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Perception metamorphosis phenomenon in autism

RYUJI KOBAYASHI, MD, PhD
Tokai University School of Health Sciences, Kanagawa, Japan

Abstract It is well known that various perceptual abnormalities exist in autism. However, because perceptual phenomena are intersubjective, a phenomenological approach is required for getting hold of the reality of the modes of perception involved in autism. From this standpoint, the author has proposed the concept of 'perception metamorphosis phenomenon' (PMP) as the mode of perception peculiar to autistics. This mode of perception is notable to some degree in infancy and adolescence, and points to the appearance of behavior that is indicative of the environmental world being perceived in a manner different from before by the autistic child. The phenomenon has been classified into three basic categories according to the aspect of perception: (i) visual PMP; (ii) auditory PMP; and (iii) situational PMP. The proposal of this concept was made with the objective of capturing the onset of autism or the mechanism of appearance of the various symptoms from a more phenomenological viewpoint, to serve as a possible starting point for understanding the inner world of autistics. The proposal was made emphasizing the validity of this approach in mapping out new therapeutic approaches and for re-investigating the relationship between autism and schizophrenia.

Key words amodal perception, autism, perception metamorphosis phenomenon, phenomenology, schizophrenia.

INTRODUCTION

Many reports have been made on the variety of perceptual abnormalities associated with autism, which have been accorded great significance as disturbances of directed attention[1] and as primary disturbances in the neurobiological aspects of autism.[2]

However, the basic framework of such investigations has been limited to the study of perceptual modes within the schema of subject–object relationships, or as a sequence of actions and effects employing experimental psychology or behavioral science methodology. Thus, the emphasis has been on clarifying perceptual phenomena captured strictly as objective phenomena by experimental methodology. But is it truly justified to consider perceptual phenomena as such objective phenomena? It is a well-known fact that the environmental world is a totally disparate entity for different species of animals. Likewise, the environmental world is captured differently by each member of the human race with respect to their individual existence. Furthermore, even within the same individual, we have all experienced that delicate differences exist in the way things are perceived, reflecting the psychological or physiological conditions of the time. As demonstrated clearly by these facts, perceptual phenomena *per se* cannot be regarded as simple objective phenomena, and must be captured intersubjectively; that is, as phenomena stipulated strictly by the mutually relational association situated in between the objective and subjective.[3,4] Taken in this light, it is seen that there is ample room for review in the conventional framework for studies on the perceptual aspects of autism.

What are the perceptual modes of autistics, when captured from the viewpoint of the autistics themselves, and not from the basic framework of comparing the perceptual phenomena of autistics with perception as we know it. Following this line of reasoning, a phenomenological approach, capturing the existence of each individual in as great detail as possible, presents itself as a strong necessity. Investigations from this standpoint on the peculiar perceptual modes of autistics have already been initiated by the author regarding aspects such as physiognomic perception,[5] and vitality affect.[6]

In contrast, many studies have been published to date on the perceptual modes of experience peculiar to schizophrenia.[7–10] However, with regard to autism, we have not been able to establish a method for fully capturing their experiences, due to limitations in their

Correspondence address: Ryuji Kobayashi, MD, PhD, Tokai University School of Health Sciences, Bohseidai, Isehara, Kanagawa 259-1193, Japan.

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capacity for communication. But even so, with the recent publication of memoirs of past experience by the autistics themselves,[11,12] the content of their experience is gradually coming to light. Such revelations divulge that the mind of the autistic does not reside in an abnormal world entirely removed from the mental world as we know it.

Thus, the author came to focus on phenomena captured through clinical involvement in order to delve into the perceptual modes of autistics. Through this attempt, he has recently encountered phenomena in which autistics come to display transitional fear or strong curiosity towards various matters they had long been familiar with: as if they were being encountered for the first time, triggered by some factor serving as the turning point. Through conceptualization of such phenomena, which have never been given much attention despite being regularly encountered in the clinical setting as the 'perception metamorphosis phenomenon', the author hopes to provide an alternative perspective to conventional therapy for autism while investigating the meaning of these phenomena from the clinical standpoint.

DESCRIPTIONS OF CLINICAL EPISODES

The following are some concrete episodes that describe what the author is referring to by 'perception metamorphosis phenomenon'. The cases presented here all conform with the diagnostic criteria for autism according to ICD-10.[13]

Episode 1

Case A

Male, complication of mild mental retardation, currently enrolled in a mother–child nursing school for handicapped children.

