Slavic Phonology in the United States

Slavic phonology, the study of sound patterns in the Slavic languages in their synchronic and diachronic aspects, has always been a diverse field and it continues this tradition today. Work in phonology intersects with historical linguistics, dialectology, morphology, syntax, and phonetics, not to mention sociolinguistics, language acquisition, and language teaching. Since these related fields (with the exception of phonetics) are discussed separately in this collection, I will limit my discussion of issues in Slavic phonology to the relationship between theoretical phonology and Slavic phonology in the U.S., with a primary focus on synchronic (as opposed to diachronic) phonology.¹

Slavic phonology has undergone significant changes both in its research program and in its position within Slavic linguistics in the past fifty years. At one time, Slavic phonology was at the forefront of both diachronic and synchronic Slavic linguistics, but if we are to judge from the number of publications in phonology as compared to those in other areas of linguistics, phonology has now ceded its position to work in syntax. The other major shift in the field is that Slavic phonology and contemporary linguistic theory are to some extent moving in different directions so in a sense there are two types of Slavic phonology: that practiced by Slavists and that done by general linguists, with very few individuals bridging the gap. The field is at a very critical juncture and the future of Slavic phonology will to a large extent be determined by how we train our graduate students today.
Background. In America, Slavic phonology began with the arrival an appointment of Roman Jakobson to a position at Columbia University in 1946. The author of the remarkable seminal work, *Remarques sur l’évolution phonologique du russe comparée à celle des autres langues slaves* (1929), was convinced that language change should be viewed as change in phonological systems rather than as a series of individual phonetic sound changes. His search for an explanation of linguistic phenomena and the recognition that theory is central to any understanding of sound patterns laid a solid foundation for productive work in Slavic linguistics in America for the next fifty years or so. Many students of Jakobson and their students continue to work in a version of Prague School structuralism to this day. Among the questions studied are the morphological role of stress, the nature of phonemic inventories and language typologies, and a great number of issues in historical phonology. In 1987, H. Aronson noted that the structuralist tradition “remains dominant in articles dealing with South Slavic and Balkan linguistics” (p. 191), at least in the publications of the *Slavic and East European Journal* (SEEJ), if not elsewhere. Since most of this work was in the area of phonology, this means that structuralism prevailed as the theoretical framework for American Slavists working on the South Slavic languages well into the late 1980’s, with the notable exception of E. Scatton’s work on Bulgarian, some of which appeared in *Folia Slavica*. In West Slavic linguistics the story was much the same, though here the introduction of a new theoretical vision was beginning to be seen in Slavic studies by the 1970’s. East Slavic linguistics with its primary focus on Russian phonology, and in particular, Russian stress, enjoyed the coexistence of two or more theoretical points of view, among them the generative approach of linguists such as M. Halle (“The Accentuation of Russian Words,” *Language* 1973:312-48), and Slavists such as H. Coats (together with T. Lightner, “Transitive Softening in Russian Conjugation,” *Language* 1975:338-41) and D. Worth, (“Grammatical Function and Russian Stress,” *Language* 1968:784-91, “On Cyclical Rules in Derivational Morphophonemics” in *Phonologie der Gegenwart* 1967:173-86), and others.
But Jakobson was not just a great Slavist, he was also a great linguist, and among other contributions, his concept of sounds as consisting of distinctive features in binary opposition was a major revolution in linguistic theory. The notion that a sound or a phoneme may be characterized by concurrent independent properties of articulation or acoustic perception, i.e., Distinctive Features, opened up a completely new way of looking at sound patterns and their behavior. The theory of distinctive features was more fully worked out in Jakobson, G. Fant and M. Halle, Preliminaries to Speech Analysis: The Distinctive Features and Their Correlates (1952) and in Jakobson’s Fundamentals of Language (1956). Important applications of early distinctive feature theory include M. Halle’s, The Sound Pattern of Russian (1959). Distinctive feature theory has been modified significantly since then, first by a revision of its binary nature to include a more Trubetzkoyan (Grundzüge der Phonologie, Travaux du Cercle Linguistique de Prague, 7, 1939) approach in terms of the privative nature of some features and the centrality of markedness (feature specification and underspecification), later by a hierarchical vision of feature organization known in the theoretical literature as feature geometry (see G. N. Clements and E. Hume, “The Internal Organization of Speech Sounds,” in J. Goldsmith, ed., The Handbook of Phonological Theory [1995], 245-306). Most recently, feature specification is taken to be the result of a series of constraints on feature faithfulness and feature markedness (e.g., C. Zoll, Parsing Below the Segment in a Constraint-Based Framework [1998]). All of these developments in distinctive feature theory started with Jakobson’s insight that this was a better (more economical, general, explanatory, if you will) way to describe and explain the various sound patterns found in languages, both in their current state as well as in the changes they experienced over time. The central role played by Jakobson and Halle in these developments virtually ensured that the fields of Slavic linguistics and general linguistics were in continuous and productive dialogue.

But when the next major shift in theoretical phonology came in 1968 with the publication of N. Chomsky and M. Halle’s, The Sound Pattern of English (SPE), Slavic

Generative linguistics quickly spread throughout the American linguistics community and phonology was no exception. General linguists from abroad worked with their U.S.-based colleagues and a new type of Slavic linguistics began to be developed, carried out not so much by Slavists, as by general or applied linguists from Slavic-speaking countries. One notable example of such an undertaking is E. Gussmann’s *Studies in Abstract Phonology* (1980) a book devoted entirely to Polish. By
the mid-1980’s the gap between Slavists and general linguists working on Slavic linguistics was fairly wide. To cite just one example, the cycle and the cyclic application of phonological rules was an important issue in SPE and post-SPE phonology and several Slavists had interesting things to say about the application of this theoretical maxim to Slavic languages (e.g., D. Worth, “Vowel-Zero Alternations in Russian Derivation,” *International Jouirnal of Slavic Linguistics and Poetics* 1968:110-23) during the early years of generative phonology. But by the time the cycle was reinterpreted as a component of Lexical Phonology, a work such as that by J. Rubach (*Cyclic and Lexical Phonology: The Structure of Polish* [1984]) which brought issues of Lexical Phonology to bear on Slavic language data did not cause much of a stir in Slavic Studies.  

