KS, 1
Pagination of my edition will be different. Follow the chapter headings.

1. Phonol. development of child language and aphasia
child's borrowing is a creative departure from the prototype. May have elements foreign to the model.

V plus r may become a long V in the child's speech, making a quantity opposition. Russ maaka for marka. Fr. consonants: p t k, b d g, m, n, palatal n; f, s, š (sh), v, z, ž (zh). Note series of three. Child with no fricative (s) may develop a palatal stop to oppose $k$, say, something like $\check{c}$ (tch), So it is a quadrangular system instead of a triangular one.

Stops are first voiceless and unaspirated (lax). This the child has them even if the model has, say, voiced vs. voiceless, or voiced vs. voiceless unaspirated.
„Sound change" in the child. $K$ is replaced by t , but $g$ by $k$.
$j u t ' i$ for ruki, n'ik'i for knigi. First the dental stood for both, and when he got $k$ he used it for the most marked opposite, e.g. the voiced velar.
Same kid dropped $j$ and replaced the liquids with $j:$ aked' $i$ for jagody, abet'ka for jabločko, jampe for lampa, juka for ruka. (I am writing e here for schwa)

Frozen speech of early childhood in the Estonian farm kids. Adherence to the early code in the Czech writers, brothers Karel and Josef Čapek.

The drive to be different and the drive to unify with the model. Child is an imitator who himself is imitated by his mother. „Mommy is going to the store now, and Billy will be with Uncle Bobby" (avoidance of pronouns). „Do you hear Mommy?" Note nursery words in adult vocab (papa, mama). Language of lovers. (hey, sweetie pie, booby boo).

Sladkojazyčije or sweet talk in Siberian Kolyma: j for liquids. But its acceptance into the model comes from the influence of the vast Paleosiberian block: only one liquid at most in Japanese, Chinese, etc. Lower Kolyma, Koryak and Chukchee, Enisej Siberian have no liquids. Here the adaptation to child language is a means of phonological change.

If the new generation rejects or reforms some element of the model uncompromisingly, then its loss lies in the inherent instability of the system, not in the child. The child feels the change 'in the air ${ }^{\text {}}$, so to say.

The parallels between child lang. and adult lang development are everywhere.
4. Recording and Analysis of the Beginnings of Child Lang

Gregoire lived with infants to record their speech. The deviations of the child from the model are constant, they are not by chance, they are systematic.
5. Principle of Least Effort and the end of the Lallenperiode

Schultze's law of Least Effort is wrong. At the pre-speech Babbling Period the child can make all conceivable ling. sounds (Grégoire). Then he loses this ability on the threshold of speech, esp. liquids, palatal consonants ( $\mathrm{k}, \mathrm{g}, \mathrm{x}, \mathrm{s}$ ) and sibilants. Yet he has a motor and acoustic impression of them.

Serbian kid (1 yr)recognized and distinguished tata, kaka but said tata for the latter. No velar stop. Active vs. passive system. The Fr kid who said tosson for both garçon and cochon, but objects if she hears garçon for pig and cochon for boy. „Mais maman! Parlemoi français!" Hörstummheit - he understands but does not speak.

Parrot-like repetition. He can say the sounds but doesn't use them spontaneously. Same thing in aphasia. Or the first acquisition is good, but then it is abandoned, and $t$ is the replacement for $k$.

## 6. Emergence of the Speech Sound

The striving toward meaning; the striving toward communication. A phonological system is needed. The dummy dialogues, the soliloquies of bedtime are replaced by communication.

## 7. Interjectional Sounds

Sound gestures are a layer apart, even in adults. They seek out sounds inadmissible in the system. The intermittent labial liquid is not in any language. (For me this is a neighing horse.) In Greek, it means water, elsewhere shivering. The distinction between a labial stop and labial click is never phonemic. Bushman has a labial click, while the $p$ is emotional, a sound gesture. Note that the labial click is our gesture for a kiss, in my childhood, at least it was.

Fricatives for sounds of trolley car, airplane, cat. Expressive value of the unusual, the element outside the system.

Rounded palatal vowels ööö stand for moving vehicles, for a horse, for a barking dog. For the barking dog öö >oo, and becomes the word for dog. The expressive $r$ is easily taught to the child, and this prepares him for the later integration of the sound into the system.

