

OPPOSITION IN PHONOLOGY

TSUTOMU AKAMATSU
Leeds
akamatsutotomu@btinternet.com

‘The Prague School’ and ‘the Paris School’, while both being committed to pursuing functional and structural linguistics, nevertheless diverge from each other in their stances on a number of crucial theoretical points. The concept of ‘opposition in phonology’ and its derivative concepts are relevant in this respect. The notion of ‘opposition’, which is basically Saussurean, underpins ‘phonological opposition’. We will pass under review, in reference, chiefly if not exclusively, to ‘the Paris School’, some prominent concepts which derive from ‘phonological opposition’. They include, in addition to those mentioned in key words, relevant feature, phoneme, archiphoneme, toneme, architoneme, commutation test, constant opposition and neutralizable opposition. Binarism is involved in bilateral opposition and multilateral opposition, while the notion of mark is involved in the distinction between correlative opposition and (Jakobsonian) disjunct opposition.

Key words: phonological opposition, exclusive opposition, non-exclusive opposition, neutralization, archiphoneme.

La “Escuela de Praga” y la “Escuela de París”, aun compartiendo el cometido de indagar en lingüística funcional y estructural, divergen, no obstante, una de otra en sus posturas sobre una serie de puntos teóricos cruciales. El concepto de “oposición en fonología” y sus conceptos derivados son de importancia a este respecto. La noción de “oposición”, que es básicamente saussureana, fundamenta la de “oposición fonológica”. Pasaremos revista, con referencia, principal si no exclusivamente, a la “Escuela de París”, a algunos conceptos sobresalientes que derivan del de “oposición fonológica”. Estos incluyen, además de los mencionados en las palabras clave, el rasgo relevante, el fonema, el archifonema, el tonema, el architonema, la prueba de la conmutación, la oposición constante y la oposición neutralizable. El binarismo está involucrado en la oposición bilateral y en la oposición multilateral, mientras que la noción de marca lo está en la distinción entre oposición correlativa y la oposición disjunta (jakobsoniana).

Palabras clave: oposición fonológica, oposición exclusiva, oposición no exclusiva, neutralización, archifonema.

1. ‘The Prague School’ and ‘the Paris School’

For the purpose of the present survey on ‘opposition in phonology’ we need to take account of two schools of linguistics’, viz. ‘the Prague School’

and ‘the Paris School’¹. ‘The Paris School’, which is essentially associated with André Martinet’s teaching, can alternatively be referred to as ‘the Functionalist School’. The relationship between ‘the Prague School’ and ‘the Paris School’ is not so straightforward as sometimes alleged. The fact that both Schools are unmistakably committed to pursuing ‘functional and structural linguistics’ links them together, and ‘the Paris School’ undoubtedly inherited, if not uncritically, a number of fruitful theories developed by the ‘Prague School’. However, it would be a mistake to disregard definite divergences in their theoretical stances on crucial issues. Such divergences exist in phonological theories, among others, as we shall see in this chapter. Above all, it is a mistake to see ‘the Paris School’ simply as a continuation of the Prague School².

2. Opposition in phonology³

2.1. Paradigmatic relation and syntagmatic relation. Opposition and contrast

Functionalists do not confuse ‘opposition’ and ‘contrast’, both conceptually and terminologically, any more than they confuse paradigmatic relation and syntagmatic relation.⁴ That no such confusion occurs is one of the salient characteristics of functionalists as opposed to non-functionalists. Linguistic units in paradigmatic relation are opposed to,

¹ My ill-chosen expression ‘the neo-Prague School’ used in Akamatsu (1988: 1, 323, n. 20) to refer to what I call ‘the Paris School’ or ‘the Functionalist School’ as here has since been quickly and definitively abandoned.

² The worst misrepresentation of Martinet by a non-functionalist known to me so far is found in Sampson (1980: 114) who writes as follows: ‘Martinet ... was heavily influenced by Prague thinking from an early stage in his career, and nowadays it seems fair to describe him as the chief contemporary proponent of mainstream Prague ideas.’

³ With regard to Martinet’s contribution to concepts deriving from ‘phonological opposition’, such as ‘commutation test’, ‘relevant feature’, ‘phoneme’, ‘neutralization’ and ‘archiphoneme’, see Akamatsu (2009: esp. 61-68).

⁴ It is the general practice among non-functionalists to employ only the term ‘contrast’ (n./v.) to correspond to both ‘opposition’/‘is/are opposed to’ and ‘contrast’/‘contrast(s) with’ in the practice of functionalists. A term like ‘paradigmatic contrast’ is not infrequently encountered in works by a number of non-functionalists (cf. Sampson (1980: 54)) who nevertheless fully accept the difference between paradigmatic relation and syntagmatic relation.

in opposition with, each other, while those in syntagmatic relation contrast, or are in contrast, with each other.

In this chapter I limit myself to discussing ‘opposition’ in phonology. Due to a lack of space I regretfully leave out discussions on ‘contrast’.

2.2. Definitions of contrast and opposition by A. Martinet

A clear statement about the difference between the concepts and terms of ‘paradigmatic relation’ and ‘syntagmatic relation’ on the one hand and between those of ‘opposition’ and ‘contrast’ on the other hand is found as follows:

On aperçoit que les unités linguistiques, qu’elles soient signes ou phonèmes, sont entre elles dans deux types distincts de rapports: on a, d’une part, les rapports dans l’énoncé qui sont dits *syntagmatiques* et sont directement observables ; ce sont, par exemple, les rapports de /bòn/ avec ses voisins /ün/ et /bier/ et ceux de /n/ avec le /ò/ qui le précède dans /bòn/ et le /ü/ qu’il suit dans /ün/. On a intérêt à réserver, pour désigner ces rapports, le terme de *contrastés*. On a, d’autre part, les rapports que l’on conçoit entre des unités qui peuvent figurer dans un même contexte et qui, au moins dans ce contexte, s’excluent mutuellement ; ces rapports sont dits *paradigmatiques* et on les désigne comme des *oppositions* ... il y a opposition entre /n/, /t/, /s/, /l/ qui peuvent figurer à la finale après /bò-/ (Martinet: 1960, I-20).

2.3. Phonological oppositions for functionalists

2.3.1. Phonological opposition, relevant feature, phoneme, archiphoneme, toneme and architoneme

Saussure’s famous dictum that runs

... dans la langue il n’y a que des différences ... une différence suppose en général des termes positifs entre lesquels elle s’établit ... (Saussure, 1916¹: 172; 1974: 166).

leads directly to the concept of ‘opposition’, and hence to that of ‘phonological opposition’ which we are concerned with in this chapter.

The importance that Trubetzkoy attaches to phonological oppositions is evident when he says:

Man darf ja nie vergessen, daß in der Phonologie die Hauptrolle nicht den Phonemen, sondern den distinktiven Oppositionen zukommt (Trubetzkoy, 1939: 60).

The major importance that functionalists attach to the notion of ‘opposition’, and hence to the notion of ‘phonological opposition’, is extremely significant. It is indeed the notion of ‘phonological opposition’ that justifies functionalists conceiving of and operating with the relevant feature, and the distinctive units such as the phoneme, the archiphoneme, the toneme, and the architoneme. The various distinctive units mentioned above are terms of phonological oppositions, be they phonematic oppositions or tonematic oppositions. It is also the notion of ‘phonological opposition’ that underpins the analytical procedure known as ‘commutation test’ that functionalists perform in order to identify the distinctive units of a given language, though this is not the only purpose for which the commutation test is performed.

It is agreed among functionalists that the phoneme, the archiphoneme, the toneme and the architoneme are defined each by a sum of relevant features or, as the case may be, by a single relevant feature. For example, in English, /p/ (the phoneme) is definable as “voiceless labial plosive”, /m-n/ (the archiphoneme) as “non-dorsal nasal”⁵, and /m-n-ŋ/ (the archiphoneme) as “nasal”⁶. In Mandarin Chinese, the so-called four tonemes are definable as /1/, /2/, /3/ and /4/, and one of the architonemes as /2-3/⁷.