Theoretical linguistics continued to explore modifications of phonological theory, but with very few exceptions, this research was carried out without the participation of Slavists. The insightful work done on tone languages and stress by general linguists (W. Leben’s *Suprasegmental Phonology*, 1973; J. Goldsmith’s *Autosegmental Phonology*, 1976/1979 and his *Autosegmental and Metrical Phonology*, 1990; B. Hayes’, *A Metrical Theory of Stress Rules*, 1985 and later his *Metrical Stress Theory: Principles and Case Studies*, 1995) led to a major revision in the understanding of prosodic phenomena such as tone, stress, pitch accent, vowel length and syllable weight and it initiated new directions in phonology known as Autosegmental Phonology and Metrical Phonology.  

The postulation of separate phonological tiers within the representation of sound systems was a profound change in the prevailing SPE theory (see J. McCarthy’s *Formal Problems in Semitic Phonology and Morphology*, 1979/1985 and subsequent work) and these notions were extended to the representation of syllable structure. Whereas before the syllable was defined in terms of its boundaries (J. Hooper, *An Introduction to Natural Generative Phonology*, 1979; T. Vennemann, *Preference Laws for Syllable Structure*, 1988), now the syllable was viewed as consisting of skeletal positions, timing slots and/or weight units (moras, harking back at least to Trubetzkyo.
The most recent paradigm shift in theoretical phonology, Optimality Theory (A. Prince and P. Smolensky, *Optimality Theory: Constraint Interaction in Generative Grammar* [1993], J. McCarthy and A. Prince, *Prosodic Morphology: Constraint Interaction and Satisfaction* [1993], J. McCarthy and A. Prince, Faithfulness and reduplicative identity,” in *UMOP 18* [1995:249-384], R. Kager, *Optimality Theory* [1999]), is yet to see the extensive involvement of Slavists, and work done in this area with Slavic language data is almost exclusively being carried out by non-Slavists (a recent exception being M. Baerman’s, “The evolution of prosodic constraints in Macedonian,” *Lingua* 104 (1998:57-78), and his dissertation which appeared with LINCOM-EUROPA as a book, *The Evolution of Fixed Stress in Slavic*, 2000). One indication of this is that in 1998, 1999, and 2000 (with one exception) all contributions in phonology to the Workshop on Formal Approaches to Slavic Linguistics were by linguists affiliated with Departments of Linguistics or Linguistics research institutes rather than Slavists in Departments of Slavic Languages and Literatures. This has profound implications for the field of Slavic linguistics.

**State of the field(s): Overview.** Slavic phonology in America is thriving, and it is not. Contributions to the *Slavic and East European Journal (SEEJ)* in phonemics/phonology for the period 1990-99 constitute 32% of the total contributions in linguistics. This compares well with the preceding two decades when the figure was 16% in 1980-89 and 19% in 1970-79 (including two issues of *SEEJ* devoted to the Soviet-American Conference on the Russian Language which contributed 25 papers, seven of them in phonology). This means that in 1999 we were at the same level of phonology contributions to *SEEJ* as in the period 1960-69. This cycle is also reflected in the American contributions to the international congresses of Slavists: in 1963 there were 9 papers in phonology, the next four congresses saw between 3 and 4 such papers, with the 1988 congress hearing 6 papers in phonology (including 3 on the morphophonemics of stress). By the 11th Congress in 1993 and the 12th in 1998 the
number of papers focussing on sound patterns and sound changes increased to eight (though a significant number of these continued to be in the area of morphophonemics).

At the same time contributions to *Language*, the journal of the Linguistic Society of America, shows a completely different picture. Slavic phonemics/phonology was represented by 3-4 papers in the following decades: 1930-39, 1940-49, 1950-59, 1960-69. In the period 1970-79 there were seven articles in Slavic phonology, six authored or co-authored by Slavists (H. Andersen [2], M. Shapiro, M. Elson, H. Coats, K. Holden) and two by general linguists who had done extensive work in Slavic (M. Halle, T. Lightner). An eighth paper by S. Thomason included some Slavic (Russian) data in a discussion of opaque rules. So it is quite surprising to find that in the period 1980-89 *Language* published only two articles in Slavic phonology, both written by general linguists (M. Kenstowicz and J. Rubach on Slovak, S. Inkelas and D. Zec on Serbo-Croatian). The last decade saw only one article on Slavic phonology and it was written by a non-Slavist (J. Szpyra on Polish). The picture that emerges is that there is an increasing distance between Slavists and general linguists.