At 2 years 6 months the subject started expressing fear towards a TV commercial he had previously taken a special liking to, to the extent of clinging onto his mother's back while sneaking glances at it. However, he also started expressing his demands by finger pointing at this time, in addition to responding to his mother's words by turning his gaze upon her and uttering sounds to a considerable extent. The mother appeared to take active interest in playing with her child. A good mother–child interaction was also becoming evident through, for example, the mother calling out "Jump, jump", to which he would automatically respond by bending his knees and jumping.

At 2 years 10 months, once into the winter break, his condition started to deteriorate. The mother was not aware of any particular precipitating factor. Change for the worse in the child caused the mother to become depressed. He could not be enticed into play as before. Even when taken to a playground, he would often spend long periods standing still, vacantly watching leaves falling from the trees. He took to viewing his toys differently from before, and was often found gazing sidelong at his toys from various angles. He would also silently stare at his mother's face from a distance close enough to rub noses.

Characteristic

The appearance of fear or fright indicative of metamorphosis in his environmental world was seen, followed by gradual progression into stuporous states.[14] However, the subject was not entirely overcome by anxiety, also displaying a peculiar interest towards the objects as demonstrated by the characteristic visual behavior.[15]

Episode 2

Case B

Male, complication of moderate retardation, Wechsler Intelligence Scale for Children (WISC) total intelligence quotient (TIQ) 50 (verbal intelligence quotient (VIQ) 39, performance intelligence quotient (PIQ) 74), currently enrolled in a rehabilitative facility for the mentally handicapped.

The subject was extremely sensitive to sounds from early infancy. At 1 year 10 months, he fell into a state of suspended animation falling into a pond, after which he came to exhibit excessive fear towards water, swimming pools, and the like. At 3 years of age, he was bitten badly by a dog in the face for which he received 10 stitches. Extremely fearful of dogs even today, the subject has shown no increment in vocabulary since that incident.

While in elementary school, the subject adopted much of his brother's behavior. His drawings were exact copies of his brother's artwork, but after entering junior high school, he gradually came to exhibit a unique style. At 18, when the author handed the subject paper and pencil during an interview, he started drawing a portrait in silence, with the author as the model. He depicted the face enlarging just the top right quarter of the face (Fig. 1), while drawing the pattern of clothing in extreme detail, overlapping what he drew many times bearing down on his pencil with great strength (Fig. 2). Always full of tension, he exuded an atmosphere that made him difficult to approach. Even while drawing, he did not appear to enjoy the pastime. In fact, it was clear that the act brought him considerable pain and discomfort.

Figure 1. Portrait drawn by case B (1).

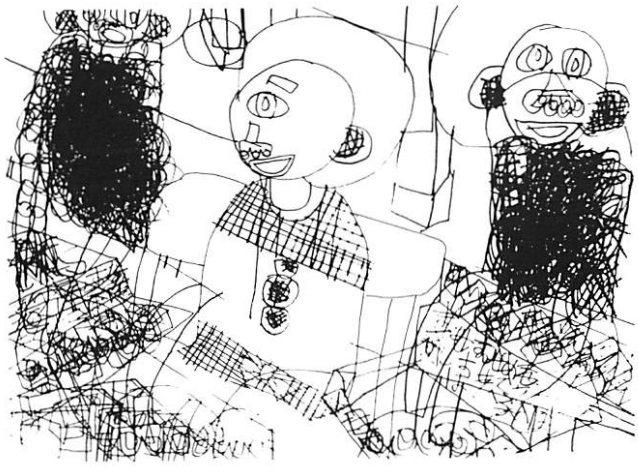

Figure 2. Portrait drawn by case B (2).

Characteristic

It was inferred that the subject was exhibiting visual recognition in which delineation between overall configuration and the detailed segments was difficult. This was regarded as the appearance of metamorphosis phenomenon affecting the visual aspect, through which patterns in the background appear in the foreground, or a part of an object would appear to rise above the rest in a three-dimensional (3-D) manner.

Episode 3

Case C

Female, complication of borderline mental retardation, WISC-R TIQ 80 (VIQ 84, PIQ 79), currently employed.