Phonological oppositions are formed between phonemes, between archiphonemes, between phonemes and archiphonemes (e.g. /l/ vs. /p-b/⁸ as in /slot/ *slot* vs. /s p-b ɒ t/ *spot*), or in Mandarin Chinese, between tonemes (e.g. /1/ in *ba*¹ ‘eight’ vs. /2/ in *ba*² ‘(to) uproot’ vs. /3/ in *ba*³ ‘(to) hold’ vs. /4/ in *ba*⁴ ‘(to) stop’), or between architonemes and tonemes (e.g. /2-3/ vs.

⁵ The archiphoneme /m-n/ is associated with the neutralization of the opposition /m/ vs. /n/ before /f/ or /v/.

⁶ The archiphoneme /m-n-ŋ/ is associated with the neutralization of the opposition /m/ vs. /n/ vs. /ŋ/ before e.g. /t/.

⁷ The architoneme /2-3/ is associated with the neutralization of the opposition /2/ vs. /3/, this neutralization occurring before /3/. For an analysis of neutralization of oppositions between tonemes in Mandarin Chinese, see Akamatsu (1992c: 41-57).

⁸ /p-b/ which is definable as “labial plosive” is the archiphoneme associated with the neutralization of /p/ vs. /b/ in English.

/1/ vs. /4/) or between archiphonemes (e.g. /s-z/⁹ vs. /t-d/¹⁰ as in /mu: s-z/ *Mus* vs. /mu: t-d/ *Mut*) in German. It is easy to understand that phonemes and archiphonemes can be opposed to each other as they are both minimum distinctive units of the second articulation. For the same reason archiphonemes can be opposed to each other. As for tonemes and architonemes, they too are distinctive units and can be in opposition to each other even though they elude the framework of the second articulation.

2.3.2. Relevant feature defined. Internal structure of relevant feature

The concept of ‘relevant feature’ in phonology characterizes the works done by ‘the Paris School’.

As Martinet says, it is the relevant feature, not the phoneme, that is the basic unit in phonology (Martinet, 1947: 46 = Martinet, 1965: 69). One can justifiably further say that the relevant feature is the basic unit not only for the phoneme but for the archiphoneme, the toneme and the architoneme as well, for all these distinctive units are identifiable and definable in terms of relevant features.

The *earliest formal* definition of the relevant feature is probably the one that runs as follows (Martinet, 1945: 2.1.)¹¹:

On nomme trait pertinent tout trait phonique susceptible de différencier à lui seul le sens intellectuel d’un mot ou d’un énoncé ...

It would be reasonable to see a virtual culmination of Martinet’s concept of ‘relevant feature’ in an article which he devotes in its entirety to an exposition on the relevant feature (Martinet, 1957)¹².

The concept of ‘relevant feature’ elaborated by Martinet certainly differs from the distinctive feature characterized by total binarism and originally

⁹ The archiphoneme /s-z/ definable as “hiss” is associated with the neutralization of /s/ vs. /z/ in German.

¹⁰ The archiphoneme /t-d/ definable as “apical non-nasal” is associated with the neutralization of /t/ vs. /d/ in German.

¹¹ It is repeated almost verbatim in Martinet (1956: 3.11.).

¹² This is reprinted with a few revisions in Martinet (1965: 124-140).

attributable to Jakobson¹³ and subsequently developed by others. Besides, as pointed out by Baltaxe (1978: 15-16), though called *distinctive* features, distinctive features subsequently developed by and attributable to Chomsky and Halle have nothing to do with the distinction between phonologically distinctive features and phonologically irrelevant features and consequently simply stand for ‘feature’.

Also, relevant features for Martinet have nothing to do with a universal framework of a fixed number of pre-established sets of distinctive features from which each language is said to choose certain of the distinctive features. For Martinet, relevant features are identified with respect to individual languages.

The concept of the relevant feature is adumbrated in Trubetzkoy’s definition of the phoneme (Trubetzkoy, 1939: 35) in which reference is already made to relevant features, as we see below:

Man darf sagen, daß *das Phonem die Gesamtheit der phonologisch relevanten Eigenschaften eines Lautgebildes ist* [Trubetzkoy’s emphasis is replaced by italics].

‘Phonologisch relevanten Eigenschaften’ correspond of course to ‘relevant features’. Trubetzkoy’s definition of the phoneme as seen above is duly noted by Martinet¹⁴.

Martinet’s definition of the phoneme, which is also in terms of relevant features, runs as follows (Martinet, 1945: 2.3.)¹⁵:

Un *phonème* peut être considéré comme un ensemble de traits pertinents qui se réalisent simultanément [Martinet’s emphasis].

These definitions of the phoneme are espoused by all functionalists to this day.

¹³ Martinet’s criticism of Jakobsonian binarism can be seen in Martinet (1955: 3.14. (Le binarisme) and 3.15. (Critique du binarisme)).

¹⁴ Martinet (1955: 3.6. fn. 8): ‘L’idée que le phonème peut se définir comme un ensemble de caractéristiques phoniques distinctives qui se réalisent simultanément se trouvait en germe dans l’enseignement de Troubetzkoy ...’.

¹⁵ Exactly the same definition of the phoneme is repeated in Martinet (1956: 3.13.).

Trubetzkoy died before he could have developed a theory of relevant features. This fact too is well noted by Martinet (1957: 75 = Martinet, 1965: 127)¹⁶.

It was left to Martinet to develop and elaborate on a theory of relevant features, which can be best seen in an article by Martinet (1957: 72-85)¹⁷.

What is particularly interesting, as it characterizes Martinet's concept of 'relevant feature', is what he writes about what I call the internal structure of relevant features. Martinet writes:

... un trait pertinent est un ensemble/*ensemble* de caractéristiques phoniques distinctives qui ne se trouvent dissociées nulle part dans le système. (Martinet, 1957: 83 = Martinet, 1965: 138)¹⁸.

Martinet's phrase 'dissociées nulle part' should not be misunderstood. It does not mean that the whole lot of the multiple distinctive phonic characteristics are present in all contexts where a given relevant feature occurs. The following passage will furnish an ample clarification:

"Bilabialité" suppose non seulement une occlusion réalisée au moyen des deux lèvres, mais tout un jeu de l'ensemble des organes buccaux et pharyngaux; "sonorité" ... comporte non seulement des vibrations glottales, mais un certain degré de vigueur articulatoire et probablement d'autres caractéristiques qui pourraient être décisives, au moins dans certains contextes. [...] ... "sonorité" n'implique pas nécessairement, dans toutes les réalisations, des vibrations de la glotte. (Martinet, 1957: 83 = Martinet, 1965: 138).

To my mind, this is an excellent illustration of the internal structure of relevant features. There is neither need nor justification to agonize, as apriorists would do, over the choice of 'fortis' vs. 'lenis' or 'voiceless' vs.

¹⁶ 'Trubetzkoy est mort avant d'avoir pu dégager une théorie des traits distinctifs qui était latente dans son œuvre.' The word *dégager* in Martinet (1957: 75) is replaced by *formuler* in Martinet (1965: 127).

¹⁷ Reprinted in Martinet (1965: 124-140).

¹⁸ The word *ensemble* is not in italics in Martinet (1957: 83) but it is in Martinet (1965: 138). This clearly reflects Martinet's further emphasis on the *multiplicity* of distinctive phonic features which constitute a relevant feature, that is, none of these phonic features is to be aprioristically chosen to the exclusion of the other(s) in identifying the relevant feature.

‘voiced’, in connection with “voiceless” vs. “voiced” (cf. /p/ vs. /b/ in English). A relevant feature functions as a global whole, irrespective of any potential presence or absence, in different contexts, of certain of the multiple distinctive phonic characteristics.

2.3.3. Inherent opposability of relevant feature

The inherent opposability of any relevant feature must be duly emphasized¹⁹. A relevant feature is only conceivable as being opposed to one or more relevant features, as the case may be, of the same language²⁰. For example, the relevant feature “voiceless” (as in /p/ in English) is only conceivable as being opposed to the relevant feature “voiced” (in /b/ in English). In the three-way opposition /m/ vs. /n/ vs. /ŋ/ in English, there is the opposition “labial” vs. “apical” vs. “dorsal”. In the six-way opposition /p/ vs. /f/ vs. /t/ vs. /s/ vs. /ʃ/ vs. /k/ in French, there is the opposition “bilabial” vs. “labiodental” vs. “apical” vs. “hiss” vs. “hush” vs. “dorsal”.

