

**The use of personal pronouns in Greek language by children with autism and by children with Asperger syndrome. A comparison study between two children with autism and two children with Asperger syndrome.**

Difficulties in the use of first and second person pronouns are characteristic of children with autism who develop speech for example, a mother might say: "Do you want me to pick you up?" and the child might respond "me pick you up" (Siegel 1996).

Kanner regarded what he referred to as 'pronominal reversal' as typical, almost pathognomic, of the condition.

People who view autism as a form of psychopathology see personal pronoun difficulties as the result of a confusion of personal identity and its psychic defence mechanisms. Bettelheim (1967) and Bosch (1970) assumed that there was deliberate avoidance of the use of 'I' and attached much significance to it within a psychodynamic interpretation of autism.

Bartak and Rutter (1974) showed that reversals can often be explained as a consequence of echolalia. They demonstrated that there was in fact no avoidance of the pronoun 'I' but the children only appeared to do so in their echoed utterances because they echoed stressed words and the ends of sentences, whereas 'I' normally occurs unstressed, towards the beginning.

Newson (1979) regards difficulties with personal pronouns not as consequence of a language problem but as consequence of rigidity of thinking at children with autism. This rigidity is manifested by the inability to take roles and pretend play.

Jordan & Powell (1995) have shown that the problem is not due to the lack of differentiation between self and other since individuals recognise and can use proper names with correct reference but to the way in which reference is determined in pronominal expressions. The problem is related to the general deictic deficit in autism which lies on the cognitive disorder which exists in autism ( Jordan 1989).

Greek language is quite different in structure from English language in which the majority of research on this phenomenon has been made. Personal pronouns in

Greek language are eight four strong and four weak (clitics) form and their use is different from the personal pronouns in English.

This project first is going to study the use of personal pronoun by the children with autism who speak Greek with goal to show that the problem with diectic words in autism is a common problem for all people with autism in all over the world. Secondly it will try to compare the use of personal pronouns between two children with autism and two children with Asperger syndrome with the same chronological and language age.

The project begins with a literature review about the phenomenon which Kanner named 'reversal pronouns' and with a description of the use of personal pronouns in Greek language, it goes on with the description of the research project, analysis of information collected and will concludes with the discussion of the results.

Pronouns are members of a syntactic class that is acquired relatively late (Frith 1989) the learning of the pronominal system is a very complex process which requires the understanding that one word can refer to a word or a group of words previously mentioned ( Bernstein & Tiegerman) (1993).

Child psychologists have shown interest in the development of pronouns as an index of attained self- awareness. According to Boyd (1914) (cited by Fay 1980) the diminishing I and the growing use of other pronouns is a significant revelation of the process by which the self-centred child is transformed into a social being..

The way in which the children learn the use of personal pronouns is through understanding the changing reference mechanism of speaker / addressee in the process of social interaction. Changing reference is one of the complications inherent in diectic elements of human language(Fay 1980).

Diectics are words that 'pick out' or 'point to' things in relation to the participants in the speech situation. In the use of person diexis the pronoun I picks out the speaker in contrast to the you, the addressee. They are at the same time symbols and indices and represent a complex category in which communication and language overlap ( Fay 1980).

Ingram (1971) cited by (Fay 1980) consider that person deixis in the form of the person deictic unit is generated at the deep level of grammar.

'I' and 'you' distinction is confused by small children quite frequently and 3 years old often tend to use proper names, including their own, when the pronouns I and you would be correct (Frith 1989). According to Brown (1975) (cited by Bernstein 1993) the development of pronouns has five stages. In the first stage appears the personal pronoun I, in the second appears the pronoun me and in the third appears the personal pronouns you, he, she and we, which emerge quite later from the others pronouns (Tiegerman & Bernstein 1993).

There is evidence that speaker-addressee personal pronouns are among the earliest deictic contrasts made by normally developing children (Jordan 1989). In a study of personal pronouns in normally developing children (Wales 1979) (Cited by Jordan 1989) found that gestural pointing was needed to aid the understanding of third person pronouns, but 'I' and 'you' needed no such support. Somewhat different from Brown's opinion about the pronouns acquisition suggest Chiat (1986) and Silberg (1978) which consider that first person singular (I, me, mine, my) occurs first before 'you' 'yours' and 'your' and that third person pronouns (he, she, it) are acquired last.

Charney (1980) found in her study for first and second person pronoun production with normally developing children that the children in this age (18 to 30 m. old) used 'my' correctly to refer to self at a very early stage but did not understand its use by others to refer to themselves. These findings seem to indicate that the first person pronoun is used before the child has understood the speaker principle and also that the children only understood 'your' as applying to them when they were addressed, not its use to apply to other people, at this stage 'your' was not produced by the children (Jordan 1989).

In an other study by Clark (1978) have founded that there are three stages in the acquisition of person deictic contrast from normally developing children. In the first stage the 'I' used without a contrasting pronoun, in the second stage the 'I' and 'you' used with wrong contrast and in the final stage the person deictic pronouns used with the correct deictic contrast.

