Jan Baudouin de Courtenay: His Contribution to the Development of Modern Linguistics*

Soo-Jae Lee
(Kunsan College of Nursing)

Lee, Soo-Jae. 2011. Jan Baudouin de Courtenay: His contribution to the Development of Modern Linguistics. *The Linguistic Association of Korea Journal. 19*(4). 109-128. In current literature Saussure's distinctive contributions to modern structural linguistics are well known, but Baudouin's contribution was little known until the books and articles on his study appeared recently. Although Baudouin and Saussure were essentially on the same course of linguistic inquiry, i.e., reformulation of linguistic elements, they developed their own views on language and solutions to the linguistic problems. Baudouin opened a new perspective, together with Saussure, that comparison is not an end but a means in the study of language. His purpose in the study of language was to seek the general laws and forces conditioning both the diachronic and synchronic variations of language. In this paper I demonstrate Baudouin's significance in phonological work and discuss his linguistic views on general linguistics and his major achievements focusing on the following questions: (1) the distinction between statics and dynamics; (2) the conception of the phoneme; (3) the observation on sound processes.

Key Words: phoneme, morpheme, alternation, divergence/divergent, allophone, statics, dynamics, synchronic, diachronic

---

* This paper was presented at the LAK Spring Linguistics Conference held at Jeonju University on May 21, 2011. I am very grateful to three anonymous LAKJ reviewers of an earlier version of this paper for offering pertinent criticism and insightful suggestions along with typological corrections. I also wish to thank participants in the conference for useful comments. All remaining errors and inadequacies are of course mine.

1. Introduction

It is generally acknowledged that the Polish linguist of aristocratic French descent Baudouin de Courtenay (1845-1929) and the Swiss linguist Ferdinand de Saussure (1857-1913) are the immediate forerunners of modern structural linguistics (cf. Apresjan 1973; Fischer-Jørgensen 1975). These two linguists, born at a time when historical study was the only purpose in linguistics, opened a new perspective to linguistics. De Saussure, who lived in the center of linguistic activity which was restricted at that time to the historical aspects of language study, occupied himself with the sole scientific approach to language, i.e., synchronic rather than diachronic analysis of language. Baudouin de Courtenay, who worked out his linguistic theory in Kazan where he was relatively more immune to the criticism of the Western scholars, elaborated his ideas on language and published his articles more freely, unlike de Saussure who was deeply troubled with his new method of synchronic approach to language.[1)]

Although Baudouin and Saussure were essentially on the same course of linguistic inquiry, i.e., reformulation of linguistic elements, they developed their own views on language and solutions to the linguistic problems. In current literature Saussure's distinctive contributions to modern structural linguistics are well known, but Baudouin's achievements were little known until the books and articles on his study appeared recently. Some scholars indicate that Baudouin is the real precursor or the pioneer of the structural phonological work (cf. Koerner 1972b).[2)] More recently, Anderson (1981: 56) pointed out that "Baudouin's formulation of ideas on linguistic investigation is more explicit than Saussure's

1) Anderson (1985: 30) states Saussure's dissatisfaction with the relation of languages to their history as follows: "In arguing for the centrality of synchronic considerations, however, Saussure was challenging the central doctrine of the then-current neogrammarian view of explanation in linguistics: that historical study was not only important but, indeed, the *only* genuinely 'scientific' approach to the facts of language." However, Saussure met with the fundamental difficulty with the historical notion of explanation for the reason that such a theory was completely unsatisfactory as an explanatory account.

2) For instance, Sommerstein (1977: 16), making a brief introduction of the origin of the phoneme, says that "Baudouin de Courtenay is generally regarded as the greatest figure in the prehistory of phonology" where "phonemics was not very clearly distinguished from phonetics and tended to be regarded as a branch of psychology rather than of linguistics: the name psychophonetics given to the field by Baudouin de Courtenay."

and is nearer to the notions of rules rather than the relations of linguistic elements."

In this paper I'd like to indicate Baudouin's significance in phonological work and discuss his linguistic views on general linguistics and his major achievements focusing on the following questions: (1) the distinction between statics and dynamics; (2) the conception of the phoneme; (3) the observation on sound processes. Before entering these questions let me briefly introduce the life and academic career of Baudouin in the next section.