It is to be pointed out in this connection that a relevant feature is sometimes presented, erroneously to my mind, as if it were *not* opposed to another or other relevant features. I cite below a few passages from Martinet’s writings:

Deux phonèmes sont dits dans un **rapport exclusif** lorsqu’ils ne se distinguent que *par un seul trait pertinent* [my italics] ... (Martinet, 1945: 2.7. = Martinet, 1956: 3.17.).

... paires de phonèmes dans un rapport exclusif dont chacun des membres se distingue de l’autre par la présence ou l’absence d’un *même trait pertinent* [my emphasis] ... (Martinet, 1945: 2.8. = Martinet, 1956: 3.18.).

... en français, la nasalité qui permet de distinguer *mouche* de *bouche* ou *banc* et *bas* est un trait pertinent (Martinet, 1956: 3.11.).

¹⁹ For my general discussion of this point, see Akamatsu (1988: 3.2).

²⁰ This view of mine is concurred by Martin (1993: 241) who writes: ‘... pour qu’un trait pertinent existe, il faut une opposition, par laquelle celui-ci manifestera sa présence. L’idée d’une opposition prenant la forme du couple absence/présence d’une même qualité distinctive n’a pas de sens.’

Such a view of the relevant feature denies the inherent opposability of any relevant feature to another or other relevant features of the same language. The view of the relevant feature expressed in the passages quoted above has it that a relevant feature is binary with a plus or minus value attached to it so that one reckons with a phonetic feature, say, ‘voice’, with regard to which one of the phonemes is characterized by ‘+voice’ and the other by ‘-voice’. In other words, in respect of /b/ and /p/ in French, ‘voice’ is possessed by one of the two phonemes, i.e. /b/, but is not possessed by the other phoneme, i.e. /p/. It seems to me that ‘voice’ here is a phonic feature²¹ and not the relevant feature “voiced” which is opposed to “voiceless”.

We note as much as does Martinet that /p/ and /b/ (like /t/ and /d/, /f/ and /v/, etc.) in French form a correlative pair, and the mark of correlation is possessed by /b/ (/d/, /v/, etc.) but not by /p/ (/t/, /f/, etc.). Martinet regards this mark of correlation as the relevant feature “voice”²².

However, the decidedly functionalist view – anyway my own view – will have it that, for example, /p/ and /b/ in English are distinguished from each other through the opposition between the relevant feature “voiceless” (in /p/) and the relevant feature “voiced” (in /b/).

It should be noted in this connection that Trubetzkoy aptly says as follows.

Une qualité phonologique n'existe que comme terme d'une opposition phonologique (Trubetzkoy, 1933: 238).

and

²¹ Tcheu (1969: 241) writes: ‘La marque fournit, par sa présence et son absence, deux traits pertinents, mais elle-même n'est qu'un caractère phonique particulier.’ I am in complete agreement with Tcheu here. For example, ‘voice’, a certain phonic quality is a mark of correlation and leads to creating two relevant features “voiced” (attributed to /b/) and “voiceless” (attributed to /p/) in the French example.

²² Martinet (1960: III-15): ‘Le trait pertinent qui distingue les deux séries s'appelle la marque. Ici la marque est la <<sonorité>>’. For a critical discussion of such a view of ‘mark’ and ‘relevant feature’, see e.g. Akamatsu (1976a) *re* Trubetzkoy and Akamatsu (1988: 407-409) *re* Martinet.

Es darf nicht vergessen werden, daß eine distinktive Eigenschaft nur als Glied einer distinktiven Opposition besteht (Trubetzkoy, 1939: 85).

The relevant feature “voiced”, for example, is ‘une qualité phonologique’, which is opposed to the relevant feature “voiceless”, ‘une autre qualité phonologique’. The same applies to, for example, “nasal” vs. “non-nasal”.

The concept of ‘relevant feature’ that is associated with a binary opposition, e.g. [+voice] vs. [-voice], will be problematic in the case of e.g. /m/ vs. /n/ in English. (There are plenty of other examples.) As I see it, /m/ and /n/ are opposed to each other through the opposition between “labial” (in /m/) and “apical” (in /n/). One finds it difficult to identify a phonic quality with regard to which one can speak of its presence and absence, unless one is a generativist, by reducing “labial” vs. “apical” to a binary opposition [-coronal] vs. [+coronal].

Interestingly, Martinet operates with another concept of the relevant feature in connection with, for example, /m/ vs. /n/ vs. /ŋ/ in English. He writes as follows.

... /m/, /n/ et /ŋ/ de l’anglais qui se distinguent l’un des autres *par un seul trait* [my emphasis] (labialité, apicalité, palatalité [sic vélarité] ... (Martinet, 1956: 3.17).

In this example, the concept of the relevant feature perfectly satisfies the inherent opposability of the relevant feature. We note that, unlike /p/ and /b/ in English which are correlative phonemes, /m/, /n/ and /ŋ/ in English constitute a non-correlative trio. It is in such cases that Martinet’s concept of the relevant feature meets the requirement of the inherent opposability of the relevant feature.

It appears that the concept and term ‘relevant feature’ is allowed a ‘double use’, as pointed out by Bès (1969: 284). It is desirable to employ the term ‘relevant feature’ in such a way that the *same* concept of ‘relevant feature’ applies to the case of both correlative phonemes and non-correlative phonemes²³.

²³ For my discussions on this subject, see Akamatsu (1978), Akamatsu (1979) and Akamatsu (1988: 90-99).

2.3.4. Commutation test

Functionalists have at their disposal the commutation test, an analytical device whereby the distinctive units such as the phoneme, the archiphoneme, the toneme and the architoneme are identified and defined in terms of relevant features. It is the concept of phonological opposition that underpins the commutation test. Trubetzkoy died before he could have developed the commutation test²⁴, and it was left to Martinet to elaborate on it. Martinet gives expositions as to how to perform the commutation test (Martinet, 1947: 41-45 = Martinet, 1965: 63-68)²⁵. Inspired by Martinet's brief verbal exposition on the commutation test, I have explained in some detail how to go about performing the commutation test in a few writings of mine²⁶. What we need for the commutation test are several commutative series which are associated with different phonetic contexts, each commutative series consisting of minimal multiplets or near-minimal multiplets arranged in a parallel order in each commutative series. The commutation test is entirely different from the so-called 'minimal pair' test which proves inadequate in establishing all the distinctive units of the language.

The commutation test yields not only the identities of the phonemes with their phonological contents (in terms of relevant features) but also reveals cases of neutralization with the associated archiphonemes with their phonological contents (in terms of relevant features).

2.3.5. Correlative opposition and disjunct opposition. Jakobson's total binarism

There was serious disagreement between Jakobson and Trubetzkoy on the question of Jakobson's great emphasis on 'correlative opposition' at the expense of 'disjunct opposition'²⁷. Jakobson considered that all phonological oppositions were binary oppositions. Their disagreement persisted even during their very last discussion that took place on 12 and 13 February 1938, just a few months before Trubetzkoy's death on June 25,

²⁴ But see Trubetzkoy (1939: 33ff.)

²⁵ See also Martinet (1945: 3.1.-4.8.), Martinet (1949: 3ff.) and Martinet (1956: 3.14.-3.16. and 5.1.-6.8.).

²⁶ See Akamatsu (1988: 104-105), Akamatsu (1992b: 60-80) and Akamatsu (2000: 41-57).

²⁷ For Trubetzkoy's reservations on this point, see e.g. Trubetzkoy (1939: 77).

1938. During the course of their inconclusive discussion, Jakobson hit upon the idea that all phonological oppositions must be conceived in terms of binary oppositions. Trubetzkoy remained unconvinced of Jakobson's total binarism till his last days.

Martinet emphasizes the importance of disjunct oppositions as much as that of correlative oppositions and also the fact that not only correlative oppositions but also disjunct oppositions can be neutralized (Martinet, 1936: 47, 50, 52).