Yet there had been fairly active communication between Slavists and general linguists throughout the 1950’s and 1960’s, with the creation of *Slavic Word*, for example, which first appeared in 1952 as a short-lived supplement to the journal of the Linguistic Circle of New York, *Word*. It published some outstanding work during its brief four-year run. The *International Journal of Slavic Linguistics and Poetics*, established by R. Jakobson, F. Whitfield, C. van Schooneveld, Chr. Stang in 1959 (later including E. Stankiewicz, D. Worth among its linguist-editors) showed a variety of contributors and theoretical approaches. And another specifically Slavic publication, *Folia Slavica* (1977-87) contributed several articles to Slavic phonology from Slavists as well as general linguists. The fairly recently (1984) established international journal devoted entirely to phonology, *Phonology Yearbook*, later renamed *Phonology*, includes work on Slavic, as do *Natural Language and Linguistic Theory* and *Linguistic Inquiry*, but such contributions are infrequent and tend to come from the same linguists.
Two new initiatives changed the panorama for theoretical Slavic linguistics in the early 1990’s. The first was a series of annual workshops on Formal Approaches to Slavic Linguistics (FASL), originally conceived as a focus group on Slavic syntax, which has now stabilized as an annual event of international reputation and participation. It is not surprising that the earlier workshops had none or only one paper on phonology, but there were two contributions in phonology in 1996, three in 1997, four in 1998, five in 1999 (counting a paper on metrics) and three in 2000. Contributions to FASL come from Slavists (K. Robblee, R. Feldstein, C. Bethin, N. Agman), but the majority is from non-Slavists. The other development was the inauguration in 1993 of a new publication, *Journal of Slavic Linguistics*, edited by G. Fowler and S. Franks, devoted entirely to Slavic linguistics. Here the profile looks somewhat different: there were four articles in phonology in 1993 and none in 1998. The *Journal* has published work by Slavists (E. Andrews, S. Pugh, D. Birnbaum, C. Bethin, K. Langston, F. Gladney, R. Feldstein, H. Galton) and by general linguists (R. Plapp, A. Ramer) of all theoretical persuasions.

One measure of change in the field is the organization of panels at the Annual Meetings of the American Association of Teachers of Slavic and East European Languages. In the 1990’s we began to see a shift from the traditional area panels such as East Slavic Linguistics to more thematic panels such as the one on the Russian verb. The panel on phonology was introduced in 1993, and the complete shift from area panels to thematic panels took place in 1996. Whereas the syntax panels often include extensive comparative work to test theoretical assumptions, there is an absence of similarly oriented work in phonology. The phonology papers given in other types of panels, such as Historical Linguistics or Dialectology, are few in number and their focus does not tend to be on theory.

**State of the field: Slavic phonology by Slavists.** Slavists are primarily interested in Slavic languages and secondarily, if at all, in what the Slavic languages have to say
about any given theory or in which theoretical perspective is most successful in
organizing observed language patterns in Slavic. The goal of their study is the language
itself, its history, dialects, and organization either alone or in a larger context. To get
some idea of what American Slavists are doing in the area of phonology we could look
at the past decade or so as reflected in various publications, starting with the American
Contributions to the International Congresses of Slavists. The tenth international
congress of Slavists in 1988 heard three American contributions in phonemics or
phonology (M. Flier and H. Galton in historical, R. Lencek in dialectology). There were
also three papers on morphophonemic stress (R. Alexander, J. Schallert, E.
Stankiewicz). By 1993 there were five papers in historical phonemics/phonology (R.
Alexander, C. Bethin, M. Flier, H. Lunt, A. Timberlake) and another on historical
morphophonemic accent (J. Schallert). The contributions to the last 1998 congress were
almost exclusively in historical linguistics or dialectology (H. Andersen [2], C. Bethin,
H. Birnbaum, A. Corin, M. Flier, F. Gladney) with one in morphophonemics by R.
Greenberg. It is fascinating to compare this with the 1963 International Congress of
Slavists where the nine phonology/phonemics papers constituted more than half of all
contributions in linguistics. With the exception of papers by M. Halle on Russian
conjugation and cyclic rule application, H. Kučera’s on functional loads and J. van
Campen’s on phonetic features, the rest of the contributions were in the area of
historical phonology and dialectology (R. Abernathy, H. Birnbaum, R. Jakobson, G.
Shevelov, U. Weinreich) or morphophonemics (E. Stankiewicz). But while this
distribution of contributions reflects a fairly serious engagement and discourse with
theoretical phonology at the time, the very similar profile of the 1998 contributions
cannot be said to be engaged with contemporary linguistic theory at the same level. In
fact, with one or two exceptions, the 1963 audience would have felt right at home with
the work being presented in 1998.\footnote{17}

Work published in the past ten years in the \textit{Slavic and East European Journal} for
the most part focusses on historical linguistics, dialectology and synchronic stress
patterns. Publications in the *Journal of Slavic Linguistics* continue the focus on stress and accent (R. Feldstein, F. Gladney, K. Langston), historical phonology (E. Andrews, C. Bethin, H. Galton, D. Birnbaum, F. Gladney, A. Ramer) and synchronic phonology (S. Pugh, A. Ramer, R. Plapp).\(^{18}\) Thus Slavic phonology continues to have a very strong historical orientation, and accentuation in all of its manifestations is still the topic of many investigations. It is interesting to note that Slavic linguistics as a field is not unaware of developments in theoretical linguistics, and work in Slavic syntax, for example, has gone hand-in-hand with contemporary theory while not entirely abandoning its fundamental respect for accurate language description. Slavic phonology as practiced by most Slavists, on the other hand, tends to be much less receptive to new ideas. It is rare to find such a strong theoretical hold on a field in any other component of linguistic inquiry as early Jakobsonian thought continues to have on much of Slavic phonology.

Slavists, given the nature of their inquiry, draw from a rich variety of Slavic language data, with special focus on the South Slavic languages in historical, accentual and dialectology investigations and on Russian for purposes of stress and applied linguistics. Publications in the *International Journal of Slavic Linguistics and Poetics* (IJSLP), for example, study Common Slavic, Late Common Slavic, Slovene, Polish, Ukrainian, Macedonian, Upper Sorbian, Serbo-Croatian in addition to textual work on Old Church Slavic, and much on Russian. Slavic phonology in this respect is genuinely Slavic, though Russian continues to be the focus of many applied papers dealing with sound patterns.