The subject was fond of writing *Kanji* (Chinese) characters from infancy; she was crowned 'Professor of *Kanji*' by her classmates. Enrolled in regular classes in elementary and junior high school, she went on to a dressmaking school at 15. Behaving inappropriately to various situations at school, she was deeply hurt by the comments made by her classmates, from which time she became overly sensitive to evaluation by others. Words indicative of growing self-consciousness, such as "Am I that ugly?", "...it can't be helped because I'm dumb", "Am I autistic?", "...because I'm autistic ...", and "that's to be expected because I'm disabled", started to become prominent. Emotional excitation started to escalate into states of panic, which was controlled by the administration of 1–2 mg of pimozide per day. From around this time (age 17), her long-standing interest in *Kanji* characters was integrated with interest in the opposite sex. Taking a special liking to the *Kanji* characters "九州電力" (*Kyu-shu-den-ryoku*) for 'Kyushu Electric Company', she created two imaginary characters *Kyu-kun* and *Shu-kun* (the *kun* being an appellation denoting familiarity or closeness in Japanese) with whom she would converse. She would cut out the characters "九州" (*Kyu-shu*) from the newspaper, placing the pieces under her pillow during sleep. She would also explain that the expressions or emotions of the *Kanji* characters differed depending on the attributes such as bold face or italics of the font used, describing the written characters as being 'angry', 'crying', 'laughing' or expressing other such emotions.[5]

Characteristic

Although *Kanji* had always been an object of total immersion for the subject, it is believed that they came to be perceived physiognomically against the psychological backdrop of increased interest in the opposite sex accompanying adolescence.

Episode 4

Case C

After graduating from the special school for dressmaking, she got a job at a small workshop organized for mentally handicapped persons. She has since been

satisfied with her work, although being overly enthusiastic about her work sometimes got her into trouble. For example, in April, one year after graduating the school, a male mentally handicapped worker was newly employed. His skills were not as good as hers. One day, when he tried to manipulate the cash register, she pushed him out of the way to prevent him from using it, out of fear of losing her role by his participation. The subject was prescribed 4 mg haloperidol/day and 5 mg levomepromazine/day for extra sedation. They made her feel generally fatigued. She became irritable and stressful, not being able to work as actively as before, afraid of being blamed for idleness. In an interview, she appealed by saying, "I feel people are looking at me out of the corner of their eyes". In addition, showing me the *Kanji* characters "富士" for *Fu-ji*, italicized and in bold print, pasted on cardboard which she usually carried around with her in her bag (Fig. 3), she commented fearfully, "I feel as if the character *ji* (in *Fu-ji*) is also staring at me obliquely". The author decreased the dose of haloperidol from 4 to 1.5–2 mg/day, and her symptoms vanished within the week.

Characteristic

The subject had been enjoying *Kanji* characters perceived physiognomically for some time.[5] However, general fatigue brought on by medication for sedation of psychomotor excitation precipitated sudden metamorphosis in her perception of the *Kanji*, which had previously been an object of pleasure for her, into something persecutory in nature. This phenomenon in which physiological change in the subject brings about metamorphosis in perception *per se* is a direct demonstration of the characteristics of the perceptual state associated with vitality affect itself.[6,16]

Figure 3. The particular font of the characters for *Fu-ji* to which case C expressed fear.

Episode 5

Case D

Female, complication of moderate mental retardation, IQ 45 (Tanaka–Binet Intelligence Test), currently living at home.

The subject spent her elementary and junior high school years in regular classes, displaying a relatively good state of adaptation. Interest in clothing and make-up was seen from when she was ~8 years of age. In her second year of high school (grade 11), evidence of breast enlargement in her friend in whom secondary sex characters had arrived earlier than the subject became the turning point from which she gradually became unable to look straight at people, making her move about with her eyes constantly downcast. Comments reminiscent of micromania such as "I am irregular in both mind and soul, and my hair and face have consistently appeared strange from when I was small" started to become pronounced. The subject has continued a house-bound existence in such manner for the past year, but recently, has started to exhibit behavior such as expressing fear towards the eye of a small sign of a fish imprinted on cutting boards (to indicate the side on which to prepare the fish) (Fig. 4), exclaiming "No" to her mother and turning the board over, or covering the eyes on the female figure on a jar of Mentholatum (Fig. 5) with her own hands.