Trubetzkoy had presented his classification of types of phonological oppositions in 1936 (1936a). He re-presented his classification of types of phonological oppositions in his *magnum opus* (Trubetzkoy, 1939: 60ff.). Jakobson's total binarism in conceiving phonological oppositions was not accepted in Trubetzkoy's classification of them.

2.3.6. Bilateral opposition and multilateral opposition

Among the types of phonological opposition Trubetzkoy proposed, 'bilateral opposition' and 'multilateral opposition' are well known²⁸. Trubetzkoy's corresponding German terms are 'eindimensionale Opposition' and 'mehrdimensionale Opposition', terms Trubetzkoy coined²⁹ at the suggestion of Bühler³⁰. Unfortunately, the terms 'bilateral' and 'multilateral' (Trubetzkoy accepts, for want of better terms, the French terms 'bilatérale' and 'multilatérale') for the two types of phonological opposition tend to be misunderstood by subsequent linguists. One common mistake is to understand that a bilateral opposition consists of two terms and a multilateral opposition consists of more than two terms. In other words, 'bilateral' and 'multilateral' are misunderstood to refer to the *number of the terms* of phonological oppositions, which is not what

²⁸ Present-day Praguian linguists seem to talk about 'bilateral' vs. 'unilateral' instead of 'bilateral' vs. 'multilateral'. Cf. *Dictionary of the Prague School of Linguistics* (2003: 3). What is meant by 'unilateral' here is not clear to me.

²⁹ I agree with Trubetzkoy (1936a: 8 fn. 1) who avoids the terms 'zweiseitig[er Gegensatz]' and 'mehrseitig[er Gegensatz]' which he says will cause misapprehension and opts for 'eindimensionaler [Gegensatz]' and 'mehrdimensionaler [Gegensatz]'.

³⁰ The terms which Bühler suggested are 'oppositions à une seule dimension' and 'oppositions à plusieurs dimensions'. Cf. Trubetzkoy (1936a: 8 fn. 1).

Trubetzkoy means³¹ as, according to him, all phonological oppositions consisted each of two terms, this arising from his residual binarism.

The criterion Trubetzkoy employs for distinguishing ‘bilateral opposition’ and ‘multilateral opposition’ is the dimension over which the ‘common base’ of the terms of a phonological opposition prevails. An example like /p/ vs. /b/ in English presents no problem. The common base of /p/ and /b/ is “labial plosive non-nasal”, which does not recur in any other phoneme of English. How about /m/ vs. /n/, /m/ vs. /ŋ/, or /n/ vs. /ŋ/? The common base of /m/ and /n/ is “nasal”, which is shared by /ŋ/, that of /m/ and /ŋ/ is also “nasal”, which recurs in /n/, and that of /n/ and /ŋ/ is again “nasal”, which is found in /m/. Therefore, each of /m/ vs. /n/, /m/ vs. /ŋ/, or /n/ vs. /ŋ/ is a multilateral opposition.

Consider now /m/ vs. /n/ vs. /ŋ/ also of English. The common base of /m/, /n/ and /ŋ/ is “nasal”, which does not recur in any other phoneme of English. Is /m/ vs. /n/ vs. /ŋ/ then a bilateral opposition? The answer is in the negative in Trubetzkoy’s framework of phonological oppositions as this opposition consists of more than two terms. According to Trubetzkoy, both a bilateral opposition and a multilateral opposition consists each of two (not more) terms. Is /m/ vs. /n/ vs. /ŋ/ a multilateral opposition? The dilemma arises from the fact that, because of residual binarism on Trubetzkoy’s part, both a bilateral opposition and a multilateral opposition must consist each of two (not more) terms. A case like /m/ vs. /n/ vs. /ŋ/ of English would have to be viewed in terms of /m/ vs. /n/, /m/ vs. /ŋ/, and /n/ vs. /ŋ/. Trubetzkoy’s scheme about a bilateral opposition and a multilateral opposition cannot cope with a case like /m/ vs. /n/ vs. /ŋ/. Yet I find Trubetzkoy mentioning ‘... der mehrdimensionalen Oppositionen zwischen allen Nasalen...’ in connection with Tamil and some dialects of central China (Trubetzkoy, 1939: 163-164).

The terms ‘bilateral’ and ‘multilateral’ are rarely used in the Paris School.

In the belief that phonological oppositions can be formed by two or more than two terms, as the case may be, I have coined and employ the terms ‘simple opposition’ (an opposition consisting of two terms) and ‘multiple

³¹ Fischer-Jørgensen (1975: 28) writes: ‘Bilateral (one-dimensional) oppositions have only two members ... Multilateral (multi-dimensional) oppositions have more than two members.’

opposition' (an opposition consisting of three or more terms)³². /m/ vs. /n/, /m/ vs. /ŋ/ and /n/ vs. /ŋ/ of English will each be a simple opposition, while /m/ vs. /n/ vs. /ŋ/ also of English will be a multiple opposition. The concept of 'multiple opposition' is extraneous to Trubetzkoy's concept of 'phonological opposition'. The criterion of the common base applies to both a simple opposition and a multiple opposition. Note that I do not view a multiple opposition, e.g. /m/ vs. /n/ vs. /ŋ/, a three-way multiple opposition, as a complex of simple oppositions to be conceived in terms of e.g. /m/ vs. /n/, /m/ vs. /ŋ/, and /n/ vs. /ŋ/³³.

2.3.7. Exclusive opposition and non-exclusive opposition

The problems such as indicated in 2.3.6 which arise in connection with 'bilateral opposition' and 'multilateral opposition' are averted by the introduction of the concepts and terms of 'exclusive opposition' and 'non-exclusive opposition' which I have proposed³⁴. An exclusive opposition is *a phonological opposition whose two or more terms³⁵ are in an exclusive relation*, i.e. a phonological opposition whose two or more terms are such that their common base is *exclusive* to these terms and consequently does

³² See Akamatsu (1988: 43 *et passim*, 51 *et passim*), Akamatsu (1992b: 51-53) and Akamatsu (2000: 28). It should be noted that the terms 'opposition simple' and 'opposition complexe' have previously been employed by Martinet (1964: 39) and Martinet (1965: 80) but with different meanings attached to them from those attached to 'simple opposition' and 'multiple opposition' I have proposed.

³³ The binaristic way of regarding /m/ vs. /n/ vs. /ŋ/ in French is strongly supported by e.g. Avram (1991: 280) and similarly regarding /m/ vs. /n/ vs. /ŋ/ in Spanish in Avram (1993: 386). Avram will also no doubt consider /m/ vs. /n/ vs. /ŋ/ in English binaristically. He objects to my notion of 'multiple opposition' as, like Trubetzkoy, he believes that a phonological opposition necessarily consists of two, not more, terms. In this connection, see Martinet (1964: 41) = Martinet (1965: 82-83) where, though not in reference to Avram, critical remarks are made about a binaristic view of A vs. B, B vs. C, and A vs. C, instead of non-binaristically viewing A vs. B vs. C.

³⁴ See Akamatsu (1988: 52-63), Akamatsu (1992b: 53-55) and Akamatsu (2000: 29). Curiously, Maiden (1990: 566) attributes the introduction of the term 'exclusive opposition' to Martinet. This is an error on Maiden's part.

³⁵ The reason why I say 'term(s)' rather than 'phoneme(s)' here and below is that an exclusive opposition can be a phonematic one or a tonematic one. For ease of exposition, here I am only referring to exclusive phonematic oppositions and also neutralizable phonematic oppositions.

not recur in any other term of the same language. For example, /t/ (“voiceless apical plosive”) vs. /d/ (“voiced apical plosive”) in English – this is what I call a simple opposition– is an exclusive opposition as the common base of the two member phonemes, viz. “apical plosive”, is exclusive to them, that is, does not recur in any other phoneme of English. Here is another example. /m/ (“labial nasal”) vs. /n/ (“apical nasal”) vs. /ŋ/ (“dorsal nasal”) of English –this is what I call a multiple opposition– is an exclusive opposition as the common base of the three member phonemes, viz. “nasal”, is not found in any other phoneme of English.

