the voiceless plosive with an intermediate degree of aspiration, of which the English p is a typical example. When an Englishman pronounces the name of the old Chinese capital p'eng'tung, it sounds to the Chinese ear as if he perversely interchanges the consonants by a sort of Spoonerism. We think we hear phet'ung pronounced for what ought to be peng'tung. It is true that the consonants in speak, take and Kate are more aspirated than in speak, stake and skate, a difference which is readily noticed by all Chinese students of English. But if a Chinese pronounced these sounds in the Chinese fashion and said ph-ahk, th-ahk, kh-ahk, and sp-ahk, st-ahk, sk-ahk, it would certainly sound somewhat un-English. We can therefore consider both these varieties of voiceless plosives in English as having intermediate degrees of aspiration, and these have so far not been observed in any of the Chinese dialects.

I have so far given a description of the types of plosives which are known to exist in Chinese dialects and made occasional references to their geographical distribution and phonological correspondences. A detailed examination of these correspondences will form the subject for a later study.

Once again the ten types of plosives in Chinese:

No. 1. p t k  No. 3. ph th kh  No. 7. b fi d fi g
No. 2. b d g  No. 4. ph th gh g  No. 8. b d g
No. 5. px tx kx  No. 9. 'b d —
No. 6. ph ti kfi  No. 10. gb d —

26. Prof. S. BOYANUS (Leningrad): The main types of Russian intonation.¹

I. FOUR MAIN TYPES

There appear to be four main types of intonation used in Russian speech:

1. A falling intonation.
2. A high-pitch interrogative intonation.
3. A rising intonation.

These four types may be clearly heard in these one-word sentences: 'pravda (It's true), 'gromit' (Louder):

<table>
<thead>
<tr>
<th>Types</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Falling</td>
<td>'pravda.</td>
<td>It's true. (Assertion and exclamation.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>'gromit'?</td>
<td>Louder! (Command.)</td>
<td></td>
</tr>
<tr>
<td>High-pitch Interrogative</td>
<td>'pravda?</td>
<td>Is it true?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>'gromit'?</td>
<td>Do you want it louder?</td>
<td></td>
</tr>
<tr>
<td>Rising</td>
<td>'pravda?</td>
<td>Is it possible it's true?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>'gromit'?</td>
<td>Is it possible you want it louder?</td>
<td></td>
</tr>
<tr>
<td>Rise-fall</td>
<td>'gromit'?</td>
<td>Louder, please! (Request.)</td>
<td></td>
</tr>
</tbody>
</table>

¹ I am indebted to LILLAS E. ARMSTRONG and IDA C. WARD for the help their Handbook of English Intonation has given me in studying the intonation of my own language. The notation I use is that used in their book.

II. USE OF THE FOUR TYPES

Type 1. The falling intonation is the typical one for assertions (see above), commands (see above), questions asked with an interrogative word—pronoun or adverb—ldge 'pravda? (Where is the truth?) and exclamations (see above).

Type 2. The high-pitch interrogative intonation is used in colloquial speech in questions which may have "yes" or "no" as the answer. These questions do not differ in verbal structure from statements, the distinction being made only by intonation. ("Yes" or "no" questions used with the particle jì sound bookish, except when in the negative. They have intonation type 1.)

This type is the most characteristically Russian of all the types, and the one which a Russian finds the most difficult to shed when he speaks another language. It is a very common tune: its use is not limited to "yes" or "no" questions. It is often heard in non-final groups in colloquial speech and in colloquial passages in reading aloud.

Type 3. The rising intonation is used (a) in those questions which can be answered by "yes" or "no" and which at the same time imply some degree of perplexity, doubt or surprise (see above table). These questions do not differ in verbal structure from statements, the distinction being made only by intonation. (b) In statements and commands with an implication, e.g. mognat bi — (Possibly): ny dumaju —. — (I don't think so); pa'probujt! —. — (Try it! (implying: and you'll see what will happen)). (c) In non-final intonation groups in reading aloud narrative and descriptive passages, and also in colloquial speech when the speaker reasons, explains, proves.