Characteristic

This is a case in which abnormal concern over appearance had been evident from adolescence, but with delay in appearance of secondary sex characters as the turning point, strong feelings of inferiority towards her own appearance escalated to the level of micromania. Unable to look at anyone directly, the subject spent her

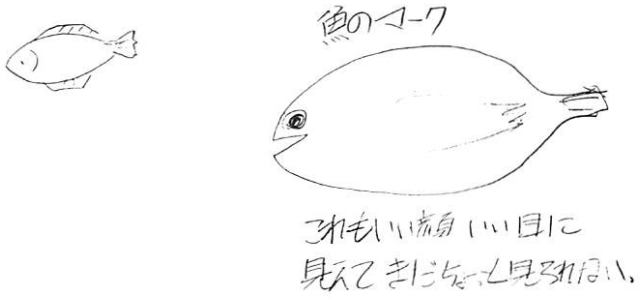

Figure 4. The fish mark imprinted on cutting boards (the left figure drawn by the mother, and the right figure as drawn by case D), reduced at the same rate for comparison.

Figure 5. The figure appearing on jars of 'Mentholatum'.

days with eyes cast on the ground, which then developed into fear of the eyes on signs of fish on cutting boards or on figures imprinted on ointment jars. These observations imply the appearance of physiognomic perception[17] regarding signs and symbols.

Episode 6

Case E

Male, complication of severe mental retardation, intelligence inestimable by standard testing, currently enrolled in senior high school for the handicapped.

Speech was first recognized at age 1, but was followed by poor acquisition of words, and hyperkinesia was prominent. However, at the time of entry into elementary school, he was considered to be a relatively mild case of autism.

Upon entry into 5th grade, he suddenly became markedly inert. Sitting still, he would be found talking to himself in an indiscernible voice. Apart from demands for food, he ceased to show interest in all other matters. Placed in a crowd, he would cover his ears and refuse all contact with the outside world. He came docile, behaving as he was told by those around him. Voluntary activity became nil. On rare occasions, overly insistent instructions from others would drive him into panic. Difference between good and foul moods became drastic. In a good mood, he would move his hands or face in stereotypic manner, muttering constantly to himself. Then, suddenly, his motions would all but cease. Totally unresponsive, he would show absolutely no response to being called. His mother reported that pricking him with a needle at such times would bring him back to reality with a jolt. He had been unable to read for a long time, but has recently shown some improvement in comprehension. He has been given a similar evaluation at school. The mother complains that what he lacks is spontaneity despite having a relatively extensive vocabulary, as well as seemingly possessing powers of comprehension.

At 10 years 11 months, he refused to go to school and sat down in the entrance way of his home. Covering his ears, he sprawled out and would not budge. Crying, he beat his ears with his hands and otherwise threw quite a fit. His sleep pattern also started showing disturbance. He adopted attitudes of rejection to any attempt to get him to do something: adamant refusal emphasized by beating down hard on a desk. Stereotypically, he would repeat the act of scooping up paper and letting it flutter to the floor, or letting sand fall from in between his fingers. An electroencephalogram (EEG) examination revealed frequent occurrence of multiple spikes and waves in the frontal-to-central region with right-hemisphere dominance, and the subject was placed on 400 mg carbamazepine. His condition improved rapidly, and by the following week his mood swings disappeared, leaving him in good humor.

Characteristic

The subject suddenly deteriorated into a state of stupor, but the presence of auditory metamorphosis phenomenon was deduced, for which the patient exhibited the ear-covering phenomenon[18] to shut out external stimuli. The pain and discomfort he was feeling must have been unbearable, which he demonstrated by overwhelmingly extreme behavior.

Episode 7

Case F

Male, complication of severe mental retardation, IQ 31 (Suzuki–Binet Intelligence Test), currently enrolled in a rehabilitative facility for the mentally handicapped.

Diagnosed as the passive type of autism,[19] his disease course since entry into elementary school had been very good, with almost no problems in adaptation.

However, after turning 17, his general behavior suddenly became lethargic and quiescent, so much so that he could barely take his meals. In a state believed to be stupor, he started displaying special dislike to the sound of babies crying. He had never liked the sound to start with, but had been able to cope with it in the past. But suddenly, he started reacting strongly to the stim-

uli, and became unable to ride the bus from fear of encountering it, and should a classmate cry, he would display outright expressions of distaste, and turn upon not the actual person crying, but to other feeble children nearby, and pinch them or abruptly attempt to knock them down. These symptoms improved following administration of anti-psychotic agents, but in turn, he became overly sensitive to what his mother said on the phone, and quickly sensing when he was the topic of conversation, he would interrupt the exchange or attempt to cover up his ears with his own hands.

