

THE SURVEY OF SPEECH DEVELOPMENT IN THE CHILD

The appearance and stabilization of sounds are best shown when approached in a complex way with regard to the sound system of the language the child is learning. The mastering of the sounds takes place, as was suggested in the theses of Jakobson, on the ground of the principle of maximum contrasts and starts off by mastering the simple and un-marked features while the differentiated and marked features appear only later on in the child.

The early child word units (and among them especially the parental terms) strikingly reflect the salient features and tendencies of children's speech development and their universal homogeneity. The phonemic range proves to be considerably limited. The principles underlying the successive stages in the child's acquisition of language enable us to interpret and clarify the parallels in the structure of baby words not only in Czech children but throughout the world. Thus the principle of maximum contrast accounts for the constituents common to the majority of nursery forms. The first stage of speech development is initiated by the child differentiating between a consonant and a vowel. This contrast finds its optimal expression when a consonant with a complete lip-closure is opposed to a vowel with a wide frontal opening. As the unmarked features precede the marked ones, the voiceless consonant and the short vowel are expected in this connection. In particular, the consonant /p/ and the vowel /a/ prove to be the optimal pair. Hence follows the early stability and the widest distribution of the two phonemes in the first fifty words of the child.

Next, following Jakobson's observation, the consonantal sphere is broken up into oral *versus* nasal. Here, too we may find confirmation in our data in the feature of nasality which was well established in the child observed as well as in the wide distribution of the nasals in his first-fifty-word vocabulary.

Fairly stable is also the contrast labial *versus* alveolar which again Jakobson ranks as the next established in the consonantal phonemes in general. The contrast front *versus* back, or in particular alveolar *versus* velar and alveolar *versus* palatal, evidently belongs to the later stages of language acquisition; the instability of velar and palatal articulation, the fluctuation between /t/—/k/, /t/—/t/—/t/, and the vast preponderance of the consonants produced in the front of the mouth provide clear evidence for the priority of the front consonants as compared to the back ones. As regards the contrasts based on the manner of articulation, the stop phonemes clearly predominate both with regard to their phonetic realization and their distribution in the first words of the child observed. The fricatives, on the other hand, represent the less mature stage and appear and are stabilized in the points of articulation where the stops are

already firmly established. Similarly, the affricates as the representatives of the semi-occlusive articulation appear and become stabilized only after the corresponding fricatives are well-learned. The non-existence of the vibrants in the early stages of the child's speech development bears out Jakobson in his statement that distinctive features relatively rare in the languages of the world are acquired late by children in their mother tongue.

The priority of the unmarked features is manifested in the earlier stability and wider distribution of the voiceless consonants in the child's vocabulary.

The principle of maximum contrast shows also in the successive mastering of the vocalic phonemes. The fundamental low vowel /a/ forms the first vocalic contrasts with high vowels /i/ and /u/, while the mastering of the vowels in the mid positions comes later. Hence follows the earlier stability and the obvious preponderance of the three vocalic phonemes in the first words of the child, regardless of the fact that they do not belong to those which are widely distributed in his mother tongue. The earlier stability of the short vowels as compared to the long ones demonstrates the priority of the former group. Similarly, the realization of a simple vowel represents a more mature stage as compared to the realization of the vowel chain, regardless of whether the chain is diphthongal or hiatic.

The child's speech at its early stages uses no consonantal clusters but only combinations of consonants with vowels. As to the order of the two, the sequence CV is the optimal and therefore the most frequent. The iteration of this shape is a favourite device in most of the word units observed in the child.

The preparatory stages of speech development are represented by the formations of the fundamental sound repertory and serve as basis for interjections and onomatopoeic words which appear as the first word units in the child. The proper speech development is characterized by the attempt at active speaking and mutual intercourse with adults. In the learning process two stages are evident: the one in which the child comes to grasp the meaning of the word, and the other when he masters its phonetic realization. Jakobson's definition should be recalled here; „Es gibt für das Kind zwei Spielarten der Sprache, man könnte beinahe sagen, zwei Sprachstile: den einen beherrscht es aktiv, den anderen, die Sprache der Erwachsenen, nur passiv. Eine Zeitlang kann oder bisweilen will das Kind diese Grenze nicht überschreiten und fordert, dass die andererseits auch von den Erwachsenen eingehalten werde“ (Cf. Jakobson, *Kindersprache*, p. 336).