Personal pronouns in Greek for the first and second person are \ ego \ (I), \ esi \ (you), \ emena \ (me), \ esena \ (you), which are the strong form of the pronouns and

\mu\, \su\, \me\, \se\ which are the weak forms (clitics) of the pronouns ( Tobaidis 1995).

Personal pronouns in Greek are not used as frequently as in English and this happens because the person in Greek is indicated not just from the pronouns but from the ending of the verbs. For example if someone wants to ask for a drink can say \ ego thelo ena potol ' I want a drink' or can say \ thelo ena potol because the ending \-ol of the verb \thelol 'want' indicates the first person. The second person ending of the verbs is \-is\ \ thelis\ ' you want' and for the third person the ending is \i\ \theli\ ' he wants' (Appendix 1).

It is characteristic for the people with autism in Greece that they are not made mistakes just in the use of personal pronouns but also in the endings of verbs which indicate the person who speaks. If you ask a child with autism for example ' Do you want ice-cream' \ thelis pagotol the answer is \ thelis pagotol instead of \ thelo pagotol. This bring evidence to the fact that the problem with the use of personal pronouns by people with autism is not a difficulty with the grammatical forms of the pronouns or a cognitive deficit but is a social deficit which underlies pronoun reversals in children with autism

(Charney 1980) and this symptom may be common for all people with autism irrespective of which language they speak.

Jordan (1989) considers that it is important to examine the phenomenon of 'pronoun reversal ' to see if this is a feature of autism rather than a function of mental retardation or a function of being at a certain stage of language development. She suggests that the difficulty with personal pronouns is an abnormality in personal deixis. That means that the child is not able to understand the 'speaker's principle' that pronouns change accordingly to whether they are used as self or addressee reference and may be understood and used as referential labels.

From the listener's perspective the children may understand that 'you' always refers to themselves and 'me' to adult / speaker but when they take the speaker's role they still use 'you' to refer to themselves and 'me' to refer to the adult / speaker.

Jordan (1989) in her study on the diectic hypothesis for the 'pronoun reversal' iin children with autism found that the impairment in children with autism is quite different from the impairment in children with learning difficulties and/or children with normal development. From the listener's perspective the children with autism showed complete understanding of 'you' as applying to themselves, and the majority

of them showed full understanding of 'me' as applying to the speaker in the experimental condition.

From the speaker's perspective children with autism tend to use the proper names or incorrect pronouns instead of the personal pronouns 'you' and 'me'.

Jordan (1989) concludes that the difficulties of personal deixis in children with autism lie in their social behaviour and in the use of social communication. Factors which also affect the deviation in the developmental of person deixis are the lack of 'joint attention' and the impairment of symbolic play (Frith 1989).

There are not any data especially for the phenomenon of 'reversal pronouns' and for the use of personal pronouns in children with Asperger (AS) syndrome. For many years researchers considered that autism and AS syndrome are the same disorder but with a different name and with different degree of impairment. The publications of DSM - IV(1994) and ICD-10 (1992) separated these two diagnostic categories. The difference is that those with AS tend to have some symptoms of autism which impair them less, while certain other symptoms are not present at all (Siegel 1996). Evidence of separation of the syndromes existed since Kanner and Asperger described them (1943; 1944). Such differences were: a) autism is manifested in the first month of life (Wing 1991), whereas in AS syndrome is not manifested until the third year of life or later; children with autism walk earlier than they speak, their speech is retarded or absent, and language is not used to communicate, whereas in AS syndrome children walk late but speak earlier and try to communicate although in one side manner; eye contact is poor in children with autism but exist in children with AS syndrome because these children live in our world ,and people exist for them, but in their own way(Wing 1991).

Asperger in his later paper stated that the children he studied developed highly grammatical speech before they could walk (Wing 1991). This may be an evidence of existence of differences in the use of personal pronouns among children with autism and children with AS syndrome.

The experimental studies of this project will try to show the differences in use of first and second strong forms of personal pronouns and in use of first, second, and third person of verbs suffixes, if these exist, among two children with autism, two children with AS syndrome and a control group of five normally developing children.

### **Materials**

The 'Picture Test' of 'Derbyshire Language Scheme' (Masidlover 1979) was used to find the level of language Comprehension between the groups. We chose this test because of the lack of a tool which can measure the development of Greek language in children. This test was unique among the tests we had because we could use it without any changes in its material in order to be adapted in Greek.

Also there is not any research in Greek language about the M.L.U (mean length of utterance) (Brown 1973) (cited by Bernstein & Tiegerman 1993) for this reason we used the utterances which the children of the study used to express the picture of the Derbyshire Language Test, we took the utterances of the same fifty pictures, found out the morphemes and divided it with 50. The number which we took is a fictitious M.L.U but it is very useful for the study.