2. Baudouin's Life and Academic Career

Baudouin was born on March 1, 1845 near Warsaw where he attended high school and received a master's degree in 1866. During his stay from 1867 to 1868 in Jena, Baudouin studied linguistics under the guidance of August Schleicher (1821-1868) who claimed that "languages were natural organism with *lives* of their own, comprising a period of evolutionary progress followed by a period of decay." (Bynon 1977: 24). However, Baudouin regarded language not as an organism but as a function of the human organism which exists and develops in a social society, refusing the Schleicherian view of linguistics as a natural science. Baudouin received a master's degree again in St. Petersburg and got a doctorate in Leipzig in 1870 under the supervision of Schleicher. He also wrote his doctoral dissertation in Russia under the supervision of Izmail Srez Merskii in 1874. In 1875 he moved to Kazan where he became an assistant professor and later, a full professor of comparative Indo-European linguistics and Sanskrit. The nine years' stay (1875-1883) in Kazan marked the most active and exciting scholarly career in Baudouin's life.

In this period a group of his disciples such as Kruszewski and other followers formed a *Kazan* school. Through the lectures programmed during this period we can understand the range of problems which Baudouin dealt with and tried to analyse. His principal aim in teaching was to apply a strict scientific method in linguistic analysis and to look for the static laws and forces which govern the synchronic nature of linguistic systems.

Even after moving to Dorpat in 1883 and to Cracow in 1893 Baudouin

continued his study and teaching of general linguistics, returning again to St. Petersburg to teach at St. Petersburg University from 1910 to 1918. Here again Baudouin raised a new generation of prominent disciples such as L. V. Ščerba, who is the founder of the Leningrad school.

Because of his commitment to social and political causes, i.e. his attack on the Czarist political suppression of the national minorities and injustice, Baudouin suffered a two-year prison sentence (two months' imprisonment) in 1913 together with the suspension of his teaching. The outbreak of World War I offered Baudouin an opportunity to resume his teaching at St. Petersuburg for a brief period at the age of 73. In later years he served as a chair of Indo-European linguistics at the University of Warsaw until he died in November 3, 1929.

3. The Distinction between Statics and Dynamics

Baudouin, being opposed to the Neogrammarian's tenet that historical processes are the only valuable linguistic phenomena, pointed out the complementary aspects of statics and dynamics. According to Stankiewicz's (1972b) account of Baudouin's life and work, Baudouin took the priority of living languages over the extinct ones in describing and analysing linguistic phenomena. That is, Baudouin put more emphasis on the current system rather than historical change. However, we can recognize the complementary aspects of statics and dynamics in Stankiewicz's quoted expression from Baudouin (Stankiewicz 1972b: 17): "in spite of all the fluctuations and variations, we must note the presence of *conservatism* and that the concept of *statics* is applicable not only to synchrony but also to diachrony. The laws of development in time should therefore be viewed as the laws of dynamic stability."

In his program lectures (1875-76) Baudouin examined the acoustic-physiological, the psychological and the historical-etymological aspects of language in connection with the statics and dynamics of sounds. He pointed out that the analysis of sounds can be made purely on the basis of anatomical-physiological and acoustic conditions, i.e. apart from the role of sounds in the mechanism of the language.

Even though Baudouin indicated the disparity between the physical existence of sounds and their function, he also indicated the static-dynamic relations of sounds. For instance, he wrote that in every day life people cannot avoid sound changes such as assimilation and compensatory lengthening which are attributed to habit or the tendency toward economy.

Baudouin also pointed out that the significance of the psychological role of sounds which results from the physiological conditions and historical sound changes. This kind of sound values in the totality of a language were studied on the basis of the connection between sound and meaning, i.e. the influence of each other.

Baudouin further noted the dynamics of sounds which characterize the historical-etymological aspect of sounds. Roman Jakobson (1971a: 398) stated, in connection with Baudouin's distinction between statics and dynamics, that Baudouin's dichotomy revived and corresponds to Saussure's synchrony and diachrony, but Baudouin's distinction is more basic because "the stability of sounds means static or dynamic but Saussure mixes up the opposition synchrony and diachrony."

