The reappearance of an old controversy on how best to analyze the Russian palatalized consonants prompts the author of this article to define the words "palatalization" and "palatal." Contrastive examples clarify phonetic terminology including the classifications of "labial voiced and voiceless palatalized stops," "labial voiced and voiceless palatalized spirants," and the notion of "plain and palatalized palatals." Professor Bidwell's article, "An Alternative Phonemic Analysis of Russian," is critically reviewed, and remarks by Professor Stankiewicz concerning the article are included. (RL)
Palatalized and Palatal—A Definition

By Rasio Dunatov
Fordham University

The recent reappearance of the old controversy on how best to analyze the Russian palatalized consonants¹ points up a need for a definition of the features palatalized and palatal. After years of using the terms hard and soft to describe Russian consonants and/or vowels, the writers of Russian language texts have switched to hard and palatalized, and some have even included phonetically more or less accurate definitions of palatalization. However, the use of these labels often belies a lack of understanding of the linguistic facts involved, for they are applied to sounds for which they have no meaning, e.g., the Russian phonemes /b, z, c/.

Before considering the problem of these sounds, it is necessary to state certain methodological bases of procedure. When someone speaks of a sound as being labial, dental, voiced, voiceless, stop, spirant, etc., we assume that the use of these terms implies an approach to phonetics which would describe a sound in terms of the articulatory organs, or the places of articulation, and the manner of articulation, i.e., an approach which views a sound as a bundle of simultaneous phonetic features. We further assume that the phoneme would be defined either as a bundle of features, each of which serves to distinguish a given sound from one or more other sounds in the language (distinctive features), or as a class of sounds all of which share the same set of distinctive features. In either case, when we say that in Russian there is a labial voiced palatalized stop /b'/, as, for example, the first sound in bit'; we imply that there is in Russian a voiced palatalized stop which is not labial (e.g., /d' in dvoj); that there is a labial voiceless palatalized stop, (e.g., /p' in pit'); that there is a labial voiced plain stop (e.g., /b' in byt'); and finally, that there is a labial voiced palatalized spirant, (e.g., /v' in vit'. The feature non-nasal is not distinctive, since it is predictable from the combination of labial and either voiced or stop.

In this type of analysis, palatalization is defined as the raising of the front part of the tongue (the area immediately back of the apex) towards the hard palate simultaneously with the primary artic-
Palatalization is thusly a coarticulation. Some other examples of coarticulation are labialization, retroflexion, and velarization. In the formation of a consonant sound, a constriction of the air passage takes place in at least one place in the speech apparatus. If constriction takes place in more than one place, the one with the least aperture is the primary articulation, and the rest are secondary or coarticulation features. This means that coarticulation features may or may not be present in a sound.

Since a given articulator (lips, apex, front of the tongue, or the dorsum) cannot be performing both primary and secondary articulations at the same time, it follows that a labial sound cannot be labialized, an apical sound cannot be retroflexed, a frontal sound cannot be palatalized, and a dorsal sound cannot be velarized.

A palatal sound is one formed with the front of the tongue constricting against the hard palate. Since a palatal sound is also a frontal sound, it follows that a palatal sound cannot be palatalized. In Russian, the sounds [g, z, c] are palatal sounds.

The fact that in Russian the affricate [ć], and the cluster [qć] in variation with the geminates [qćć] and [qććć] are relatively fronted and are followed by the same allophones of /i, e/ as the palatalized consonants, while [g, z] are relatively backed and are followed by the same allophones of /i, e/ as plain consonants, has led certain students of Russian to call [g, z] plain, or hard, and [ć, qć, qćć, qććć] palatalized or soft. This identification is strengthened by the fact that in morphology frequently the same allomorphs occur after /g, ć/ as after plain consonants and after /ć/ as after palatalized, e.g., in phonemic transcription the adjectives xorôšij and novyj on the one hand, and nûzôšij and xûnôšij on the other, share the same set of declensional suffixes. It may be useful to retain the old terms hard and soft to apply not to phonemes, but to stems which end in certain phonemes. For adjectives, for example, a soft stem may be defined as one whose final consonant is a palatalized consonant or /ć/, e.g., nûzôšij and xûnôšij, while /g, ć/ are relatively backed and follow the same allophones of /i, e/ as plain consonants. Not only is there no reason for such a treatment—it is impossible, because it does not correspond to the phonological facts of the Russian language. As was shown above, the phonemes /ś, ć, ćć, ććć/ by definition cannot be palatalized. Phonetically they are plain, if we define this