The investigation of understanding and using the personal pronouns became with a number of experiments which we considered to be relevant for the form of pronoun which we wanted to investigate. The materials were photographs of the examiner and the subjects, toys and objects and also an answer form ( appendix 3).

### **Subjects**

In the first group there were two boys with autism who attended primary school for normally developing children and had been diagnosed as with Pervasive Developmental Disorder according to the ADI-R (Rutter 1994) (appendix 2) and were diagnosed as having autism according to the criteria of DSM-IV (1994) (appendix 2). Their chronological age was 6 years old for (K.G) and 8 years old for (K.M). The MLU of (K.G) was 4.0, and of (K.M) 5.6.

In the second group there were two boys with AS syndrome which attended a primary school for normally developing children and have been diagnosed as with Pervasive Developmental Disorder according to the criteria of ADI-R (Rutter 1994) (appendix 2) and were diagnosed as having AS syndrome according to the criteria of DSM-IV (1994) (appendix 2). Their chronological age was for (I.R) 6 years old and for (S.K) 5.10 years old. The M.L.U of (I.R) was (6.1), and for (S.K) 4,7 (appendix 4).

The third group consisted of five normally developing children ( boys) from one play group and all of them are going to attend mainstream classes in the future. Their chronological ages and M.L.U were (N.K) 5.6 years old, M.L.U 4.4; (P.G) 5.3 years old, M.L.U 4.2; (T.V) 5.1 years old, M.L.U 4.8; (K.A) 4.5 years old, M.L.U 4.9; and (D.P) 5.0 years old, M.L.U 5.4.

Table 1 (appendix 4) .

All the children of the first and second group and the group of normally developing children were tested with the 'Picture Test' of 'Derbyshire Language Scheme' (DLS) (Masidlover 1979) to order to find out the level of verbal comprehension. All children completed the 4 word level of DLS with a few mistakes in understanding of verbs tenses ( past tense) and in understanding of pronouns his,her, and their, except of (K.A) normaliy developing child who completed all the test without any mistakes.

### **Experiment 1**

In this experimental study the three groups were compared on their understanding and use of the strong form of personal pronoun 'Ego' (I) and 'Esi' (you).

#### **Materials**

Photographs of the child and experimenter while that they ate, wrote, played, cut and drank.

#### **Procedure**

The experimenter sat opposite to the child at a table and placed the photographs of the child and himself on the table. There were five photographs of the experimenter and five photographs of the child.

#### **Comprehension procedure:**

The experimenter gave five instructions for the "Ego'(I) and five instructions for the 'Esi' (You) and asked the child to point at the appropriate photo.

For example ' Ego pino' ( I'm drinking); 'Esi grafis' (You are writing)

#### **Production Procedure:**

We used the same photographs and the experimenter asked the child showing a photograph 'Who is eating ?' , 'Who is drinking ?' and waited for the answer.

#### **Results:**

All the subjects seemed to understand the first and second personal pronoun "ego' and 'esi' when these referred to the examiner and to himself.

In the production of personal pronouns 'ego' and 'esi' the children with Asperger syndrome and the normally developing children appeared to use correctly the pronouns but not and the children with autism who did not use the pronouns but the

proper names of the experimenter and himself to answer the questions. Table 2 (appendix 4)

### **Experiment 2**

In this experimental study the three groups were compared in the comprehension and use of the strong form of personal pronouns 'emena' (me) and 'esena' (you).

#### **Materials:**

Five pairs of objects. Hat, watch, ring, necklace, bracelet.

#### **Procedure:**

The experimenter placed the objects on the table and for the comprehension procedure said to the child 'Vale se **emena** to kapelo' (Put on me the hat),' Vale se **esena** to daxtilidi' (Put on you the ring) and gave five instructions for every pronoun.

To study the production of these pronouns we used again the same objects but now the instruction was different. The experimenter took an object showed it to the child and asked him ' Se pion na valo to roloi' ( to whom shall I put the watch) the correct answer in Greek in this kind of question is 'emena' or 'esena' when the people who speak are two and there is not another person in the communicative situation.

#### **Results:**

All normally developing children understood and used correctly these forms of personal pronouns.

Children with Asperger syndrome understood correctly the personal pronouns when these referred to experimenter and to himself. The production of pronouns was correct at one of the subjects (I.R), the other subject used incorrect pronouns 'ego'(I), 'esi'(you) instead of 'emena'(me), 'esena' (you) three times .

Children with autism appear to understand the pronoun 'emena' when this refers to the examiner but both of them appear to have difficulties to understand the pronoun 'esena' when this refers to himself one of the subjects made mistakes four of five times and the other child made mistakes one of five times.

Also difficulties appeared to have with production of these pronouns, (G.K) one time used the correct pronoun, two times used the proper names of examiner and himself and seven times used incorrect pronouns 'ego' and 'esi' instead of 'emena' 'esena', the other subject (K.M) only one time used the correct pronoun and all the other times appeared to use the proper names of the examiner and himself. Table 3 (appendix 4).



