ACQUISITION OF THE PHONOLOGICAL SYSTEM OF THE MOTHER TONGUE Summary of Moderator's Introduction

Charles A. Ferguson, Department of Linguistics, Stanford University, Stanford, CA 94305, U.S.A

The papers are fairly representative of the range of studies of phonological development now being undertaken. The period 1968-78 was one of greatly increased research in child phonology, in large part stimulated by the English translation of Kindersprache (Jakobson 1968) and the publication of experiments on speech-sound discrimination in infants (Eimas et al. 1971). A recent conference attempted to review and synthesize this research (Yeni-Komshian et al., in press).

The three areas of greatest current research effort are: neo-nate discrimination, the transition from babbling to speech (first two years of life) and the development of phonological organization (age 2-4 yrs.). The first and third are represented here directly by Kuhl and Menn, respectively, and all three are alluded to in the various papers. The phonetic/phonological development of older children is represented here by Gilbert and Hawkins, and the Hawkins paper represents the expanding field of the development of prosodic and temporal characteristics of speech.

The papers are also representative of new trends in research orientation. Earlier emphasis on innate structures and processes led to concern with (a) universal orders of acquisition of phonemes, features, and phonological oppositions, and (b) the identification of feature detectors roughly analogous to visual feature detectors. The new trend is toward emphasis on variation in the order and routes of development and on the effect of input on the child's development. The emphasis on variation is striking in Menn's paper, which classifies variation into seven types and relates these to possible developmental models, but it is evident also in Menyuk's paper, which notes that "universality is confounded by the particular data the child is confronted with." Similarly, Kuhl, who is concerned with species-wide predispositions and even predispositions shared with other species, examines the importance of "selective auditory exposure" and concludes that in infants' speech-sound category formation "their tendencies to attend to particular acoustic dimensions [are] modified by exposure to a particular language."

Another new trend is the reversal of earlier confidence that

adult models of speech processing and linguists' phonological theories are good bases for understanding child phonology. Current research tends to claim that the contribution may often go in the opposite direction, that developmental studies may help in understanding adult models and may offer a valuable corrective to phonological theory. The models offered by Menyuk and Menn, although different in approach, both illustrate this trend. Menyuk's "outside-in" model is deliberately different from linguistic segmentation and hierarchization and also suggests that current adult models may be inadequate even for adults. Menn's two-lexicon model with both non-automatic and automatic production processing has implications, not much explored by her here, for an adult model of phonology which would allow for more variation than most theories.

Knowledge of infant speech perception is increasing rapidly, as several research paradigms are followed (Morse 1974, Kuhl in press). Knowledge of "pre-linguistic" speech production is likewise increasing (cf. Dore, et al. 1976, Stark 1978, Carter 1978). Finally, both data-oriented and model-oriented studies of the development of phonological structure are increasing (e.g. Ferguson and Farwell 1975, Kiparsky and Menn 1977).

Unfortunately, however, the conceptual gap between the infant perception studies and the other studies seems to be widening. The former are perception-oriented and elaborately experimental, the latter are production-oriented and based on naturalistic observations, typically of a small number of subjects or even a single child. Ways must be found to study perception in preschool children and to connect the neo-nate studies with studies of older children (cf. Strange and Broen, in press).

References

- Carter, A.L. (1978): "From sensori-motor vocalizations to words", in Action, gesture and symbol: the emergence of language, A. Lock (ed.), 309-349, London: Academic Press.
- Dore, J., M.B. Franklin, R.T. Miller and A.L. H. Ramer (1976):
 "Transitional phenomena in early language acquisition",
 J.Ch.Lang. 3,13-28.
- Ferguson, C.A. and C.B. Farwell (1975): "Words and sounds in early language acquisition", Lg 51,419-439.

- Jakobson, R. (1968): Child language, aphasia and phonological universals, The Hague: Mouton.
- Kiparsky, P. and L. Menn (1977): "On the acquisition of phonology", in Language learning and thought, J. Macnamara (ed.), New York: Academic Press.
- Kuhl, P.K. (in press): "The perception of speech in early infancy", in Speech and language: research and theory, N.J. Lass (ed.), New York: Academic Press.
- Morse, P.A. (1974): "Infant speech perception: a preliminary model and review of the literature", in Language perspectives--acquisition, retardation, and intervention, R.L. Schiefelbusch and L.L. Lloyd (eds.), 19-53, Baltimore: University Park Press.
- Stark, R.E. (1978): "Features of infant sounds: the emergence of cooing", J.Ch.Lang. 5,379-390.
- Strange, W. and P.A. Broen (in press): "Perception and production of approximant consonants by three-year-olds: a first study", to appear in Yeni-Komshian et al. (eds.) Child Phonology: perception, production and deviation, New York: Academic Press.
- Yeni-Komshian, G., J.F. Kavanagh and C.A. Ferguson (eds.)(in press):

 Child phonology: perception, production and deviation, New
 York: Academic Press.