A non-exclusive opposition is a phonological opposition whose two or more terms are such that their common base is *not exclusive* to these terms and recurs in one or more terms of the same language. For example, /p/ (“voiceless labial plosive”) vs. /tʃ/ (“voiceless hushing plosive”) in English is a non-exclusive opposition as the common base of these phonemes, viz. “voiceless plosive”, recurs in /t/ (“voiceless apical plosive”). Here is another example from English. /m/ (“labial nasal”) vs. /n/ (“apical nasal”) is a non-exclusive opposition as the common base of the two phonemes, viz. “nasal”, recurs in /ŋ/ (“dorsal nasal”). In the case of /m/ vs. /n/ that is a *neutralizable* opposition (before /f/ or /v/), the common base of /m/ and /n/ is not “nasal” but “non-dorsal nasal” as the archiphoneme /m-n/ is opposed to /ŋ/. “Non-dorsal nasal” is exclusive to /m/ and /n/, hence /m/ vs. /n/ is an exclusive (and neutralizable) opposition.

The introduction of the concepts and terms of ‘exclusive opposition’ and ‘non-exclusive opposition’ does not consist in simply terminologically replacing ‘bilateral opposition’ by ‘exclusive opposition’, and ‘multilateral opposition’ by ‘non-exclusive opposition’. Conceptually, ‘exclusive opposition’ differs from ‘bilateral opposition’, and ‘non-exclusive opposition’ differs from ‘multilateral opposition’. The intended emphasis in the term ‘exclusive opposition’ and that in the term ‘non-exclusive opposition’ are of course on the *exclusiveness* and *non-exclusiveness*, respectively, of the common base to the terms of either type of opposition, irrespective of the number (two or more, as the case may be) of the terms of the opposition. On the other hand, part of the explicit understanding regarding the terms ‘bilateral opposition’ and ‘multilateral opposition’ concerns *the number of the terms* (two, or three or more) of the opposition over which the common base prevails. It will have been seen that

‘exclusive opposition’ and ‘non-exclusive opposition’ are free from binarism, while neither ‘bilateral opposition’ nor ‘multilateral opposition’ is.

The concepts and terms of ‘exclusive opposition’ and ‘non-exclusive opposition’ have so far hardly caught on among functionalists. Nevertheless they are admittedly important if binarism is to be averted. The difference between ‘exclusive opposition’ and ‘non-exclusive opposition’ on the one hand, and that between ‘bilateral opposition’ and ‘multilateral opposition’ on the other, is either not accepted³⁶ or not comprehended³⁷.

2.3.8. Rapport exclusif

The concepts and terms of ‘exclusive opposition’ and ‘non-exclusive opposition’ were, first and foremost, inspired by the concept and term of ‘rapport exclusif’ introduced previously by Martinet as follows³⁸:

Deux phonèmes sont dits dans un **rapport exclusif** lorsqu’ils ne se distinguent que par un seul trait pertinent et qu’ils sont seuls à présenter tous les traits qu’ils ont en commun: en français /p/ et /b/ sont dans un rapport exclusif ... /p/ et /t/ n’y sont pas dans un rapport exclusif ... les traits qu’ils présentent en commun sont également communs à /k/, /f/, /s/ et /ʃ/ (Martinet, 1956: 3.17.).

A slightly and felicitously revised definition of ‘rapport exclusif’ is subsequently given as follows³⁹:

³⁶ Avram (1991: 280) says: ‘... e x c l u s i v devine sinonim cu b i l a t e r a l.’. Also, Avram (1993: 385) writes: ‘... la distinction *exclusive / non-exclusive* de T. Akamatsu n’est autre chose que la distinction *bilatérale / multilatérale* de N. S. Trubetzkoy [Avram’s emphasis].’. Avram believes that, like Trubetzkoy, a phonological opposition consists of two terms. Avram’s non-acceptance of ‘exclusive opposition’ is equally linked to his non-acceptance of ‘multiple opposition’ (cf. Avram (1991: 280) and Avram (1993: 385-386)), another concept and term I proposed (Akamatsu, 1988: 43) along with those of ‘simple opposition’ (Akamatsu, 1988: 51).

³⁷ By e.g. Maiden (1990: 566), to judge from his obvious misapprehension and misrepresentation of ‘exclusive opposition’.

³⁸ Essentially the same formulation is given previously in Martinet (1945: 2.7.) where, however, instead of /p/, /b/, /t/, /k/, /f/, /s/ and /ʃ/, *p, b, t, k, f, s* and *š* occur.

³⁹ This formulation is previously absent in the corresponding place in Martinet (1945: 2.7.).

... Mais il n'y a aucune raison valable pour ne pas considérer comme étant en rapport exclusif les phonèmes /m/, /n/ et /ŋ/ de l'anglais qui se distinguent l'un des autres par un seul trait pertinent ... et sont seuls à présenter la caractéristique phonologique qu'ils ont en commun ... (Martinet, 1956: 3.17.)

The improvement brought about in Martinet's latter definition of 'rapport exclusif' is that the number of phonemes that are in an exclusive relation is said to be 'two or more than two', that is, applying to both a simple opposition and a multiple opposition⁴⁰.

References to 'rapport exclusif' are found in a number of Martinet's other writings as well (1949: 7; 1955: 3.11.; 1968: 15)⁴¹. It is noteworthy, however, that 'rapport exclusif' explained without the use of the term 'rapport exclusif' itself is found in one of the best known writings by Martinet (1960). Martinet writes in defining the archiphoneme (1960: III-18): '... l'ensemble des traits pertinents, communs à deux ou plus de deux phonèmes qui sont seuls à les présenter tous.'

2.3.9. Neutralization adumbrated in early writings in the Prague School

The absence of the term 'neutralisation' in "Projet" (which, on the other hand, includes the term 'archiphonème') is aptly commented on by Martinet (1936: 46ff.).

Trubetzkoy presents the concept of neutralization (though without using the term 'neutralization') in early writings of his, mostly in largely psychological garb (1930: 120ff.)⁴². Trubetzkoy subsequently makes references to 'neutralization' by employing the term 'neutralization' in a number of his writings (1932a, 1932b, 1933, 1934, 1936a, 1936b, 1939) where he explains and illustrates cases of neutralization. The German term 'Neutralisierung' appears to have been used for the first time by Trubetzkoy in the early 1930s (Trubetzkoy, 1932a, 1932b). However, Trubetzkoy never gives any *formal* definitions of neutralization.

⁴⁰ My reservation about the implication of 'un seul trait pertinent' stands.

⁴¹ There is no mention of 'un seul trait pertinent' in these works.

⁴² An overtly psychological presentation of neutralization by Trubetzkoy progressively disappears from 1931 onward.

The earliest implicit reference to, if not a definition of, the concept of ‘neutralization’ is, to the best of my knowledge, one attributable to Mathesius, though he does not use the term ‘neutralization’ (or the term ‘archiphoneme’). He says as follows:

Les deux langues [Czech and German] concordent en ce que la différence dans la sonorité des consonnes n’a pas dans ces langues de valeur phonologique à la fin des mots. Ceci signifie qu’à la fin du mot dans l’une et l’autre langues, on trouve confondus en un phonème les couples de consonnes b/p, d/t, v/f, z/s, h/x, et, en outre, en tchèque d’/t’, ž/š, en allemand g/k. (Mathesius, 1929: 8).

Mathesius’s words ‘n’a pas de valeur phonologique’ point in effect to neutralization. That the phonological oppositions he cites (b/p/, d/t, v/f, z/s, h/x, d’/t’, ž/š, g/k) are valid in certain contexts (contexts of relevance) is implied by him. Mathesius’s reference to neutralization (though not using the term ‘neutralisation’), as seen above, is in sharp contrast to Jakobson’s which is tainted with psychologism.

2.3.10. Neutralizable opposition

In addition to the dichotomous distinction between ‘bilateral opposition’ and ‘multilateral opposition’ (which we saw in 2.3.6.), Trubetzkoy proposed yet another dichotomous distinction, i.e. ‘constant opposition’ vs. ‘neutralizable opposition’. Trubetzkoy’s exposition on ‘neutralizable opposition’ is well known and is found in a number of his writings⁴³.