Characteristic

Seen from the mother's point of view, the transition in her child was a most abrupt change from the 'good' obedient child he had been until then. From around the time that sound stimuli which he had never liked came to be perceived with extreme pain, he started responding over-sensitively to the sound of people talking, including his mother, and came to express strong discomfort particularly when he was the topic of conversation.

Episode 8

Case C

Turning 20, the subject is employed and showing good adaptation, even though she notes that the auditory hypersensitivity which was evident from infancy still persisted. At times, she would mistake the sound of power tools with that of a vacuum cleaner, or the rattling sound of a child's pushcart with that of a train. She also related that there were times when she found certain sounds particularly offensive to the ear, or unbearably distracting. Many times, the patient complained that offensive sounds inaudible to her mother were clearly audible to her. She said that she was doing her best to get away from the discomfort by wearing ear plugs or turning up the volume of her stereo. It appeared to her mother that the patient seemed particularly distressed not by large sounds but by high tones. The subject complained that the cars driven around by young people were always spiteful, as if they were trying to provoke her. She has progressed to the point of verbalizing her own perceptual experiences, as seen by her comment that she was finally getting used to the sound of a car's horn, so that she does not feel as much distress as she used to.

Characteristic

The subject experiences the illusion of mistaking sounds with that of objects of interest from infancy (trains and vacuum cleaners), in addition to auditory hypersensitivity. Furthermore, complaints such as the noise of cars preferred by young people irritating her and sounding spiteful, indicates the possibility of escalation into delusive perception.

Episode 9

Case G

Female, complication of borderline mental retardation, IQ 71 (Suzuki–Binet Intelligence Test), currently employed.

Upon arrival of menarche at age 12, the subject threw quite a fit, saying she had to get to a hospital, although that tantrum subsided within a day. However, this episode was followed by the start of asthma attacks in addition to constant complaints of the need to urinate and frequent visits to the toilet. Tension also increased at school. Comments made by friends started to appear increasingly persecutory to her. This set off a vicious circle of her being rejected the more she tried to blend in with others. Once home, she would answer her mother's queries regarding what she had found unpleasant at school that day, but would never disclose the names of the people who bullied her. Suffering silently, she presented a most pitiful picture. When the mother made phone calls at home, the subject would scurry up to her mother as soon as her mother put down the phone to grill her mother about the content of the conversation, constantly wary that her mother may have been talking about her. During consultations at this time, when the physician in charge would be interviewing the mother, the subject would repeatedly pop her head into the room, saying "Mom, I haven't done anything (bad), right?" and thus seek confirmation from her mother before backing out again. Displaying strong persecutory ideas of reference that her mother might be saying bad things about her to the doctor, she exhibited great agitation. Her features were stiff, and tension was strong, but the mechanism of denial was prominent in any questions directed toward her. At times of such great tension, her understanding of words became poor, and little of what the other person was saying got through to her. A low dose of haloperidol alleviated much of the anxiety strain, but due to marked maladaptation in regular classes, she switched to a special class for the handicapped in junior high school. Soon thereafter, her tension gradually subsided, and persecutory ideas of reference vanished, although she is as yet easily disturbed by trivial stimuli.

Characteristic

Increase in tension was seen accompanying the arrival of menarche. Alongside heightened interest in others,

the subject became overly sensitive to conversation even by members of the family, which escalated into what could be called persecutory ideas of reference.

PHENOMENOLOGICAL CHARACTERISTICS OF PERCEPTION METAMORPHOSIS PHENOMENON

The preceding passages depict a number of concrete episodes captured by the author as perception metamorphosis phenomenon. The reason these phenomena were expressly termed 'perception metamorphosis' is because, although hyperesthesia may be a constant presence in these cases to some extent, the condition is unstable, and it was believed possible that change in some psychophysiological condition on the part of the individual could bring about the metamorphoses with relative ease.

The way in which these phenomena are being experienced by the subjects themselves may be inferred through recollections by autistics, as cited previously. However, because verbalization of such experience by the autistics at the time of experience is not possible in most cases, the condition has expressly been termed 'perception metamorphosis phenomenon', and not 'perception metamorphosis experience' because that would involve a jump in logic at this stage which would place the concept merely in the realm of conjecture.

Next, it is believed that the following can be said regarding the characteristics of perception metamorphosis phenomenon.

