Inherited Meaning: An Examination of Autistic Language Use in Relation to the Development of Self
Five years ago I saw a picture of a five year old girl tracing a sine wave in dirt on a garden wall. The sine wave looked about eight feet long and was perfectly regular. The girl was autistic, completely mute and, according to the caption, mentally impaired.

Like many people exposed to the mystery and bizarreness of autism, I was immediately convinced that the syndrome must be the key to something. It was difficult, seeing the mathematic function coming from such an unlikely source, not to speculate on the nature of human intelligence. Did it show that mathematical and verbal intelligence were independent? Was it possible for genius to be unconscious of itself? It seemed that any number of inscrutable issues could be cleared if we knew, who was the autistic child?

The research I have done since that time has unearthed few satisfactory conclusions about the autistic. In general idiot savantism such as the girl evidenced in the picture is not considered to be a sign of trapped genius, but some side effect of abnormal cognition. An autistic person is someone who suffers from "a profound biological brain disorder manifest during the early developmental years. This disorder affects the way sensory input is received and causes severe problems of learning communication and relationships with others".

The definition above, which is one of five given out by the Autistic Society of America may take the wind out of the sails of the most romantic riddle of autism, that of "the trapped genius", but it leaves plenty of room for mystery. Despite increasing constraints on wild speculation, the autistic syndrome remains poorly understood. It is a collection of symptoms that cannot be traced to one gene, that cannot be traced to one chemical context, that are never precisely the same in any two autistic persons.
For this reason the best way to gain a sense of who autistics are is, perhaps, not to start with a definition which cannot solve the riddle but to retrace the history of questions that have again and again redefined the riddle. In the process we may learn just as much about the time of investigation as the identity of autistics but that is not my concern here.

When Kanner first defined the syndrome of Infantile Autism in the forties (Autistic Disturbances of Affective Contact, 1943), it was widely assumed to be an emotional disturbance. Kanner made a study of the parents of autistics and found them to be "cold, obsessive, intellectual, successful". He came up with the idea of the "refrigerator mother", whom the child rejects and attacks through withdrawal into autism. The child becomes obsessed with objects, ignores people, rocks, spins or otherwise perseverates and rarely talks. He may exhibit self-injurious behavior and tantrums as well as showing abnormal fear, especially of change as well as an either exaggerated or absent reaction to sensory stimuli.

There followed a rush of efforts by psychologists, ethologists and analysts to round out a psychogenic hypothesis. Autistics were compared with stimulus deprived and undercared for children and isolated monkies. Their apparent intelligence and grace were touted as evidence that their problems must be emotional in origin. Researchers were at pains to prove, for instance, that many autistics were first-born by way of explaining a greater vulnerability to trauma. In 1967 Bettelheim summed up this understanding of autism in his book, The Empty Fortress, where he described autistic behavior as the fear response of an underdeveloped ego. Particularly muteness and the absence of "me" and "I" in autistic speech, he claimed, indicate that the unloved autistic child has been unable to express who he is.
Kanner himself was not consistent in furthering a psychogenic hypothesis. In fact he said as early as 1956 that "this (emotional) factor while important in the development of the syndrome is not sufficient unto itself to result in its appearance..." (Reprinted in Rimland, 1964 p.43) This stance stood him in good stead as more and more evidence pointed to nonpsychogenic factors. For one thing (Rimland, 1964) all autistic children did not have uncaring parents and all uncaring parents certainly did not have autistic children. (The syndrome is very rare, affecting only about 15 in every 10,000. Folstein and Rutter, 1977) Furthermore, autistic children did not respond to any kind of psychotherapy. They are predominately boys, (3-4:1 ratio) indicating a somatic malfunction, and their unusual behavior begins very early in childhood, before ego development had been hypothesized to take place.

With growing agreement on an organic cause, emphasis on symptoms shifted. Where autistics had been seen as "graceful" they were now described as "toe walkers". Their "intelligent gaze" was redefined as "staring through people as if they weren't there" (Rimland's checklist, 1962) and it became apparent that many (about 75%) were retarded. Language problems, especially pronoun confusion, which had before been seen as consequent of emotional trauma, were recognized as a central symptom. Autistics showed a whole range of strange speech pathologies. Some, such as echolalia, which is the taperecorder like repetition of others' speech, contributed to the cold, mechanical quality of autistic interaction. Robotic intonation and extreme literalness are among these. Other language problems, such as incorrect or delayed use of syntax and morphology appeared to be merely developmental. Still others seemed to be connected to social awareness: for
instance the confusion of I and You, the use of odd neologisms and idiosyncratic metaphors, and an obliviousness to sense.

In the late sixties it was still hoped that autistic behavior could be traced to one or several genes. The profile of parents was still considered relevant by many researchers (one, O'Gorman 1967 even claimed that autism was a result of overbreeding), but it was emphasized that the connection was purely genetic, a cold objective intelligence which, inherited by the child in an extreme form, led to autism (Rimland, 1964). Bernard Rimland, himself the parent of an autistic and among the first to promote a biological interpretation of autism, tried to emphasize the gene-for-every-behavior interpretation by limiting who it was the medical community could consider autistic. He claimed that there was no fuzzy gradation in autistic symptoms.

In fact, the very opposite proved to be true in the seventies. Although the relational disturbance and linguistic peculiarities of autistic people set them apart from schizophrenic and retarded populations, between autistics symptoms vary wildly. Some talk some do not. Some respond to music. Some like to draw. Others have no splinter skills at all. At this time diagnostic tests shifted to an axial approach where clinical psychiatric syndromes, developmental disorders like autism, identifiable physical disorders and IQ performance were each scaled separately.

These tests helped caretakers place autistics in more appropriate environments and many were put in special schools. With the advent of a trained, monitored autistic population it became clear that autistics were not fundamentally uncaring and that the syndrome continued far into adulthood, making "infantile autism" an inappropriate term. In the seventies Lovaas published his ground breaking book, The Autistic Child, showing that conditioning techniques can be used to train autistics and
improve their responsiveness. It is debatable how many, if any, recover (between 1 and 2% will grow up to be very functional if socially awkward according to The Autistic Handbook. (Editor, Anne M. Donnellan, 1985) but with training in specialized schools most autistic children progressed.

In the eighties and nineties fewer controversies have been settled. Emphasis in research has been on the strange sensory processing of many autistic people. Autistics exhibit exaggerated as well as oblivious reactions to loud noises and strong lights. Some also show cross modality responses (hearing lights, seeing sounds, etc) or can only abide a certain kind of touch. Fully a third are epileptic. The general hypothesis, as reflected in the leaflets from the National Autistic Society, is that this abnormality in sensory processing somehow causes the other cognitive/relational abnormalities.

I have not come across this or any other firm conclusion in research, though I have seen experiments studying everything from effect of hugging and pets to B-vitamins and serotonin on autistic behavior. (Suggestions for the mechanism of the dysfunction tend to mirror trends in neurobiology. Thus at one time autism was considered to be a hemispheric disturbance, then a problem with the reticulum. It has even been suggested that the problem stems from an inability to maintain homeostasis.) In any case, my main interest focuses on the issue of language learning and social pragmatics. I do not hope, at this point, to delineate the syndrome or suggest a cure.

