

**INNER LANGUAGE AMONG ABLE AUTISTIC CHILDREN – A
CORRELATIONAL STUDY**

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ABSTRACT

Ramaa and Mittler (1891) conducted a Study on “able autistics” with the objective of finding out the extent of Correlation between different aspects of Inner Language among them. The term “able” refers to those children who according to their teachers could understand and use spoken language adequately. The study was conducted on 25 children who were studying in 5 special schools in United Kingdom.

In the study Inner Language was conceived as a measure of Vocabulary Development (British Picture Vocabulary Scale, Dunn et al., 1882), Basic Concepts (Boehm’s Test of Basic Concepts, Boehm, 1969), Sentence Comprehension (Sentence Comprehension Test, Mittler et al., 1987), and Ability to arrange the Pictures in Logical Sequence (Picture Arrangement Test, Subtest of WISC, Wechsler, 1949).

The tests were administered individually. Coefficient of Correlation between Vocabulary Age /Raw Scores on BPVS with other measures were computed through Product Moment Correlation. The results revealed there is no significant correlation between vocabulary age as on BPVS and chronological age among autistics. On the other hand there was significant correlation between receptive vocabulary and other measures – basic concepts, sentence comprehension and use of language in logical thinking. This suggests that language development takes place as a whole in the case of autistics. The author has discussed the educational implications of this finding in the paper.

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Concept and Significance of Inner Language

While discussing about the significance of a language deficit hypothesis among autistics Rutter (1983) has remarked that this hypothesis was tenable, but it proved to be potentially misleading that it necessarily involved concepts of “inner language” and of the thought processes underlying language. This constituted a problem because, although obviously there are such thought processes, there is no very straightforward way of deciding which thought processes are or are not language related “. From the second part of the statement it is clear that though he agrees with the concept of “inner language”, he is doubtful about the relevance of different psycholinguistic processes which are thought to be underlying language skills. Similar opinion is expressed by Mittler and Ward (1970), based on the findings of their study regarding the validity of ITPA in tapping specific psycholinguistic skills. They have concluded that a single general factor accounts for about 45% of the variance. This implies that there exists a high correlation between different aspects of language, such as development of concepts, attaining various syntax patterns, gaining meaning from the meaningful pictures, organisation and communication of the ideas in a logical sequence. In fact the term “inner language” becomes an umbrella term which encompasses all these aspects of language.

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Myklebust (1960) has pointed out that the three steps in the acquisition of language are the development of inner language or meaningfulness, auditory receptive language, and

auditory expressive language.

According to Goldstein (1948), inner language is that language we use to communicate with ourselves, whereas Johnson and Myklebust (1967) conceives it as the language we use to think. Wallace and Kauffman (1973) have suggested that “inner language is dependent upon the child’s ability to: (i) establish imagery for sounds, words, concepts, etc. (ii) use the complex maze of skills needed in the logical thinking process”.

Sheridan (1969) has suggested that the beginnings of inner language can be seen in the normal child around 12 months of age, at the same time as he is beginning to understand a few words in context. At this stage he shows that he understands the use of real everyday objects by applying them to himself, for example brushing his own hair with a brush. By 18 months he uses the objects appropriately in relation to the other people or pets and, by 2 years he is able to use correctly miniature objects such as a doll’s tea set. The further development of inner language can be seen as play becomes more and more complex. It reveals the level at which the child is able to symbolise and abstract and how far he can understand new events by matching them against his coded store of past experiences, using this comprehension as a basis for further action. In older children and adults this sort of inner language is no longer revealed in play, but may be judged on conversation, observations of behaviour and knowledge of the interests of the persons.

As the study involved only older children and adolescents and moreover, who were considered as “able” by their teachers with reference to understanding and use of speech, there was no any need to observe their play behaviour in order to investigate inner language among them. Thus the tests which assess unitary concepts as well as comprehension of the

message which were revealed through verbal or nonverbal modes were used to study their inner language. Thus the concept of “inner language” is synonymous to the notion of ability to deal with “Semantic information” (Guilford and Hoepfner, 1986), as discussed earlier.

Ricks and Wing (1876), consider that development of inner language is very poor among autistic children, and such a poverty forms an important feature among them. They give some justification for such a hypothesis, on the basis of their clinical experience. Their important observations are,

- Most young autistic children handle toys and other objects as if they are seeking sensory stimuli; they do not use them for their proper purpose or for imaginative play.
- They may be able to do jig-saw and assemble constructional toys, as long as they require only visuo-spatial or mechanical skills and not imaginative understanding.
- Those who read from choice tend to use this skill to acquire facts about subjects who are interesting to them; however, works of fiction have little appeal, probably because a rich inner life, dependent upon inner language, is necessary for their enjoyment.
- Even the brighter autistic adolescents do not show signs of appropriate planning for the future and lack interest in the realities of adult life; this type of foresight depends upon the existence of inner language which can be used for thinking and planning.