4. The Conception of the Phoneme

As the basic units of language Baudouin introduced three terms in a hierarchical order: syntagms as component elements of the sentence, morphemes as component elements of the syntagm, and phonemes, of the morpheme (Stankiewicz 1972a: 267). For Baudouin, the phoneme[3] is a complex of articulatory-acoustic properties which is very similar to Jakobson's definition of the phoneme as a bundle of distinctive feature[4] or a family of sounds defined

3) It is helpful to understand the notion of phoneme and its earliest history to cite a passage or two from Sommerstein's (1977: 16) book, *Modern phonology* in which he states that "the notion of phonemic contrast was known to the Indian grammar Patanjali in the second century B.C." He also mentions that the term *phoneme* was first used in approximately its present sense by M. Kruszewski in 1880, as was also well addressed in Korner's (1978) paper.

4) This conception of the phoneme as a bundle of distinctive features was further developed by R. Jacobson and M. Halle (1956) in their theory of binary oppositions.

by the physicalist such as Daniel Jones.[5] For Baudouin, however, the ultimate conception of the phoneme is not physical but psychological, as we understand in the following passage.

> The phonemes consist of ultimate psychological (articulatory and auditory) elements which cannot be composed into smaller elements.[6] From the point of view of linguistic production or pronunciation, these ultimate elements are kinemes, whereas from the point of audition or perception, they are acousmemes. I consider these terms indisputable for the greater precision of the abstract concepts of our science (Stankiewicz 1972a: 267).

Baudouin also emphasized that phonemes are morphologized and semasiolozed. Noting that the importance of the facultativeness in the manifestation and duration of the articulatory elements, Baudouin stated the following (Stankiewicz 1972a: 266): "the phonemes which are weakly morphologized and semasiologized tend to disappear in the course of transmission from one individual to another. The strongly morphologized and semasiologized phoneme has a greater social value and remain stable for a long time."

---

5) See J. Vachek (1966: 47) for D. Jones' position of the phoneme as a family of sounds: "As is well known, D. Jones also came remarkably close to the phoneme idea. His standpoint, however, was not that of a linguistic analysis but rather that of a practical transcriptionist whose professed aim was to obtain a most economical way of transcribing the language in using a minimum number of phonetic symbols. Jones believed he could achieve this by "classing" the sounds of a language into phonemes, ... In his conception the phoneme is a family of sounds related to character and mutually exclusive as to their respective positions in language contexts. Moreover, Jones intentionally excludes from his definition of the phoneme any reference to its distinctive functioning in language."

6) It was usually recognized that the phoneme was considered as the basic unit of contrast in phonological analysis shortly before the year 1900 as well as in the American Structuralist period from the 1930s to the 1950s. Thus the phoneme was defined as the smallest unit that cannot be divided into smaller and simpler units. However, in the 1960s the phoneme was further developed giving concrete evidence that the ultimate unit of contrasts can be divided further into properties of sounds rather than segments which are characterized by the combination of all properties of sounds. As is well known, the phoneme as the contrastive units is composed of smaller elements, which are now called *distinctive features*.

In order to understand how Baudouin developed his phoneme theory, let me introduce more terminologies related to the classification of the phonemes. In his explanation of the alternations of Russian morphemes Baudouin distinguishes divergence from correlation. Divergence of a phoneme has a purely anthropophonic phonetic nature (e.g. articulatory-auditory) which has no etymological relation. On the other hand, a correlation is determined by the etymologically (psycho-historically) related morpheme; for instance, the phoneme /k/ splits into [k], [č] and [c] as shown in the following morphemes *wilk-*, *wilč-* and *wilc-* (*wilk*, *wilczysko*, *wilcy*). This kind of alternation is called a phonetic-etymological divergence or neophonetic alternation by Baudouin. In modern terms divergence is the purely phonetically conditioned alternation, so divergents are phonetically conditioned allophones; correlation is the morphologically conditioned alternation, so correlatives can be called members of a morphophoneme.