In studying autism, however, I am still left with the problem of deciding who autistics are. A definition of autism represents a number of theoretical decisions. Since all features of the disorder are present at one time or the other in normal children and the syndrome is often accompanied by other factors (like retardation and epilepsy) deciding what the essential features of autism are cannot be separated from the issue of what its cause
might be. Where an exclusive affected population exists, cause can be determined after definition. Where elements of the pathology overlap with the characteristics of other populations it is necessary to decide simultaneously what is a cause and what an effect of autism. Affective disorder, for instance (one of the classic three definitions of autism) could be the only important aspect of autism while sensory disturbance is not. In this case emotionally disturbed children are autistic and sensory aberrations are secondary. If, on the other hand, it were decided that the latter caused the former, then only children with sensory disturbances would be autistic and all autistics would have sensory disorders.

Obviously this method is circular. For sake of practicality it is necessary anyway to jump right in with a general definition. This decision is extremely important, however, since determining the realm of the disease determines to a great degree what kind of research will be done on it. (Rimland, 1964) I found it easiest to use the guidelines in Handbook of Autism and Pervasive Developmental Disorders (1987) The test they recommend has proven 86% accurate (according to last December's issue of the Journal of Autism and Developmental Disorders) and their breakdown of symptoms seems fairly unbiased.

The handbook breaks autistics into behavioral groups: the aloof group, the passive group and the active but odd group. The aloof is what is generally meant by "infantile autism" (a word less in favour now that autistics are not automatically rediagnosed after childhood as retarded or schizophrenic) These traits are identified by tests like ICD9 and DSMIII.

1) Early evidence of non sociability and non attachment

2) Speech absent or abnormal (where abnormalities include echolalia, pronoun reversal, literalness, idiosyncratic use of words, failure to use
language as communication, general lack of fluency, and odd intonation)

3) insistence on sameness in decor, schedules etc.
4) difficulty copying other people (outside of echolalia)
5) tendency to walk on toes
6) exaggerated or absent reaction to sensory stimuli
7) cross modal reaction to stimuli
8) no imaginative play
9) inappropriate use of objects.
10) repetitive movements such as hand flapping or head banging
11) odd obsessions

The passive group is generally a less extreme version of the aloof group and can usually be integrated into everyday society. It is not defined as completely separate from "aloof group" particularly since autistic children, as they grow older, often change from aloof to passive. It would be classified as an atypical developmental disorder in DSMIII. The main perceived difference in the passive group, as indicated by the name, is the ability to accept social approaches.

The active but odd group introduces social contact but in an inappropriate way. Probably many of Bettelheim's cases -- such as the boy who considered himself a machine -- belong to this group since both the imagination he describes and its inappropriateness is typical of the grouping. DSMIII does not diagnose these behaviors and they are not the issue here. In any case, social withdrawal, language disturbances, preservation of samness
and inappropriate use of objects are common to almost all characterizations of autism.

For the purposes of this paper, I will refer to as autistic any individual (fitting the descriptions above) who is so constrained in his or her sociability as to fail to demonstrate the pragmatic skills necessary to language learning. Other abnormalities which affect pragmatic skills, such as deafness or blindness can be easily distinguished from Autism in that they do not lead to a loss of Role-taking play, or avoidance of human contact.

Role playing and human contact, two factors which come up again and again in definitions of autism I will attempt to demonstrate as key in the learning of pragmatics. I will then demonstrate how pragmatics allows us to establish a semantic common ground with other people, allowing us to communicate. I will also explore how an incomplete ego development, parallel to an incomplete cognitive style prevents autistics from producing novel, grammatical utterances. Autistics who achieve native fluency I will not consider in this paper unless specifically mentioned, although the existence of less severe forms of autism does seem to indicate that it is the cause not the result of incomplete ego development.

Reversed Personal Pronoun Use in Autistics

It is typical of the teasing nature of Autism that the syndrome is marked by a confusion of the personal pronouns "you" and "I". The I/You confusion seems to pinpoint the egocentric, lost position of the autistic, but it is also typical of normal toddler speech. Thus studying its persistence in an
abnormal population promises to explain some aspect of universal human development, at least until no one cognitive failing proves at fault.

This possible defining quality makes autism interesting to cognitive psychologists, but autism has a hook for the psychoanalyst as well. The same elusiveness of autism as a disease is common to autistics as people. The strange skills of the autistic, the bizarre indifference to other humans, these characteristics seem to be signs of an absent rather than a cognitively limited self. How tempting, then, to see autism as a marker of what "the self" does. For psychoanalysts who invest a lot in language, the pronoun reversal seems particularly telling. That the absent self confuses self with other, "I" with "you", seems to describe the role of the ego or "I" in determining social relationships.

It is in the realm of language where the viewpoints of the psychoanalyst and cognitive psychologist meet. Language, because it has apparently autonomous psychological organization with a neurological foundation, is a favorite object of study for the cognitive psychologist. Language, as the meeting place of the conscious and unconscious mind, is likewise the baby of the psychoanalyst. This overlap in interests is not, I think, accidental but it has not been explored (as far as I know) in terms of autistic language use. I have attempted here to recombine scientific and nonscientific approaches as a way of explaining how the concept of the self can help us talk about the linguistic peculiarities of autism, particularly the confusion of personal pronouns.

1 Modularity as discussed by Merlin Donald in his book, Origins of the Modern Mind (Harvard University Press, 1991) He defines a modular cognitive function as one that is "quasi-independant...responsible for each dissociable or isolable aspect of higher function" While cognitive theories of language are not all modular, experimental interest has traditionally focused on modular explanations, especially research on Wernick's area and Brocca's aphasia.
Research on the autistic sense of self

Psychologists attempting to prove that autistics lack defined selves used to cite as evidence that autistics avoid use of "I". Now studies show that the sentence initial position of "I" simply makes it hard for autistics to remember. In tasks where "I" appears at the end of a model sentence, autistics repeat the "I" back as often as any other word. (Fay, 1979) Since no evidence points to a memory constraint in the persistent reversal of pronouns common in autism, I will concentrate in this study on the reversal of the first and second person pronouns rather than emphasizing that autistics cannot comfortably say, "I".

Nonetheless, I think studies dismissing the avoidance of "I" as a cognitive accident are missing the point. Autistics have difficulty with all deictic categories. In a test of accurate ordering of morphology, for instance, autistics performed with normal controls except for tense endings; the deitic reference to time confused them (Tager-Flusberg, 1981)

"I", is always deitic in character because it refers inevitably to the speaker and thus to the world outside language. If autistics fail to use "I" in repetition of phrases, which is part of echolalia, because of memory constraint only, it does not follow that their failure to generate "I" is insignificant, (especially since children do not learn words by the imitation of sentences) I will not press this point because I feel that the occurrence of me/you reversal is indicative by itself. Still, I hope to demonstrate why the use of any deitic pronoun very naturally reflects the speaker's stage of ego development and concept of self and other.
The notion that the autistic's use of you or he for I reflects a confusion of self and other is considered old fashioned nowadays. While Bettelheim, in his emotional book, The Empty Fortress (1967), talks a great deal about the emerging of the "I" from "amorphous" "undifferentiated You", most later theories abandon this concept as romantic. Partly this shift stems from evidence that autism is not a reaction to emotional trauma, and therefore need not involve a wounded self. However it also reflects a tendency to delimit one cognitive deficiency at a time as a cause of autism. Since it is difficult to define "the self" through a cognitive task, the concept does not lend itself to current scientific exploration.

The work that does implicate the lack of an autistic self in the puzzle of personal pronouns describes the self in the single skill of self recognition. (For instance Fay, 1979. He assumes that identity, though important to the use of I can be measured by mirror recognition, constrasting the reaction of "lower primates and mental defectives" on the one hand and "trained chimpanzees and normal humans" on the other. ) This work has been undermined by evidence that most autistics can recognize themselves in mirrors (Ferrari and Matthews, 1983) and are proficient at object permanence and gestural imitation tasks which are correlated with self recognition (Dawsin and McKissick, 1984).