Given this, it is striking that so much recent work in theoretical phonology is rather disproportionately focussed on Polish, with some consideration of Serbo-Croatian, Slovak, Russian, and Macedonian. The reasons for this are obvious: in most cases the general linguist is using his or her native language as the data for theoretical argumentation. The predominance of Polish in theoretical phonology, for example, is due not only to the inherent complexity and value of the data for theoretical questions
but also to the fact that most of the linguists working on these questions happen to be
native speakers of Polish (e.g., E. Gußmann, J. Rubach, J. Szpyra, E. Czaykowska-
Higgins, and many others). This holds true for several other Slavic languages as well,
among them Russian and Serbo-Croatian. This means that other general linguists with
no background in Slavic heavily depend on these works for their discussion of various
points, thereby further increasing the amount of space and time devoted to Polish,
Russian, and perhaps Serbo-Croatian and Slovak, with Belorussian, Czech, Slovene,
Sorbian, and Ukrainian hardly discussed, in spite of the fact that there are good
resources published in English for these languages.\footnote{If one were to take into account
work published abroad, the profile of languages serving theoretical linguistics would
not change much; Polish is now probably the most studied Slavic language in terms of
phonological theory.} This is quite different from the early days of generative
phonology when the work of Halle, Lightner, and many of their students put Russian at
the forefront of theoretical interest.

**State of the field: Slavic phonology by general linguists.** For general linguists
the primary object of study is language in its universality and its diversity, and then the
structure of any given language or languages as data for certain theoretical hypotheses
or the application of a theory to the description of a given language. The Slavic
languages have provided some very rich and challenging material for phonological
theory in the past and there is no reason why they cannot continue to do so in the future.
In any theory of phonology one has to determine what the contrastive elements are, how
speakers systematize the sound patterns in mental representations, and how they
produce what we hear as language. Once we accept that the mental representation is not
necessarily the same as the actual production of sound sequences, a phonologist is
concerned with two basic aspects of the model: that of the representation (underlying
form, input) and the mapping that relates it to what is spoken and heard (surface
representation, output, phonetic level), with its unpredictable as well as predictable
characteristics.

Early generative phonology operated with the notion of an underlying representation (UR) of contrastive elements and a system of potentially ordered rules relating the UR to its surface manifestation. Much work was devoted to establishing what was in the underlying representation and even more effort was devoted to discerning the nature of and the relationship among the rules in the rule component of the grammar and the interactions between the various components. An issue of central importance was the notion of abstractness, or, how different could the UR be from the surface form? One of the critical studies to explore the implications of abstract UR’s was Lightner’s 1972 work on Russian, where--among many other challenging things--one finds that the front mid vowel /e/ behaves quite differently in the same or similar environments. There is the [e] in ‘bread’, which remains [e] regardless of which consonants surround it and under stress [xl’ep], [xl’éba]; there is the [e] of [at’éc], [atcá] ‘father’, which is sometimes there and at other times not; and there is the related [o] in [p’os], [psa] ‘dog’, and in nes [n’os] ‘he carried’ and nesla [n’islá] ‘she carried’ which does not alternate with zero and still looks as if it bears some connection to /e/ (if one takes the position that the palatalization of consonants is predictable in Russian). If the behavior of this vowel is said to be a consequence of a given underlying representation and/or the application of a set of rules, then the various patterns exhibited by it should be describable by such a grammar. In other words, the three patterns of [e] behavior are said to be due to either different URs and/or a different set of rules applying to the URs.

It turned out that it was difficult to explain the different behavior of this vowel by a set of conditioned rules and Lightner’s solution was to postulate three different underlying representations for the patterns: long or tense /ë/ for the [e] in ‘bread’, short /e/ for the pattern in ‘carry’, and a high lax vowel for the vowel which alternates with zero /i/, called a yer. Putting aside the fairly transparent historical motivation for these underlying representations, the difference attributed to the UR was somewhat ad hoc (diacritic) in that quantity is not distinctive in Russian and yers never show up in that
form on the surface. These representations raised important questions about the formal requirements of the theory and its claim to represent a speaker’s knowledge of the sound system of a given language as well as learnability issues.

Abstractness continued to be a concern in the application of rules, and this is nicely exemplified by Gussmann (1980) where he shows that the /e/ which alternates with zero in Polish, as in [pjes], [psa] ‘dog’ and [sen], [snu] ‘dream’, sometimes palatalizes the preceding consonant and sometimes not. At the time the solution was to propose two different underlying representations for these vowels, a high lax /ĭ/ and /ŭ/, in addition to /e/ which did not alternate with zero. After doing work in terms of conditioning the palatalization (by /ĭ/) or not (by /ŭ/) of the preceding consonant, the two sounds were said to merge into [e], a case of absolute neutralization. The alternation of Slavic yers, as in Russian [d’en’], [dn’á], [d’in’ok], [d’in’ka] ‘day’ and various diminutives, or in [búlkə], [búlək], [búlačkə], [búlačək] ‘roll’ led to considerations of cyclic rule application (D. Worth [1968]) and questions about the role of morphology in phonology. The so-called yers in Slavic phonology have continued to pose a challenge to most later modifications of generative phonology, providing especially interesting arguments for the nature of phonological representation (see C. Bethin, *Slavic Prosody: Language Change and Phonological Theory* [1998:205-14] for a summary of the issues). Yers have been used to motivate the postulation of empty syllable positions, empty root nodes, various properties of syllabification and metrical relations. The representation of yers in all of the Slavic languages (and to some extent the question of the representation of Polish nasal vowels) continues to provide a challenge for phonological analyses done in Optimality Theory.