### **Experiment 3**

Here we tried to see how the children understand and use the first, second, and third person suffix in the verbs because as we have already said the suffix of the verbs indicates in Greek the person who speaks as the personal pronouns are used in emphatic way (Konty 1989).

#### **Materials:**

Photographs of the researcher, of the subject and of an other third person.

#### **Procedure:**

##### Comprehension procedure;

The experimenter placed on the table in front of the subject every time three photographs that showed the same action performed by the researcher, by the subject and by the third person. Then the researcher said 'grafo' (I'm writing), 'grafis' (you are writing), 'grafi' (he/she is writing) and waited for the child to point at the relevant photo.

##### Production Procedure:

We used the same photographs but this time we asked the subject to tell to us what he could see on the photograph.

#### **Results:**

Normally developing children children with Asperger syndrome did not make any mistakes in comprehension as in production.

From the group of children with autism the (G.K) subject made mistakes in comprehension: two in first person suffix, one in the second person, and two in the third person. In production the subjects tended to produce the third person correctly in all items. The G.K subject did not produce at all the second person and he tended to use the third person instead of the second. The (I.R) subject only one time answered correctly for the second person and all the other times he tended like the (G.K) to change the second person with the third. The (I.R) have had productions of the second person but not used them correctly, he tended to use them to refer to himself instead of the first person suffixes; only two times he used the correct suffixes for the first person. The other subject (G.K) used the correct suffixes for the

first person three times and the other two times he used the third person suffixes instead of the first. Table 4 (appendix 4)

#### **Experiment 4**

In this last experiment we tried to see if the children of all groups are able to take the place of the speaker and to finish an utterance which has begun of the experimenter by using the correct suffix of the person of the verb.

#### **Materials:**

Toys and objects. A pencil, a comb, plastic toy hammer, a sponge and a plastic toy cock.

#### **Procedure:**

After a sort play time with the materials with goal the subject to understand how we can play with them, the experimenter took the comb and said with the appropriate intonation 'Tha se ..... ' ( I will ..... you). The verbs that we used in this experiment was: hit, clean, paint, brush and pinch.

#### **Results:**

The correct answer in this experiment was the subject to use the verb with the suffix {-o} which indicate the first person because the examiner began speaking in the first person.

The normally developing children and the children with autism answered correct in this experiment.

The children with Asperger syndrome tended to change the utterance of the examiner by changing the weak form of the second person pronoun 'se' (you) in the weak form of the first person pronoun 'me' (me) and using the correct suffix of the verb after the change. For example the utterance

'Tha *se*.....(plino) ' ( I will clean you) became 'Tha *me* .....(plinis)' ( You will clean me). The (I.R) subject changed all the utterance from the beginning, while the (S.K) subject produced only the verb with the changed suffix: he gave a second person suffix instead of the first person which was required. The utterances that the I.R subject produced were grammatically correct but were incorrect for the communication context. This happen because the subject did not understand the speaker's intention which was the subject to continiou the speaker's phrase. Table 5 ( appendix 4).

### Discussion of the results - Conclusion

Τα ευρήματα της έρευνας μας αποδεικνύουν την δυσκολία των παιδιών με αυτισμό στην χρησιμοποίηση των δυνατών τύπων των προσωπικών αντωνυμιών της ελληνικής γλώσσας, καθώς επίσης και την δυσκολία κατανόησης κάποιων αντωνυμιών ή γραμματικών μορφών που δηλώνουν στα ελληνικά το πρόσωπο που δρά.

Τα αποτελέσματα του πρώτου πειράματος καταρίπτουν για μια ακόμη φορά την ψυχοδυναμική θεωρία (Bettelheim 1967; Bosch 1970) η οποία εξηγεί την μη χρήση του πρώτου και δευτερού τύπου των προσωπικών αντωνυμιών σαν έλλειψη διακρίσης του εαυτού τους από τους άλλους. Η έρευνα αποδουκνύει ότι τα παιδιά με αυτισμό, όπως και αυτά με ΑΣ, κατανοούν πλήρως το πρώτο και δεύτερο τύπο των προσωπικών αντωνυμιών όταν αυτό αναφέρεται στον εαυτό τους και στο άλλο (εξεταστή) πράγμα που σημαίνει ότι μπορούν να ξεχωρίσουν και να αντιληφθούν τον εαυτό τους και τους άλλους (Jordan 1989). Τα αποτελέσματα όμως είναι πολύ διαφορετικά όσον αφορά την χρήση των προσωπικών αντωνυμιών. Εδώ είναι εμφανής η δυσκολία των παιδιών με αυτισμό σε σχέση με τις άλλες δύο ομάδες τις έρευνας να χρησιμοποιήσουν σωστά τις προσωπικές αντωνυμίες. Τα παιδιά με αυτισμο που πήραν μέρος στην έρευνα δεν χρησιμοποιούν καθόλου τις προσωπικές αντωνυμίες 'εγώ' και 'εσύ' και στην θέση τους χρησιμοποιούν τα ονόματα του εαυτού τους και του εξεταστή. Αυτό θα μπορούσε να εξηγηθεί από την ηχολαλική χρήση των φράσεων που χρησιμοποιούν συνήθως τα παιδιά με αυτισμό σαν μια τεχνική εκμάθησης της γλώσσας. Έχει παρατηρηθεί το φαινόμενο οι γονείς καθώς και θεραπευτές που ασχολούνται με παιδιά με αυτισμό να χρησιμοποιούν τα ονόματα τους καθώς και τα ονόματα των παιδιών όταν αναφέρονται στους εαυτούς τους ή στα παιδιά. Αυτή η συνήθεια μαζί με την τάση για ηχολαλία και επίσης η δυσκολία χειρισμού των δεικτικών λέξεων (Jordan 1995) ίσως μπορούν να εξηγήσουν το φαινόμενο της έλλειψης των προσωπικών αντωνυμιών από τον λόγο των παιδιών με αυτισμό. Ένας άλλος παράγοντας που μπορεί να συγκλίνει στην έλλειψη των αντωνυμιών 'εγώ' και 'εσύ' είναι η περιορισμένη χρήση τους στα ελληνικά μια και χρησιμοποιείται μόνο σαν απάντηση στην ερώτηση ποιος < ή για λόγους έμφασης.