Recent theorists have seen personal pronoun errors in autistics as functions of single deficiencies, without allowing much room for problems of identity. Leslie (19?), for instance, suggests that a cognitive deficiency in the ability to represent meaning underlines anaphoric confusion.2 Similarly, Rutter and Lord (1987) (among others) describe "you"/"me" confusion as a
humdrum result of echolalia. Autistics repeat phrases without operating on them; therefore they repeat terms applied to themselves like "you".

An exception to the single-cause trend is Oshima-Takane and Benaroya (1989), "An Alternative View of Pronominal Errors in Autistic Children".

The paper, although it outlines pronoun error as a simple modeling problem, complicates the issue by reference to normal language development. The authors point to recent studies (Chiat 1982, Schiff Meyer 1985) reporting that "two normal children persistently showed pronominal errors without any indication of confusion between themselves and others." 2 The children were also, apparently, of higher verbal ability than control subjects who did not make errors, suggesting"...that a low level of language development is not necessarily responsible for pronomial errors". In other words, pronoun error in Autistics- whenever it occurs- does not differ cognitively or psychosocially from that of normal two to three year olds.

The Oshima-Takane analysis complicates the issue of autistic pronoun reversal because it forces us to postulate along with the reason for pronoun reversal, which autistics and normal children supposedly share, another reason for why normal children outgrow it and autistics do not. Oshima-Takane and Beharoya's answer to this question in their paper is simply, "modeling problems". Because autistics will not pay attention to human models, they cannot correct their pronoun mistakes. But this explanation begs very important questions: Why is it necessary to pay attention to human models to learn language? What degree of attention is necessary? Why can't autistics do it? How, indeed can they learn any language at all?
Answering these questions forces us to reconsider the interaction of social and linguistic thinking. Since imitation of human models and intense attention to human models implies an act of identification, in my opinion that interaction also involves the self. Thus pronoun reversal is in some way intimately connected to the self concept. It would seem to be a prejudice of scientism that Oshima-Takane have left this implication hanging.

A non-scientific approach

Since research in autism has a commitment to tease apart those concepts I have just synthesized, I thought it would be useful to choose a nonscientific model for investigating the role of "self" in the acquisition of personal pronouns. I chose as my "non-scientific" theory, "the mirror stage" of the French psychoanalyst, Jacques Lacan.

Lacan's mirror stage paper, "the mirror stage as formative of the function of the I as revealed in psychoanalytic experience", (1949) is very attractive for my purposes because it resembles many actual experiments investigating autistic language use. Lacan describes the birth of the self as the first time the infant sees itself in the mirror and researchers have, in fact, tested autistics with mirrors to see if a lack of self recognition could explain their inability to keep personal pronouns straight. The difference is, where in scientific work definition of self identity stops with self recognition, Lacan's definition of the self begins with self recognition and moves on to include identification with an other and the acquisition of speech. Thus, even though recognizing a "myself" in the mirror does not correlate with the ability to keep the word "me" straight, a failure to move on from this recognition to the next stage might result in a failure to speak.
According to Lacan the self that is born in front of the mirror is "imaginary". It is an ideal self, which, though for the first time aware of itself as different from any other, has not yet experienced the pain and embarrassment of being an object to another self. Language becomes possible to this self only when it is forced to identify itself in terms of the other. Then, in practical terms, language becomes necessary because the other must be reached. Also, symbolically, through narration, the "imaginary" I can be recaptured. Even the objectified self can become the subject, I, of its own sentence.

The scenario in practical terms goes something like this: **Stage one**, At first the child is a bundle of fractured sensation, undifferentiated from the mother. **Stage two, the imaginary stage**, Upon first recognizing itself in a mirror as one entity, it forms a sense of "I", which is its ideal vision of itself. Almost immediately after this recognition – the "aha! experience"-- the wholeness of this self is denied by the demands of others. Mother will not come when desired and mother desires another object besides baby. In order to again be the object of the mother's desire, the infant then identifies with this other. Lacan emphasizes that the object desired by the mother must be the phallus and that the reason why the recognition of this desire ushers in the **symbolic stage** springs from the fact that the phallus is the ultimate signifier; thus identifying with it means accepting the order of signification. I would prefer simply to say that this rift from the mother forces the child to recognize her as other even as it motivates the child to identify itself as other to her. With this understanding the child gains both the means of empathizing with other people in order to communicate and the need to recreate with words what it can no longer have in reality: an omnipotent "I"
and oneness with others. Thus in the symbolic stage, the child enters the community of symbols and learns to talk.

The implication for autistic pronoun reversal here is that autistics are somehow frozen in the second, I-deal I stage. That is, they can recognise self as different from other (a necessary step in pronoun use according to Models of Language Development (Stevenson, 1988)), but have not yet empathized with the other, making language necessary. They do not confuse "you" for "me"; they just do not have a complete enough sense of self to include the other and the need for representation of and to and between themselves and the other. Therefore, unable to represent the other as part of themselves, they cannot generate symbols in their own mind that take the other's viewpoint into account. In semantic terms, they, as incomplete selves, are incapable of forging a common ground with another speaker.

To think of Lacan's "selves" as stages of completeness, it is sometimes useful to picture them as geometrical dimensions. The "real" stage, where the child is undifferentiated from the caregiver will be represented by a dot; here the ego identifies nothing as inside itself or outside itself. It is, in other words, still undefined. At the ideal-I stage, or the "imaginary stage" the ego (or "I") is born with the binary identification of two points, the self and the image. The line formed by these two points identifies things on one side or the other of it as self or nonself, but because a line is infinite so is identity. This stage is a lost paradise to the self, which becomes aware very quickly that it needs and cannot control others and is, in fact limited by their perception. The presence of this third element, then, completes a triangle, a complete shape with an inside and an outside. This is called the symbolic stage, where the I cannot be realized directly in its ideal state anymore and so must be symbolized in language. (It is interesting to note here that the narrative "I" is
infinite, without beginning or end in the same way as the line, or ideal I. It is impossible to narrate the end of narration or to speculate about the time before its beginning without inserting it in the description of the time.

The triangular shape of the completed "I" is very useful to analysts. It does the work of representing the oedipal triangle, the id, the ego and the superego as well as standing for two speakers and the speech between them. In Lacanian psychoanalytic theory these concepts are all interrelated by the idea of the controlling signifier (something like the superego) which represents both the order of what everything will be called, any particular word, the other with whom the I must identify itself and the Father. This is because the controlling signifier is supposed to be the phallus, part of the "phallogocentrism" (Derrida's word) wherein the phallus, the logos and the voice all share the same power.

I do not intend to rehash the patriarchal framework which the triangle represents. I mention it because for our purposes it is helpful to see the element of social control associated with language. Autism is characterized by a disregard for social control. Antisocial violence, idiosyncratic language—including pronoun reversal—and funny neologisms (a refusal to allow words to mean what other people think they mean) all mark the syndrome. Seeing these symptoms in terms of a not yet triangular self is a way of interrelating the concepts of socialisation, language and identity—exacty the question begged by Oshima-Takane's work.
Uses of Lacan: Applying the model

It does not necessarily make sense to give credence to Lacan's theory in applying it to autistic research. His conception of self development is too all or nothing to describe the incremental trials and successes autistics do experience. An autistic person might be better described as someone who has left the imaginary stage without finding access to the symbolic stage, than as someone frozen in the ideal imaginary world.