The other very widely studied Slavic phenomenon is, of course, palatalization. The work on consonant palatalizations in Slavic has contributed to refinements in phonological theory, making the case for derivational levels, the cyclic application of phonological rules, and in the end providing some of the best evidence for claims made by Lexical Phonology (cf. Rubach 1984, 1993). This version of phonology
acknowledges not only a difference in the nature of phonological rules (cyclic or not), but also postulates a difference in derivational levels (lexical and post-lexical). Such explanations are used to account for the absence of velar palatalization before front vowels within a stem while allowing it to occur across a stem and affix boundary as in the Polish *chemik* [x’em’iık] but *chemiczek* [x’em’ičcek], diminutive of ‘chemist’. Here velar palatalization is said to be a cyclic rule (Rubach 1984 and others), thereby applicable only to derived forms. This is one area of Slavic phonology that will continue to provide a challenge to phonological theory, partly because it is complex and morphologically restricted while being quite pervasive in Slavic systems. In theories where derivational cycles and levels are not part of the working apparatus, such as Optimality Theory, all of these Slavic cases will have to either find an alternative analysis or force the theory to change to take such language phenomena into account. Here alone there is much work to be done by Slavists who have a good contextual knowledge of consonant palatalizations in their synchronic and diachronic aspects.

Three other areas of Slavic linguistics have found some resonance in theory, namely, the sonority restrictions on syllable structure, various voicing phenomena, and the analysis of accent systems. The former involves a large number of what appear to be violations to well established sonority sequencing requirements for syllable structure, specifically that sonority tends to increase in syllable onsets and decrease in syllable codas, unlike what is exemplified by Russian *mgla* ‘mist’, *rubl* ‘ruble’, or Ukrainian *rdza* ‘rust’. Issues of voicing neutralization in Russian, Polish, Serbo-Croatian, and Ukrainian have been cited by general linguists in the attempt to work out typologies of voicing across languages, most recently, L. Lombardi, “Positional Faithfulness and Voicing Assimilation in Optimality Theory,” *NLLT* 1999:267-302. Finally, Russian stress, which was the focus of so much work in Slavic morphophonemics, continues to be the subject of both theoretical and applied studies, with contributions by general linguists as well as Slavists. Other Slavic stress systems have been used to test metrical phonological theory (Polish and Macedonian by S. Franks, Polish by J. Rubach, M.
Hammond, and others), or Optimality Theory (J. Alderete’s 1999 dissertation, “Morphologically Governed Accent in Optimality Theory” includes a case study of Russian, and M. Baerman’s work includes historical, dialectal, and typological studies with reference to OT). Some very interesting work has been done on pitch accent in Contemporary Serbo-Croatian (I. Lehiste and P. Ivic, “Interaction Between Tone and Quantity in Serbo-Croatian,” *Phonetica* [1973], 182-90, and elsewhere; Inkelas and Zec 1988; and D. Zec, “Rule Domains and Phonological Change,” *Phonetics and Phonology, Vol. 4: Studies in Lexical Phonology* [1993], 365-405 and her more recent work, “Footed tones and tonal feet: Rhythmic constituency in a pitch accent language,” *Phonology* 16 [1999], 225-64). Here, too, there is much left to do, especially in those languages which have not had much exposure in theoretical synchronic linguistics, such as Slovene.

Finally, the postulation of intermediate derivational levels was a cornerstone of generative derivational phonology. This notion was important in explaining why there could be surface exceptions to certain phonological rules, even within words. If, for example, a given language has a process of /a/ changing to /e/ before /t’,/ and another whereby /e/ changes to /i/ in the same environment, and it still has words with the sequence of [et’] left, one explanation would be to assume linear ordering of the two processes or rules: the rule changing /a/ to /e/ follows the one that changes /e/ to /i/, thus leaving some /e/’s unchanged. This type of opacity presents a problem for Optimality Theory which does not allow—at least in its original formulation—intermediate levels. The Slavic languages have countless examples of such phenomena which would provide many excellent studies and material for testing current theoretical assumptions. One solution to such cases that has been proposed on the basis of Slavic data is A. Lubowicz’s reanalysis of Slovak (“Derived Environment Effects in OT,” 1998, ROA-239) as an example of constraint conjunction.

As much theoretical phonology in the U.S. continued to test the predictions of Optimality Theory (OT) and models of language acquisition, research in Slavic phonology dealt with linguistic interfaces and the nature of the theoretical model.21
Functional approaches to phonology, as represented by the recent publication of *Phonetically Based Phonology*, edited by B. Hayes, R. Kirchner and D. Steriade (Cambridge, 2004) and much work elsewhere, have re-focused attention on some long-standing problems of Slavic phonology such as vowel reduction and palatalization. Several doctoral dissertations, among them K. Crosswhite, *Vowel Reduction in Optimality Theory* (UCLA, 1999/Routledge, 2001), J. Barnes, *Positional Neutralization: A Phonologization Approach to Typological Patterns* (Berkeley 2002), D. Kavitskaya, *Compensatory Lengthening: Phonetics, Phonology and Diachrony* (Berkeley, 2001/Routledge 2002), A. Kochetov, *Production, Perception and Emergent Phonotactic Patterns: A Case of Contrastive Palatalization* (Toronto, 2001/Routledge, 2002), and earlier work such as M. Boyd, *Palatalization and Coronalization in Russian and Czech: A Non-linear Approach* (Ohio, 1997), appeared in Departments of Linguistics. Interest in perception and the maintenance of phonological contrasts is exemplified by the work of A. Łubowicz, *Contrast Preservation in Phonological Mappings* (Ph.D dissertation, UMass, 2003/ROA-554), and J. Padgett, “Contrast and Post-velar Fronting in Russian,” *Natural Language and Linguistic Theory* 21 (2003:39-87), where Polish and Russian serve as case studies. The phonology-phonetics interface and questions of perception continue to serve as a productive research area for these and other linguists, where the data come primarily from Polish and Russian, though Belarusian, Bulgarian, Czech, Slovene and Ukrainian have entered the recent literature. Evidence from Slavic palatalizations and gliding has proven to be germane to arguments on opacity and derivational levels in the papers of J. Rubach, A. Łubowicz, and others testing the theoretical model.

