonology (S. J. Hannahs) 198, Welsh syntax (Robert Borsley & Maggie Tallerman) 412; Icelandic (& Faroese) phonology (Kristján Árnason) 368, syntax (Höskuldur Thráinsson) 580; Dutch phonology (Geert Booij) 218, syntax (Jan-Wouter Zwart) 418; German phonology (Richard Wiese) 368, syntax (Hubert Haider) 368; Hungarian phonology (Péter Siptár & Miklóss Törkenczy) 336, syntax (Katalin É. Kiss) 292; Chinese phonology (San Duanmu) 382, syntax (James Huang et al.) 404.\(^{25}\)

### 3.2.4 Languages and typology

Now, when phonology is being done with wide crosslinguistic awareness and with equal descriptive and theoretical poise, will the inevitable outcome be phonological typology – homemade, but like syntactic and morphological typology aspiring to chart diversity and to discover order or indeed unity? Is theoretical phonology, inseparable from descriptive phonology, methodically investigating whether variables co-vary or co-

\(^{25}\) The by far longest phonology, at 624 pages, is that of Danish, and you wonder whether to give credit to the language or the author (Hans Basbøll) for such unusual opulence. Portuguese phonology only needs 170 pages (from Maria Helena Mateus & Ernesto d’Andrade), almost as little as Chichewa syntax does (166, Sam Mchombo); and it is moot to speculate whether such frugality reflects on these languages or the describers of their phonology and syntax.
evolve, just like syntactic and morphological typology do, although not normally in communion with “theoretical” syntax and morphology?

Having many languages at one’s analytic fingertips does not make one a typologist. Charting diversity is one thing, seeking order is another – and typology’s remit includes both. In multilingual theoretical phonology it is often only the former which is on the agenda, and success consists in one’s theoretical framework being able to insightfully deal with whatever can be found across languages, however diverse. The chief interest is in what there is and in its theoretical accommodation, rather than in what there isn’t – in how diversity is constrained through variables systematically co-varying or co-evolving. Optimality Theory is an obvious framework to mention here, because it is sometimes considered “inherently typological”, if only at the expense of redefining and narrowing typology’s remit. But to also exemplify my point through a particular work: in metrical phonology a typology of feet was developed (prominently in Hayes’ *Metrical stress theory*, a book hard to beat on language density), which indeed aims to constrain crosslinguistic diversity insofar as no language is supposed to employ further conceivable kinds of feet beyond these original types (essentially only iambs and trochees with variations). However, little comparative effort went into asking, further, whether single languages are free to employ different types of foot for different purposes (e.g., stress, all kinds of segmental processes affecting syllable structure, poetic meter) and for different lexical domains, or whether the choice of one foot type is a determinant for all foot-sensitive patterns of a language. Foot typology has only been taken in the direction of real co-variation/co-evolution typology by Elan Dresher & Aditi Lahiri (The Germanic foot: Metrical coherence in Old English. *Linguistic Inquiry* 22. 251-286, 1991), when they demonstrated that languages are “metrically coherent” – or at any rate the Old Germanic languages that they examined were, doing all their relevant business on the basis of just the resolved moraic trochee and no other foot type. Prosodic typology, where Hyman has long been arguing for co-variation among variables as the object of inquiry, rather than types of languages (“tone languages”, “stress languages”, “pitch-accent languages”), is also moving in this direction, on such evidence as *Prosodic typology: The phonology of intonation and phrasing* (2 volumes, Cambridge: Cambridge University Press, 2005/2014), whose editor, Sun-Ah Jun, concludes by extracting, from two dozen language-particular accounts (all done in the same descriptive framework, ToBI), implicational generalisations about prosodic prominence and rhythmic or prosodic units such as these: “In stress languages (such as English, Arabic, Farsi, Swedish, Chickasaw), the prominence of a word is always marked by postlexical pitch accent (marking the head of the word), but not often by marking the edge of the word. [...] Languages that do not have any feature of lexical prosody (such as French, Bengali, Korean) mark the prominence of the word demarcatively at the postlexical level” (updated in the second volume through introducing the concept of “macrorhythm”).

These are phonology-internal developments aligning phonology with morphosyntactic typology, but they have not found much resonance in typological circles. Other than a subject matter and theoretical angles unfamiliar, even impenetrable
to many syntacticians and morphologists, there remains a difference in emphasis on methodology. Morphologists and syntacticians, often maligned as “non-theoretical”, have made huge efforts since Georg von der Gabelentz to hone typological methodology: inductive generalisations are no longer arrived at as naively as in days of old, when assembling samples and determining statistical significance, if done at all, was amateurs’ work. In phonological typology, theoretical accommodation, far above the level of checklist grammar, continues to be prized more highly than methodological sophistication, and cherry-picking continues to be preferred over sampling.

There are lessons to be learnt either way.

3.2.5 Is phonology hopeless?

I don’t think typological phonology is hopeless, but I am less confident about phonological typology.

Intonation and prosody in general have have variously been conjectured to be subject to intra-language variation of an extent unparalleled by syntax and morphology. However, as shown by the recent Prosodic typology collection which does recognise such variation, this does not seem an insurmountable obstacle for typological system-seeking. There is a methodological challenge here, insofar as the sampling points in (non-phonological) typology have typically been languages: to cope with diversity of prosodic dimensions, it is dialects and idiolects – individual mental grammars – that ought to be sampled, once typological phonology proceeds from cherry-picking to sampling.

The grammar of sound has been conjectured to be radically different from other grammar: “[phonology] is very complex; it does not seem to have any of the nice computational properties of the rest of the system” (Chomsky 2012: 40). If it is these “nice computational properties” of syntax and inflection which are responsible not only for unity, but also for orderliness of diversity, constrained by co-variation or co-evolution, then typologising in phonology would indeed be doomed. However, against such speculation, informed by a perhaps somewhat minimalistic outlook on syntax, stand arguments for rich parallels, like those collected in Honeybone & Bermudez-Otero 2006: such structural and architectural parallels have all variously figured in both syntactic and phonological typology. If you are unconvinced by such theoretical reasoning and the body of work in phonology that is typologically minded, read on because the present collection is the best argument that typological phonology is not a dead loss.

Unlike typological phonology, it is phonology in typology that might be hopeless, albeit for extraneous reasons. It is to be feared that typologists, who as we saw are mostly syntacticians and inflectional morphologists by professional

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27 Although it has been recognised that often what has been sampled were really lower-level units such as “doculects”, namely those varieties of a language that happen to have been documented (in a text or corpus, by a fieldworker, in a particular grammar).
specialisation, will continue to lack the serious grounding that would enable them to appreciate what is going on in this (for them) hermetic field of phonology, once it rises above the checklist level of grammar and the going gets heavier than the tabulation of segment inventories. For the time being, there will probably continue to be two communities far apart and indifferent towards one another, phonologically challenged organised typologists here and phonologists as do-it-yourself typologists over there.

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References

Note: Works dealt with as historiographical data are referenced in the body of the chapter.