An example of a constant opposition is /i/ vs. /e/ in French, and an example of a neutralizable opposition is /t/ vs. /d/ in German. Instances of constant oppositions are comparatively small in number, while those of neutralizable oppositions are numerous. We will concentrate in what follows on neutralizable oppositions as understood and operated with in the Paris School.

By a neutralizable opposition is meant a phonological opposition which is valid in some contexts (contexts of relevance) but is not in others (contexts

⁴³ The most accessible to average readers are of course Trubetzkoy (1936b) and Trubetzkoy (1939: 69ff.) and the corresponding pages in a number of translations of Trubetzkoy (1939), e.g. Trubetzkoy (1949: 80ff.) and Trubetzkoy (1969: 77ff.).

of neutralization), due to the cancellation, in contexts of neutralization, of those relevant features by virtue of whose opposition to each other the terms of the opposition are distinguished from each other in contexts of relevance. For example, in German, /p/ (“voiceless bilabial non-nasal”) vs. /b/ (“voiced bilabial non-nasal”) is valid in prevocalic position (e.g. *Paar* /p/ [p] vs. *Baar* /b/ [b]) but is neutralized moneme- or syntheme-finally (e.g. *lieb* [p], *gottlob!* [p]) and preconsonantly moneme-medially (e.g. *Leipzig* [p]) or preconsonantly syntheme-medially (*lieblich* [p])⁴⁴, with the cancellation of “voiceless” vs. “voiced”. An example drawn from English is /m/ (“labial nasal”) vs. /n/ (“apical nasal”) vs. /ŋ/ (“dorsal nasal”) which is valid in e.g. word-final position (e.g. *kin* /n/ [n] vs. *Kim* /m/ [m] vs. *king* /ŋ/ [ŋ]) or word-medial prevocalic position, e.g. *Hanna(h)* /n/ [n] vs. *hammer* /m/ [m] vs. *hangar* /ŋ/ [ŋ]) but which is neutralized before certain consonants (e.g. before /p/ as in *camp* [m], before /t/ as in *hunt* [n], before /k/ as in *rank* [ŋ]), with the cancellation of “labial” vs. “apical” vs. “dorsal”. Yet another example from English is /m/ vs. /n/ which is valid in e.g. prevocalic position (e.g. *mat* /m/ [m] vs. *gnat* /n/ [n]) or word-finally (e.g. *Kim* /m/ [m] vs. *kin* /n/ [n]) but which is neutralized before /f/ (as in *comfort* [ŋ]) or before /v/ (as in *invent* [ŋ]) with the cancellation of “labial” vs. “apical”. Note that, in the last example, i.e. the *neutralizable* opposition /m/ vs. /n/, the common base of /m/ and /n/ is *not* “nasal” but “non-dorsal nasal”.

The member phonemes of a neutralizable opposition are in an exclusive relation as the common base of the member phonemes is exclusive to them, and therefore a neutralizable opposition is an exclusive opposition, though a constant opposition can also be an exclusive opposition.

It is of crucial importance that the common base of an exclusive opposition that is also a neutralizable opposition is identified during the course of the commutation test *with reference to the context of neutralization* and not by seeking the common base of the phonological contents of the member phonemes of the neutralizable opposition, though in a number of cases both operations yield identical results. This point can

⁴⁴ The expressions ‘moneme-medially’ and ‘syntheme-medially’ on the one hand, and ‘moneme-finally’ and ‘syntheme-finally’ on the other, could, if wished for the benefit of general readers, be alternatively replaced by ‘word-medially’ and ‘word-finally’, respectively, though at the risk of less exactitude.

be well illustrated by considering the common base of /m/ vs. /n/ in English which is neutralized before /f/ or /v/. Seeking the common base of /m/ and /n/ on the basis of the phonological contents of these two phonemes will yield, wrongly, “nasal” in connection with the neutralizable opposition /m/ vs. /n/. The correct procedure is to examine during the commutation test the opposability of the attested nasal consonants, viz. only [m] and [n], in the context of neutralization. In the context ‘before a vowel’ (a context of relevance) or word-finally, we note [m] /m/ (*hammer*) (*Kim*) vs. [n] /n/ (*Hanna(h)*) (*kin*) vs. [ŋ] /ŋ/ (*hangar*) (*king*), but in the context ‘before /f/ or /v/’, we attest [m] (*infer, invent*) vs. [ŋ] (*long file, long vacation*), not [m] vs. [n] vs. [ŋ]. In the context ‘before /f/ or /v/’, [m] is opposed to [ŋ] only. In other words, the phonological opposition attested ‘before /f/ or /v/’ is between a certain distinctive unit realized by [m] and /ŋ/ realized by [ŋ]. This distinctive unit is the archiphoneme /m-n/ realized by [m] and is opposed to /ŋ/ “dorsal nasal” realized by [ŋ]. The archiphoneme /m-n/ is therefore definable as “non-dorsal nasal”⁴⁵ as it is only opposed to /ŋ/ “dorsal nasal” ‘before /f/ or /v/’, i.e. in the context of neutralization⁴⁶.

The relevant feature “non-dorsal” would be missed out if the phonological content of the archiphoneme /m-n/ were sought in terms of the common base of “labial nasal” (/m/) and “apical nasal” (/n/), and would consequently be misidentified as “nasal”, by failing to take into account that /m-n/ is opposable to /ŋ/ in the context of neutralization.

A neutralizable opposition is bound to be an exclusive opposition, though an exclusive opposition is either a constant opposition or a neutralizable opposition. The obligatory link between a neutralizable opposition and an exclusive opposition is generally accepted, but at least one functionalist casts a doubt on the total applicability of this link (Avram, 1998).

On the subject of ‘neutralization and the archiphoneme’ we need to mention especially a few writings, among others, by Martinet (1936: 1968,

⁴⁵ I first spoke about the archiphoneme /m-n/ being definable as “non-velar nasal” in Akamatsu (1973: 7). The relevant feature “non-velar” here is to be taken as identical with the relevant feature “non-dorsal”.

⁴⁶ While talking about the comparable case of the neutralization of /m/ vs. /n/ vs. /ɲ/ in Spanish, Martinet (1968: 15) importantly and rightly says: ‘En phonologie, la base commune s’établit par opposition avec les autres phonèmes susceptibles d’apparaître dans le même contexte’.

and a number of other writings by him). Apart from my monograph on this subject (1988), a few other monographs and parts of books on this subject have also appeared. Worth mentioning in particular are those attributable to Davidsen-Nielsen (1978, esp. 22-59, 158-182, 218-221), Rodríguez Díez (1990, 1995, 1997, esp. 1.4.4.-1.6.) and Veiga (2002: 131-161, 275-285; 2009: 139-168, 313-323).

2.3.11. Privative opposition, gradual opposition and equipollent opposition

Besides the two dichotomous distinctions of phonological oppositions, viz. ‘bilateral opposition’ vs. ‘multilateral opposition’ and ‘constant opposition’ vs. ‘neutralizable opposition’, Trubetzkoy also proposed a tripartite distinction of phonological oppositions, namely ‘privative opposition’ vs. ‘gradual opposition’ vs. ‘equipollent opposition’. These three types of opposition proposed by Trubetzkoy are ambiguous in that they are susceptible to two different interpretations, viz. (i) do they refer to phonic oppositions (or better, phonic differences), hence privative phonic differences, gradual phonic differences and equipollent phonic differences? and (ii) do they refer to phonological oppositions, hence privative phonological oppositions, gradual phonological opposition and equipollent phonological oppositions? I personally take the view that they are phonic differences⁴⁷.

Of the various types of phonological opposition that Trubetzkoy proposed, the Paris School only occasionally employ the terms ‘bilateral opposition’ and ‘multilateral opposition’⁴⁸, and practically never the terms ‘privative opposition’, ‘gradual opposition’ and ‘equipollent opposition’.

⁴⁷ Agreement with my stance on this point is expressed by e.g. Martin (1993: 239) who writes: ‘Comme lui [Akamatsu], je pense que les oppositions privatives, graduelles et équipollentes de Troubetzkoy relèvent du domaine du phonique et non pas du phonologique’.

⁴⁸ I note that Martinet (1955: 3.11.) does refer to ‘bilatéraux’, ‘multilatéraux’ and ‘bilatéral’.