Stress in Paradigms: Nominal Inflection in Ukrainian and Russian, and recent theoretical work by John McCarthy and others published in Paradigms in Phonological Theory, ed. by L. Downing, T. Alan Hall, and R. Raffelsiefen (Oxford, 2005). Given the strong interest of theoretical phonology in paradigm effects and the nature of output-output correspondence, we should expect to see more work in this area and more interest in the Slavic languages as they are indeed a rich source of material.

Prosody continues to be a topic of investigation by both Slavists and general linguists, as do questions of sonority and voicing. Recent work by D. Zec on Serbian and Old Church Slavic, K. Crosswhite, T. Beasley, J. Alderete and V. Markham on Russian and K. Crosswhite, T. Beasley on Macedonian, D. Kavitskaya on Common Slavic, C. Bethin on Czech, Ukrainian and Belarusian, deals with stress, tone, quantity and accent in Slavic. The papers presented at the Thirteenth International Congress of Slavists in Ljubljana (2003) included only two contributions in phonology (C. Bethin, L. Grenoble) and both dealt with prosody. FASL proceedings also published several papers on voicing and the problem of /v/ in Slavic.

in Optimality Theory” (2004:656-70)). Within Slavic Studies, conference presentations on Slavic phonology continue to appear fairly regularly at the rate of four papers per meeting at the AATSEEL Annual Meetings (2000-2004) in the phonology panel, but there were almost no phonology papers in other related panels. The *International Journal of Slavic Linguistics and Poetics* published its last volume in 2001, but the *Journal of Slavic Linguistics* continues to be a place where Slavists and general linguists meet. A thematic issue on Slavic phonology and morphology is due in the near future.

To summarize, recent work in Slavic phonology continues as before, but with more focus on Slavic from general linguists as the complexity of Slavic data is exploited in investigations of linguistic interfaces and theoretical modelling. While interest in Polish and Russian remains strong, the introduction of Bulgarian, Serbian, Slovene, Macedonian, Slovak, Czech, Ukrainian, and Belarusian is broadening the scope of languages covered in the theoretical literature. Thus Slavic languages continue to be the focus of a small but active group of Slavic and general phonologists, and the emergence of a talented new generation of linguists working with Slavic languages certainly bodes well for the future.

**Some Future Research Directions.** New work in Slavic phonology could be profitably carried out at the interfaces of phonology with phonetics, morphology, syntax and poetics. For example, studies of voicing, tense/lax distinctions, vowel reduction, pitch accent, palatalization, and length should find support from phonetics on the model of I. Lehiste’s and P. Ivić’s study, *Word and Sentence Prosody in Serbo-Croatian* (1986), and more recent work done by general linguists at the interface of phonetics and phonology. Within OT there is much being done on phonetically grounded constraints and in making more explicit the relationship between phonetics and phonology in constraints and constraint interaction (e.g., the recent work of D. Steriade, R. Kirchner, “Contrastiveness and faithfulness,” *Phonology* [1997], 83-111; B. Hayes, “Phonetically driven phonology: the role of Optimality Theory and inductive grounding” [1996, ROA-195-1196] and their students such as E. Flemming, *Auditory representations in*
The relationship between phonology and morphology has always been at the core of Slavic linguistics in its emphasis on morphophonemics, especially as related to stress patterning, and it was a fundamental concern of generative phonologists. This is a particularly fruitful area to explore within Optimality Theory and it will have important implications for the theory itself. For example, the abstractness of underlying representations has again been raised in surface-oriented phonology, where the existence of allomorphy forces a decision about its representation in OT, either as the allomorphic model where the grammar simply selects the appropriate allomorph in a given context or as some type of correspondence relation (either Input-Output or Output-Output) in the grammar. Recent modifications of OT include Correspondence Theory (McCarthy and Prince, 1995), Transderivational Correspondence Theory (L. Benua’s 1997 UMass dissertation, “Transderivational identity: Phonological relations between words”), Sympathy Theory (J. McCarthy, “Sympathy and phonological opacity,” *Phonology* 16 [1999], 331-99) which try to maintain the Strict Parallelism of OT, and interleaved (multilevel) OT which upholds the Surface Orientation of the theory at the expense of parallelism (e.g., P. Kiparsky, “Paradigm effects and opacity”, Stanford Univ. ms, 1998, C. O. Orgun’s 1996 Berkeley dissertation, “Sign-Based Morphology and Phonology with Special Attention to Optimality Theory,” and others). Interestingly, the allomorphic model and functional considerations in the formulation of constraints as positional faithfulness (or positional markedness) in some ways bring us close to the issues considered by Structuralist analyses.

The intersection of phonology with syntax has long been important in the research on clitics, and it is now receiving more attention in studies of intonational phrasing. Finally, metrical phonology has a great potential symbiotic relationship with poetics, as Slavic linguists (E. Klenin, D. Worth, among others) well know, and as is illustrated by the volume *Rhythm and Meter*, ed. by P. Kiparsky and G. Youmans (1989). Some
recent investigations such as that of N. Friedberg, “Russian Metrics and Stochastic Constraints: Determining Metrical Complexity” (FASL 1999) suggest that more work could be done in this area.\textsuperscript{30}

In general, this is a particularly exciting time for theoretical phonologists and one would expect that Slavists could be making significant contributions to current discussions. Questions about markednes, allomorphy, morphological derivations and paradigm regularity in Optimality Theory should be dealt with on the basis of the complex data from the Slavic languages. But unless Slavists take the time to become familiar with current developments in phonology and find a way to make the complexity of Slavic data accessible to general linguists, this work will continue to be done by non-Slavists, if it is done at all.