Τα παιδιά με ΑΣ εμφανίζονται να κατανοούν την αντωνυμία εμενα και εσένα που είναι ο πλάγιος τύπος των προσωπικών αντωνυμιών εγω και εσυ.

Το ένα από τα υποκείμενα με ΑΣ εμφανίζει μικρή δυσκολία στην χρήση των αντωνυμιών αυτών και τείνει να τοποθετεί στην θέση τους τις προσωπικές αντωνυμίες εγώ και εσύ με σωστή όμως χρήση του προσώπου. Σύμφωνα με την Stefany (1995) αυτό είναι ένα φυσιολογικό στάδιο στην εξέλιξη του λόγου στα ελληνόπουλα. Κατά την περίοδο της κατάκτησης του λόγου τα ελληνόπουλα κατακτούν πρώτα την αντωνυμία του τρίτου προσώπου της προσωπικής αντωνυμίας, μετά το πρώτο και δεύτερο πρόσωπο και τελευταία τους πλάγιους τύπους εμένα και εσένα.

Η διαφορά αυτή ανάμεσα στα παιδιά με ΑΣ μπορεί να δικαιολογηθεί και από το διαφορετικό βαθμό του MLU που παρουσιάζουν τα παιδιά μεταξύ τους αν και τα παιδιά με φυσιολογική ανάπτυξη και με ίδιο MLU φαίνεται ότι το έχουν κατακτήσει.

Διαφορές εμφανίζονται στα αποτελέσματα των παιδιών με αυτισμό στο ίδιο πείραμα σε σχέση με τις άλλες δύο ομάδες των υποκειμένων. Παρόλο που κατανοούν το εμένα σαν ένα όνομα που αναφέρεται στον εξεταστή εμφανίζουν δυσκολία στην κατανόηση του εσένα σαν όνομα που αναφέρεται σε αυτά. Αυτό θα μπορούσε να εξηγηθεί από την περιορισμένη χρήση αυτού του τύπου της προσωπικής αντωνυμίας στα ελληνικά μια και χρησιμοποιείται συχνότερα αντί αυτής της αντωνυμίας ο αδύνατος τύπος της 'σου'. Σε παραλληλη έρευνα που έγινε από τον συγγραφέα φάνηκε ότι τα παιδιά με αυτισμό κατανοούν πλήρως τον αδυνατο τύπο της αντωνυμίας.

Οι δυσκολίες στην χρήση των πλάγιων τύπων των αντωνυμιών φαίνονται να είναι αντίστοιχες με αυτές των τύπων εγώ και εσύ από το πρώτο πείραμα. Τα υποκείμενα χρησιμοποιούν όπως και στο προηγούμενο πείραμα το όνομα του εξεταστή και το δικό τους αλλά κάποιες φορές χρησιμοποιούν τις προσωπικές αντωνυμίες εγώ και εσύ όπως και σωστά τις αντωνυμίες εμένα και εσένα. Όπως έχει περιγραφεί από τον Clark (1978) υπάρχει ένα στάδιο στην φυσιολογική κατάκτηση του λόγου όπου οι προσωπικές αντωνυμίες κατακτούνται σαν ονόματα χωρίς το παιδί να έχει κατακτήσει ακόμη την αρχή του ομιλητή. Τα παιδιά με αυτισμό φαίνεται ότι παραμένουν σε αυτό το στάδιο περισσότερο από τα άλλα παιδιά. Φαίνεται όμως στα δύο υποκείμενα που πήραν μέρος στην έρευνα ότι είναι σε ανάπτυξη η χρήση των αντωνυμιών μια και αυτά όπως και τα άλλα με ΑΣ βρίσκονται κάτω από εκπαιδευτικό πρόγραμμα ανάλογο των δυσκολιών τους.