2.3.12. Archiphoneme defined in the Prague School and in the Paris School

The concept and term of ‘archiphoneme’ was first introduced by Jakobson (1929: 8-9) but without any reference at the same time to the concept and term of ‘neutralization’. His definition of ‘archiphoneme’ is formulated negatively and indirectly, entirely in terms of correlative and disjunct oppositions and of non-correlation between archiphonemes. The archiphoneme is presented as a psychological entity, not a phonological entity, bearing no relation with the neutralization of a phonological opposition. A few years later, in 1931, ‘archiphonème’ is defined in “Projet” (drafted by Jakobson) as follows:

Élément commun de deux ou plusieurs phonèmes corrélatifs qu’on peut concevoir abstraction faite des propriétés de corrélation. (“Projet”, 315).

‘Archiphoneme’ is still presented here exclusively in connection with correlative phonemes, as an unanalyzable psychological entity, and not a phonological entity and not linked to ‘neutralization’, which is not even mentioned in “Projet”.

In the passage of Mathesius already quoted in 2.3.9., he implicitly refers to the concept of ‘archiphoneme’, though without using the term ‘archiphonème’, when he says: ‘...on trouve confondus en un phonème...’. In the same passage, Mathesius implicitly refers to ‘neutralization’, though again without using the term ‘neutralisation’. Such a presentation of both ‘neutralization’ and ‘archiphoneme’ as being necessarily linked to each other is in sharp contrast to the presentation of ‘archiphoneme’ without at the same time referring to ‘neutralization’, as witnessed in “Projet”. The first concept of ‘archiphoneme’ that is associated with neutralization is therefore ascribable to Mathesius and Trubetzkoy. Without using the term ‘archiphoneme’, Trubetzkoy presents in a few writings of his the concept of ‘archiphoneme’ as being directly relevant to the concept of ‘neutralization’ (1932a, 1932b).

Trubetzkoy’s well-known definitive definition of the archiphoneme is as follows:

... wobei wir unter Archiphonem die Gesamtheit der distinktiven Eigenschaften verstehen, die zwei Phonemen gemeinsam sind. (1939: 71)⁴⁹.

‘Neutralization’ and ‘archiphoneme’ are considered inseparable in the Paris School. This is also the case with the Prague School of the Classical or interwar period, but not the case in the post-1939 (up to the present) stance of the Prague School phonology, and even with some other functionalists; more on this later.

In 1936, Martinet proposes as follows to redefine the concept of ‘archiphoneme’ earlier found in “Projet”.

... element commun de deux ou plusieurs phonèmes neutralisables, ou, mieux encore *unité phonologique simple susceptible, en certaines positions, de se dissocier en deux ou plusieurs éléments phonologiquement distincts*. (Martinet, 1936: 54)⁵⁰.

Martinet significantly proposes that the archiphoneme should be linked to neutralization and that the archiphoneme should be invoked in conjunction with neutralizable disjunct oppositions (largely neglected around the time of his writing and in previous times) as well as neutralizable correlative oppositions (1936: 50 *et passim*)⁵¹.

Subsequently, Martinet refers to ‘archiphoneme’ in the following words.

... une seule unité distinctive qui, pour ainsi dire, coiffe les deux unités correspondantes ... et qu’on appelle **archiphonème**. Si le phonème est défini comme la somme des traits pertinents, l’archiphonème, lui, est l’ensemble des traits pertinents, communs à deux ou plus de deux phonèmes qui sont seuls à les présenter tous. (1960: III-18)⁵².

⁴⁹ A similar definition of the archiphoneme, though somewhat differently and less adequately phrased, previously occurs in Trubetzkoy (1936b: 32). It runs: ‘(wobei wir unter Archiphonem die Gesamtheit der Züge verstehen, die zwei Phonemen gemein sind)’.

⁵⁰ I have replaced by italics the emphasis in the original done by letter-spacing, thus, replacing e.g. u n i t é by *unité*.

⁵¹ Note that Martinet (1936: 50) specifically pays tribute to Trubetzkoy for already recognizing the neutralization of disjunct oppositions as well as of correlative oppositions.

⁵² The first part of his reference to the archiphoneme quoted here, though differently phrased, already appears in Martinet (1936: 54).

Implicit in the above quoted passage is that (i) an archiphoneme is a distinctive unit (of the second articulation) as is a phoneme; (ii) consequently, an archiphoneme is definable in terms of a sum of relevant features, as is a phoneme; (iii) (the phonological content of) an archiphoneme is equivalent to the common base of the two or more member phonemes of an opposition; (iv) this common base is not found in any other phoneme(s) of the phonological system of the same language; (v) the two or more phonemes in question are in an exclusive relation; (vi) the phonological opposition in question is therefore an exclusive opposition; and (vii) this exclusive opposition is a neutralizable opposition.

Martinet also refers to ‘archiphoneme’ in the following words:

Là où l’archiphonème se réalise, on dit qu’il y a neutralisation. (1960: III-18).

This reference to the concept of ‘archiphoneme’ calls for a few comments:

- (1) Is the archiphoneme conceivable even where it is not realized, i.e. in contexts of relevance?
- (2) There is no doubt that the archiphoneme occurs where a neutralizable opposition is actually neutralized in contexts of neutralization. For example, in the context where the neutralizable opposition /m/ vs. /n/ vs. /ŋ/ is neutralized (for example, before /p/ (e.g. *camp*), the archiphoneme /m-n-ŋ/ “nasal” occurs. The question is: is this archiphoneme to be considered *latent* in the context of relevance? Positive answers have been given by some⁵³.
- (3) The archiphoneme is conceived regardless of neutralization.
- (4) Besides, is the archiphoneme conceivable even in connection with a non-neutralizable exclusive opposition?

A few associates of Martinet have proposed formal definitions of the archiphoneme such as the following:

⁵³ Cf. e.g. Trubetzkoy (1936a: 13; 1936b: 34-1939, 73, 76).

L'archiphonème est défini phonologiquement par l'ensemble des particularités distinctives communes aux phonèmes dont l'opposition est neutralisée. (Martin, 1997 : 34).

Les phonèmes dont l'opposition est neutralisée ... sont dans un rapport exclusif ... ils présentent une base commune (appelée *archiphonème*) constituée d'un ou de plusieurs trait(s) pertinent(s) qui n'est ou ne sont propre(s) qu'à eux seuls (Builles, 1998: 201).

2.3.13. Abandonment of the archiphoneme by the Prague School

While all functionalists (i.e. both the Prague School and the Paris School) acknowledge and accept the concept of neutralization, the concept of the archiphoneme has met with a different fate. A number of functionalists have overtly rejected the archiphoneme for a variety of reasons. With regard to the adherence to, or the rejection of, the concept of the archiphoneme, there is a clear division between the Paris School and the Prague School. This is one of the most significant differences in the domain of phonology between these two Schools.

The Prague School stands out for having abandoned the concept of 'archiphoneme' since 1939. *Dictionnaire de linguistique de l'École de Prague*⁵⁴ says, under the entry **archiphonème**:

[Terme abandonné après 1939]

In fact, the abandonment is not only of the term but also of the concept itself of 'archiphoneme'. This has a serious consequence on what neutralization actually means to the Prague School. The term 'neutralisation' and a number of terms associated with it *are* entered in *Dictionary of the Prague School of Linguistics*⁵⁵. The fate of the terms 'neutralization' and 'archiphoneme' in our days in the Prague School phonology can be seen from the fact that neither term is included.

⁵⁴ 1st ed. 1960, 2nd ed. 1966.

⁵⁵ On pages 52 and 53. Published in 2003, this is an English translation of *Dictionnaire de linguistique de l'École de Prague*.

Vachek speaks of a total abandonment of the archiphoneme by the Prague School as follows:

(... the idea of “archiphoneme” ... has by now been wholly abandoned by the Prague phonemicists. 1959: 110)

Subsequently, Vachek explains in some detail his/their reason against the term (and concept) of ‘archiphoneme’. He believes that the archiphoneme is (in his words) ‘subphonemic’ or ‘subordinated to the phoneme’ and this is the reason that leads to his/their abandonment of ‘archiphoneme’. Vachek ends his argument by saying as follows.