In the babbling period, the child easily produces a number of consonants, vowels and diphthongs; he is, however, unable to articulate most of them in the first stages of the actual speech development, i.e. in that stage when the wild sounds of babbling exercises are superseded by the phonemes and as such are to be identifiable and distinguishable. This common observation has led to the formulation according to which the acoustic picture is scarcely accessible to the child unless he is able to coordinate it on the basis of his articulatory capabilities. Our findings, in accordance with those of Jakobson (cf. *Kindersprache*, p. 336, where a list of other investigators offering similar examples may also be found) show the very opposite: the child perceives and distinguishes the phonemes of his mother tongue already at that stage of speech development when he is incapable of their phonetic realization as yet. A few examples follow for illustration of this fact: the phoneme /r/ was one of the consonants which appeared in the child among the last phonemes in the developmental series. In the meantime, he replaced this phoneme mostly by /l/. Neither in production nor in acoustic impression was there any difference between items such as *vlásky*—*vrásky*,

Ilenka—Irenka. The child, nevertheless, readily commented on our incorrect interpretation and demanded the distinguishing of the two liquids in our speech though he himself was content with the realization of one of them. Similar data may be found with regard to other consonants, cf. for example *uvař—uvaž* (both the items had the identical form [uvaš]), *koníček—Toníček* (both realized as [toňi:ček]), thus indicating that the mastering of the correct phonetic realization is not simultaneous with the identifying of the distinctive features in phonemes: the latter, evidently, precedes the former in appearance.

Like the uncoordinated sounds in the babbling period, so too the echo repetitions which appear at the first stage of speech development cannot be considered to be established phonemes. In this connection, let us recall the quotation of Bühler, as recorded and further developed by Jakobson in *Kindersprache*, p. 359: "Unsere Kinder phonieren anfangs weder deutsch noch kaukasisch. Dieser Ausspruch ist richtig, hat aber zwei verschiedene Bedeutungen, je nachdem die vorsprachlich Lallstufe oder das sprachliche Initialstadium gemeint ist: im ersten Falle, kann das Kind deutsche, kakaussische, spezifisch afrikanische, kurz und gut beliebige Artikulationen nebeneinander hervorbringen, dagegen auf der nächstfolgenden Entwicklungsstufe—auf der Sprachwerdens—besitzt ras Kind anfänglich nur die Lautbilder, welche allen Sprachen der Welt gemeinsam sind, während diejenigen Phoneme, welche die Muttersprache von den anderen Völkersprachen unterscheiden, erst später an die Reihe kommen."

The well-known psychologist T. Slama Cazacu has three subdivisions in the speech development of the child; the first where the adults speak and the child listens or reacts by means of gesticulation. The second, where he is already capable of producing a few syllables or words which he articulates in order to have some of his needs and wants fulfilled. In the third stage, finally, the child reacts to verbal address in his own words, which are no longer mere echoes but already meaningful units.

In concluding, we shall direct attention to the question of how the child acquires the use of language.

From the speech of his environment he selects certain namings which he, sooner or later, places into mutual relations. Once again Jakobson's apt remark should be mentioned here: Das Kind schafft indem es entlehnt (*Kindersprache*, p. 329). The loan is, however, not a mere copy. On the contrary, each of the loans demands selection, becoming thus a creative deviation from the model. Some constituents of the model are avoided, others are misinterpreted. This is the reason why the sound system, in the child contains elements unknown to Standard language. Similar findings may be observed in the child's acquiring of grammar and especially in naming objects.