The phoneme, according to Baudouin, is a common property encompassing the two distinctions, i.e. a kind of morphophoneme which is posited as a common denominator of the phonetically and morphologically conditioned alternations in American structural linguistics. Baudouin's view of the phoneme as a complex of articulatory and acoustic properties is very similar to the recent view of the phoneme as a component or bundle of features. For Baudouin, however, the phoneme itself is the psychological equivalents of sound complex or *sound images*. His definition of the phoneme can also be interpreted as "sound of the same intention but different realization." (Stankiewicz 1972a: 171)[7]

Baudouin also pointed out that psychologically important sounds are used in differentiating meaning (e.g. in *tam/dam*).[8] Baudouin's definition of the phoneme as a psychological entity was further advanced by his pupils such as Ščerba or, Daniel Jones even though his exposition is based on the physical concept. Baudouin's psychological definition of the phoneme, however, was

7) In his 1925 paper E. Sapir also claimed psychological reality of the phoneme, as is shown in the following passage: "Each member of this system is not only characterized by a distinctive and slightly variable articulation and a corresponding acoustic image, but also - and this is crucial - by a psychological aloofness from all other members of the system."

8) This is so-called a minimal word pair which is employed as the most common technique of identifying the phoneme and the phonemic contrasts of a language system in the classical phonemic analysis.

criticized by structural phonologists such as Twaddell (1935: 57) and Trubetskoy for the reason that psychology or mind is not observable and not a linguistic concept. Within the tradition of American structuralism derived largely from behaviorism and empiricism of the 1930s, the definition of phoneme in terms of its psychological reality was at first hand rejected because of their scientific or philosophical approaches: all scientific statements should be tested by observation. So, American structuralists posit very mechanical view of language behavior and therefore their analysis is limited to the observable data, The following passages from Twaddell (1935: 57) illustrates the opposing conception of the phoneme from that in terms of psychological or mental reality: "(1) we have no right to guess about the linguistic workings of an inaccessible *mind*, and (2) we can secure no advantage from such guesses. The linguistic processes of the *mind* as such are simply unobservable; and introspection about linguistic processes is notoriously a fire in the wooden stove." Also To Trubetzkoy and R. Jakobson who represent Prague School phonology the phoneme was a functional, not a psychological entity. This notion is well addressed in S. Anderson (1985: 94) as shown in the following: "In his earliest writings on phonological topics, Trubetzkoy had in fact made use of the phoneme that rested on a psychological foundation, partly under the influence of Baudouin de Courtenay's ideas on the subject... By the time of *Grundzöge*, however, he had come to reject such a notion..., but also in part (perhaps, indeed, primarily) because the psychological definition appeared to give no basis for the analytic isolation of the strictly *distinctive* properties of the sound image."

5. The Observations on Sound Processes

In his short article *Facultative sounds of language* Baudouin dealt with the variation or fluctuation of sounds. On the basis of Rezian and Ucc dialects in northern Italy Baudouin tried to set up laws of logic which is very similar to the theory of natural phonology initiated by David Stampe (1973).[9] Observing that

9) Natural phonology assumes that rules and processes apply simultaneously, not sequentially. The focus of the theory is: 1) when we listen to our speech, what we perceive is not what we actually say, but precisely what we intend to say; 2) the principle of phonological

in *pŏt* 'way' the phoneme /t/ was usually retained whereas in *pet* 'free' /t/ was less often heard, Baudouin stated as follows: "what we are dealing here is obviously not only the different perception of words ending in -t, but of all words with a final consonant." (Stankiewicz 1972a: 291). Baudouin's explanation for the different realization of the same phoneme /t/ in the above words is that in the former case /t/ plays an important morphological role as shown in the following inflection: *pŏta, pŏtu, pŏtan,* etc., but in the latter it plays no special morphological role. The other difference between the two cases is related to stylistic or social variation, i.e. the loss of /t/ is frequent in informal speech and the retention of it is common in formal or solemn address.

Baudouin solved this problem in terms of the psychological and social values. In other words, psychological processes, but not strict phonetic or phonetic-acoustic phenomena are concerned in actual linguistic thought. His problems and ideas related to this point of view are more detailed in the following phrase:

> In linguistic thought there are no sounds; there are only representations (concepts) of sounds. But in linguistic intercourse (i.e. in collective linguistic behavior), there are not only linguistic concepts in the individual soul or brain, but the speaker also informs the hearer, by physical means, that he mobilized at a given moment some of his linguistic concepts, while the hearer receives the impressions and sensations thereby formed. Not everything that is either consciously or semi-consciously dormant in linguistic thought manifests itself every time (Stankiewicz 1972a: 292).