... it is hardly chance that since Trubetzkoy’s *Grundzüge* this term has been virtually abandoned in phonological books and papers by the Prague group – this has obviously been due to its unfruitfulness. (1966: 62).

In discussing the point about the status of the archiphoneme in relation to that of the phoneme, it is best to consider that there is *functionally* no hierarchical difference between the archiphoneme and the phoneme in their capacity as the minimum distinctive units of the second articulation. In other words, the archiphoneme and the phoneme are both on the same functional level, i.e. what one might term ‘phonemic level’⁵⁶. The archiphoneme is neither hypophonemic (Vachek, 1966: 62) nor hyperphonemic⁵⁷.

Trnka, in his article published in 1935 makes reference to the concept of neutralization without, however, mentioning ‘archiphoneme’. In the revised

⁵⁶ This is my view as expressed in Akamatsu (1988: 284). Thus in e.g. /sPikS/ *speaks*, the phonemes and the archiphonemes alike should be posited on the same functional level, i.e. on the ‘phonemic’ level.

⁵⁷ In retrospect, the view that the archiphoneme is hyperphonemic was erroneous, arrived at logically rather than functionally (cf. Akamatsu, 1972: 1069, 1070) which I have subsequently withdrawn. I had also been influenced by such an expression as ‘unité supérieure’ found in Martinet (1936: 53). Note, however, that elsewhere in the same paper, I already said (Akamatsu, 1972: 1070) that both the phoneme and the archiphoneme might be posited at an equivalent functional level, a view which I would approve of now.

version of his article published in book form in 1966, Trnka does mention and define ‘archiphoneme’ and writes about neutralization as follows:

The process of neutralization must be regarded ... as consisting in the exclusion of one of the terms of opposition from its specific phonemic contexts. (1966: 30).

What is the consequence of the Prague School having abandoned the term (and the concept) of archiphoneme? (Akamatsu, 1992: 389-394). The crucial question is: what distinctive unit of the second articulation, if it is not to be the archiphoneme, occurs in the position of neutralization? The answer is that the removal of the archiphoneme results in presenting, or rather misrepresenting, ‘neutralization’ as if it were defective distribution, as one of the member phonemes of a neutralizable opposition is alleged to occur to the exclusion of the other phoneme in the position of neutralization.

Aside from the Prague School, Buysens rejects the concept of the archiphoneme for a different reason from Vachek’s. He says that, in Dutch, /p/ vs. /b/, /t/ vs. /d/, and /k/ vs. /g/ are valid (e.g. *baden* ‘to bathe’ vs. *baten* ‘to profit’) but that, in prepausal context, /b/, /d/ and /g/ are ‘possible’ (his word) while /p/, /t/ and /k/ are not, and says that ‘Dans pareil cas, on dit que l’opposition entre /d/ et /t/ est neutralisée.’ (1967: 157). Clearly, Buysens misrepresents neutralization as defective distribution. He rejects ‘archiphoneme’ as strongly as he allegedly accepts ‘neutralization’⁵⁸.

Buysens’s rejection of ‘archiphoneme’ provoked a debate conducted on pages of *La Linguistique* during 1972-1975, involving Buysens (against ‘archiphoneme’) on one side and Vion and myself (for ‘archiphoneme’) on the other side⁵⁹. Buysens, in the meantime, pronounced his rejection of ‘archiphoneme’ elsewhere as well (1974).

From a third party’s viewpoint, Davidsen-Nielsen discusses Buysens’s position on ‘neutralization’ and ‘archiphoneme’ (1978: 2.8.) and Vion’s (1978: 2.9.).

⁵⁸ Buysens (1972a: 1071) says: ‘Je suis de ceux qui se passent de la notion d’archiphonème et pensent tout expliquer au moyen de la notion de neutralisation.’

⁵⁹ See successively Buysens (1972b), Vion (1974), Buysens (1975), Akamatsu (1976b), Buysens (1977).

2.3.14. Archiphoneme representative

In his presentation of neutralization of phonological oppositions, Trubetzkoy introduces the term ‘archiphoneme representative’ (G ‘Archiphonemvertreter’, ‘Stellvertreter’) (1936b: 32-36; 1939: 71-75). Two different views exist about the status of the archiphoneme representative. Trubetzkoy makes a number of references to the archiphoneme representative in his writings, but here below is just one of them.

... eines von den Oppositionsgliedern in dieser Stellung [of neutralisation] als Stellvertreter des entsprechenden Archiphonems auftritt. (1936b: 33-1939, 73).

There are two different possible interpretations of the status of the archiphoneme representative. According to one of the interpretations, the archiphoneme representative is a phonetic entity. On this view, the archiphoneme representative would be the sound whereby the archiphoneme is realized. According to the other interpretation, the archiphoneme representative is a phonological entity. The archiphoneme representative would then be one of the member phonemes of a neutralizable opposition that occurs in the context of neutralization and ‘represents’ the archiphoneme. Trubetzkoy himself expresses the two divergent views about the status of the archiphoneme representative. Even one and the same passage written by him leads to one rather than the other view, but also equally to both.

Trubetzkoy never speaks of an archiphoneme being realized⁶⁰ whilst he freely speaks of a phoneme being realized. To him, an archiphoneme is not realized (it is represented) any more than a phoneme is represented (it is realized). Therefore, an archiphoneme is represented by a phoneme which, in turn, is realized. It should also be noted that Trubetzkoy seldom presents an archiphoneme itself as actually occurring in the position of neutralization.

Judging from Trubetzkoy’s view (1936b: 34; 1939: 73) of the two member phonemes of a neutralizable opposition to be

⁶⁰ We do not find in Trubetzkoy’s writings such expressions as ‘Archiphonemrealisierung’, ‘Archiphonemrealisation’, ‘Realisierung / Realisation eines / des Archiphonems’, etc. or, for that matter, an expression like ‘Ein / das Archiphonem wird ... realisiert’, either.

Archiphonem + Null
 Archiphonem + ein bestimmtes Merkmal

my understanding is that ‘Archiphonem + Null’ whose phonological content is identical with that of the archiphoneme appears in the context of neutralization and represents the archiphoneme. This is a concept of the terms of a neutralizable opposition that I find unacceptable in functional phonology.

The upshot of the archiphoneme representative intervening in the phenomenon of neutralization is that neutralization is presented as if it were defective distribution⁶¹.

As an archiphoneme is as much a distinctive unit of the second articulation as is a phoneme⁶² it is functionally justified that an archiphoneme is realized⁶³ as much as a phoneme is realized. There should be no need for an archiphoneme representative to intervene. This is why the notion and term ‘archiphoneme representative’ are extraneous to phonology practised by the Paris School⁶⁴. The concept and term of ‘archiphoneme representative’ has gone out of use in our days due to its unsustainability in functional phonology.

An extensive discussion exists on the concept of the archiphoneme representative (Akamatsu, 1976a, 1988: 367-398).

⁶¹ See my discussion of this subject in Akamakatsu (1976a). Davidsen-Nielsen (1978: 2.10.) discusses my stance about the archiphoneme representative and comes out with the conclusion that, as I maintain, the archiphoneme representative has no valid place in the theory of neutralization since admitting the archiphoneme representative invalidates the very notion of neutralization and renders neutralization equivalent to ‘defective distribution’.

⁶² Surprisingly, it seems to be the case that Trubetzkoy never recognizes the archiphoneme as a distinctive unit. Such a stance can be seen to be compatible with allowing the concept of the archiphoneme representative.

⁶³ Cf. Martinet (1968: 3-4). Martin (1993: 241) forcibly writes: ‘... si l’on veut parler de la manifestation concrète de l’archiphonème, alors, il faut appeler les choses par leur nom et dire qu’il s’agit de la réalisation phonique de celui-ci [Martin’s underline].’

⁶⁴ A view compatible with mine is expressed by e.g. Martin (1993: 241) who writes: ‘... la notion de représentant de l’archiphonème n’apporte strictement rien.’

In concluding this chapter about ‘opposition in phonology’, I wish to re-emphasize that the concept and term of ‘opposition’ (as distinct from those of ‘contrast’) are characteristically essential in functional phonology, one of the domains within functional linguistics.

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