The main feature of the child's speech is the tendency towards *general applicability*, where however, the general term always represents an abstraction of lower degree. Let us exemplify this fact: the child uses the sign [toto] (this) for naming all the things, the real names of which he does not know as yet. Similarly, he uses the interjection [haf] to name all the animals and birds. At successive stages, the differentiation appears; [haf] is then used as a denotation for animals, [ka:ka] appears in the function of assigning the names to all birds, poultry included. Later on, the dog's name *Asta* becomes a general term for all dogs etc. The same progress may be seen in other instances as well. Let us mention here as last a few; [ta:ta] (*father*) is used for naming all male, [teta] (*aunt*) for any female persons; [jaji:] *jahůdky* (*strawberries*)

is used to assign a name to everything which is globular in form, e.g. a cherry, a pea, a red current, a black-berry, a marble etc. The child's behaviour in this respect recalls the findings of Darwin, quoted in Sovák's Defektology: Darwin's grand-daughter used the word [*kvak*] for naming the duck swimming in the pond; the identical expression was then assigned to the bird sitting on the tree, to the two-headed bird on the coin and finally, to the wine spilt on the table, thus recalling the pond.

The *paronymic attraction* is another feature typical for the child's formation of namings. On the basis of an acoustical (and in successive stages also of an optical) association, the child uses a familiar expression for the indication of the newly-appeared object, the correct name of which he hears for the first time. A few examples follow for illustration; the unknown expression [*poli:nka*] (small logs) occurring in a nursery rhyme is realized by him as [*olínka*], which is the name of his favourite nurse in the day-nursery (i.e. a very frequently used item), or later on as [*koli:nka*] (small knees), which as a part of his body is far more familiar to him than are the logs. Analogously, he associates words of similar sound even in cases where there is no connecting link in their significations. Thus word units *soudnička*—*solnička*, *konsonant*—*kosmonaut*, *circula*—*cibula*, *promítat*—*promíchat*, *brusinky*—*brusličky*, *pumpa*—*špunt* are interchanged, the latter being more usual with the child. Similar examples may be found in Jespersen, Ohnesorg, Cazacu, Chukovskiy, Weir, suggesting thus that the child's behaviour in this respect is common to children in general.

A rather interesting process is shown in the child's spontaneous assignation of a name to an animal, of which he had never heard before; on seeing the picture of "camel" his attention is drawn by the most outstanding quality of this animal, which makes him different from other animals, i.e. his "hunch" [*hrb*]. This quality is therefore hypostized and a neologism [*habr*] is formed. The operation of phonetic changes, namely metathesis and the rise of a svarabhakti vowel, account for the considerable distortion of this expression. It is natural that such neologisms, representing *ad-hoc* formations, have only an ephemeral life, as they do not fulfil the fundamental task of language: the conventionality which is obligatory for all members of the linguistic community being ignored, the child is not understood by others and readily forms new, more approximate expressions (on this question see L. Bolinger, *The Uniqueness of the Word*, pp. 115 ff.).

The combination of a paronymic attraction with *agglutination* may be seen in the boy's reproduction of the unusual expression *tlupa* (gang) as *kluk a* (a boy + a conjunction *and*) in the nursery rhyme.

To je výskotu a křiku, když jde tlupa loupežníků as

To je výskoku a křiku a jde kluk a loupežníků

He evidently lacks the correct motivation for the items *výskot* (a not very frequent expression for cheering which is more or less synonymous with *křik*) and *tlupa*, while he easily ushers into mutual relation the items *výskok* (the jump), *křik* (the shouting), *kluk* (the boy) and *loupežník* (the bandit). In the quoted rhyme as well as in many others, the child's predilection for *parataxis* in preference to *hypotaxis* is shown, betraying, moreover, at the same time, his ignorance of prepositional constructions, cf.

Řezme dříví na polínka (Let us cut wood into logs) with the child's

řezme dříví a polínka (Let us cut wood and logs)

Tluče bubeniček, tluče na buben (the drummer bangs on the drum)

tluče bubeniček, tluče, má buben (the drummer bangs, he has a drum)

Jedna dvě, Honza jde, nese pytel mouky (one, two, Jack goes, carrying the sack of flour)
máme se raduje, že bude péct vdolky (mother is pleased that she may bake scones)
Jedna dvě, Honza jde, nese pytel mouky,
máma se raduje a bude péct vdolky (the mother is pleased and will bake scones)

Analogy is another frequent phenomenon in the child's way of expression. It is shown especially in the formations of the verbal forms where, according to the highly productive verb of the type „*dělám*“ the ending *-ám* appears in most verbs, cf. *vázám—váží, zvažívám—vážím, spám—spím, píšám—pišu, fonovám—telefonuji* etc.