Furthermore, Baudouin explains what factors are operative in the pronunciation and loss of the final consonants in words cited above. Let me list some factors presented by Boudouin which are relevant to stability and nonstability of the pronunciation in general.

First, the weakening for word-final consonants is a general psychological

---

perception must be naturalness: if a given utterance is naturally pronounceable as the result of a certain intention, then that intention is a natural perception of the utterance (a possible phonological representation).

tendency. Second, various degrees of morphologization, semasiologization and psychological stress are involved. Third, the intrusion of time and style of speech is involved. Fourth, the weakening of final consonants is a part of the general tendency toward abbreviation, simplification, and relaxation of effort which is present in individual and collective linguistic behavior. Fifth, in relation to writing, there is an individual's difference of pronunciation between in writing and speaking. Writing is conservative on speech habits. Six, the phoneme loses the energy necessary for its existence, and there occurs a historical transition of a certain positive quality into a historical-phonetic zero.

Concerning these factors and forces governing the structure of linguistic elements, Baudouin further argues that the general laws and forces in the development of language are neither living beings nor even facts, but products of man's psychological or social activity. The factors determining the language structure and development are such as habit (unconscious memory), a tendency toward convenience, the feeling of the languages of a given speech community, etc.

In conclusion, Baudouin never separated two elements, a physical and a psychological one; they are linked. In other words, the forces and laws are based on processes which are concerned to both conceptions, physiology and psychology. In his remarks on linguistics and language Baudouin made the following statement: "the same physiological and psychological categories make up a rigidly defined subject which is investigated by the historically developed science of linguistics." (Stankiewicz 1972a: 60).

6. Baudouin's Views on Grammar and Phonemes

In his program lecture (1980) which was read at St. Petersburg University Baudouin divided grammar into three basic constituents: Phonology (phonetics) which studies sounds, morphology (word-formation) and syntax. The subject of phonetics was subdivided into the psychological and functional aspect (viewed from the viewpoint of morphology), the physiological (articulatory and acoustic) aspect and the historical-genetic aspects. As shown in the above classification Baudouin did not distinguish phonetics from phonology, but emphasized the

unity of these aspects of linguistic analysis (cf. Koerner 1972a: 67).

With regard to the psychological point of view on language Koerner (1972a) quoted Häusler as having shown that the psychological point of view plays an important role even in Baudouin's early writings. Unlike Saussure, Baudouin viewed language as both a psychological entity and a social value; Saussure basically maintained that there is no direct relation between the internal structure of language and the external conditions on language even though he mentioned the relation between language and society.

Concerning the development of phoneme theory many scholars are of the opinion that Baudouin is not the creator of the phoneme concept (Firth 1934 quoted from Koerner 1972b) as we understand from the following statement of Baudouin: "Der Vorschlag, den Namen phonem, im Unterschiede von Laut, zu gebrauchen, rührt von Kruszewski her" [The suggestion to use the phoneme in distinguishing from sounds comes from Kruszewski.] (quoted from Koerner 1978: 116; English translation is by the present writer), and Kruszewski took this term from Saussure who, however, uses it in a different sense (Koerner 1972a).

In any event, the concept of the phoneme which was originally understood as the common prototype of *homogenes* in different related languages was shifted to a phonetically indivisible linguistic unit which underlies a synchronic alternation. However, this concept of phoneme was further defined as being characterized as the psychic equivalent of a sound - "images joined in one whole by the image of simultaneously performing the actions and perceiving the impressions of the acoustic shades" (Roman Jakobson 1971a: 419). In this way, the originally genetic concept of the phoneme was shifted to a concept of psychic image (the intention of the speaker, or the impression of the hearer, or both) which is opposed to a sound as a physical realization.

7. Concluding Remarks and Reflections

In the development of linguistic science three paradigms have been proposed: the Schleicherian paradigm, Saussurean paradigm and the Chomskyan paradigm. In Schleicherian paradigm language development was explained in terms of growth, evolution, decay, etc., claiming that language is an organism

and linguistics is a natural science. However, Baudouin de Courtenay who was a student of Schleicher considered linguistics as a natural science and humanistic science at the same time, rejecting Scheleicher's claim. In line with Baudouin Saussure emphasized the social nature of language and tried to support his language and parole distinction by referring to the social and individual dichotomy, ultimately replacing the Schleicherian paradigm. Baudouin and Saussure laid the foundation for the synchronic approach to language, contributing to descriptive linguistics which applies a structuralist model (1932-1950s) as an account for language change.