Onset

In the author's experience, although onset is noted most often during adolescence, careful observation reveals more than a few cases in which the condition is distinguishable in early adolescence. Deterioration of autism in adolescence is an often-encountered course, but the existence of phenomena such as perception metamorphosis as a background to this development is a high probability, and it is inferred that more than a few such patients are disturbed by the phenomenon. However, careful observation reveals that this holds true not only for adolescence but for early infancy as well, at which time autistic symptoms appear, following indications of perception metamorphosis phenomenon, particularly in cases exhibiting setbacks.

Perception mode characteristics

Characteristic behavior is marked, particularly pertaining to the distal modes of perception such as vision or hearing, while the phenomenon is difficult to note regarding the proximal modes of perception of smell, touch, and taste. Strictly speaking, however, it is often difficult to classify the phenomenon into any single perceptual mode such as vision, or hearing.

Duration

The phenomenon is a transient occurrence, and is easily overlooked without careful observation. It can vanish within a few days, or persist for many months. It is believed that the duration can become quite extensive without therapeutic intervention.

Precipitating factors

The phenomenon is believed to occur unrecognized at considerably high frequency in early infancy as well as in adolescence, before being confronted in the clinical setting. Analysis of precipitating factors for individual cases point to the association of onset with strong psychological tension or fear, biological changes accompanying adolescence, or epileptic neurophysiological changes.

Subclassification of perception metamorphosis phenomenon

The author has classified perception metamorphosis phenomenon into the following categories for convenience.

Visual perception metamorphosis phenomenon: (episodes 1–5)

Specifically, this condition is often indicated by unease or fear toward things the subject is familiar with, as if they were being seen for the first time, or scrutinizing objects at close proximity, gazing at objects held at various angles in one's hands, characteristic gazing behavior[15] as when one captures a target in the scope of a rifle, or through behavior such as narrowing the eyes in focusing upon objects. And many times, the subjects display strong fear towards the object. However, the visual behavior noted as being characteristic of autism is seen to persist for long periods apart from this perception metamorphosis phenomenon, and a tendency is noted for the visual behavior of autism to become pronounced, reflecting worsening of the autism. While subjects exhibit fear or unease on one hand when this perceptual metamorphosis is active, at the same time they are also seen to be exhibiting strong interest towards the object in many instances.

Auditory perception metamorphosis phenomenon: (episodes 6–8)

Among autistic children who possess a tendency for auditory hypersensitivity to start with, this phenomenon is exhibited by display of extreme displeasure towards certain sounds or voices (a baby's cry in particular), and often by behavior such as the covering of ears, strongly beating on the ears, or repeated blows to the head. Compared to the 'visual perception metamorphosis phenomenon', the pain and discomfort this brings to the subject appears to be excruciating, and subjects often resort to violently impulsive acts in attempts to escape from the pain. Many times, such subjects exhibit highly sensitive responses to the words of others, and to conversation by family members in particular.

Situation metamorphosis phenomenon: (episode 9)

Apart from visual and auditory perception metamorphosis, some cases exhibit what can be expressed as 'situation metamorphosis phenomenon', in which subjects display vague anxiety or fear towards certain situations, although the reaction cannot be identified as a specific response to any distinct visual or auditory stimuli. Observations indicate the existence of this phenomenon as the backdrop to escalation into ideas of reference in a number of cases.

DISCUSSION

It is commonly believed that in the process of perceiving some object, we first take in stimuli through separate perceptual modes such as vision, hearing, touch, smell, and taste, which are then integrated to portray the overall characteristics which are captured as what we perceive. However, this mode of perception is not an innate characteristic of man. Recent progress in infant psychology has revealed that the perceptual mode of infants is greatly disparate from that of adults. In infants, the perceptual modes have not been differentiated into single entities as we know it, and a unique mode of perception is in effect, which has been termed amodal perception. It is characterized by dynamic and comprehensive perception of objects. In other words, it is said that infants do not perceive objects in terms of single perceptual modes such as touch or vision, but through a unique perceptual mode capturing an object by some dynamic feature generated by the object in its entirety. A representative mode of such perception is physiognomic perception.[17] In this mode of perception, subjects and objects are mediated by affectomotor responses, and when they are strongly united, things are captured more dynamically than statically, through which it is said things appear to be 'alive', and even inanimate objects appear to possess a form of internal vitality.