This more flexible recasting of Lacan's stages could explain evidence that autistics do have some sociability. Many people think of echolalia as sensible only as an attempt to behave socially (Roberts, 1989). Certainly autistics are trainable— even in language production tasks— which would not be the case if they had no sense of pleasing others. Also, the fear of being touched, particularly on the face where the subject/other has to be seen (Cesaroni and Garber, 1991) seems to mark a vulnerable rather than an ideal self.

Although imprecise as to the mechanism that leads from one stage to the next, Lacan's stages of development are helpful in describing identity as linguistically bound. Because the theory connects the birth of the self directly with the entrance of the self into a symbolic order, it continues to predict confused linguistic behavior as a symptom of impoverished self awareness—circularly and forever. Lacan's theory is not scientific. It loses coherency, no doubt, in the face of many real facts, but it captures the indivisible union of identity and speech, a union which could not take place in the autistic person.
Understanding this union is important for concrete reasons. A clinician who is aware that entering the speech community fundamentally changes the self/other relation (and or vice versa) cannot dismiss an impoverished sense of self as a reason for anaphor confusion in autistics. If the autistic person recognises a self, discovers the "ideal I", without also learning to narrate the story of this "I" symbolically, with words, then s/he has no way of protecting the self against the encroachments of others. Small wonder that animate things strike autistics as overwhelming (Bettelheim and personal accounts). Away from the symbolic community, the distinction between self and other does not serve to center the autistic person in relation to others. Instead of recognising the other as part of his or her own identity, the autistic child understands "otherness" as an attack. In so much as the self is defined in terms of others, it becomes unrealisable. Thus recognizing the self and expressing the distinction between I and You are the same thing.

Having established the triangular self as a model for explaining psychologically defined language learning, I would like to move on to a direct application of the model to a scientific investigation. In particular, I will address the representational skill used in various role taking tasks in terms of the model, with an eye to explaining in this way how the multiplicity of representation echoes the multiplicity of the triangular self. In the process I hope to explain how this more "scientific" exploitation of the model can be used to associate personal pronoun errors with a specific cognitive deficit fundamentally involved with the deficit of self already described.
Autistic Relational Skills

If any cognitive skill parallels the psychological development of self it is probably representational ability. More specifically, it is the kind of representation that allows role taking which seems necessary to the ego development. When a child plays the role of mother, for example, she is immitating somebody and in immitating that person she is necessarily representing both that person and herself for comparison. We would expect, in keeping with the hypothesis that autistics cannot identify with other people, that they would have difficulty with these skills. In fact, there is ample evidence implying that autistic children have trouble with representation, particularly from work showing that autistics do not engage in imaginative, role taking play.

Oswald and Ollendick in their paper, "Role Taking and Social Competence in Autism," ('89) broke role playing tasks into component skills, each requiring a different understanding of representation:

- **Inference** — children can order pictures to tell a story.
- **controlling the self** — children distinguish between their beliefs and those of a puppet
- **interrelating multiple elements** — children can imagine the self as the object of someone else's imagination. They must guess where another person would try to hide a penny from them.

They found that autistics scored lower than retarded children matched for age and nonverbal IQ in only the interrelating task. This seems to indicate that the cognitive problem of representation alone (tested by the
puppet task) does not explain autistic problems with role playing, since ordinary retardation can have the same effect.

What is different about the autistics is the inability to interrelate **multiple elements** of representation. In a penny hiding task where the children have to reference not just what someone else might be thinking, but what someone else might be thinking about what they are thinking, they score yet another dimension lower than before, relative to the retarded group controls.

These results are not surprising if we expect that autistic children, frozen in the two dimensional Ideal-I stage recognize themselves vs. others (the plain representational task), but do not identify themselves with any other (a multiple representation). Thus they cannot represent being the object of another's self, nor can they reassert their subjectivity through acts of language. The inability to see the self as object is exactly what the interelational task demonstrated.

This data stands up nicely as well with other information showing that autistics cannot do cross referencing and metarepresentational tasks (Churchill, 1978 and Leslie, 1988), though different results were shown when Rutter first ran Oswald and Ollendick's experiment. Oswald and Ollendick's results also suggest an impaired cognitive function to explain the incomplete autistic self.

In fact, "self as object" is how Higgins, who first defined the elements of role taking used by Oswald and Ollendick in their experiement (Social Cognitive Development, 1981) describes the knowledge tested by the interrelating multiple elements aspect of role playing. A model can be drawn from this fact to explain how pronomial confusion follows a different path in autistic children than in the average child.
In either case, personal pronouns present both a representational and a
relational challenge. First, the child must represent him/herself and the
distinct other ("I" vs "you"). Second, the child must understand that "you"
means something different when he says it than when the other person does.
That means relating the representation of self and other to the representation
of "speaker" as an element of meaning.

For the average child, this twist takes extra time to learn (one reason
why anaphora are encoded so late) but is more of a modeling challenge than
anything else. The child simply learns to account for the difference in the
model between two other people and the model used in speaking to herself.
For autistic children, who are unable to relate multiple representations, the
task is permanently daunting. Their only hope is to use an association
heuristic and by trial and error learn which word means what. They must
depend on the appropriateness of I vs. you by external situation rather than by
internal representation. In the words of Simon Baron-Cohen (who has
concentrated on autistic problems with appearance-reality distinctions and
designed the tasks for Oswald and Ollendick's experiment), "autistic children
must become 'behaviorists'."

Noam Chomsky has argued that behaviorism could not explain the
generative power of language. Not surprisingly, it is producing novel
utterances, including personal pronouns, which autistics find most difficult.
A transcription included in Don Churchill's *Language of Autistic Children*
(1978) shows how autistics fail to furnish new, correct personal pronoun
responses even after training.

The transcription (reproduced as Appendix I) is an interview with
Jonathan Barrington, an eight year old autistic boy, who at 7 was diagnosed as
autistic, with a Stanford-Binet IQ score of 32 (verbal included). Jonathon had
worked with Dr. Churchill for almost two years previous to the interview and had practiced most of the questions he answered well many times before.

The first problem Jonathon has comes in line 13, where he is asked a novel question. His response is immediate echolalia: he repeats the question. Although he can say his brothers' names (line 17 and 18) and he is able to say "MY mother's name is Isabel", he cannot combine these ideas to say, "His (my brother's) mother's name is Isabel."

At this point, Jonathon is still using personal pronouns correctly (My, I, He etc.), showing that if the modeling problem is overcome (as Oshima-Takane and Beharoya predict) personal pronoun errors can disappear. However, as soon as Jonathon starts answering novel questions the emptiness of this skill becomes apparent. He begins confusing pronouns again: (line 51-54)

What is MY name?
My name is Jonathan Barrington
What is MY name?
My name is Dr. Churchill

Jonathon goes on to evidence extreme difficulty in producing relationally correct responses to questions about what colors he and Dr. Churchill are wearing, what each of them is doing, etc. Even when, with uncertain voice (line 62) he manages to answer Dr. Churchil's question with "you" he misattributes the colors of his own shirt to Dr. Churchill's.

It is interesting that Jonathon's voice hesitates (indicated by a star) when he is unsure. It indicates his conditionability. He knows there is a right answer and wants to give it. In fact, by line 80, he has been trained to produce,
"your shirt is yellow and blue". A similar pattern shows up with the other tasks, describing who is sitting and who is standing and who has a blue cup. By line 120, "I am sitting in a chair" is, after many incorrect trials at last Jonathon's correct appraisal of his own position.