The suffix *-ák*, on the other hand, had a connotation of being strongly pejorative. He therefore appends it to such words which have associations with unpleasant situations for him, cf. *ježák pichák* (he once took hold of a hedgehog and was injured by its spines); *lvák* (a lion which devoured a good lamb); *pípák, pávák* (a cock and pea-cock which gave him a peck) etc.¹⁵⁶

The operation of analogy is further shown in the following items: According to *děťátko* (baby) the boy formed the new name *chovátko* (the association with the verb *chovat* = *to nurse* is responsible for this expression). The suffix *-tko* was then added to any term in order to express the quality of being tiny, cf. *lišťátko* (small fox), *žišťátko* (small playground), *dževátko* (small log) etc. The forms [*ušički*] *ouška* (ears) and [*očički*] *očička* (eyes) suggest rather analogy to the frequent item *ručičky* (hands).—Hybridity seemed no obstacle to applying the analogous endings and suffixes, cf. [*gala:ška*] (the diminutive of *garáž*), [*mofo:nek*] (the diminutive of *gramofon*), [*au'i-li:nko*], [*autobusek*], [*sigaletka*], [*lokočka*]*—*all of them being the diminutives of the corresponding loan-words *auto, autobus, cigareta, lokomotiva*.

An interesting example of analogy is also demonstrated in the child's stubborn clinging to the masculine interpretation of the proper feminine noun *sůl*, cf. *ten bílej sůl* instead of *ta bílá sůl* in spite of the fact that he was consistently advised of the proper gender of this noun. It seems probable that this can be accounted for by the non-existence of another feminine of this type in his vocabulary, while he acknowledged and actively used several masculines of this type, e.g. *stůl, kůl, vůl*.

A special kind of *blending* might be considered to be represented by the contamination of the two forms *jádra* (kernel) and *játra* (liver). The item *jádra* is older and due to its regular formation easily comprehensible for the child. Its frequency is, nevertheless, lower as compared to that of *játra*. The slight functional load of the former item in the vocabulary, has, in our opinion, resulted in the contamination with the latter item. *Back-formation* then offers an explanation for the rise of the non-existent singular form *játro* which fluctuates with *jádro* in the identical context.

Another *back-formation* is shown in the new word unit *autokiáda* which is used in the place of the proper *spartakiáda* (a word commonly used for gymnastic and athletic displays). The child acknowledges the item *Spartak* (the factory name of a car) and combines the general term *auto* with the proper suffix. Such terms as *liša, ponoša, bébo, sluno, holoub* are, on the other hand, to be explained as new forms of already existing words. The origin of the first three is due to the erroneous interpretation of

¹⁵⁶ Cf. here with the colloquial forms which also have a tint of being slightly pejorative- *Brňák, Pražák, Bratislavák, Kladeňák*, which denote the inhabitant of the corresponding city or the train going to and from the city in question.

the terms *liška*, *ponožka*, *bebíčko* as diminutives. As for the latter two, they are genuine diminutives but the child's back-formation is incorrect, cf. the child's *sluníčko*—*sluno*, *holoubek*—*holoub* with the Standard Czech forms *sluníčko*—*slunce*, *holoubek*—*holub*. Those expressions which are usually referred to as "*portmanteau words*" were also recorded in the child's vocabulary. They have arisen through blending, and such names are combined that imply those characteristic features which are to be found together in the new unit, for which a name was needed; such are e.g. *letýlek*—*motýlek*, *letáček*—*ptáček*, *pidlo*. The former two represent the contamination of the verb *letět* (to fly) + the general term denoting the butterfly and bird respectively. The third example, on the other hand, has arisen in order to give a common name to *pítí* (drink) + *jídlo* (food). Similar examples may be found also in Jespersen (op. cit. p. 173 ff.), Chukovskiy (op. cit. p. 45—47) or in Carroll's *Alice in Wonderland* and appear as more or less occasional formations in the speech of adults, cf. the English *brunch* (i.e. *breakfast* + *lunch*), *prezactly* (*precise* + *exactly*) or the Czech term *Čechomedán* which arose through blending *Čech* + *Mohamedán* and denotes a Czech whose behaviour is slow.

