

TRUBETZKOY'S BILATERAL OPPOSITION AND MULTILATERAL OPPOSITION

TSUTOMU AKAMATSU

Department of Linguistics and Phonetics. The University of Leeds
Leeds LS2 9JT. England

Dos de las clases de 'oposiciones fonológicas' propuestas por Trubetzkoy (1939), 'oposición bilateral' y 'oposición multilateral', frecuentemente se interpretan de manera errónea como oposiciones fonológicas. La discusión en este trabajo gira en torno a los ejemplos de 'oposición bilateral' y 'oposición multilateral' que L.M. Hyman ofrece basándose en datos tomados de las consonantes del Thai. En su lugar propongo 'oposición exclusiva' y 'oposición no exclusiva'.

Palabras clave: oposición exclusiva, oposición no exclusiva, oposición fonológica, diferencia fónica multilateral, diferencia fónica bilateral, binarismo.

Among the types of (what he calls) phonological opposition proposed by Trubetzkoy (1939: 60ff.), there are 'bilateral opposition' and 'multilateral opposition' which I have critically discussed (in Akamatsu 1988: 41-58) for reason of their problematic nature. I have concluded that, if 'bilateral opposition' and 'multilateral opposition' are to be viable concepts, this can only be in the sense of 'bilateral phonic opposition' and 'multilateral phonic opposition', and not in the sense of 'bilateral phonological opposition' and 'multilateral phonological opposition'. (My use of the term 'opposition' in 'bilateral phonic opposition' and 'multilateral phonic opposition' was deliberate but less desirable than an alternative and better term like 'difference'.) I will not repeat or even summarize in this paper the central arguments that I marshalled in Akamatsu (1988: 41-58) in connection with 'bilateral opposition' and 'multilateral opposition' and simply refer interested readers to my book. Because of my critical attitude to 'bilateral opposition' and 'multilateral opposition', I consistently refrain from recourse to them in my own phonological practice. This explains why not a single word is said about them and there is no recourse to them in phonological analysis in a subsequent writing (Akamatsu 1992).

I am aware, however, that 'bilateral opposition' and 'multilateral

Contextos, XV/29-30, 1997 (págs. 7-17)

opposition' remain to this day many linguists' tools in phonological analyses without their realizing the inconsequence their recourse to these types of opposition entails. I am not certain whether the linguist who resorts to these two types of 'opposition' is actually talking about 'phonological opposition' or 'phonic difference' (for which I deliberately, for expository reasons, employed the expression 'phonetic opposition' in Akamatsu 1988; see in this connection Akamatsu 1992: 27 fn. 2). As I prefer the term 'phonic difference' rather than 'phonic opposition' or still less 'phonetic opposition', I will use the preferred term in this paper, as I have indeed done in Akamatsu (1992).

Confusing a phonic difference with a phonological opposition can often have dire consequences. Coupled with the distinction between 'bilateral opposition' and 'multilateral opposition' proposed by Trubetzkoy (1939: 61), the confusion is multiplied. This is the problem that I wish to demonstrate in what follows.

In explaining 'bilateral opposition' and 'multilateral opposition' to readers, Hyman (1975: 26) has the following to say:

In Thai...one finds not only /p/ and /b/ but also /p^h/. We can still say [he says 'still' simply because he has just presented /p/ vs /b/ in English as an instance of bilateral opposition in the preceding lines] that /p/ and /b/ stand in a bilateral opposition, but it is necessary to further specify the properties that they have in common as "oral unaspirated labial stops". However, /p^h/ and /b/ do not stand in a bilateral opposition. They have in common that they are "oral labial stops," but /p/ is also an oral labial stop. Since there is a third segment which shares the properties common to /p^h/ and /b/, these latter segments are said to be in a *multilateral* opposition [Hyman's italics].