Ordinarily, it is believed that we perceive and understand objects and occurrences in the environmental world primarily through the five physical senses. However, if we were to ask if we were truly capturing matters in accurate accordance with reality, that is not so. There are no two occasions or occurrences that are truly identical. For example, take the case of an apple. It is seen that each sample differs delicately in form, color, taste and other such aspects. However, we are capable of perceiving the environmental world with objectivity, as a stable and enduring entity, through capturing the integral essence of objects through some form of abstraction or conceptualization. Whereas the faculty of language is what makes this function of abstraction or conceptualization possible, what circumstances would we find ourselves in if we were unable to acquire this intellectual function? What sort of mental state would we be placed in if all objects or occurrences in our environmental world ceased to have any uniformity, continuing to undergo perpetual transformation?

The perceptual mode unique to infants described previously may be considered to be a primordial mode of perception that is active before differentiation of the perceptual function accompanying biological maturation. The 'perception metamorphosis phenomenon' being proposed by the author is regarded as being none other than a vivid representation of this primordial mode of perception recognized in man. When the phenomenon occurs in the subjects, objects take on physiognomy, and are perceived as if they possessed a vital force, bearing down upon the subjects as objects of fear.

Although the author is unable to determine whether the perceptual mode of autistics is one and the same, with such a primordial mode of perception lacking sufficient material for judgment, it can probably be said that the two are quite similar. However, whereas infants exist as central figures within the environmental world, the environmental world imposes itself with overwhelming power upon the autistic with their exiguous sense of self, so that even if the two modes of perception were indeed analogous, whereas perception of an object by an infant may be regarded as a pleasant phenomenon, it becomes an experience characterized by persecutory fear for the autistic.[6]

How are the things perceived through the aforementioned unique mode of perception interpreted by infants before acquisition of the language function? How exactly are they assigning meaning (such as

whether something is safe or dangerous) to things in the ever-changing environmental world around them? Infants interpret the meaning of any given situation employing the emotions or atmosphere emanating from the mother as clues. In other words, they are considered to be pacifying internal apprehension by maternal referencing.[20]

However, the autistic child is characterized by the ease with which self, others, and the environment are captured physiognomically as a contiguous whole. Such children, finding themselves in such an environmental world, are easily subject to situations evoking inexpressible fear. For the autistic child for whom the establishment of affective communication with the mother is difficult, the acquisition of clues necessary for interpreting their environment is also a momentous difficulty. And for this reason, what they perceive becomes readily subject to metamorphosis. It is precisely this type of condition which the author believes is being signified by the 'perception metamorphosis phenomenon' which he proposes.

Communication is commonly understood as the framework in which ideas or concepts are exchanged between human beings. However, it is in reality a dual construction founded upon affective communication, that is, mutual sharing of affect allowing for deep-down understanding.[21]

Affective communication between infants and their mothers in the period before acquisition of verbal language is initially enabled by the existence of the inborn faculties of physiognomic perception and vitality affect.[16,22] Good affect attunement between mother and child[16] allows for the development of affective communication through the sharing of affect between the two. Within this relationship, children are able to share various experiences with the mother, through which the process of personal exchange, in the form of the mother providing interpretations to experience which are shared with the child, evolves. It is through such developmental processes that the basis for recognition and language development is gradually forged within the child. However, because autistic children have a strong tendency for aversion towards personal exchange, should the child be placed under circumstances in which such affective communication is readily disrupted, they are rendered incapable of applying meaning to their continually metamorphosing environmental world, making it a chaotic and fearsome entity. Even if the child is able to acquire some level of language function with age, should there be any difficulties in sharing meaning with others at the level of affective communication for interpreting the environmental world which they perceive, they are forced to resort to the application of meaning within their own distinctive world, a process that sometimes results in overlay of delusive tones.[5]

As such, it is believed that in discussing the problem of communication in autism, the prerequisite is review of the various factors required for realization of affective communication forming the basis for interpersonal communication, rather than focusing upon the functional aspect of language cognition.

Following publication of DSM-III[23] and the subsequent spread in recognition of autism as a developmental disorder, review of the disorder from the viewpoint of psychosis (schizophrenia) has almost ceased to exist. However, it is believed that capturing how the perception metamorphosis phenomenon exhibited by autistics, such as that presented in the present report, gradually progresses and comes to encroach upon their inner world, leading the subjects on to psychotic breakdown, could be an avenue harboring clues for truly clarifying the relationship between the two disorders.[6]

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