CHAPTER TWELVE

Developmental and autistic aspects of vocalization

Maria Rhode

Words are not just symbols: they are sensory constructs with rhythmical and musical properties. These two aspects of language are perhaps most fruitfully integrated in poetic diction, which relies on the sound of words to produce a bodily and emotional impact just as their meaning produces a mental impact. Clinical work, on the other hand, and particularly work with autistic children, allows us to study the disjunction between form and meaning, or sound and sense. In normal usage, as in the stages documented by developmental researchers (Schore, 1994; Stern, 1985; Trevarthen 1998b), the rhythmical and musical aspects—which Meltzer (1975) has described as the song-and-dance level—provide a foundation for the semantics of speech. In contrast, children with autism will often experience words concretely rather than symbolically, as something that can be physically lost from their mouth. They may then attempt to deal with these fears by using the physical aspects of words in the service of self-soothing rather than of communication.

Many factors will interact to allow sounds produced by the mouth to be used communicatively. For example, most parents react to their babies' early vocalizations as though these were intended as words: without this expectation and response, language development can be impaired (Brazelton, Koslowski, & Main, 1974; Papousek, 1992). The children can themselves contribute to the adults' low expectations. For

example, the observer who visited Adam's family as part of the project I have described in chapter 10 recorded his parents' frustration at his failure to speak. Some months into the observation, when Adam was becoming increasingly communicative on a nonverbal level, she wondered herself, "Why doesn't the child talk?" In fact Adam had talked, at the very beginning of the observation: the observer had said "Ta" to him when he gave her a toy, and he had answered, "Ta". The emotional context was one of reciprocity, and Adam's "Ta" was clearly not echolalic. However, his capacity for this kind of developmental imitation came and went; the many disappointments and frustrations that his delayed development of communicative capacities brought with it made it very difficult for adults to believe in what he could sometimes do, to remember it, and to expect it to happen again. It is easy to see how a vicious circle could be set up and reinforced.

Another centrally important factor, of which I shall give an example later, concerns the question of how far the child expects to be understood. Where this expectation is strong, words can feel like a way of getting through emotionally and eliciting a response. Where the expectation of understanding is weak, words can feel like something that is concretely lost from the mouth. This is particularly important in autism, where, as Tustin (1972) discovered, there is a central experience of a mouth that is broken or lost.

Language and the body

Psychoanalytic workers as well as developmentalists have linked the musical, rhythmical properties of language to the intact sense of a bodily self. For example, Tustin has described the extreme anxieties about bodily fragmentation often conveyed by children with autism, who may be afraid of losing parts of their body, of liquefying or spilling out, of burning or freezing. This work has been developed by Geneviève Haag (1985), who has documented the fears that children with autism can have of coming apart down the midline—as one little boy asked her, "Are my buttocks properly stuck together?" I have myself treated a girl with a diagnosis of (fairly mild) Asperger's syndrome who dragged her leg behind her at the end of a session and explained, quite matter-of-factly, "It's come off." Anxieties of this kind can be counteracted by repeated experiences of reliability, of experience that is patterned rhythmically like a steady heartbeat—what one of Tustin's (1986) patients called the "rhythm of safety". Autistic children's responsiveness to music is well known; child psychotherapists, even

non-musical ones, find themselves instinctively singing in sessions, emphasizing syllables in a regular beat as in nursery rhymes, or using what Trevarthen (1979) has called "motherese". Children who do not have autism and may speak fluently and communicatively, but who need to work on the fundamental, primitive levels I have been describing, may make contact by tapping out a rhythm in sessions. The therapist "answers" by tapping the same rhythm in response and, later, perhaps, introducing a variation to build up a "conversation". This is what Meltzer has termed the "song-and-dance" level of language, which he thought encompassed the most profound emotional communications between mother and infant (Maiello, 2000; Meltzer, 1975). Such psychoanalytic formulations link readily with knowledge about the importance of mutual regulation of the right hemisphere of the brain occurring between mother and infant at the beginning of life (Schore, 1994), since this hemisphere seems to be concerned with emotion and music more than with cognition. Equally, studies by Trevarthen and Malloch (2000) have documented the precise rhythmical and musical attunement of vocalizations by mother and baby. They can be notated as a musical score with a regular bar length occupying an amount of time that is characteristic of fundamental autonomic bodily rhythms. All these lines of work converge on the fundamental connections between language, emotion, and the sense of bodily integrity.