It is evident that Hyman is here talking about phonological oppositions, i.e. /p/-/b/, /p^h/-/b/. (He does not talk about /p^h/-/p/ which he presumably does not think necessary to involve) This means that the two terms of each phonological opposition are distinctive segmental units, in these cases, phonemes (note that he explicitly employs pairs of oblique lines), to which Hyman refers as 'segments'. It follows that when Hyman talks about a bilateral opposition or a multilateral opposition, as in the above-quoted passage, he must be talking about a bilateral phonological opposition or a

multilateral phonological opposition. To a functionalist (which Hyman is not), a phoneme is conceivable and definable in terms of its relevant feature(s). The 'properties' of the 'segments' he is talking about must correspond to our 'relevant features'.

Hyman is right in saying that Thai (I take it that standard Thai is meant) has, among other phonemes, /p/, /b/ and /p^h/. When I as a functionalist have arrived, through the commutation test, at the whole picture of the segmental phonological elements of Thai¹, I shall have been led to define /p/, /b/ and /p^h/ in terms of relevant features in the following manner:

/p/ "voiceless unaspirated labial non-nasal"

/p^h/ "aspirated labial non-nasal"

/b/ "voiced labial non-nasal"

The validity of the relevant features by means of which the three Thai phonemes above are defined can be seen by confirming the following possibilities of phonological opposition; I shall refer, for each of the three phonemes, only to those other phonemes which are directly opposed to it, i.e. what may be called 'neighbours in the system'. The 'neighbours in the system' with respect to a phoneme are in either the same order or the same series².

¹ For convenience, one may look at the table of the consonants of standard Thai presented by Tingsabadh and Abramson (1993: 24). The fact that neither author happens to be a functionalist or that the consonants therein are not specifically presented as corresponding to *phonemes* in Thai makes no difference.

² For the notions of 'order' and 'series', see e.g. Martinet (1960: 3.15).

- /p/: “voiceless”(cf. /p/-/b/); “unaspirated” (cf. /p/-/p^h/; “labial” (cf. e.g. /p/-/t/); “non-nasal” (cf. /p/-/m/³)
- /p^h/: “aspirated” (cf. /p^h/-/p/); “labial” (cf. e.g. /p^h/-/t^h/); “non-nasal” (cf. /p^h/-/m/⁴)
- /b/: “voiced” (cf. /b/-/p/); “labial” (cf. e.g. /b/-/d/); “non-nasal” (cf. /b/-/m/)

Based upon the foregoing identification of /p/, /p^h/ and /b/ in Thai in terms of the relevant features, if I am asked to characterize in terms of ‘bilateral opposition’ and ‘multilateral opposition’ the type of phonological relation between two each of the three phonemes, i.e. /p/-/p^h/, /p/-/b/ and /p^h/-/b/, I shall, vicariously, arrive at the following answer.

- /p/-/p^h/ multilateral opposition (because the common base of /p/ and /p^h/ is “labial non-nasal” which is also shared by /b/)
- /p/-/b/ multilateral opposition (because the common base of /p/ and /b/ is “labial non-nasal” which is also shared by /p^h/)
- /p^h/-/b/ multilateral opposition (because the common base of /p^h/ and /b/ is “labial non-nasal” which is also shared by /p/)

The above characterization of /p/-/p^h/, /p/-/b/ and /p^h/-/b/ is at variance with Hyman’s characterization of them in that he considers /p/-/b/ to be a bilateral opposition while I consider it to be a multilateral opposition. Both Hyman and I specify /p^h/-/b/ as a multilateral opposition, but we shall see below if this identical characterization is for the same reason. Incidentally,

³ Note that /p/ and /m/ are distinguished from each other because /p/ is “non-nasal” and /m/ “nasal” and that /m/ is phonologically neither “voiced” or “voiceless” as there exists in Thai, unlike say Burmese, no such phoneme as we may indicate as /m^ʔ/.

⁴ Note that /p^h/ and /m/ are distinguished from each other because /p^h/ is “non-nasal” and /m/ “nasal” and that “aspirated” of /p^h/ is of no phonological significance when it is opposed to /m/.

Hyman is certain to characterize /p^h/-/p/, though he does not mention this in particular, as being also a multilateral opposition; again we shall see below whether this characterization by Hyman would be for the same reason as mine.