Unfortunately when the standing vs. sitting questions come up again, (170 for instance) Jonathon is unable to apply what he learned before. At the end of the session (197, 198) he is still confusing "you" for "I".

If we believe the psychoanalytic tenet that being is realised symbolically, it is no surprise that the autistic inability to relate to people reflects an inability to relate two different symbolic representations. The autistic child indicates, by failure to understand the relevance of people to language, enclosure in an imaginary ideal-I state. He can distinguish self from other to some extent, as the mirror experiments show, but he cannot relate the distinction to the symbolic order. Even though confusing "I" for "you" does not amount to having no fixed self, it does mean having no narrating self, who can tell the story of self and other.

These are fairly intangible conclusions, but they call attention to some very practical ones. What does this new concept of the self and language do? Essentially it organizes symptoms -- such as the inability to relate multiple representations-- under one heading, allowing us to talk about autism in terms of the self again. Finding a new way to talk about a topic does not sound like a scientific enterprise; in fact, I was able to use a humanities concept to do it, yet it is not really different from finding a new model. All scientific theories derive from models, which, since they are not answerable to mechanism, are not strictly limited by provability. What this means is that
finding names for things, which is one of the gifts of the humanities, can be made admissable to the natural sciences.

A connection between the conscious and the cognitive intelligence has been maneuvered before. Wellman did it when he reintroduced the word "mind" into cognitive psychology with a "theory of mind" that explained developmental differences in the comprehension of motive, false belief and (ultimately) autism (Wellman 1987). Before scientists and men of letters were different people, it was, presumably a widespread process. I am eager to engage this process again here because in matters of language the models of philosopher and scientist almost need to meet.

To understand the mystical nature of this meeting it is only necessary to think of your first words. How did you know to divide the world up into the units your parents gave you words for? How and why does it become clear that "door" means what it does? Semanticists try to clarify the issue by focusing on an ontology of objects, which can be presumed by mutual consensus to exist. (Thus even verbs and adjectives describe sets of objects.) Cognitive psychologists like Ellen Markman and Elissa Newport attempt to delimit constraints on what children will consider as words. However the consensus involved, what semanticists call pragmatics, is not really understood. This consensus reality which is enforced in us and propagated by us when we talk, when we exchange symbols, is at once cognitively demanding and indescribable in cognitive terms. Understanding why

1 There are obvious problems with Wellman's conception of autism. For one thing, he cannot explain why autistic children show signs of autism before their "encounter theory of mind" ceases to be the norm.

autistic children do not have access to this reality thus cannot be described uniquely in psychological or psychoanalytic terms. It takes a meeting of fields to talk about it.
In the previous section I introduced a model of egodevelopment which assumed a parallel development of language. The model made the connection between a fully formed self, which can identify with another (usually the parent of the same sex) and a subject capable of symbolic communication. I illustrated how this model could explain the socially dysfunctional speech and behavior of autistic children, who have not fully entered the "symbolic phase", and traced this dysfunction to parallel cognitive difficulties, such as limited metarepresentation. Having demonstrated that a psychoanalytic model does not conflict with the prevailing cognitive analyses of autistic dysfunction, I now ask what such a model can contribute positively to our understanding of language acquisition.

Narrowing in on the actual acquisition process (as opposed to the psychological process that makes it possible) means examining the term "symbolic phase" more closely. Where Lacan used the term it was intended to indicate the child's "coming into" the structures of language which the child inherited in identifying with an adult other. He emphasized the vanity and weakness of ego which make such socialization necessary; according to Lacan, the ego in its ideal stage "misrecognizes" itself as self-contained (the ideal stage), a fiction it can only maintain through the process of narration. For the purposes of this paper, however, I will emphasize the inheritance process itself, which I will call "social pragmatics.

A process of social pragmatics is implied but by no means described in Lacan's scenario of ego-language development. What follows has therefore been pulled from Lacan's theory and restated it in terms of pragmatics.
basic idea is that in identifying with an adult, the child takes on the discriminations and symbols of the adult and relates these two.

In order to clarify what it means to take on the discriminations and symbols of an adult, I will consider how a child learns the semantics of a category of lexical items, functional objects. The classification of functional objects provides a good example of socio-pragmatic inheritance because the use of objects is obviously pragmatic (in the sense of non-abstract) and socially defined to this extent: in a society that practices photography, a camera may be used to take pictures, in a community without photography the same object may function as a rock, paper weight etc.

It is clear that, eventually (and some would claim, immediately) the child learns to define an object by its function. Thus (to use an example from the lecture Deborah Nelson gave at Swarthmore this April) a yoyo does not have to be redefined for the child learner every time s/he encounters one of a different color; all yoyo's, whether red or blue, have the same function. A normal child learns this function from watching adults or siblings playing with yoyos and imitating them in her own play. Although she may have begun by trying to chew the yoyo or by assuming the important thing about it to be its color, she identifies with adult speakers and imitates their use of the object. Thus when she learns the term, "yoyo", it will define a category that her community of adults has determined and which she has inherited.

In the child who does not identify with adults this process very easily goes awry. Not incorporating the adult view of the object into his own play, an autistic child can continue to think that a yoyo is defined as something to chew on or bang. If he connects the term "yoyo" with the object at all, he may very well use it to refer only to yoyo's the same color as the first yoyo he
saw. In fact, inappropriate object use is one of the hallmark symptoms of autism as is the overspecific use of words.

Besides semantics, there is another aspect of language learning determined by socialization and the imitation of adult role models, namely pragmatics. Pragmatics is a linguistics term referring to "knowledge of the world" and the contribution this knowledge makes to the meaning of utterances. Although semanticists tend to use it to mean (largely) "irreducible" or "unanalyzable", pragmatics is responsible for the main import of what we communicate to each other. That is because pragmatics describes not the structure of what we mean but how we understand each other at all, our common ground.

To give an example of what I mean, take an ordinary sentence (the second one) in the context of an ordinary conversation,
Speaker 1 Oh will you look, the door is open!
Speaker 2 "I hope the cat didn't get into the creek again"

Propositionally, the issues in sentence 2 are fairly pointless; I hope or don't hope, the cat did or didn't get into the creek. What makes the sentence significant is the implied understanding that speaker 1 and speaker 2 both know the cat in question, both know the creek in question and have some experience of trouble associated with the cat getting into the creek through an open door, in other words, their common field of reference, or "common ground".

In order for speaker 1 and 2 to have forged this common ground, they must share the same ontology. That is, they must believe the same categories of things to exist. Furthermore, in order to predict the comprehension of speaker 2, speaker 1 must also be aware of what speaker 2 experiences. A connection like that between the speakers, depends, in other words, on a
mutual identification, where both people corroborate each other's "reality principle."

Returning to Lacan's scenario of ego development, it makes sense to align the sociopragmatic corroboration of reality principle with entry into the symbolic order. Before entering the symbolic phase, the ideal-stage infant is isolated in the fiction of its own omnipotence: hence the synonym, "imaginary stage." In identifying with the other, however, the infant recognizes that it is lacking and thus concedes the prevailing reality. More to the point, the infant necessarily "becomes aware of what the other experiences" and thus comes to "share the same ontology." In other words, the infant is able to forge common ground.

Even the most formal theory of semantics must allow some room for the reality of common ground, especially in the use of deitic categories such as time, demonstratives and pronouns: The word "this" does not make sense except as it points to an actual object known to both speaker and listener; the meaning of the word "you" is simply impossible to decipher without reference to the real world existence of the addressee. Thus fitting the linguistic fact of deixis together with the development of shared reality is surprisingly intuitive.