Όπως έχουμε ήδη αναφέρει στην ελληνική γλώσσα το πρόσωπο που δρα ή που πρέπει να δράσει δηλώνεται κυρίως με τις καταλήξεις των ρημάτων παρά με τις προσωπικές αντωνυμίες. Τα αποτελέσματα του τρίτου πειράματος δείχνουν τις δυσκολίες που εμφανίζουν τα παιδιά με αυτισμό στην χρήση και στην κατανόηση αυτών των γραμματικών τύπων. Όσον αφορά την κατανόηση ένα από τα υποκείμενα εμφανίζει δυσκολίες στην κατανόηση των καταλήξεων των ρημάτων αλλά αυτό θα μπορούσε να εξηγηθεί από το χαμηλό MLU που παρουσιάζει σε σχέση με το άλλο υποκείμενο με αυτισμό.

Οι δυσκολίες στην χρήση των καταλήξεων των ρημάτων είναι αντίστοιχες με τις δυσκολίες που παρουσιάζουν τα παιδιά με αυτισμό στην χρήση των προσωπικών αντωνυμιών. Τείνουν να χρησιμοποιούν σωστά το τρίτο πρόσωπο των ρημάτων μια και όπως έχει αποδειχθεί από έρευνες στην ελληνική γλώσσα αυτό είναι ένα στάδιο ανάπτυξης (κατη 1984) όπου το τρίτο πρόσωπο εμφανίζεται πρώτο και πριν από το πρώτο και το δεύτερο. Σύμφωνα με την Βαρλοκωστα (1996) παρατηρείται μια υπερ χρήση αυτού του τύπου του ρήματος από τα παιδιά και το ίδιο παρατηρούμε και στην παρούσα έρευνα όσον αφορά τα παιδιά με αυτισμό τα οποία τείνουν να χρησιμοποιούν το τρίτο πρόσωπο στην θέση του δεύτερου.

Είναι εμφανές από την έρευνα η έλλειψη του δεύτερου προσώπου του ρήματος που χρησιμοποιείται για να αναφερθούμε στους άλλους και η οποία υποστηρίζει την υπόθεση της δυσκολίας στο speaker addressee pronoun ( Jordan 1989) και ακόμη η λανθασμένη χρήση του δεύτερου προσώπου τις ελάχιστες φορές που αυτό εμφανίζεται. Τα παιδιά με αυτισμό τείνουν να χρησιμοποιούν αυτόν τον τύπο για να αναφερθούν στον εαυτό τους πράγμα που μπορεί να εξηγηθεί από την ηχολαλική συμπεριφορά των παιδιών με αυτισμό.

Το τελευταίο πείραμα είχε σαν στόχο να εξεταστεί την ικανότητα αντίληψης της αρχής του ομιλητή από τα παιδιά με αυτισμό και ΑΣ σε σύγκριση με φυσιολογικά αναπτυσσόμενα παιδιά. Λόγω της δομής της ελληνικής γλώσσας δεν χρησιμοποιήθηκαν οι προσωπικές αντωνυμίες αλλά οι καταλήξεις των ρημάτων οι οποίες δηλώνουν το πρόσωπο. Τα παιδιά με αυτισμό παρουσίασαν τα ίδια αποτελέσματα με τα φυσιολογικά αναπτυσσόμενα παιδιά όχι επειδή είχαν αναπτυξή αυτή την ικανότητα μια και αυτό δεν φαίνεται από τα προηγούμενα αποτελέσματα αλλά ίσως επειδή η δομή της εξέτασης ήταν τέτοια που βοηθούσε το παιδί να ανταποκριθεί σωστά στην δοκιμασία. Η δομή της φράσης που χρησιμοποιήθηκε περιέχει τον αδύνατο

τυπο της προσωπικής αντωνυμίας που υποδεικνυε στο παιδι τι θα επρεπε να χρησιμοποιήσει.

Διαφορετικά ήταν τα αποτελέσματα στα παιδιά με ΑΣ. Εδώ σε ένα από τα υποκείμενα παρουσιάστηκε το φαινόμενο αλλαγής της φράσης με σωστή γραμματική μορφή αλλά όχι κατάλληλη για το επικοινωνιακό πλαίσιο της εξέτασης.

Ίσως η σωστή γραμματική χρήση του λόγου από τα παιδιά με ΑΣ μαζί την ήδη υπάρχουσα δυσκολία των κοινωνικών κανόνων να μπορεί να εξηγήσει αυτό το φαινόμενο. Το δεύτερο υποκείμενο με ΑΣ χρησιμοποιεί το ίδιο πρόσωπο με το προηγούμενο αλλά χωρίς να παράγει ολόκληρη την γραμματική δομή που το οδήγησε στην χρήση αυτής της κατάληξης. Συγκρίνοντας τα δυο υποκείμενα ίσως θα μπορούσαμε να εξηγήσουμε αυτή την εικόνα με την ποσοτική διαφορά που έχουν τα δυο υποκείμενα στην ανάπτυξη του λόγου διαφορά που φαίνεται από το MLU.