Hyman specifies the common base of /p/ and /b/ as (in his own words) 'oral unaspirated labial stops'. To facilitate my discussion, I take the liberty of changing here and below Hyman's double quotation marks into single ones (this in no way does violence to Hyman's own interpretation of the subject matter in hand) while I continue to use double quotation marks for myself in order to well distinguish his and my different stances. Compare the above-mentioned common base with that I myself have indicated above, i.e. "labial non-nasal". These two common bases, one attributable to Hyman and the other to me, are different from each other. At this stage one is not sure whether Hyman's 'oral unaspirated labial stops' stands for a sum of *relevant features* or something else. Hyman's 'oral' might seem to correspond to my "non-nasal" (I am perfectly happy to employ alternatively the term "oral" instead of "non-nasal"), and the same might be said of Hyman's 'labial' and my "labial", but I can only say this with reservations. The divergence between Hyman and me becomes evident when I see that Hyman attributes 'unaspirated' to /b/ as well as /p/ (he says that 'unaspirated' is commonly possessed by /p/ and /b/). Phonologically speaking, Hyman would be justified to consider 'unaspirated' in this way only if a phoneme which may be represented as /b^h/ existed in Thai (but this is not the case). One begins to suspect that Hyman's 'unaspirated' is meant to be a phonic characteristic as such (of /b/ in this case, or correctly, of a realization of /b/) and not at all a relevant feature. This makes me further suspect, in retrospect, that Hyman's 'oral' and 'labial' are also phonic characteristics of realizations of /p/ and /b/, and not relevant features. Hyman's use of the expression 'stops' (in the plural) in reference to both /p/ and /b/ definitely makes me understand that he refers to phonic characteristics, i.e. the two different stops, which is strange if he is to talk about a common property of the /p/ and /b/. It will have become evident by now that Hyman has in mind not relevant features but phonic characteristics when specifying 'oral unaspirated labial stop'. Above all, in connection with his specification of 'stops', it is important for me to point out to the reader that Thai has no such labial non-stop phoneme (be it a

fricative / ɸ / or an affricate /pf/) as is opposable to /p/ or /b/ and that consequently to specify ‘stops’ or ‘stop’ in connection with /p/ or /b/ in Thai clearly points to Hyman referring to a phonic characteristic of realizations of /p/ and /b/, and not a relevant feature(s) of /p/ and /b/. In conclusion, so far, Hyman is talking about [p]-[b], i.e. a phonic difference, in Thai, not /p/-/b/ in Thai, and is therefore talking about ‘bilateral phonic opposition’ (or I would prefer to call ‘bilateral phonic difference’), not ‘bilateral phonological opposition’. Anyway, as I have shown further above, /p/-/b/ in Thai is not even a bilateral phonological opposition, but a multilateral phonological opposition. The phonic characteristics of any of the three Thai phonemes in question that Hyman mentions are purely phonetically descriptive and have no phonological implication, in this case ‘phonological opposition’ with which the concept of ‘relevant feature’ is intimately associated. For example, ‘oral’ is specified not because it is (phonologically) opposable to ‘nasal’ (cf. /m/ in Thai) but is purely and simply one of the phonic characteristics of realizations of /p/ and /b/. The reason why Hyman’s characterization of [p]-[b], and my characterization of /p/-/b/, in Thai, in terms of the distinction between ‘bilateral opposition’ and ‘multilateral opposition’, differ from each other is perfectly clear when one sees that ‘unaspirated’ and ‘stop(s)’ have no place in the *phonological* characterization of /p/-/b/ in Thai.