\textbf{Summary and conclusions.} Today, with very few exceptions, the relationship between Slavic phonology and general theoretical phonology seems to be one of complementary distribution. Slavists continue to be interested in questions of historical and comparative phonology and dialectology, while general linguists who work with Slavic languages are primarily oriented towards synchronic analyses.\textsuperscript{31} In some ways, this complementary distribution of labor makes sense. In order to make significant contributions to historical, comparative phonology or dialectology, one needs to have intensive and extensive training in the relevant language areas. This is the kind of training graduate programs in Slavic linguistics are especially good at providing. A program of this type, however, leaves little time for additional work in theoretical linguistics and for a long time Slavic departments chose to go their own way, while not always discouraging one or two curious individuals from peeking across departmental boundaries.\textsuperscript{32} Work in theoretical formal linguistics does not, as a rule, require a concentration of any depth in a given language area with the results that native speaker data is often the focus of study in the absence of a better motivated choice. Thus theoretical questions about phonology are not answered on the basis of, say, Polish only
because Polish presents a particularly compelling set of data but also because the given linguist simply had access to Polish rather than to another Slavic language, one which might have proven to be equally or perhaps even more challenging than Polish for the question at hand. The result is that we now have essentially two separate fields of Slavic phonology, that studied in some Slavic departments and that being done by general linguists.

Where is Slavic phonology going? The two fields of Slavic phonology, the sub-field within general linguistics and the field of Slavic phonology as done by Slavists, differ somewhat in their objectives. Theoretical phonology is interested in the description of sound patterns across languages and in the acquisition of such patterns in *language*, whereas Slavists are more interested in the properties and context of a given Slavic language or languages. Thus the division of labor, given the different goals, is not unexpected and not necessarily undesirable. There is still much to be learned about the Slavic sound systems in their larger linguistic, historical, and cultural contexts that Slavists are particularly well-equipped to undertake. However, since most linguistic investigations approach a given problem from some theoretical perspective, be it implicit or explicit, the question for many Slavists will be: Which theoretical framework will be most illuminating in understanding the speech sounds and patterns in Slavic?

At this point, our field seems to be divided: some phonologists in the position to train graduate students in Slavic linguistics still choose to work in and train their students in Jakobsonian linguistics, while others have begun to incorporate recent developments in theoretical phonology into their own work on Slavic. The problem seems to be that some Slavists working in phonemics/phonology today see no reason or simply cannot find the time to learn about new developments in general linguistics. This tends to result in the general linguists’ dismissal of Slavic work and the Slavists’ disregard of the efforts of their colleagues: it is not clear to general linguists why they should pay attention to or even try to read work done in structuralist or post-structuralist frameworks nor is it clear to some Slavists that recent theoretical developments are
advances in any real way. But the consequences of this division are particularly harmful to the students we are training. If they are not encouraged to pay attention to contemporary linguistic theory, they will be isolated in a non-productive way. And it is easier for a Slavist who already possesses an in-depth knowledge of one or more Slavic languages to become conversant with current theory than it is for a non-Slavist (or non-native speaker of a Slavic language) to acquire the extensive and intensive knowledge of a Slavic language one should have in order to do thorough analyses.

**Future needs and recommendations.** How do we accomplish a reapproachment of the two fields? Much of the effort will fall to the training of our students which can be facilitated in some fairly practical ways. If our goal is to expand the dialogue between Slavists and general linguists, thus bringing what have become essentially two different research fields back into the same orbit, then our students, especially at the graduate level, would benefit from new teaching materials: a text on the structure of Russian that would include up-to-date analyses of the phonetics, phonology, morphology and syntax of Russian in a form that could also be profitably read by students of general linguistics, and a book on the problems of Slavic phonology, organized thematically in terms of problem types of special interest such as the vowel-zero alternations, the phonology-morphology interface, issues of vowel reduction, diphthongs, quantity, and other prosodic phenomena, accompanied by a workbook of problem sets in Slavic. We might add to this other desiderata such as good synchronic descriptions of various Slavic languages (general linguists who wish to work on the Russian sound system, for example, too often resort only to D. Ward’s book on the phonetics of Russian and a few have depended on Townsend’s *Russian Word Formation*), theoretical investigations on the basis of less well-studied Slavic language data, and perhaps more work in comparative Slavic phonology.

I would argue that future Slavic phonologists should have a good knowledge of contemporary phonological theory. Although much excellent work is being done in
Slavic dialectology, Slavic historical linguistics, and in synchronic Slavic linguistics, it is the latter that tends to feel the theoretical pressure most because so much of linguistic theory today strives to understand the system of a language in its current form as a way of understanding language structure in general. Openness in Slavic graduate programs in terms of various electives and options in related departments would go a long way in reanimating connections across fields. While it may not be possible to train our students equally well in all aspects of theoretical linguistics and in Slavic as well, given the requirements and the complexities of the disciplines, it should be possible to train our students well in Slavic linguistics and in a sub-field of theoretical linguistics. In other words, Slavists could choose a theoretical specialization such as phonology or syntax as part of their graduate training in Slavic linguistics, and general linguistics programs in universities with strong Slavic linguists could look at tracks or concentrations in a specific language area as part of their program options. This would probably enhance the employability of both types of graduates, but especially those in Slavic linguistics. And we would stand to gain if we once again enable our students to be part of the larger intellectual community of phonologists as well as students of Slavic.

While it is not necessarily bad that the Slavists of 1963 and those of 2005 should continue their discourse, it is not necessarily good that this seems to be happening instead of, rather than in addition to, conversations with colleagues down the hall. Granted, the wealth of Slavic linguistics, both in terms of material as well as in its intellectual history, is an irresistible attraction, but there is also much exuberant work in phonology being done right around us. Unless we stop to pay attention to it we will miss the opportunity to contribute to the growing and exciting research enterprise that is phonology today.
NOTES

1. The retrospective is based primarily on work done by U.S.-based Slavists and/or work published in U.S.-based Slavic and general linguistics outlets. It is not possible to evaluate all work in various festschrifts, proceedings of local conferences, institutional working papers or much of that published abroad by U.S.-based Slavists. This regrettably skews the discussion somewhat and to a large extent ignores different theories of phonology that have an active research program elsewhere. If I have omitted relevant work, I apologize to the authors and would appreciate it if this were brought to my attention. I am grateful to Catherine V. Chvany and the audience at SLING2K for helpful comments on an earlier version of this paper.