Though the above observations appear to be valid, it is difficult to accept their generalizability unless systematic attempts are made to explore the inner language among autistic children and adolescents.

Scope and Objectives of the Study

Ramaa and Mittler (1991) conducted a study on “able autistics” with the objective of developing an insight into the “inner language” among them. the term “able autistics” refers

to those autistic children who in day-to-day living, as judged by their teachers. Thus 26 autistic children were selected from 5 schools for such children in United Kingdom. The number of children so selected varied from school to school. The age of those children ranged from 6 years 6 months to 18 years 11 months. One child was excluded during the course of testing because of management problem. There were 6 females and 19 males altogether for the remaining part of the study.

In the study by Ramaa and Mittler (1991), inner language among autistics was treated as a measure of Vocabulary Development (BPVS – British Picture Vocabulary Scale, Dunn, et al., 1982); Basic Concepts (BTBC – Boehm’s Test of Basic Concepts, Boehm, 1969); Sentence Comprehension (SCT – Sentence Comprehension Test, Mittler et al. Wheldall, Mittler and Hobsbaull 1987); and Ability to Arrange the Pictures in Logical Sequence (PRT – Picture Arrangement Test, subtest of WISC, Wechsler, 1949). It was attempted to make a detailed analysis of the responses of autistics to the items of these tests and also to find out the extent to which the performance of them on BPVS is related to their performance on other tests. Below is discussed only about the correlational aspect of the study.

Discussion of the Results

Coefficient of Correlation between Vocabulary Age/Raw Scores on BPVS with other measures obtained through Product Moment Correction are given in the following table.

BPVS	Variable	Coefficient of Correlation
Vocabulary Age	Chronological Age	+0.24
Raw Score	Boehm Test of Basic Concepts (Raw Score)	+0.76
Raw Score	Sentence Comprehension Test (Raw Score)	+0.68

Vocabulary Age	Picture Arrangement Test (WISC) (Raw Score)	+0.68
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It is not surprising to note that there is no significant correlation between Vocabulary Age as on BPVS and Chronological Age among autistics. It is in the expected level only. What is more interesting is language development takes place as a whole in the case of autistics. There is no clear cut divergence among different aspects of language development. Rather there is a significant correlation between receptive vocabulary, understanding of basic concepts (Spatial Relations, Temporal relations Quantitative and Miscellaneous), sentence comprehension as well as use of language in logical thinking as in the case of picture arrangement, sub-test of WISC. This finding is highly instructive. The earlier investigators (Bartak, Rutter and Cox, 1975; Lockyer and Rutter, 1970; Tymchuk, Simmoms and Naafsey, 1977; Wassing, 1965) found that autistics have difficulty performing both verbal and nonverbal tasks requiring sequencing skills; They also have difficulty conceptualising language (Rutter, 1878a, 1878b). Ohts (1987), questions it is not clear what kinds of abnormalities exist in concept formation. He himself examined that some studies have shown that autistic children have difficulty in acquiring concepts of relationships. On the basis of the findings of those studies Ohta (1987), infers that impairment in determination of relationships, such as comparisons and spatial relationships, may be a characteristic disorder of infantile autism.

The inference drawn by Ohta (1987), does not have any basis as there exists a significant correlation between raw scores on BPVS and that of Boehms Test of Basic Concepts which assesses relational concepts. That means those who have difficulty in receptive vocabulary have difficulty in relational concepts also. On the other hand if a child

is good in receptive vocabulary, he will be good in relational concepts as well.

Investigators like Bartak, Rutter and Cox, 1975; Lockyer and Rutter, 1970; Tymchuk, Simmoms and Neafsey, 1977; Wassing, 1965 found characteristic performance pattern on the WISC by autistics. They observed that autistic have difficulty performing both verbal and nonverbal tasks requiring sequencing skills. Whereas Gillies (1965) found that the psychotics did relatively better than the controls on the Object Assembly and Picture Arrangement of the WISC. Hair, 1964 (cited in Mittler, 1968) reported significantly higher Block Design (WISC) scores in Psychotics. Mittler (1968), interpreted that these tests require sequential ordering of stimuli rather than verbal mediation. However, in the study by Ramaa and Mittler (1991), significant correlation has been found between receptive vocabulary, which in turn is highly correlated with relational concepts and sentence comprehension. Thus it is a wrong idea to consider that performance on Picture Arrangement do not require verbal mediation. Though it is classified under Performance Test, still it is not. Only having perceptual organization component, but also loaded with verbal skills, like use of inner language. The poor performance noticed by some of the investigators on picture arrangement test (sequential test), thus can be attributed to language deficit, rather than to perceptual deficits.

Implications

The important implication is deliberate attempt has to be made to develop inner language – receptive vocabulary, relational concepts, sentence pattern and use of language for logical/sequential thinking among autistics. Development of inner language may contribute to success in academic performance, as it facilitates meaningfulness of the content to be learned by autistics.

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