## 8. Exceptions to the order of Phonological development

In the Lallenperiode (babble), the sounds emerge apparently at random. Not so the sign function in the true speech period.
The rounded front vowels are present early, early, in the babble, but appear late in phonology. Grégoire's son at 7 months could babble them, but they reappeared only at 23 months. They are made by Czech children at the pre-ling stage but they are not in Czech and are extremely difficult for Czechs to master.

As language becomes social, the babbling sounds are relegated to solitary play, waking and sleeping, like thumb sucking or blanket holding in bed.

Some sounds may be allophones of others for the child. The Czech girl of 1 yr :
i and u -- high V
e and $\mathrm{o}-\mathrm{mid} \mathrm{V}$.
i and e only after dentals, u and o after labials. before $a$, labials and dentals.
Similarly $t$ as a variant of basic $p$, or $n$ as variant of $m$.
Dentals $t d$ in the beginning are variants of $p$. With the first split of C's into labials and non-labials; the new series are usually dentals, sometimes also velars (palatals). i and e are variants of the single high (narrow) V , i more distant, e closer to a.

Labial fricative is variant of stop.
Fricative vs. stop is a late acquisition. Fricatives are variants or sound-gestures only.

## 9. Dissolution of the Phonological System

Lack of data on aphasia. We exclude lesions to the speech organs, the bulbar apparatus, etc. What is critical is the loss of the ability to distinguish functionally the meaning of sounds. May be able to produce them in sound gestures - as children can - but the sign value is lost. Loss of distinctions, e.g. when Czech $r$ is lost, the distinction between $r$ and zero is gone (typo in book here: it is not $\ddot{\text { o }}$ ). Or $\mathrm{r}=1$, they are variants of one. In arthritic lesions anything may be lost, but here the succession of changes is fixed.

Remodeling of the old system. The Czech who now in aphasia has penultimate stress, connected with the loss of V quantity. Same thing happened in Polish and Cz dialects. The initial stress is lighter, while the penultima gives greater prominence to stress positions when quanity is lost.

## 10. Sound and Meaning Disturbances

An abstracting and referential explanation of the permanent reality of things is lost in aphasia. Sounds and words the same here in sign value. Phonemes have no semantic value, only distinguishing value. Rippe and Lippe: if meaning preserved but phonemes damaged, he knows the difference but cannot distinguish in speech; if meaning damaged but phonemics intact, they become two different, though semantically enigmatic, units.

Both disturbances result in an expansion of homonymy. E.g. to build means a huge variety of things. (Cf. students who use only machen.)

## 11. Linguistic Character of Aphasic Sound-deafness and Sound-muteness.

In acoustical aphasia the problem is not sensory lapses or the distinction between pitch and noise, but lack of ability to extract the distinctive features from the auditory fabric. Pitch in music has an absolute value, in language, a relative one. One may, e.g., use chessmen for checkers. Their distinguishing value becoming meaningless; they are all one.

Telegraphic style $=$ agrammatism of children ("want go home") $=$ aphasic $=$ foreign language learner (ja chitat' kniga).

Chinese can't hear r and 1, Swede can't disting. Russ or German z from s, Russ can't hear Serbian pitch. Russ can't hear Germ longs (Guten Tag). They are not sick or impaired.

SC sela with rising e 'of the village', sela with falling e 'the villages', sela with two long fallings 'of the villages', Loss of Norwegian pitch opposition in aphasics (Jakobson was writing this in exile in Oslo in 1941; the frequent Czech examples come from his years as prof. of Slavic in Czechoslovakia, mid 20's to 1939). The aphasic becomes like a foreign speaker of his own native language.

This also happens to speakers in long exile - their language erodes like that of aphasics.
Russians speaking Czech can do the long vowels when they try hard, but most of the time they forget about it. So children can articulate better than they want to. Mudder can become mother under pressure. A Dutch speaker with perfect interdental English th switches to $d$ when drunk. (I mean someone I know, not all Dutch speakers.) Similar case with aphemic disturbances.

Sound-deafness is a loss of symbolic distinctions, vs. general senory loss. So sounddumbness is an apraxia for signs, vs. true apraxia.