Παντως και τα δυο παιδιά με ΑΣ φαίνεται να αγνοούν τους κοινωνικούς κανόνες που θέτει ο εξεταστής, κατανοούν όμως την περίσταση και χρησιμοποιώντας συνθετες γνωστικές διεργασίες μετατρέπουν την φράση του ομιλητή σε μια σωστή γραμματικά φράση, και την παράγουν βάζοντας τον εαυτό τους στην θέση του ομιλητή.

Αυτό το τελευταίο πείραμα θα πρέπει να διερευνηθεί περισσότερο με πιθανή βελτίωση των δοκιμασιών και διεύρυνση τόσο των υποκειμένων όσο και του ερευνητικού περιεχομένου.

Συνοψίζοντας, φαίνεται ότι υπάρχουν διαφορές στην χρήση και στην κατανόηση της γλώσσας ανάμεσα στα παιδιά με αυτισμό και αυτά με ΑΣ όπως αυτές φαίνονται από τα αποτελέσματα των πειραμάτων. Το MLU όπως φαίνεται από τα ερευνητικά δεδομένα των υποκειμένων της έρευνας δεν παίζει σημαντικό ρόλο στην παραγωγή του speaker addressee pronouns ( Jordan 1989) ενώ αντίθετα φαίνεται να επηρεάζει τις διαφορές που εμφανίζονται ανάμεσα στα υποκείμενα των ομάδων.

Από αυτή την έρευνα υποστηρίζεται ξανά η ορθότητα της υπόθεσης του speaker addressee pronouns όπως αυτή περιγράφηκε από την Jordan (1989) δυσκολία για την οποία ευθύνεται η γενικότερη κοινωνική δυσκολία των παιδιών του φάσματος του αυτισμού και η δυσκολία ευελιξίας της σκέψης.

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**Table 1 : Description of subjects**

<u>Subjects</u>	<u>No</u>	<u>sex</u>	<u>age</u>	<u>M.L.U</u>	<u>DLS*</u>
<b>with autism</b>	2	M	(7.0)	(4.5)	4 W.L*
<b>Asperger</b>	2	M	(5.5)	(5.4)	4 W.L
<b>Control group</b>	5	M	(5.1)	(4.8)	4 W.L

\* DLS (DERBYSHIRE LANGUAGE SCHEME)

\* 4 W.L ( Word Level) Level of comprehension

**Table 2 : Correct answers in Comprehension and Production of 'Ego' (I) , 'Esi'(You)**

*Five items for every pronoun*

<u>Subjects</u>	<u>Comprehension</u>		<u>Production</u>	
	<u>'Ego'</u>	<u>'Esi'</u>	<u>'Ego'</u>	<u>'Esi'</u>
<b>with Autism</b>	5/5	5/5	0/5	0/5
<b>Asperger</b>	5/5	5/5	5/5	5/5
<b>Control Group</b>	5/5	5/5	5/5	5/5

**Table 3: Correct answers in Comprehension and Production of ‘Emena’ (me), ‘Esená’ (You)**

*Five items for every pronoun*

	<u>Comprehension</u>		<u>Production</u>	
	<u>‘emena’</u>	<u>‘esena’</u>	<u>‘emena’</u>	<u>‘esena’</u>
<b><u>Subjects</u></b>				
<b>with autism</b>				
<b>(K.M)</b>	4/5	4/5	0/5	1/5
			5 proper names	4 proper names
<b>(G.K)</b>	0/5	1/5	0/5	1/5
			4 incorrect	4 incorrect
			pronoun ‘Ego’	pronoun ‘Esi’
			1 proper name	
<b>Asperger</b>				
<b>(I.R)</b>	5/5	5/5	5/5	5/5
<b>(S.K)</b>	5/5	5/5	4/5	3/5
			1 incorrect	2 incorrect
			pronoun ‘Ego’	pronoun ‘Esi’
<b>Control Group</b>	5/5	5/5	5/5	5/5

**Table 4 : Correct answers in Comprehension and Production of first, second, and third person of verbs suffixes**

*Five items for every person*

	<u>Comprehension</u>			<u>Production</u>		
	<u>1st</u>	<u>2nd</u>	<u>3d</u>	<u>1st</u>	<u>2nd</u>	<u>3d</u>
<b><u>Subjects</u></b>						
<b>with autism</b>						
<b>(K.M)</b>	5/5	5/5	5/5	2/5	1/5	4/5
<b>(G.K)</b>	3/5	4/5	3/5	3/5	0/5	5/5
<b>Asperger</b>	5/5	5/5	5/5	5/5	5/5	5/5
<b>Control Group</b>	5/5	5/5	5/5	5/5	5/5	5/5