2. R. Jakobson arrived in the U.S. in 1941 but it wasn’t until 1946 that he was appointed the Thomas G. Masaryk Professor of Czechoslovak Studies at Columbia (H. Kučera, Obituary of Roman Jakobson, Language [1983:871-83]). Slavic linguistics was active in the U.S. before Jakobson’s arrival, of course, and the work of G. Trager, C. Bidwell, C. Hodge, and others regularly appeared on the pages of Language in the 1930’s, 1940’s and 1950’s. To note just a few contributions in Slavic phonology: G. Trager’s article on “The Phonemes of Russian,” Language (1934:334-44), followed by his “Serbo-Croatian Accents and Quantities,” Language (1940:29-32), and “The Phonemic Treatment of Semivowels,” Language (1942:220-23); C. Hodge’s, “Serbo-Croatian Phonemes,” Language (1946:112-20); J. van Campen and J. Ornstein, “Alternative Analyses of the Bulgarian Non-syllabic Phonemes,” Language (1959:264-70). G. Shevelov (as Y. Šerech) published Problems in the Formation of Belorussian as a Supplement to Word in 1953. But Jakobson’s hand in training a very large number of Slavists, especially during his Harvard years (1949-67) when he directed or read over 45 dissertations (Kučera, p. 879), made him by far the most influential teacher of his generation, if not of the last fifty years.


9. Suprasegmentals were a problem for American Structuralism and they were not handled especially well in SPE-phonology either, leaving much to further research. This is not to say that work such as that of J.R. Firth, “Sounds and Prosodies,”
Transactions of the Philological Society 1948:127-52 or that of Z. Harris, “Simultaneous Components in Phonology,” Language 1944:181-205 was unaware of the issues, it is just that later revisions were formalized in a way which produced interesting (and so far lasting) modifications to phonological theory.


11. The first issue of Slavic Word (1952) included R. Jakobson’s well-known “On Slavic Diphthongs Ending in a Liquid” (pp. 306-10), H. Lunt’s “On Old Church Slavonic Phonemes: The Codex Zographensis” (pp. 311-28), in phonology, and the last issue in 1955 contains H. Kučera’s, “Phonemic Variation in Spoken Czech” (pp. 575-
American Slavists (among them D. Worth, E. Stankiewicz, C. Bidwell, W. Schmalstieg) continued to contribute to Word until the early 1960’s.


16. In 1993 phonology papers at AATSEEL could be heard in the Slavic Phonology panel, West Slavic Linguistics, Slavic Dialectology; in 1994 one could attend at least eight papers dealing with phonology dispersed throughout various linguistics panels; similarly in 1995 where phonology was found under the rubrics of West Slavic Linguistics, Historical Linguistics, and Phonology. The 1998 and 1999 conferences offered phonology primarily in the Slavic Phonology and Prosody panel with one or two papers appearing in other panels such as Historical Linguistics or specific language panels.

Shevelov, “Prothetic Consonants in Common Slavic: An Historical Approach,” E.
Stankiewicz, “Unity and Variety in the Morphophonemic Patterns of the Slavic
Declensions,” J. van Campen, “The Phonetic Feature Approach in the Description of the
Morphology of the Slavic Languages,” U. Weinreich, “Four Riddles in Bilingual
Dialectology.” In 1998, the 12th congress heard the following papers: H. Andersen,
“Dialektnaja differenciacija obščeslavjanskogo jazyka. Paradoks obščix tendencij
razvitija s različnymi lokal’nymi rezul’tatami,” and his “The Common Slavic Vowel
Shifts,” C. Bethin, “The Bisyllabic Norm of Late Common Slavic Prosody,” H.
Birnbaum, “Na periferii. Najwcześniejsze zaświadczenie dwóch dialektów
półnopraslowińskich,” A. Corin, “On the Bifurcation of Slavic into Vocalic and
Consonantal Languages,” M. Flier, “The Jer Shift and Consequent Mechanism of
Sharping (Palatalization) in East Slavic,” F. Gladney, “Imperfective Accent in Slavic,”
R. Greenberg, “Towards a New Interpretation of Serbian and Croatian
Morphophonemic Patterns.”

18. The following articles in phonology or with a phonological component
appeared in SEEJ from 1990 to 1999: S. Young, “Winter’s Law and Slavic Diphthongal
Redaction of Church Slavonic,” 1992:1-35; C. Bethin, “Iotation and Gemination in
Ukrainian,” 1992:275-301; R. Greenberg, “Diálects and Ethnicity in the Former
Yugoslavia: The Case of Southern Baranja (Croatia),” 1998:710-22; D. Dyer, “Some
Influences of Russian on the Romanian of Moldova During the Soviet Period,”
Russian of English Speakers,” 1998:268-82; M. Elson, “Collocational Stress in
Intonational Interference in Emigre Russian: A Comparative Analysis of Elicited
Speech Samples,” 1993:162-77. JSL published the following: R. Feldstein, “The


31. Some Slavic phonologists have used recent theoretical approaches in their work on Slavic, but the cross-pollination between current theory and Slavic linguistics is much more robust in Slavic syntax, where L. Babby has played a significant role in training a group of Slavic syntacticians conversant with syntactic theory. The situation in phonology will soon change as we can already see the beginnings of such a shift in recent dissertations, both in Slavic Languages and Literatures departments as well as in departments of Linguistics.