Central to this sense of bodily integrity is the possession of an intact, undamaged mouth. The psychoanalyst Esther Bick (1968) proposed that the baby's sense of a cohesive self, bounded by an intact skin that is experienced both on the physical and mental levels, derived from repeated experiences of being responded to both emotionally and physically. In her view, the experience of the nipple or teat in the mouth, together with the caregiver's focused attention, was quintessentially suited to drawing together all the different domains of the baby's experience and, in this way, to supporting the sense of cohesion. This sense of cohesion is the opposite of fears of spilling out, falling forever, and so on. Frances Tustin's work with children with autism further focused attention on their experience of having a mouth that was broken and damaged, particularly when they realized that the source of sensation and satisfaction during feeding was something that was not part of their own body: that they were not self-sustaining. This seemed to be a catastrophic experience that left them, as her little patient John described it, feeling that their mouth was "a black hole with a nasty prick" (Tustin, 1972). A patient of my own talked about an impending separation in terms of damage to both his skin and his

mouth: "Poor mouth; poor skin", as he said before a holiday break (Rhode, 1997b).

The "Theatre of the Mouth"

Psychoanalytic authors who were not primarily concerned with autism have stressed the importance of the mouth in normal development. The title of Spitz's (1955) paper, "The Primal Cavity", highlights the fundamental role of the baby's experience of the mouth. (It is important to stress that he does not write about experiences in the mouth as though they were divorced from relationships: Spitz was one of the first to emphasize the importance of the mother's face and of eye contact between mother and infant). As we all know, older babies routinely find out about objects by exploring them with their mouths: the mouth is one of the prime points of contact between the baby and the outside world, and a whole world of meaning can be located there.

For example, Augusta Bonnard (1960) proposed that babies could learn about orientation in space, well before they were able to turn over, by moving their tongue inside their mouth to discover up and down, left and right. She distinguished between this developmental kind of exploration and the self-stimulation that can be provided by sucking or chewing the tongue or cheeks and that can serve to deflect the baby's attention from the outside world and the relationships it offers. This is the kind of self-stimulation that Tustin later described in her autistic patients.

Perhaps the most comprehensive statement of the mouth's function as a bridge between internal experience and the outside world is provided by Meltzer's formulations on the "Theatre of the Mouth" (Meltzer, 1986). In his view, the mouth is the first theatre in which meaning is generated through the child's interpretation of the shape, texture, and taste of food (within the context of an emotional relationship); of the feel of mouthed objects; and of the sensory properties of words. These functions of the mouth, he suggested, are later divided between the hands, which allow the manipulation of objects in the outside world for various purposes including play, and the internal world of dreams, in which personal meanings are elaborated.

Such formulations suggest ways of understanding some kinds of speech impairments that might otherwise be puzzling. For example, workers in a variety of fields come across children who write but do not speak: the problem seems to be to do with the production of words in the mouth rather than with the capacity for symbolic

functioning. Morton Gernsbacher (2005) has described her son's outstanding verbal sophistication and high intelligence, in spite of which extreme dyspraxia—particularly oral dyspraxia—prevents him from speaking. The psychoanalyst Karl Abraham (1916) treated a mute 17-year-old patient who, he said, was unable to use his mouth to speak with because he was far too busy using it for other things. These other things included sucking his tongue and cheeks—practices that today would be thought of as autistic. The voice itself can serve as a source of reassuring sensory stimulation, quite apart from its proper function as a medium of communication. Several child patients of my own (e.g., Rhode, 1997a) did not use their voice to speak with but to produce a loud, resonant, and piercing vibratory noise. They seemed to use this sensory stimulation in order to reassure themselves about the integrity of their mouth, particularly in contexts that might have made them anxious. Examples included situations in which they were frightened of falling, or others, like going to the lavatory, in which they might have been worried about losing bodily contents (see also Laznik, 1995b, 2000b).