As for /p^h/-/b/, or [p^h]-[b] in reality for Hyman, our conclusions are superficially identical that both /p^h/-/b/ and [p^h]-[b] are multilateral oppositions, but only superficially, for our conclusions are wildly dissimilar in fact. I say that /p^h/-/b/ is a multilateral (phonological) opposition because the common base of /p^h/ and /b/ which is “labial non-nasal” is also shared by /p/, while Hyman says that [p^h]-[b] is a multilateral (phonic) opposition because the common base of /p^h/ and /b/ (in reality, [p^h] and [b] to Hyman) which is ‘oral labial stops’ is also shared by /p/ (in reality, [p] to Hyman). The case of /p^h/-/p/ (or rather [p^h]-[p] in reality for Hyman) that he does not specifically discuss in his above-quoted passage would be considered by Hyman as a multilateral (phonic) opposition on the grounds that the common base, ‘voiceless labial oral stops’, is *not* shared by /b/ (which has ‘voiced’), while I would consider /p^h/-/p/ a bilateral (phonological) opposition because the common base of /p^h/ and /p/ is “labial non-nasal” which *is* shared by /b/. In this case, Hyman’s and my characterization of

/p^h/-/p/ (or [p^h]-[p] to Hyman) are precisely the opposite of each other.

Although I have in the foregoing discussion spoken about 'bilateral phonological opposition' and 'multilateral phonological opposition' and even actually characterized /p/-/p^h/, /p/-/b/ and /p^h/-/b/ in Thai in those terms, I should emphasize at this point that I do not in fact espouse these types of phonological opposition and do not operate with them in my own phonological analyses. I have, in what has preceded in this paper, only vicariously resorted to the distinction between 'bilateral opposition' and 'multilateral opposition' merely for the sake of demonstrating how differently Hyman and I understand 'bilateral opposition' and 'multilateral opposition' and how this difference shows up in our non-identical characterizations of /p/-/p^h/, /p/-/b/ and /p^h/-/b/ in Thai.

In my view, 'bilateral opposition' and 'multilateral opposition' may at best have some meaning so long as one understands them in the sense of 'bilateral phonic difference' and 'multilateral phonic difference'. But what is the use of the distinction between these two types of phonic difference unless the distinction is ultimately relatable to the phonological function of the phonic difference in question? The distinction between 'bilateral phonic difference' and 'multilateral phonic difference' devoid of its link to phonological function remains a mere descriptive classificatory device and holds no particular interest, particularly to a functionalist. I do not operate with 'bilateral phonic difference' or 'multilateral phonic difference', either.

As to whether one may continue to resort to the distinction between 'bilateral (phonological) opposition' and 'multilateral (phonological) opposition' in phonological analyses, my own stand is negative and is unambiguously indicated in some of my past writings (notably in Akamatsu 1988). I will not go into this in the present paper. I only need to emphasize that I have proposed (Akamatsu 1988: 52-63) the distinction between 'exclusive opposition' and 'non-exclusive opposition' which is free from binarism instead of the distinction between 'bilateral opposition' and 'multilateral opposition' which *is* based on binarism. Consequently I myself characterize all of /p/-/p^h/, /p/-/b/ and /p^h/-/b/ in Thai as non-exclusive oppositions, not multilateral oppositions as I have previously done for the sake of the discussion. It must be added that 'exclusive opposition' (which is necessarily a type of phonological opposition) derives from, yet differs from, 'bilateral opposition', and the same can be said of

‘non-exclusive opposition’ (another type of phonological opposition) and ‘multilateral opposition’. To identify ‘bilateral opposition’ and ‘exclusive opposition’ with each other is a serious error, which is frequently committed by several reviewers of Akamatsu (1988).

It is not enough to characterize /p/-/p^h/, /p/-/b/ and /p^h-/b/ in Thai as non-exclusive oppositions, as further investigation is necessary. What happens in Thai is that in syllable-final position, /p/-/p^h-/b/, which is an exclusive opposition is neutralized, the archiphoneme /p-p^h-b/ (characterized as “labial non-nasal”) being opposable in the above-mentioned context of neutralization to the phoneme /m/ (“labial nasal”), the archiphoneme /t-t^h-d/ (“apical non-nasal”) and the archiphoneme /k-k^h/ “velar non-nasal”, among others⁵. Since by definition an exclusive opposition is either a non-neutralizable (constant) opposition or a neutralizable opposition, but a neutralizable opposition is bound to be an exclusive opposition, it follows that /p/-/p^h/, /p/-/b/ and /p^h-/b/ are all non-exclusive (and of course non-neutralizable) oppositions, while /p/-/p^h-/b/ is a neutralizable (and inevitably exclusive) opposition. It goes without saying that a phonological opposition like /p/-/p^h-/b/ in Thai eludes the framework of the distinction between ‘bilateral opposition’ and ‘multilateral opposition’ that is based on binarism. Such an opposition is characterizable as neither a bilateral opposition or a multilateral opposition. Incidentally, I hope I hardly need to repeat my warning that a multilateral opposition should not be confused with what I personally call a multiple opposition (see Akamatsu 1988: 45 *et passim*; 1992: 51 *et passim*). Such a confusion is frequent and dies hard; I have referred to, for instance, Fischer-Jørgensen 1941: 182 in Akamatsu 1988: 44).