Note the Husserl reference in the discussion of the concrete meaning of a morpheme: Bucephalus is a horse - the concrete relation of the expression a horse is modified, but not its meaning. Phoneme has no relation to anything concrete; it is mere otherness. French sang ~ saint. The phoneme distinguishes things which themselves have concrete meaning. Intonation patterns may be preserved longer than phonemes because they do have meaning; the phonemes are susceptible to early loss in emissive aphasia.

In polyglots with sound-dumbness one language may be affected while the other remains intact. Proof it is not an ataxia of the speech muscles.

## II. Stratification of the Phonological System

## Relative and Absolute Chronology

The relative chron. order of phonol. acquisitions is everywhere and at all times the same. (Typical Jakobsonian law of invariance.) Speed is a great variable, from 1.5 years to 6 or later.

Everywhere the velar $k$ is a $t$. The stable arrival of $k$ varies from 1,2 yrs on. Palatalvelars after dentals.

Like a slowmotion film in late development. In imbeciles, fricatives are still replaced by stops.

## 13. Minimal Consonant and Minimal Vowel Structure

Wide V and front stop. $a$ and $p$. Nasal $\sim$ oral and labial $\sim$ dental are the minimal cons. system. m, p, p, t, m, n. Only langs without labials: e.g. ritual mutilation of lips, see the Tlingit woman with labret. Here velars substitute for labials (grave). Even here they have $u$-accompanying velars: yak $\sim$ yaku.

The cons. split is followed by wide $\sim$ narrow V, $a \sim i$. Front (narrow) V as a variant: $a$ after labials, $e$ after dentals. Fr girl papa, dédé, dé for adult papa, tété, bé (the later a general name for animals, the bleating sound bée). Syllables are $p a$ and $t e$.

When the V split occurs, e $>\mathrm{i}$.
Then a triangle or a vertical-V system sets in, $u$, i, $a$ (triangle) or $i, e, a$ (linear or vertical). Very common: Persian, Arabic, Russ unstressed vowel system.

Linear system: only the degree of opening is relevant. $u=i, o=e$. Fr girl l'eau, lait both are lolo. The Czech girl who said $p a, p u$ and $t e, t i$ is like the West Causasian languages, where the choice between different vowels of the same degree of opening depends on the adjoining consonants. $a, u$ are seen as wide, $e, i$ are narrow.

In the triangle, however, $u$ is narrow $\sim a$ and velar or rounded $\sim i$. Two kinds of distinction.

## 14. Identical Laws of Solidarity of Child lang. and Languages of the World

Husserl: solidarity is bilaterial or unilaterial, depending of whether it is reversible or not. Fricatives presuppose stops. No languages without stops, many without frics. TaralKarpak and Tamil have frics as variants. In Tamil stops > frics after a vowel.

Child $f>p, s>t, x$ and $\check{s}>k$. Note that the palatals $\check{s}, ~ z ̌ ~ a r e ~ w i t h ~ t h e ~ v e l a r s, ~ n o t ~ d e n t a l s . ~$ Cf. palatal stops $c, j(\mathrm{nb}-$ these are in Czech t'. d', pure palatal stops pronounced back in the mouth like š, ž, vs. t, d.) Note 17: typo: Hus was in the fifteenth century. The Czech
stops are $t^{\prime}, d^{\prime}, \check{n}$ (palatal n ), $\check{\mathrm{s}}, \check{z}$. Hus put a dot on top of $t, d, n, s, z$ to distinguish them. Jak. is using $c$ here for $\mathrm{t}^{\prime}$. Elsewhere $c$ is ts.

Back oral and nasal stops presuppose front oral and nasal. Back frics presuppose front frics, as well as back stops. Solidarity: k and $\mathrm{t}^{\prime}$ and the palatal and velar nasals require solidarity with $p, t, m, n$ and $x, \check{s}$ solidarity with $f, s$ as well as $k$, or t .