**Table 5: Correct use of dietic verb suffix**

*Five items*

<b><u>Subject</u></b>	
<b>with autism</b>	5/5
<b>Asperger</b>	0/5
<b>Control group</b>	5/5

**APPENDIX 1**

**MODERN GREEK LANGUAGE**

**APPENDIX 2**

**DIAGNOSTIC CRITERIA**

**OF**

**SUBJECTS**

**APPENDIX 3**  
**MATERIALS OF THE EXPERIMENTS**

## DSM - IV

### DIAGNOSTIC CRITERIA FOR 299.00 AUTISTIC DISORDER

A. A total of six (or more) items from (1), (2), and (3), with at least two from (1), and one each from (2) and (3):

(1) qualitative impairment in social interaction, as manifested by at least two of the following:

**M.K** (a) marked impairment in the use of multiple nonverbal behaviors such as G.K eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction

**M.K** (b) failure to develop peer relationships appropriate to developmental level  
**G.K**

(c) a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people ( e.g by a lack of showing, bringing, or pointing out objects of interest)

(d) lack of social or emotional reciprocity

(2) qualitative impairment in communication as manifested by at least one of the following :

(a) delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)

**M.K**

**G.K** (b) in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others

**M.K** (c) stereotyped and repetitive use of language or idiosyncratic language

**G.K**

**M.K** (d) lack of varied, spontaneous make-believe play or social imitative play **G.K** appropriate to developmental level

(3) restricted repetitive and stereotyped patterns of behavior, interests, and activities as manifested by at least one of the following:



- M.K (a) encompassing preoccupation with one or more stereotyped and G.K restricted patterns of interest that is abnormal either in intensity or focus
- M.K (b) apparently inflexible adherence to specific, nonfunctional routines or G.K rituals
- M.K (c) stereotyped and repetitive motor mannerisms ( e.g, hand or finger flapping or twisting, or complex whole-body movements)
- (d) persistent preoccupation with parts of objects

### **DIAGNOSTIC CRITERIA FOR 299.80 ASPERGER'S DISORDER**

A. Qualitative impairment in social interaction, as manifested by at least two of the following:

I.R (1) marked impairment in the use of multiple nonverbal behaviors such as S.K eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction

I.R (2) failure to develop peer relationships appropriateo developmental level  
S.K

(3) a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people ( e.g by a lack of showing, bringing, or pointing out objects of interest)

(4) lack of social or emotional reciprocity

B. Restricted repitive and stereotyped patterns of behavior, interests, and activities as manifested by at least one of the following:

I.R (1) encompassing preoccupation with one or more stereotyped and S.K restricted patterns of interest that is abnormal either in intensity or focus

(2) apparently inflexible adherence to specific, nonfunctional routines or rituals

I.R (3) stereotyped and repetitive motor mannerisms ( e.g, hand or finger flapping or twisting, or complex whole-body movements)

(4) persistent preoccupation with parts of objects

## MODERN GREEK (M.G) LANGUAGE

### DESCRIPTION

M.G is a language with rich inflectional and derivational morphology. The basic order of the parts in the sentence is Verb-Subject- Object ( Philipaki-Warburton 1985, Tsimpli 1990).

Greek verbs fall into two conjugation classes depending on whether the final syllable of the Present Tense is stressed or not. The agreement paradigm for the most common conjugation is provided in Figure 1.

**Figure 1**  
**Non Past and Past verbal Endings**

	Non Past	Past
SG		
1	-o	-a
2	-is	-es
3	-i	-e
PL		
1	-ume / -ome	-ame
2	-ete	-ate
3	-un(e)	-an(e)

The M.G verb morphology is extremely complex, since the mood, aspect, tense and voice as well as person number are expressed inflectionally. The child has to learn in the end about 45 bound morphologically forms for each verbal lexeme (Katis 1984).

The inflectional ending of the M.G verb expresses the subject coding, in addition, to person and number of the subject, it simultaneously marks the tense, mood and voice.

In finite forms, the agreement features of person and number overtly encoded in the inflectional ending of the verb make the presence of subject pronouns with identical

agreement features redundant. MG is a pro-drop language, that is it allows subject pronouns to drop. Regardless of the fact the subject pronouns usually drop, the verbs do have a subject realized as a null category,

The personal pronouns in M.G are : ego, esi, emena, esena, and the weak forms (clitics) which are me, se, my, sy.

## **APPENDIX 4**

### **TABLES**

**ADI-R (REVISED 1994)****RUTTER, M**

	<u>Subjects</u> G.K	M.K	I.R	S.K
	<u>cut off</u>			
1. Qualitative impairments in Reciprocal Social Interaction	13(10)	15(10)	20(10)	14(10)
2. Communication				
Verbal	4(7)	4(7)	17(8)	11(8)
Non-Verbal	10(8)	9(8)	4(7)	6(7)
3. Repetitive Behaviors and Stereotyped Patterns	10(3)	9(3)	16(3)	6(3)
4. Abnormality of Developmental evident at or before 36 months	5(1)	5(1)	3(1)	5(1)