In this paper I discussed the basic principles and views on linguistics that Baudouin conceived in the pre-structural linguistic period, and indicated his major achievements. As Stankiewicz (1972b) indicated in Introduction, his formulation of ideas are considerably elaborate and explicit. His purpose in the study of language was to seek the general laws and forces conditioning both the historical and synchronic variations of language, as K. Percival (1979: 1) demonstrates that "without a foundation in historical theory Baudouin would have never arrived at a theory of the phoneme." It is also noteworthy that Baudouin's static and dynamic distinction in language development is more basic than Saussure's synchony-diachrony distinction. However, he maintaimed the complementary aspects of statics and dynamics in analysing linguistic phenomena.

With respect to his phoneme theory the genetic concept of the phoneme was changed to a concept of psychic image which is opposed to a sound as a physical realization. In developing the phoneme theory Baudouin introduced various classificatory terms in order to account for phonetic change, i.e. alternations of sound change such as divergence/divergents and correlation/correlatives. Baudouin's view of the phoneme as the common denominator (a kind of morphophoneme) corresponding to a set of divergent sounds is also very similar to the recent view of the phoneme as a component or bundle of features.

Finally, I'd like to show Baudouin's new recognition as a linguistic theorist by quoting Roman Jacobson's phrase below:

The key concept of the regularity of the sound features utilized by a

given language, their dependence on the structure of the whole phonological pattern of the language, and the cognate problem of phonological oppositions - all these ideas were grasped and, in fact, drafted by Baudouin de Courtenay in his young years; ... That is why, together with Baudouin's and Kruszewski's foresights, Saussure's version of these thoughts essentially stimulated the far-reaching inquiry into general and special phonology that began in world linguistics of the 1920's and has continued to develop rapidly. It is instructive that at the present stage of the discipline, in the East and West, there is once again discussion - naturally on a new level - of two topics that most keenly concerned both Polish precursors of phonology, two themes that are interrelated - namely, the question of invariants in the diachronic plane and, on the other hand, in the analysis of alternations. ... The present day linguist finds ever new stimuli in the trailblazing work of Baudouin and Kruszewski's and their legacy should be collected and published anew and made available to the reader of today (R. Jacobson 1971a: 427)

References

Anderson, S. R. (1985). *Phonology in the twentieth century.* Chicago: The University of Chicago Press.

Apresjan, J. D. (1973). *Principles and methods of contemporary structural linguistics.* The Hague: Mouton.

Bynon, T. (1977). *Historical linguistics.* Cambridge University Press.

Donegan, P. J., & Stampe, D. (1973). The study of natural phonology. In D. A. Dinnsen (Ed.), *Current approaches to phonological theory* (pp. 127-173). Bloomington: Indiana University.

Fisher-Jørgensen. (1975). *Trends in phonological theory.* Copenhagen: Academic Forlac.

Jakobson, R. (1971a). The Kazan' school of polish linguistics and its place in the international development of phonology. In R. Jakobson (1971b), *Selected*

writings II of Roman Jakobson (pp. 394- 428). The Hague: Mouton.

_____. (1971b). *Selected writings II of Roman Jakobson.* The Hague: Mouton.

Joos, M. (Ed.). (1966). *Readings in linguistics I.* Chicago: Chicago University Press.

Koerner, E. K. (1972a). Review of Häusler 1986. Das problem phonetik und phonologic bei Baudouin Courtenay and seiner Nachfolge. *Linguistics 77.* 63-77.

_____. (1972b). Review of Baudouin de Courtenay 1972. *Language Sciences 27.* 445-50.

_____. (1978). Jan Baudouin de Courtenay: His place in the history of linguistic science. In E. K. Koerner (Ed), *Toward a histography of linguistics: Selected essays* (pp. 107-126). Amsterdam: John Benjamins.

Makkai, B. (Ed.). (1972). *Phonological theory.* Holt, Reinhart and Winston, Inc.