Not reversible. Given front consonants, back cons are not required. In many langs there are no velars. In Tahiti $k$ and the velar nasal changed to glottal stop. Velar nasal in Eng sing comes only after $m, n$. Usually velars replaced by dentals. Lots of instability when $k$ appears. One may be generalized, eg Germ Duten Ta Herr Dotta, Guken Gag Herr Goka. $k$ merges with $t$ and later emerges alone. See excellent example in note 23:
dental is intervocalic, velar initially and finally

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cateau,gateau`
cütine 'cuisine'
caté 'cassé'
pati 'partir'
peuteu 'monsieur'
péti 'merci'
cotüc 'du sucre' - this is the dental to velar here
coupé 'souper'
caté 'cacher' - the sh fricative is stop
boudi 'bougie'
capé 'paquet' - the velar is shifted to the initial, labial to middle
copou 'beaucoup' (same)
coupé 'bouquet' (same)
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Many langs have only one series of back cons. If there is one fricative it is $s$. Only friction is distinctive. Back variants possible, e.g. Slavic $x$ from $s$ as expressive and after $r, u, k, i$.
$S$ often lisped like sh if there is no opposition, e.g Danish.
Affricate arrives in the system only after the fric of same series. Germ $p f$. Child substitutes either the stop or the fric: $t, s$ for $\mathrm{c}[=\mathrm{ts}]$.
Narrow vowels split sooner than wider vowels. $\ddot{u} \sim u$ before $\ddot{o} \sim o . \ddot{a}$ is very late.
The pair $u \sim o$ is preceded by $i \sim e$. No $o$ without an $e$.
Rounded palatal vowels acquired late, often after 2 yrs. Called secondary vowels.

## 15. Late or rare acquisitions

Nasal vowels are rarer and are late, often after 2 yrs. One liquid is common, the second is late. Czech $\check{r}$ is one of the rarest in nature. Soon lost in immigrants, last to be learned.

The implying member predominates over the implied. So $a$ is everywhere, most common V. Frics are less common and often drop in clusters.

A secondary value cannot exist without the primary. When the secondary is still in force, the primary cannot be eliminated. Panchronic laws.
18. Laws of Solidarity and Speech pathology

Dissolution is a mirror image of its development. Late liquid in, early liquid out.
Eng interdental $t h$ after $s$. In aphasics it is replaced by $s$ or $t$.
Palatal velars in aphasics become dentals. $\operatorname{Fr} f>p, s>t, s h>k . \mathrm{Cz} \check{s} z \check{z} \check{c}>s, z, c$ [ts].
Velars to dentals or glottal stop.
Paradeltazismus - labials and dentals merge into labials. Recovery of aphasics is like child language. Jakobson observed schizophrenics coming out of insulin shock - like an accelerated film. Loss of liquids in name Karlson, $k$ a glottal stop, no rounded palatal vowels, no aspirated stops.

## 19. Normal speech disturbances

Inner speech of dreams like aphasia. Jakobson woke up, dreamed he had said the word seme, zemřel , died ${ }^{\text {‘. Sound-muteness. }}$ ,on the tip of one's tongue' - aphasia-like events. Homonyms, synonyms, fluctuations of liquids, š, s, etc. Nasal vs. oral, labial vs. dental more resistant. Often the number of syllables is remembered, the content is gone.

## 20. Uniformity of Stratification

Greater differentiation and separation in the psychology.
The fallacy of ,"primitive languages". Russian is like Ostyak-Samoyed in relation to rounded front vowels. French is like South African Chuana in relation to richness of affricates. Giljak has four nasals, vs. Latin or Russian. Relative phonological poverty can be a secondary historical development.

## III. Foundation of the Structural Laws

The ridiculous sucking hypothesis for the labials‘ early appearance. Nasal vs. oral is not sucking based. In the real sucking period, the babbling period, there are lots of back consonants.
23. Split consonant vs. vowel

The cooing period. indeterminate neutral sounds.
The beginning of speech. Look at nice picture of man saying $a, m$.
Open vs. close. Russian gestural words for grasping and eating, opening and closure of fist, mouth, jaw. ap, am, hap, ham, or in the adult equivalent, хап, хапать, хам,

## хамать, хамка, хамкать.

Vowels are at first voiced, consonants voiceless.

In the child, the contextual relationship arises before the simultaneous, that is, the horizontal before the vertical. Cons vs. vowel arises in sequence.