Lastly, we might ask: is such a misapprehension as witnessed in the quoted passage of Hyman attributable in any way to Trubetzkoy’s presentation of ‘bilateral opposition’ and ‘multilateral opposition’? I believe that the answer is yes and no. There is no excuse for Hyman mistaking a phoneme for a sound. What he indicates as /p/ in Thai must be a phoneme and should be understood as such by him as well as others.

⁵ See in this connection Tingsabadh and Abramson (1993: 26) and Henderson (1970: 28) who, in their own non-functional terms, describe the neutralization of /p/-/p^h-/b/ in syllable-final position in Thai. Tingsabadh and Abramson (*ibid.*) see /p/ occurring in syllable-final position, to which view I of course do not subscribe.

Trubetzkoy (1939: 59), among other places, presents a functionalist concept of a phoneme definable in terms of relevant features, by taking the example of /k/ in German which he defines as “tense non-nasalized dorsal occlusive” (in his own words “gespannter nichtnasalierter dorsaler Verschlusslaut”) and showing with emphasis (*op. cit.*: 59-60) that each of these features (which we now call ‘relevant feature’) is opposable to some other feature(s) of certain other phonemes in German. (One can quarrel about the term ‘nichtnasaliert’ above - why not ‘nasal’? - but the point is not affected.) In demonstrating the distinction between ‘bilateral opposition’ and ‘multilateral opposition’ in the way he does, Hyman’s attribution of ‘unaspirated’ to /b/ (Thai has no /b^h/) or his attribution of ‘stop(s)’ to /p^h/ and /b/ (Thai has no /p^h/ or /b/) clearly goes against Trubetzkoy’s thinking. Trubetzkoy’s (1939: 61) infelicitous attribution of “voiced” to /n/ in French, with a result that he misrepresents /d/-/n/ in French as an instance of a bilateral opposition might lead some to commit the same kind of mistake as Hyman’s. (This error on Trubetzkoy’s part was commented on in a review article by Martinet 1947: 27.) In the same vein, Trubetzkoy’s (1939: 71) infelicitous characterization of /b/ in German as “voiced labial stop” (or “labiale Media”⁶ as he puts it) without mentioning “non-nasal”, and unnecessarily mentioning “stop” (cf. “Media” = “schwache Verschlusslautbildung” = “voiced stop”), though German has no /b/, and the archiphoneme /d-t/ as “non-nasal dental occlusive in general” (or ‘nichtnasale dentale Verschlusslaut überhaupt’ as he puts it) might lead some astray as German has no /t^h/ or /t/. Nevertheless, Hyman’s ‘stops’ which he ascribes to /p/ and /b/ is not along the same line of thinking as

⁶ ‘Media’ and ‘Tenuis’ are old terms of Greek-Latin origin which are nowadays generally not used in books on phonetics. Indeed Scherer and Wollmann (1977: 38, fn. 4) write : ‘In sprachhistorischen Werken werden [p, t k] als T e n u e s („dünne” Laute (sg. Tenuis) bezeichnet und [b, d, g] also M e d i a e (sg. Media)...’ Trubetzkoy (1939), among other works of his, employs the terms ‘Media’ and ‘Tenuis’ in a similar fashion. For ‘Media’ and ‘Tenuis’ found in Trubetzkoy (1939: 71) in connection with /d/ and /t/ in German, Trubetzkoy (1949: 82), a French translation by J. Cantineau, allots the term ‘moyenne’ and ‘ténue’ while Trubetzkoy (1969: 79), an English translation by C. A. M. Baltaxe allots ‘voiced stop’ and ‘voiceless stop’. Incidentally, the terms ‘Media’ and ‘Tenuis’ are not found in the Index, prepared by R. Jakobson, in Trubetzkoy (1939) nor, for that matter, in Vachek (1960). Note lastly that ‘Media’ and ‘Tenuis’ do not correspond exactly to ‘lenis’ and ‘fortis’, respectively, which were, to the best of my knowledge, first used by A. Sievers, and are still commonly used in our days even in books on phonetics and refer to not only plosives but also fricatives and affricates.

