## SYLLABIC JUNCTURE

## SIMEON POTTER

I have given my paper the title "syllabic juncture" because all five types of juncture occur in English only between or after syllables. Since juncture, like pitch and stress, is a distinctive prosodic feature, I should prefer to call it a prosodeme, reserving the term phoneme for segmental or linear features. If we adopt this simpler terminology, we dispense with all the difficulties associated with the contrastive epithets segmental and suprasegmental, or successive and simultaneous, as applied to classes of phonemes. I do not assert, however, that all junctures are syllabic. In the Slavonic languages, for example, they need not be syllabic, although they do seem to be all morphemic. I notice that Kučera transcribes the Czech word for "congress" as $/ \mathrm{s}=\mathrm{jezd} /$ with what he calls internal disjuncture. ${ }^{1}$
A syllable may be adequately defined, at least for our immediate purpose, as a segment of speech that is heard as one unit of sonority. The forms in the simple series aye, ray, tray, stray are all monosyllabic but, because str- is a maximum initial consonantal cluster in English (though not in Czech, ef. pstruh "trout"), the continuation astray involves two syllables and some kind of juncture.

## The dog went astray ( Jl smooth transition)

Ct. It was a stray dog without a collar ( J 2 internal or plus juncture).
If aye, ray, tray and stray have one syllable each and astray has two, it follows that the point of syllabic division in the latter can be chosen anywhere between the beginning of $s$ and the beginning of $r$. This fact has been demonstrated in tape-recordings of various English dialects and idiolects. Similarly we may contrast

Please hand me that ashtray ( J 1 )
This is a tea-tray, not an ash-tray (J2).

Professor Bruce Boswell used to train his students to pronounce Russian m by getting them to repeat the words of Jaques in As You Like It, II vii 52 -

The why is plain as way to parish church

- and then to bring the juncture forward -
as way to pari shchurch.
${ }^{1}$ Henry Kučera, The Phonology of Czech (The Hague, Mouton, 1961).

In J , or smooth transition, the vocal cords remain active.
I have just attended the Stratford Festival and seen a most enjoyable performance of As You Like It /az ju laik it/ or /ajjulaikit/ or even /azulaikit/.
J 2 can occur in a language only where there is a potential pause. In slow and deliberate speech this pause occurs between all words:
I am anxious that you should find everything here just as you like it /djast +az +ju:+laik+it/.
Speed up the tempo (ratio of unit segments to units of time) and plus junctures are inevitably reduced to smooth transitions. Speed up the tempo so that any kind of juncture has a duration of less than five centiseconds, and it will be undetectable by the human ear. It will no longer be heard as a recognizable pause but only from its allophonic effects on neighbouring phonemes. In a minimal pair (contrasting in one feature only) meaning is then distinguishable only from the context, as in the wellknown examples an aim: a name, see them eat: see the meat, its wings: it swings, ice cream: I scream, that's tough: that stuff, its praise: it sprays, and many more. Differences of stress occur in other examples (which therefore cease to be minimal pairs): the beestings: the bee stings, light housekeeper: lighthouse keeper. (That housekeeper, by the way, who asked her milkman "How much is my milk bill?" might well have been startled when she heard the reply "My name is John." The story is probably apocryphal.) Phonemic differences (one affricate versus two consonants) occur in why choose: white shoes; and allophonic differences (light versus dark $l$ ) in we learn: we'll earn and we loan: we'll own.
No sentence or phrase can end without a terminal juncture:
J3 level terminal or single bar /|/
J4 upturn terminal or double bar /ll/
J5 downturn terminal or double cross |\#|.
These three terminal junctures have progressively longer durations. A good working hypothesis would be to take J 1 as 0 mora, J 2 as $\frac{1}{2}, \mathrm{~J} 3$ as $1, \mathrm{~J} 4$ as $1 \frac{1}{2}$, and J 5 as 2 . The significance of this timing is made clear by the authors of that notable monograph on microscopic speech analysis in which not only phonemes and prosodemes but also such paralinguistic phenomena as vocal squeeze and openness, glottal constriction and closure, overtones and undertones, breathiness, drawling, clipping, gasping, sighing, whispering, and variations in sonority and tempo are recorded with mathematical precision. ${ }^{2}$
Junctures 1, 2 and 3 are linked with stress and junctures 4 and 5 with pitch. Since we detect an internal juncture of less than five centiseconds, as we have already seen,

2 Robert E. Pittenger, Charles F. Hockett and John J. Danehy, The First Five Minutes: A Sample of Microscopic Interview Analysis (New York, 1960). An inverted phi betokens "absence of audible activity" and the duration of the silence is given by a numeral within parentheses denoting tenths of a second.
by its neighbouring allophones (if not, of course, by its contextual sense) this means that phonemically redundant and irrelevant features suddenly become contrastive and relevant. Since allophones in respect of junctures involving a vowel and a postdental nasal cannot be made distinctive, juncture may become permanently shifted in the development of a language by the process known as syllabic misdivision or metanalysis. Hence have arisen such common English forms as adder for nadder, apron for napron (cf. napkin), auger for nauger, orange for norange, and umpire for numpire. The reverse process is seen in newt for ewt, and also in several placenames like Nash, Nayland, Nechells, Nempnett, Noke and Nyton.

If two stressed vowels stand together, J 2 is bound to occur. Consider, for instance, the following italicized commands in Browning's Rabbi ben Ezra:

Our times are in His hand
Who saith 'A whole I planned,
Youth shows but half; trust God: see all, nor be afraid.'
These juxtaposed monosyllables bear heavy stresses. They cannot be pronounced without pauses: /tr $V$ st + god $\mid$ si: $+0: 1 /$. Contrast trust God with trustful and see all with seesaw. Browning enjoyed himself immensely when he indulged in such sportive rhymes as /oubi:s/ and /roub $+\mathrm{i}: \mathrm{z} /$ in The Pied Piper of Hamelin:

## You hope, because you're old and obese

To find in the furry civic robe ease?
Since junctures occur normally at morpheme boundaries, they are important for constituent analysis. A good illustration is provided by the familiar flower-name cowslip (primula veris) from prosaic Old English cū slyppe "cow slime". These meadow flowers looked something like cow-droppings. The inherited juncture, preserved for over a thousand years, is /kau slip/. Only foreigners say /kauz lip/. I have also come across cow's lip in substandard dictionaries.

It is now generally agreed that the complete description of a language should include everything describable at all three levels: phonological, morphological, and syntactic. At the phonological level we can now reasonably hope to transcribe all relevant features (with the possible exception of that elusive element - voice-quality modulation). At this level we are concerned with a hierarchy of interdependent phonemes and prosodemes. The order of presentation is important. In English that order would seem to be segmental phonemes, terminal junctures, internal junctures, stresses, pitches, and then (like the circumference of a circle) back again to segmental phonemes; or, quite simply, phonemes, junctures, stresses, pitches, phonemes. The description is complete only when the wheel has come full circle.