Type 4. The rise-fall intonation is used in requests (see above table). Requests may also be said with intonation type 1, i.e. with the tune of commands. In this case the voice quality is different, and the idea of request is strengthened by the use of some expression such as pa'salasta (Please), dana'goj moj (My dear), etc.

III. THE STRESSED SYLLABLES OF THE FOUR TYPES

Let us now study the types in longer sentences, listening specially to the intonation of the non-final stressed syllables of types 1 and 3.

<table>
<thead>
<tr>
<th>Types</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1</td>
<td>on</td>
<td>'lëbën igrat' f karti.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>on 'lëbën igrat' f karti?</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>on 'lëbën igrat' f karti?</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>paga'vati s nim.</td>
</tr>
</tbody>
</table>

He likes to play cards. Does he like to play cards? Is it possible he likes playing cards? Please speak to him.

In type 1 there is generally a slight rise on each non-final stressed syllable, and in type 3 a slight fall on each non-final stressed syllable. The slight rises in type 1 throw into greater relief the final fall, and the slight falls in type 3 throw into greater relief the final rise. The fall on the final stressed syllable of type 1 is low, as in French. This low fall is specially noticeable in sentences containing more than one stress.
In type 2 there is generally only one prominent word. Its stressed syllable is pronounced with a high-rising or a high-level pitch (sometimes there is a slight fall). The essential characteristic of type 2 is the high pitch of its stressed syllable.

In type 4 there is generally only one prominent word. Its stressed syllable carries the rise-fall of the request (cf. Thank you).

IV. THE UNSTRESSED SYLLABLES OF THE FOUR TYPES

In these further examples the intonation of the unstressed syllables is examined.

(a) Unstressed syllables of type 1.

Other examples:

\begin{itemize}
  \item \textbf{vi} 'bliš v maskyn? (Have you been to Moscow?)
  \item on 'skora prždot? (Will he come soon?)
  \item ana napšsala jimu båljojo pšmo? (She's written him a long letter? That's surprising.)
\end{itemize}

(b) Unstressed syllables of type 2.

\begin{itemize}
  \item \textbf{vi} v stam u'yrmi? (Are you sure of that?)
\end{itemize}

The unstressed syllables preceding the stress are rather low; those following very low.

The syllables preceding the stress may have the initial pitch of the stressed syllable; those following are low.

Other examples:

\begin{itemize}
  \item prnššitu stul. (Bring a chair.)
  \item \textbf{t}akova'pros. (There's still some question about it.)
\end{itemize}

(c) Unstressed syllables of type 3.

\begin{itemize}
  \item \textbf{an} napšsala jimu båljojo pšmo? (She's written him a long letter?)
\end{itemize}

It will be noticed that

\begin{itemize}
  \item unstressed syllables preceding non-final stressed syllables and closely connected with them are lower in pitch than the beginning of these stressed syllables,
  \item unstressed syllables following non-final stressed syllables and closely connected with them may have the final pitch of those stressed syllables,
  \item unstressed syllables preceding the final stressed syllable and closely connected with it may descend towards the pitch of the final syllable.
\end{itemize}

Other examples:

\begin{itemize}
  \item tak vi 'lišč jivo 'neskalčo 'ras? (So you saw him several times?)
  \item on 'nišvo nu 'mok 'žoščaš? (And he could do nothing?)
  \item 'tš jišʃo va'pros. (Please wake me up at seven o'clock.)
\end{itemize}

(d) Unstressed syllables of type 4.

The syllables preceding the stress may have the initial pitch of the stressed syllable; those following are low.

Other examples:

\begin{itemize}
  \item prnššitu stul. (Please bring a chair.)
  \item \textbf{z}oščaš \textbf{t}š dišu. (Do it for me, please.)
\end{itemize}

27. Prof. H. O. WILDE (Göttingen): Sprachgeschichte und Phonetik.