Trubetzkoy's 'occlusive in general' which corresponds to "stop". Here Trubetzkoy is not plagued by phoneticism as Hyman is. Be that as it may, it would be inappropriate to impute a whole fault such as witnessed in the above-quoted passage of Hyman to Trubetzkoy's occasional slips. Any exemplification of Trubetzkoy's theoretical points, if it is to be made in drawing on a particular language that Trubetzkoy himself happened not to choose, should be made by understanding and observing Trubetzkoy's true intentions.

REFERENCES

- AKAMATSU, T. (1988). *The Theory of Neutralization and the Archiphoneme in Functional Phonology*. Amsterdam Studies in the Theory and History of Linguistic Sciences. Series V: CURRENT ISSUES IN LINGUISTIC THEORY (CILT) No. 43. 1988. John Benjamins Publishing Company. Amsterdam and Philadelphia.
- AKAMATSU, T. (1992). *Essentials of Functional Phonology*. Série Pédagogique de l'Institut de Linguistique de Louvain (SPILL) No. 16. Peeters. Louvain-la-Neuve.
- FISCHER-JØRGENSEN, E. (1941) 'Phonologie'. In *Archiv für vergleichende Phonetik* 5: 170-200. Metten. Berlin.
- HERDENSON, E. J. A. (1970). 'Prosodies in Siamese: a study in synthesis'. In *Prosodic Analysis* (ed.) F. R. Palmer. Oxford University Press. London, 27-53. Originally published in *Asia Major* (new series) 1: 189-215. 1949.
- HYMAN, M. L. (1975). *Phonology : Theory and Analysis*. Holt, Rinehart and Winston. New York.
- MARTINET, A. (1946). Review of Trubetzkoy (1939). In *Bulletin de la Société Linguistique de Paris* 42: 23-33. Librairie C. Klincksieck. Paris.
- MARTINET, A. (1960). *Éléments de linguistique générale*. Armand Colin. Paris.
- SCHERER, G. and WOLLMANN, A. (1977). *Grundlagen der Anglistik und Amerikanistik*. 2nd and enlarged ed. (1st ed. 1972) Erich Schmidt Verlag. Berlin.
- TINGSABADH, M. R. K. and Abramson, A. S. (1993). 'Thai', in *Journal of the International Phonetic Association* Vol. 23, No. 1, pp. 24-26. International Phonetic Association. Department of Linguistics and Phonetics, The University of Leeds. Leeds LS2 9JT.
- TRUBETZKOY, N. S. (1939). *Grundzüge der Phonologie* (=Travaux du Cercle

Linguistique de Prague 7). Jednota Československých Matematiků a Fysiků. Prague: [Reprint, 1968. Kraus-Thompson Organization Limited. Nendeln. Liechtenstein].

TRUBETZKOY, N. S. (1949). *Principes de phonologie*. (Translation by J. Cantineau of Trubetzkoy (1939)). Librairie C. Klincksieck. Paris.

TRUBETZKOY, N. S. (1949). *Principles of Phonology*. (Translation by C. A. M. Baltaxe of Trubetzkoy (1939)). University of California Press. Berkeley and Los Angeles.

VACHEK, J. (1960). *Dictionnaire de linguistique de l'École de Prague*. Avec la collaboration de J. DUBSKY. Comité International Permanent des Linguistes (C.I.P.L.). Spectrum. Utrecht and Anvers.