Consider the (English) pronouns: I, we, you, me, he, she, they. Excluding the consideration of case and anaphoric reference, which are linguistic functions of pronouns, these words refer to aspects of the real world. More specifically, they pick out the gender, number and speaker/listener status of people in the world. "I" refers to a single speaker, "you" refers to one or more listeners, "they" refers to several people who are neither speaker nor listener, etc.
Now consider the process of relating to others. Quite obviously we identify others in terms of their gender, whether they are like ourselves, and whether we are interacting with them or if they are outside our interaction. Thus to the (English) speaker in context, people are "he vs she", "you vs. "I"/"we" or "I"/"you" vs. "he"/"she"/"they" respectively.

<table>
<thead>
<tr>
<th></th>
<th>MALE/singular</th>
<th>FEM/singular</th>
<th>MALE/2+</th>
<th>FEM/2+</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPEAKER</td>
<td>I</td>
<td>I</td>
<td>we</td>
<td>we</td>
</tr>
<tr>
<td>HEARER</td>
<td>you</td>
<td>you</td>
<td>you</td>
<td>you</td>
</tr>
<tr>
<td>NON-INTER ACTOR</td>
<td>he</td>
<td>she</td>
<td>they</td>
<td>they</td>
</tr>
</tbody>
</table>
In the process of identifying oneself in terms of others which I have described, these same characteristics are again relevant. The undifferentiated infant of stage one recognizes neither number nor gender nor interaction of any kind. With the ideal-stage the infant comes to recognise number and, therefore, by implication, the distinction between the "I" of itself and the "we" of itself and mother, but it does not have a sense of you, (where "you" is the other) or of interaction or of gender. Only in the symbolic stage, when the infant identifies with a third person, "the father", does he learn the difference between male and female and being inside and outside of interaction. Thus the child realizes at a blow that "he" is in competition with "I" for "she", or rather the child begins to hope for the times when the mother is "you" to his "I" while the father remains "he". In other words, the child has become aware of all the possibilities of persons which we indicate with pronouns.

It is important to remember that the awareness of the relationships (male vs. female, self vs. other) which pronouns describe is not the same as learning the pronouns themselves. It is simply the nature of the feature bundles included in pronouns that they refer to persons and therefore reflect first any confusion as to the nature of persons. There is, of course, such a thing as linguistic confusion about the pronouns themselves. In the case of normal developmental errors, pronoun mistakes arise from ignorance of what the features of pronouns are and how they function syntactically. I hope to explain, in laying out the schema for the acquisition of meaning in general, why it seems probable that autistic errors are of a more profound nature.

As demonstrated in the conversation about the cat, meaning most definitely depends on the establishment of common ground. It is not surprising, then, that autistics, who -- I have postulated -- have not reached
the symbolic stage and thus cannot forge common ground, also have difficulties with meanings. "Even the highest functioning autistic people have difficulty identifying conversational topics, understanding indirect or figurative language, contributing new information to discourse, and assessing their listener's current state of knowledge." (Chapter 4 of the Autistic Handbook)

A more faithful reading of Lacan than the one delineated here, one that emphasizes the importance of the phallus as ultimate signifier can further emphasize that these pronoun meanings correspond to, in fact, social categories. In identifying with the father (who has the phallus that the mother wants) the child conforms to the order of patriarchal society ruled by the phallus, up to and including the normative definitions of words which the phallus signifies. Thus the encoding of meaning is the same as the socialization process.

I have tried to deemphasize Lacan's phallocentrism because I feel it is counterintuitive, and have failed to distinguish between the act of identifying with a mother versus a father. Logically, however, it follows still that identifying with a socialized adult socializes the child. Most theories agree that learning the meanings of words and understanding the function of pronouns is a socially defined task. The child will (and does) by itself associate signifiers and signified (what can be, as I argue later, a randomly associative task) but language learning requires a society, and thus a socialization process.

This process must begin very young, before speech, however. Here I move beyond Lacan who places the mirror stage squarely before socialization at the ludicrously inexact period of 6 to 18 months. Soon after birth, human infants exhibit skills that allow them to forge contact with their caretakers.
These include crying, anticipatory posture, i.e., holding out arms to be picked up, eye contact, preference for the mother's voice immediately upon birth (Klin, 1991), ability to imitate body gestures (Demeyer et al. 1972) and conversation-like turn taking in babbling with caretakers. These social cues, in forming a common and communicable understanding of the world between child and parent, make up the child's first use of pragmatics. They set the stage for the child to corroborate the ontology of the parent, to find relevant what the parents find relevant, including their language.

As discussed previously, Autistic behavior reflects a failure to make the cooperative connection necessary for pragmatics. Autistic speech, when it develops at all, is characterized by a refusal-inability to meet normative standards of meaning. Bizarre neologisms are common as well as unconventional "metaphors", which are, in all probability, examples of idiosyncratic signifier-signified pairs rather than metaphors since autistics are generally literal minded. Even good, regular speech is marked by inappropriateness of subject matter and an embarrassing disregard to context. For instance, a high functioning autistic boy, when asked what he liked to talk to people about said, "Wind and different Smells in the environment" (Cesaroni and Garber, 1991) He seemed unable to understand why people found him difficult to talk to.

Significantly, autistic children often show lack of eye contact, no anticipatory posture (or stiffness when held), and a preference, if anything,

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3 Because conditioning behavioral programs delineate a concept space just as word leaning does, the same phenomenon of autistic idiosyncracy arises. Autistic children are famous for their stimulus over selectivity whereby they will learn "cup" but only when the man presenting the cup raises his eyebrows. Preventing them from responding to an irrelevant stimulus feature requires painstaking rehearsal beyond whatever it takes to help average children.
for nonhuman sounds (Klin '91). Often as infants autistics are described as "good as gold", with almost no crying or fussing, or else they are prone to fits of rage and tantrums unaffected by parental attention. (Austitic Handbook, 1985)

Given the necessity of reaching a parent before learning to speak from them, it seems the early isolation of autistics will interfere with developing language in general. Arguably, the definition of any word, not just pronouns, depends on socially defined categories. Also semantic errors of all kinds appear to be just as common as pragmatic errors among autistics. In a transcript analysis by Baltaxe cited by Tager-Flusberg, the errors of four autistic children ages 6-17 were anlaysed and the the most frequent errors were semantic violations. Why, then, limit the discussion to pronouns?

Pronouns lend themselves to my discussion as classical instances of pragmatically demanding linguistic performance. They are also, of course, highly associated with identity and therefore a useful starting ground for a language model based on identity. Mainly, though, deiteic categories are better examples for my point because the "behaviorist" strategies of autistic learners (as discussed in part two) largely fail to account for them. While autistics can be trained to produce syntactic structures and vocabulary words through conditioning, correct use of deixis requires the speaker to consult his or her own reality before speaking. Thus pronouns highlight the contrast between autistic and other speech pathologies. In non-autistic examples of echolalia, for example (Fay, 1981), repetitions of phrases were recoded for the correct pronoun about half the time. In other words, "Where do you sleep" came back as "I sleep" instead of "you sleep". Autistics using echolalia rarely, if ever, recode echolalic utterances.
Implications Beyond Pronouns

Having established an identity based discussion of pragmatics I would like to go beyond pronouns and explore the implications of an identity based model for other phenomena related to language use.