The pluralia tantum present many difficulties in the language learning process and many forms which historically do not exist, as the word in question represents one compact whole, appear in the child, cf. *ten dež*—*ty dveře* (door), *ta nůžka*—*ty nůžky* (scissors), *ten kamen*—*ta kamna* (oven) *ten teplák*—*ty tepláky* (track-suit). Again, analogy of the child's behaviour to the findings in languages in general may be seen, cf. the subtraction of an /s/, which originally belongs to the kernel of a word, but is mistaken for the plural ending in the items such as *pea* instead of the earlier *peas*, *cherry* for earlier *cherris* etc.

It is generally acknowledged that the stylistic value of words is not something that is unliable to change in the course of time. This relates especially to such means of expression that imply a strong emotional element. Such an expression then becomes defaced and a new means of expression must be sought. A similar process to that by which a word becomes defaced with use may be traced in the child's language too. The series of various *euphemisms* intended to remove the unpleasant emotional element in the item *kakat* (to defecate) is one of the manifestations (cf. *a*, *dělat a*, *kak*, *dělat kak*, *kakám*, *čulám*, *vykáknu*, *vyčulám*, *vytentovám*, *vynočníčko-vám se*).

The gradual defacing and the seeking of new and stronger expressions are also shown in the child's formation of negation. Alongside the simple negative particle *ne*, used postpositionally, new items which imply ever-increasing emotional elements appear, cf. *mám ne*, *ne*, *nemám*, *nemám nic*, *nemám ani ň*, *ani níčko*, *ani malilínečko*, *ani kapku*, *ani kapinínečku* etc. This method in the child's behaviour must necessarily recall the historical development of the negative in French, i.e. the original *ne* + + various negative particles such as *pas*, *point*, *goutte*, *mie*, designating small objects, limited quantity or measure. Two of these words have become obligatory components of the French negation, viz. *point*, *pas*.

The opposite process, i.e. the ignoring of the negative concordance of Standard Czech, is demonstrated in examples such as *nic žíkám* (*neříkám nic*), *všichni tady nejsou* (*žádný tady není*), *všechny děcka to nespapaly* (*nikdo z dětí to nesnědl*) etc. Vachek's study *The Disturbance of the Negative Agreement in Czech Negative Sentences* shows that similar formation is not alien to the speech of adults when endeavouring to achieve the desired semantic differentiation.

Analysis of *the word-categories*, as they appear in the child's vocabulary, also

permits a number of interesting observations. Though there was no difference with regard to the number of categories, the boundaries within them are far less stable in the child and conversions are by no means exceptional. Following the common usage of his mother-tongue, the boy appends derivative suffixes which more or less correspond to those of Standard Czech. In distinction to Standard Czech, however, he forms derivations even in such expressions where there is no corresponding correlate in the speech of adults. Such are e.g. the derivations based on interjections or nursery forms, cf. *ham!*—*zhamám*, *bác*—*báclo*, *bácnu*, *bumbác*—*bumbáci to*, *capat*—*capačka*, *bak*—*bakany*, *chovat*—*chovátko* etc. Nouns designating items of clothing served him as a basis for formations of corresponding verbs, cf. *rukavičky*—*vorukavičkovat se*, *papučky*—*vopapučkovat se*, *botičky*—*vobotičkovat se*. Economy in expression is, in all probability, the most plausible explanation for such behaviour in the child. Instead of the whole construction *vezmu si rukavičky* (I shall put on my gloves) he uses the simple word unit *vorukavičkuju se*. Though uncommon to Czech¹⁵⁷, such formations find their parallels in Romance languages, e.g. French *chapeau*—*chapeauter*, *gant*—*gantier*, *culotte*—*culotter* or Rumanian *broboada*—*imbródi*. The Latin original form *braca* has its sequel in Rumanian *imbraca* and *desbraca*.