In his comment on Bidwell's article, Professor Stankiewicz says: "Thus there is no reason to treat /ć/ as 'palatalized' and /ś, ćć/ as 'non-palatalized,' even if they differ in their distribution." Not only is there no reason for such a treatment—it is impossible, because
Palatalized and Palatal—A Definition

feature as the absence of palatalization. Therefore, those who speak of /b/, /v/ as being hard or plain are correct on the phonetic level. But to speak of /g/ as being palatalized is wrong on any level. Phonemically, /b, z, c/ are neither plain nor palatalized. To speak of them as such is to confuse distributional features with phonetic features.

It is by combining these two kinds of features that Professor Bidwell is able to arrive at his analysis of the sounds of Russian. In his examples (p. 128) the component /s/ has the phonetic correlate palatalized in /sax/, In /šax/ and in /š/ it stands for a distributional statement "same allophone of /s/ as after palatalized consonant," while In /šas/ it stands for nothing. Such an analysis is clearly untenable, because we cannot set up a phonemic entity which we cannot define in terms of distinctive features in all its occurrences. Professor Bidwell's component /s/, deprived of phonemic status, becomes merely a transcription symbol which, together with the preceding consonant symbol, stands for a palatalized consonant. In other words, we are at the same place from which we started.

The contrast which Professor Bidwell cites as the reason for his analysis (Pilite "i," a ne "y" posle "s") needs comment. Deciding what is legitimately part of the corpus of a language and what is not remains a tricky problem, especially when dealing with borrowed lexical items. However, the example cited, and there are many of this type, can best be treated as belonging to the grammar of the language, not to the corpus. This is analogous to certain symbols in a generative grammar (e.g., parenthesis) belonging to the grammar machinery, while other symbols (e.g., morphemes and morpheme boundary markers) belonging to the alphabet of the grammar.

Note: In accepting this paper, the Editorial Committee raised several questions concerning some of the points made in the paper. To avoid further misunderstanding, I will list the questions raised by the Committee and will attempt to answer them. I will remind the reader that I have approached the problem from the standpoint of articulatory phonetics.

1. The statements concerning labialization, retroflexion, etc., seem to be a priori. These statements are a matter of definition.

2. The statement that retroflexion is a coarticulation feature is at least debatable. Retroflexion is a coarticulation feature if it accompanies another articulation. This is not to say that it cannot itself be a primary articulation feature. A sound may be either apical (not retroflexed) or retroflexed, but not both. This again is a matter of definition.

3. Are not the initial sounds of Russian my and Polish dialectal pygol 'sweat' examples of labialized labials?—In the articulation of both of these sounds the lips are protruded. The protrusion, however, does not accompany the normal bilabial articulation of these sounds.
It is, rather, a different articulation, called by Bloch and Trager protruded (pp. 27-28).

4. If we deny the possibility of a palatalized palatal, how do we analyze "the three articulatory sets of palatals encountered in the Slavic languages?"—This question contains its own answer. These are three different orders of palatals. The distinguishing feature is not palatalization, but place of articulation; i.e., pre-palatal, medio-palatal, post-palatal.

Notes


3. Bidwell, p. 131 (Editors' Comment).

4. The dental affricate /c/ has not been included in the discussion, because it is not inherently un-palatalizable.

5. For example, V nemechkom jazyke Gete pišetsja ne čerez "d", čerez "b". This example, however, does not make č a phoneme of Russian.