I first introduced identity into a discussion of autism in the hopes of realigning psychoanalytical with cognitive explanations of language. Understanding ego development to make parallel demands with language on the child in terms of metarepresentation and integrational thinking reorganizes research on autism in a useful way. First it removes the barrier between information about the "affective" disorder and the "cognitive" disorder, allowing a simultaneous analysis of both. Thus in chapter 2, I was able to analyse pronoun reversal as a result of an inability to internalise the other into the self, without contradicting any cognitive findings. (On the contrary, my analysis aligned with studies showing that autistics have difficulty immitating gestures and representing multiple viewpoints. (The Autistic Handbook, 1985))

In addition the psychoanalytic model has independant explanatory power. One aspect of autistic behavior, difficult to discuss in scientific terms, is the aberrant interests of many autistic people. Kanner in his first papers, for instance, describes a typical autistic child who was fascinated by magazines because he enjoyed enumerating them and memorizing the dates of the volumes. An autistic person may spend hours at a time staring at a hand or look forward with joy to hearing the click of the refrigerator. Favorite topics which might otherwise provide a rare impetus to communication usually sound like silly nonsense to the non-autistic.
A "silliness" and "irrelevence" in autistic speech can be explained if we recognize that "appropriate" speech is contingent on social identity. This is because what is important in speech is not just the trace of signifier and signified (which can be conditioned more or less by the environment) but also why those are the important things to signify, the category of things that are relevant.

Cognitive psychology has no way of talking about the choice of categories of interest, beyond stating that our sense of categories is a function of our cognitive/sensory structures, the nature of which is controversial. (Mandler and Bauer '88) If the categorization of the world is understood to be same as word learning, there is some productive debate whether lexical items are learnt by "social convergence" or decided by constraints. The cognitive analysis fails, however, to offer a satisfactory description of either process or to explain why the interests of a high functioning autistic child should be just as strange as that of a retarded autistic child. It is possible that it all comes down to the autistic's different experience of reality -- resulting from abnormal sensory processing--but this explanation does not contradict the identity theory, particularly as Lacan's description of ego development began with sensory feedback, the mirror stage.

The analysis I have used here to describe autistic language can be used also to understand the social bounderies in normal language acquisition. For instance, we can see how the identification process, which (as I have previously discussed) is necessary to helping children notice language, also affects which, of the language structures known to them, children will consider valid. There is some evidence that grammatical structures and vocabulary which have been encoded by the child's LAD become productive only as they are dignified with social meaning. Shipley, studying Quaker
families' use of the informal Thee (In *Bridges Between Psychology and Linguistics*, 1991.) has shown that a child's use of pronouns is based on a socially sensitive imitation of the parent's use. For instance, in families where the parents only use T within the family, the child will not use the term, although he/she remains competent at judging the grammaticality of its usage.

This proves

A) that language learners need to be socially sensitive to do modeling and that they identify with the people they model on.

B) The parental model sometimes carries social weight and sometimes does not. It seems that the parental example loses the authority of the ultimate signifier if it is confined to the family. We speak like our parents in so much as they have qualified themselves for social identity by speaking outside the home, or like the people we identify with later, often our peers.

The language model I am assuming in this discussion is an orthodox, de Saussurean model of a closed, synchronic system. I refer to a structure which can be inherited by the child, rather than to a means of communication which s/he creates uniquely through experience. There are certain objections to such a system (For a selection of essays, mainly by Roy Harris see: *Redefining Linguistics* Hayley Davis and Talbot Taylor): It cannot, for instance, explain language change in the individual lifetime, leaving the relationship between idiolect and Langue obscure.

Describing language as contingent on identity, however makes the phenomenon of language change unsurprising. The process of transference onto a new defining system can explain changes in dialect after development. For even if basic linguistic structures have been formed, the impetus of identification is always in the subconscious, an ongoing internalized source
of signification. According to psychonalysis, the productive act of identification can always be "transferred" from one external point to the other, once the capacity for identification has been established in childhood. Thus issues of linguistic change cease to be problematical.

In sociolinguistics, the study of accent demonstrates nicely how the transference of identity translates into language. Labov's famous account of generations of longshoreman in Martha's Vineyard, for instance, showed that children of longshoreman had a much stronger accent than their parents (from whom they presumably learned to talk in the first place). This fact correlated with the younger generations greater investment in the longshoreman identity, which had faded somewhat in the previous generation. Autistics, who presumably learn most of their language without benefit of such identity structures, have enormous trouble with accent. Even higher functioning and presumably "fluent" autistic speakers often have strange, robotic intonation and stiff unrhythmic speech, a fact which puzzles researchers who wish to demonstrate that autistic phonology is untouched by the affective disorder that limits pragmatic and semantic function.

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In this paper, I have emphasized a great deal what autistics cannot do and used this information to explain their impoverished use of language. I think it only right now to turn to the miracle of what Autistics can do in order to see what they can teach us about our language use.

One of the most obvious things that autistics teach us by failing to talk is how socially defined the pragmatics of language must be. (I demonstrated this in tracing the parallel between pronoun acquisition and acquisition of
identity.) Consequentially, where autistics, who are incompletely socially defined, do learn language it appears to confirm that there is some separation between the linguistic realm and the pragmatic one. Intuitively we feel this to be true, but the point serves as confirmation of somewhat less obvious assumptions of language theory: For instance that children learn language with the prejudice of some biological mechanism (or LAD).

Autistics, who, as discussed, perform poorly at pragmatics and assessing the world are not struck equally dumb in all areas of language. In fact, while they fail comprehension tasks, they remember words better which receive phonological stress and accurately order morphemes (Tager-Flusberg, 1981). Their language performance outside of semantics and pragmatics, if somewhat spotty, does not show the consistent patterns of disturbance that we see in language specific disorders, such as aphasia. Unlike aphasics, for instance, autistics generally have a good sense of the order of subject-verb-object (in English). Thus, it seems reasonable to conclude that their language learning and language learning in general is to some extent guided by an idependant biological mechanism.

The partial success of autistics cannot be described within a strict, Lacanian account of language acquisition because Lacan considers the act of identifying with the father tantamount to inheriting the complete sociolinguistic structure of the father--lexicon, grammar, ontology, ethical code. He does not allow for a difference between conditioned or biologically guided acquisition of language, which an autistic person might find easier, and more empathy bound language use, which an autistic person might never master. If we integrate Lacan's model with more practical data, however, which is the purpose of this paper, then autistic success does not pose a problem.
In fact autistic success in learning language attests to a further theoretical prediction. Because autistics communicate with non-novel utterances and because one main cognitive deficit is in metarepresentational ability (Leslie, 1987), it seems reasonable to guess that creative language use (and perhaps other kinds of thinking as well) requires multiple levels of representation. This prediction ties into the old debate among cognitive psychologists over the organization of the mind. Is it a network of associations (as the associationists believe) or are there symbolic structures in the brain which are manipulated during thought? (the classical position)

It does seem that the autistic strategy is associationist, requiring only one level of representation. Most autistics, though they may access a LAD with greater or lesser efficacy, generate very few structures on their own. (Rydell and Mirenda, 1991) They seem to memorize contexts for language and repeat already formed structures. One girl, for instance, in order to express anger at her mother repeated a line she had heard in the movie, "Home Alone" (Personal communication) where the character had been angry.

Echolalia of this kind, often occurring months after the mimicked utterance, is one of the primary symptoms of autism, but it does not seem typical of autistics, who have difficulty imitating others. The discrepancy dissappears, however, if the mimicking is taken not as imitation, which requires the representation of a representation, but as an association, which requires only one level of representation. (In the example I highlighted above the association would be of a sentence with anger) Similarly, the odd metaphors and neologisms that characterize autistic speech, which appear surprising in speakers known for their literalness, can be seen as associations--perhaps even unconscious associations--unorganized by the ordinary
categories. Thus autistics appear to speak using only one representation, where one term, which is not further analyzable represents an experience.