The economy in expression might also be seen in various abstractions; thus the sole item “*vobouvání*” encompasses everything which is put on feet, i.e. socks, stockings, slippers, shoes, galoshes etc. Similarly, the item “*voblíkání*” is an abstracted form representing all the possible parts of clothing, the item “*jezení*” then all things which are associated with eating, i.e. not only food and drink but also plate, glass, cup and saucer, spoon, napkin and bib.

Many interesting findings might be quoted relating to the question of how the child tackles the problem of *verbal aspect*. As generally known, Czech has a highly developed category here. A great majority of verbs can be altered in such a way as to be capable of expressing whether the action took place once or repeatedly. To express the difference between the verbs of perfective or imperfective character derivations are resorted to. As the analysis of the child's vocabulary indicates, the child is aware of the differences and in accordance with Standard Czech he resorts to derivative affixes in order to achieve the wanted form. One deviation in his behaviour is remarkable: though having both the perfective and imperfective verbal forms in his vocabulary, he evidently prefers the *perfective aspect*. The predilection then results in creating the perfective forms even with such verbs which have no corresponding counterparts in Standard Czech, cf. [*pi:šnout*] *psát*, [*zaspi:vnout*] *zaspívat*, [*zapi:snu*] *zapiši*, [*rozpošlu*] *pošlu*. By means of infixes he then arrives at the *imperfective form* situations where this aspect is required, cf. *požívat*, *rozposlávat*, *seberovat* etc. The question arises as to whether the preponderance of the perfective forms in the child's speech is accidental or whether a certain intention is present here. The way the child treats these forms rather suggests that he considers perfectiveness as the fundamental quality in verbs while imperfectiveness as the secondary aspect. Hence follow the additional forms in verbs such as *požívat*—*pozvat*, *rozposlávat*—*rozposlat*, *zváživat*—*zvážit*, *seberovat*—*sebrat* etc. while in Standard Czech all these verbs without prefix

¹⁵⁷ There exists, however, one term which has entered the Czech vocabulary in connection with pupils being awarded the Pioneer scarf. The original substantive *šátek* gave here rise to the verb *šátkovat*, *ošátkovat* which expresses exactly what is expressed by the child's formations or the French or Rumanian data: to put on a scarf. Another expression of a similar formation, cf. *šaty*—*ošatit* became defaced from its original meaning and is used in connection with purchasing clothes, and not putting them on.

do fulfil the function of imperfectiveness, cf. *zvat, posílat, vážit, brát*. To summarize, the predilection for perfectiveness in the child is not accidental but, in our opinion, follows a purposeful intention. The child shows a natural inclination to judge the event from the view-point of the result rather than from the view-point of the action. A tendency to make the verb more concrete, or in other words, to lay stress on the thing as opposed to quality, state or action is illustrated here. The question comes to mind as to whether the origin of composed verbal forms might not be explained on similar grounds, cf. Latin *fecí—habeo factum*.

To carry on the analysis further, another peculiarity is revealed: the child's derivative prefixes are not so closely connected with the words and as such are readily separated and added to other words. Even such instances may be found where a form non-existing in Standard Czech arises due to the incorrect separating of either a genuine or imaginary prefix, cf. *vykat si—zvykat, pažit—upažit, vzpažit, bednej-nezbedný* etc. The suffixes are treated in a similar way. The possible interpretation of the auxiliary verbal form *jsme* as a suffix and concomitantly its inconsequent usage in the child's speech has been already mentioned. His introducing of the pronoun *sám* (self) into more or less close connection with the personal pronoun *já* (I), cf. *já sám papat budu* (I myself shall eat), might be considered another manifestation of this tendency.

Of the rich problematics which child language offers we have summarized what we have found characteristic of the child investigated. Many of observations found in the relevant literature on child speech are confirmed in our data, some are not. It is hoped, however, that much of the present material offers further evidence of the fact that the speech of the child, and above all his approach to the language he is mastering, progresses in accordance with the general tendencies observed in the historical development of the languages of the world.