

process, the median artery appears ontogenetically as a secondary branch next to the interosseous artery at the forearm. Moreover, it is supposed phylogenetically to be a principal branch even in the adult stage of the ancestor of primates, from the analysis of ontogenetical changes in *Tupaia* and comparative anatomy of primates. The functional significances are inferred in connection with the primate and human evolution. These various viewpoints indicate various aspects of morphological characters, and the phylogeny should be recognized as their core. And the primate comparative study is indispensable to the concrete analyses of human characteristics.

**Kenmei SHIMIZU : On the Reading of English Texts by Japanese College Students** 43—48

Japanese college students tend to see an English text as a list of sentences. They must be taught that every text is coherent. There are two ways they can find the coherence : the bottom-up way of reading and the top-down way of reading. In the bottom-up way of reading, cohesions, explicit signals of coherence, help them to understand the coherence. In the top-down way of reading, background knowledge on how English texts are structured helps them to infer the coherence. In this paper, both coherence and cohesion are divided into two types, local and global, and the importance of global coherence/cohesion is stressed in teaching how to find the coherence.

**Shigeru SUEMITSU, Tomoko HASHIMOTO, Yoshiko TOKI, Sachiko MORINAGA and Yoko NAKASHIMA : The Practice of Movement Education for Autistic Children — Evaluation of Motor Development by MEPA and Making Programs —**

49—55

Movement education for autistic children was evaluated after estimation of their motor development by Movement Education Program Assessment (MEPA).

The children were 51-to-71-month-old boys with similar brain levels and pathological imbalance but neither with chronic diseases of epilepsy nor neurological findings of motordisorders or apraxia. Movement education was carried out for 20 minutes per week for 6 months and the effectiveness of education was evaluated by MEPA.

Before movement education, it was found that the levels of motor development of the autistic children did not reach those of healthy children by MEPA. Development of speech-sociality was poor compared with exercise-sense, and a skip of development was observed in MEPA. Movement education could make up for the skip of the exercise-sense and development was found in the speech-sociality and the exercise-sense. However, the development was varied and the levels of the speech-sociality and the exercise-sense did not reach those of healthy boys after the education. Therefore, the selection of teaching materials and ideas of visual helping were found to be useful for enforcement of the teaching program.

Motor development in autistic children seemed to be good. However, immaturity and imbalance

was observed in their motor development.

Personal relation, speech and acknowledgment were emphasized in educational treatment for autistic children. However, exercise and movement education were found to be important for the general development of autistic children.

**Toyohiro TAGUCHI, Masana OGATA, Shigeru SUEMITSU, Yasuhiko EGUSA, Hirokazu OSAKI, Yasuhiro KAJIHARA and Hiroshi TAKESHITA : Development of the Measuring Instrument for Working Ability of the Aged** 57—62

The evaluation of physical ability of the aged is needed not only to support himself in his daily life, but also to make and improve the working condition in companies, because Japan goes into society of the aged rapidly. So we have developed the measuring instrument for working ability of the aged that can measure the ability of daily life and labor life easily. Measuring contents of this instrument are back strength (① lifting strength), alacrity (② moving arm right and left, ③ moving range), strength of hand and fingers (④ push strength of thumb, ⑤ angle of grasp and turn), raising hand (⑥ distance of raising hand from the shoulder with weight load), working posture (⑦ anteflexion angle of the waist, ⑧ squat down angle of the knee) and walking ability (⑨ walking speed). For assessment of the measuring value, we proposed the methods that were applied MODAPTS (Modular Arrangement of Predetermined Time Standard) and MTM (Methods Time Measurement) methods, and examined the propriety of the methods.

**Misako ITANO, Katsuyo HANATANI and Kiyoko OKUYAMA : Relationships Between Children and Grandparents Seen Through by Mother** 63—71

The survey was done through mothers of 207 five-year-olds in nursery and kindergarten in Okayama City. Eleven questionnaires were prepared and asked about occasions, time and contents of the relationships.

Most of the highest and closest relationships were held through traditional yearly events like New Year's Day and Bon Festival. The contents of relationships are dining, playing and watching TV together, then shopping and going for a walk. Mothers evaluated that 93.5% of children showed good, positive images toward the grandparents. The good relationship between grandmothers and mothers and the tendency of showing tenderness toward children were top most and were highly recognized as positive and effective factors to the child care, followed by that of grandfathers, then mothers-in-law and fathers-in-law. Working mothers and the distance of homes between children and grandparents effected on the ways and contents of relationships.

The parents of children will play an important role as key persons to build smooth relationships and enrich each other's lives into meaningful ones.