On the other hand, there are problems with discussing the distinction between creative and non creative language use in terms of levels of representation. Thinking about one's own language use requires metarepresentation, yet some autistics are capable of discussing their speech. Some autistics also do produce good novel structures, even frequently. Are they creative speakers? The answer is yes and no. Some autistics speak better than others, but all autistics have in common a ritualized, non situationally sensitive use of language. It seems that there is some generalization applicable to their language strategies which can define them as very different from our own.

Baren-Cohen (1988) provided this generalization by claiming that autistics are behaviorists. Where normal learners assimilate and integrate information, he argued, autistics supposedly give conditioned response to stimuli. Evidence for this idea would be the overwhelming importance of nonanalysed association in autistic lives. Autistics show an obsession with the preservation of sameness down to the detail of the angle of the mats on the dinner table -- (personal communication) -- which seems to indicate that entire contexts are memorized without being organized by any schema. This same pattern appears in the use of overspecific use of words, where, for instance, the autistic will only say "cup" when the cup is blue and white and the presenter raises his eyebrows. The flatness of this learning structure

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4 Arguably, syntax, because it involves constituency and movement from deep to surface structure, always implies multiple levels of representation. However, these are not metarepresentations, (representations of representations) and therefore not germaine here.
which involves very little hierarchical arrangement of concepts would seem to be typical of a behaviorist learning strategy.

Once more, though, the abilities of some autistic people make the generalization about cognitive function seem too broad. Math, which is accessible to many autistics, although not socially meaningful, is very analytical in nature. Furthermore, though some obsessions, such as the fear of crickets, seem to be flukes of association, others appear to be part of a (non-behaviorist) logic of their own. For instance, the same woman who had the fear of crickets which she herself did not profess to understand (The autistic woman is Jesse, whose story I tell in the next section) explains in some detail why the expression "partly heard" must be frightening. "Unheard is like 'no' and 'heard' is like 'yes." Therefore (here I summarize) "partly heard" is to "heard" and "unheard" as "I don't know" is to yes and no. And "I don't know" is disturbing.

We do not understand this logic, but that it is logical points to a trait of autistic development which is part of almost every analysis. Autistics appear not so much to lack cognitive development as they seem not to have completed it. Thus, autistics bear the symptoms of people who have not completed ego development or who cannot metarepresent, yet, (as we have seen again and again) they also exhibit skills we would not expect were these lacks total.

Baron-Cohen in his paper, "Are Autistics Behaviorists?" (1988) provides a good example of the phenomenon of autistic incompleteness. According to his data, autistics make an appearance-reality distinction, perceptually, but do not internalize their own perceptions. All (mental age 3-6) children, autistic or not, can separate fake chocolate from real into two separate groups, however autistics do not have access to this information in
themselves. They group the plastic chocolate with the fake things and then
they try to eat it! This behavior is quite remarkable for the analogy it
suggests with self recognition in the mirror, where autistics recognize
themselves perceptually, without (I have argued) internally knowing a self; it
explains the shady inbetweeness of my definition of the autistic dilemma
"between the ideal and symbolic phases". Apparently, it is possible to have a
sense of self/reality/categories which is very shallow and unhelpful in
understanding the world. In the end, then, autistic thinking style has merely
shown us that normal thinking requires integration into whole structures.

Conclusion

Finally, it is necessary to tell the complete story of an autistic person to
show what they really teach us about our own learning. The story I refer to is
that of Jesse Park (It appears in more detail as chapter 13 in Autism in
Adolescents and Adults, by ) What Jesse did was actually fairly common; she
outgrew a lot of her autism. What makes her story remarkable is the
enormous qualitative leap she made immediately on accessing more
language.

Jesse, until the age of 14 presented the classic picture of "passive
group" autism. She was passive, withdrawn and completely
uncommunicative, spending hours by herself in the corner absorbed in
sifting tiny pieces of paper. Although she had a fairly high verbal intelligence
score for an autistic person (66 on the Wechsler IQ test) she spoke very
rarely and disconnectedly. The only communicative speech she used, in fact,
referred to books of pictures she made. These had as themes the bizarre
obsessions of her life: little imitation people inside machines, roads, dials,
numbers and the ritualized non-adventures of her own and her family's schedules.

Jesse, because of her high intelligence had been able to stay in school where she was proficient at numbers and art. She figured out the prime numbers to 1,000, for instance, by the age of 13 and her drawing was good, if impersonal. Unfortunately, in school and out, Jesse was completely unmotivated. She knew how to set the table and do other chores, but it was not worth spending the hours making her do it in the face of her shrieks and passive resistance. The demands of school also frustrated her to the point of violence and she was not able to participate in the everyday lives of those around her.

Then, at the age of fourteen, Jesse stumbled on her motivation. It took the form of a golf-score counter a visiting child had brought with him. The contraption combined her greatest joys, clicks and numbers, in a way that made sense to other people. Fairly quickly a system established itself whereby Jesse rewarded herself by clicking points for approved behaviors: use of past tense and politeness terms earned points, hitting deducted points, etc. Every time she clicked 100 points, she received a popsicle. Since Jesse, as part of her autism, was incapable of cheating and since she anyway enjoyed the process of scoring herself, she soon racked up as many as 167 points a day. She had found a device to create a common ground with other people, a device that made social values (as represented in the approved directives) relevant to her own values.

It is not surprising, in light of the earlier discussion of pragmatics that such a small change, because it created common ground, should have led to an explosion of progress for Jesse. She began to enjoy praise, she preferred to be active than idle, she became friendly with people at school, even picking
up a friend. When recently retested, Jesse scored significantly higher on her verbal and performance IQ scores than before. (88-95 verbal, 119 performance)

At the age of 23, Jesse was able to get a job, to speak— if haltingly and ritualistically— for purposes of communication so that she asked about her friend, "Is he handicapped?" She began, even, to enjoy small narratives, especially the simple and every day accounts of Laura Ingles Wilder, which, if we consider the inference demands of a piece of writing is an astonishing achievement.

Jesse is by no means cured in her relations to people. She remains convinced that "little imitation men" whirr in the typewriters at work, she is incapable of lying and, intriguingly, she is still unable to use the third person pronouns accurately and consistently. She is still likely to say something bizarre and irrelevant:

"Guess what! The oven is a make-believe family also! Noise of the oven same as the buzzer of the washing machine. This part of the family has only two children and both get married and one of them has children and the other don't. And there are four parts of the family. Member our family has two parts. Second part are my cousins. Stove has three sets of cousins. Some of the sisters and cousins and family are Karens (her favorite name)...."

Still her radical improvement, both in IQ and general socialbility, following her discovery of a connection between her thinking and that of the outside world, show the power of communication to reconstruct ourselves. Just as our sense of self allows us, somehow, to speak, so too it seems, can learning to speak help us to find ourselves.


Higgins from Social and Cognitive Development.


Leslie, from Social and Pragmatic Deficits in Autism Baron-cohen 1988 vol 18


categories at all, or whether s/he is merely unable to identify with the normative categories, it shows an incapacity for analytical, constituent thinking. Also and mainly I will be looking at pronoun use to see if there is any difference between deitic and anaphoric pronoun use. There appears to be for normal children, but the data is confused and contradictory. If there were more errors with deitics than anaphora this might indicate that the process of identification could not allow it, even though the cognitive structures were there.

As far as metarepresentation goes: this is the same controversy that exists in developmental psyche as it attempts to describe normal cognitive growth. The