Percival, W. K. (1979). *Baudouin's approach to sound change.* Unpublished paper prepared for the international conference to commemorate the 50th anniversary of the death of Jan Baudouin de Courtenay, held in Warsaw.

Sapir, E. (1925). Sound patterns in language. *Language, 1,* 37-57.

_____. (1972). The psychological reality of phonemes. In B. Makkai (Ed.), *Phonological theory* (pp.22-31). Holt, Reinhart and Winston, Inc.

Sommerstein, A. (1977). *Modern phonology.* Baltimore, Maryland: University Park Press.

Stankiewicz, E. (Ed. & Trans.) (1972a). A *Baudouin de Courtenay anthology: The beginnings of structural linguistics.* Bloomington: Indiana University Press.

_____. (1972b). Baudouin de Courtenay: His life and work. In E. Stankiewicz (Ed. & Trans), A *Baudouin de Courtenay Anthology: The beginnings of structural linguistics(pp. 3-48).* Bloomington: Indiana University Press.

Trubetzkoy, N. (1939). *Grundzüge der phonologie. Travaux circle linguistique de Prague 7.*

Twaddell, W. (1935). On defining the phoneme. In M. Joos (Ed.), *Readings in Linguistics I* (pp. 55-80). Chicago: Chicago University Press.

Vacheck, J. (1966). *The linguistic school of Prague: An introduction to its theory and practice.* Bloomington: Indiana University Press.

Soo-Jae Lee
Kunsan College of Nursing
413 Gaejong-Dong, Kunsan-Si, Jeonbug-Do
Phone: +82-63-450-3828
Email: lee2491@kcn.ac.kr

Received on 7 November, 2011
Revised version received on 30 November, 2011
Accepted on 30 November, 2011

Appendix: Individual scholars' views on phonetics/phonology

	Herman Paul (1846-1921)	Baudouin de Courtenay(1845-1929)	De Saussure (1857-1913)
(1) Role of phonetics	Physiology (articulatory phonetics) is the main objet of study. It is separated and independent from acoustics which belongs to physics.	The first to distinguish between sounds and phonemes, which were regarded by his contemporaries as one same thing (but no clear distinction between the two).	Each language operates on a fixed number of well-differentiated phonemes. Psycho-logical phonetics
(2) Role of system (pattern/ structure)	Individual peculiarities are not prominent. Language was studied on the basis of the common properties of the human nature.	The notion of system was not emphasized, but he had more precise ideas on the difference between sounds and phonemes.	System
(3) Role of historical phonology	Basically historical, but quasi-historical in general. Language is an object of historical investigation.	He made a distinction between the dynamic and the static in language, and proposed that linguistics be equally concerned with both.	
(4) Feelings of speaker's psycho-logical reality	Language was regarded not as a physical organism but as a form of human behavior,	Maintained there were no sounds in language, only phonemes, or 'sound image', i.e. psychological rather than physical entities.	Psycho -logical. Phonology of *la langue*
(5) Features (components) vs segments	Segments	segments; A phoneme as 'the image of a simultaneous and intricate complex of articulatory movements'	A phoneme is the sum of the auditory impressions and articulatory movements.

	Bloomfield (1914)	Bloomfield (1939)	Edward Sapir (1884-1939)
(1) Role of phonetics	No sharp distinction between phonetics and phonology. The term *phoneme* does not occur in Bloomfield 1914.	Practical phonetics had little scientific value.	Phonemics is primary and phonetics is peripheral because sounds and their phonetic processes belong to a grosser physiological substratum
(2) Role of system (pattern/ structure)	This was pointed out in Sapir 7 years later. Considered language as structures; Linguistic structure = phonetic structure.	Considered language as structures but used pattern and system more. Pattern: phonetic pattern; Syntagmatic and formal notion of phonemic and phonemic structure	Language is structure but pattern and system more. The ideal system is distinguished from a physical system. Mentalistic and paradigmatic conception of sound pattern
(3) Role of historical phonology	Comparative -historical work is a central value. Bloomfield's early views resemble Paul's to a large degree.	Autonomy of linguistic structure;	The view of language as a 'historical product' was never lost. Comparative -historical work retains a central place
(4) Feelings of speaker's psycho-logical reality		Physico-mentalism; Avoidance of dependence on psychology and statement of the facts of language in terms of mind (Anti-mentalism); Behaviorism	Language is primarily psychological rather than a physical entity (mentalistic phonology)
(5) Features (components) vs segments	Acoustic features; Phonemes, not their components, but bundles of distinctive features	Phonemes, not the components; A cluster of the distinctive properties of a segment; Acoustic features	Segments (Sounds)

	Morris Swadish	Yuen R. Chao	F. Twaddell
(1) Role of phonetics	Phonetics is a tool for phonological analysis. Phonetics provides the technique of discovering and defining the phonemes and is valuable	A minimum degree of phonetic accuracy (phonetic similarity) and simplicity or symmetry of phonetic pattern are listed as motives for grouping sounds into phonemes.	Phonetic analysis is a basis for the determination of phonemes. Phonetics and phonology are related to each other.
(2) Role of system (pattern/ structure)	Principles of word structure; The formulation of phonemic analysis reflected the general pattern of the given language (totality of the system)	Symmetry of phonetic pattern is an influential factor for the organization of phonemes	Importance of paradigmatic opposition contrary to Bloomfieldians
(3) Role of historical phonology	Historical phonology was not relevant in phonemic analysis. Historical etymology is a necessary aid only when the data of the non-contemporary language is recorded.	Etymology is not properly in the scope of his paper; etymology is only partially given due consideration in grouping sounds into phonemes.	No discussion of etymology
(4) Feelings of speaker's psycho-logical reality	Phonemes are perceptive units to the native speakers.	The feeling of the native speaker must be taken into account, even though it is not a deciding factor.	No advantage can be secured from the guesses about the infathomable workings of the mind.
(5) Features (components) vs segments	A phoneme is a sound type which is defined in terms of norm and of deviation from the norm	Considers the consideration of a phoneme as making up of a number of features.	Combination of sound features

	Bernard Bloch	Zellig S. Harris
(1) Role of phonetics	The role of phonetics is very important because the articulation of the sounds is a direct relation to the determination of the phonemes. The definition of phoneme as a class of phonetically similar sounds in implicitly acknowledged.	Phonetic foundations of phonemics. Phonetic differences of a segment determine its components. Simultaneous components of a segment constitute allophones of the given segment, which in turn, is the make-up of a phoneme.
(2) Role of system (pattern/ structure)	Mentions that the sacrificing of the symmetry gives an account of all the facts of pronunciation	Important in phonemic analysis. Component systems replace the whole phonemic systems; sentence pattern rather than IC (Item and Process)
(3) Role of historical phonology		No role of etymology. Analyses into components may shed light into some historical changes.
(4) Feelings of speaker's psycho-logical reality		No. "The new component elements indicate explicit physical events" like the traditional phonemes do.
(5) Features (components) vs segments	Sounds are defined as a recurrent particular combination of sound features	A component does not represent a unique phonetic features. Each segment consists of simultaneous component of features. Syntactic transformations in later work

	Charles Hockett	Kenneth L. Pike
(1) Role of phonetics	"Hugging the phonetic ground"; Foundations of phonemics; Prefers phonetic realism to rigidly logical definitions	A phoneme could be defined only in terms of grammatical borders, i.e. spaces or hyphens. Phonetic analysis must be accompanied by grammatical analysis before it is complete and within the context of structural phonology; Tone
(2) Role of system (pattern/ structure)	The hierarchical structure; The pattern of a language consists of grammatical pattern (morphophonemic pattern + tactical pattern) and phonological pattern. Syllable structure, V and C systems (typology)	The total structure of language includes both grammatical and phonological structures. Not theoretical but practical
(3) Role of historical phonology	Process has nothing to do with historical or process through time, but dynamic rather than static. This is merely a process through the configuration of the structure.	
(4) Feelings of speaker's psycho-logical reality	Mentalism has no role to play for Hockett, but there is a psychological difference between relation and operation.	
(5) Features (components) vs segments	Decomposition into features (similar to Prague phonology); One of the least doctrinaire Bloomfieldians; He accepts a distinctive analysis.	The interpretation of grammatical structures with phonological structures. The former is prerequisite to the latter.