Sometimes children with autism distort words in ways that seem random but turn out to make sense in terms of the Theatre of the Mouth.

> For example, 4-year-old Robert, who had come with his family for his first assessment session, constantly repeated "wzz-ztt, wzz-ztt, wzz-ztt". He climbed on the table and mimed losing his footing near the edge. Then he began to play with an old-fashioned telephone with a dial. He rotated the dial as far as it would go, then released it and watched intently as it revolved until it came up against the metal stopper. I said how important it was that the stopper was there, so the dial didn't just carry on spinning, and used my voice to mirror the trajectory of the dial being released from its final position and moving "downwards" until it came up against the solid stopper: "Aaahhh-uh". Robert then startled me by saying clearly: "What's that?" I realized that his earlier "wzz-ztt" was, in fact, a contraction—"What's that?" with the vowels left out.

I would understand this vignette as suggesting that Robert was frightened of open spaces he could fall into (like falling off the edge of the table). He seems to have been reassured by the firmness of the metal stopper on the telephone dial and by the way my voice mirrored the dial spinning through space but coming up against the stopper and

being held by it. This, I think in retrospect, helped him to manage the space in his mouth that has to be tolerated to generate a vowel sound. "What's that?" is, in fact, a perfectly reasonable question to ask in the new situation in which he found himself.

Conversely, when children with autism begin to speak, they may leave out consonants, so that syllables consisting only of vowels can seem to run into each other (e.g. Haag, 1984). Sometimes this can seem like a magical way of eliminating boundaries, as though this could be done by eliminating the boundaries between syllables. For example, a boy with autism who had begun "speaking" in vowels combined this with pinching and scratching the skin on my hand, as though the dividing "membrane" between syllables were the equivalent of the skin membrane (Rhode, 1995). Haag has noted that children who are beginning to establish a complete body image and to feel confident that both sides of their body are in place sometimes reflect this in the structure of their babbling: they begin to produce the symmetrical di-syllables that are characteristic of early language development "(ma-ma", "ba-ba", "da-da", and so on).

In case some of these vignettes seem far-fetched, I would like to cite an example from a little boy of 18 months who was developing normally. He was introduced to a visibly pregnant woman whose name, he was told, was Meg. Pointing at her, he said, "Mummy Egg!" (Rhode, 1995). Obviously, he did not construe her name as being in any way arbitrary: he took it as conveying, by its structure, important information about her condition, with the initial M denoting Mummy and the "-eg" sound "meaning" "egg". As in the previous clinical examples of the "Theatre of the Mouth", the "shape" of a word serves as the bearer of meaning.

The expectation of understanding

The following vignette illustrates how holding back words can create the illusion of being in control, particularly in relation to unprocessed experiences of loss. A second vignette, by way of contrast, shows how a child's babbling was transmuted into a communicative "word" within a context in which she expected to be understood.

> The first example I wish to cite concerns Baby Jenny, who had a particularly close relationship with her mother in the first weeks of her life. Mother then returned to full-time work quite suddenly: the observer felt that the loss of ongoing intimate contact with her

> baby was too painful for her to be able to make the transition in any way that was not all-or-nothing. Jenny did not take well to being looked after by relatives, and, when an au pair took over, things got worse. She had been strikingly vocal: now she was silent. The au pair obviously felt invalidated by her behaviour, and the observer witnessed a particularly painful, teasing interaction between them when Jenny was 10 months, which ended with Jenny banging her head hard against the wall and shouting, "Mummy!" This use of words was quite exceptional: at her 18-month check, Jenny was found to be developing normally in respect of everything except her language, which was described as severely retarded. She was still not speaking at the age of 4 years, when her mother became sufficiently worried to decide that she wanted to stay at home and "teach" her to speak. They must have managed to re-establish the emotional connection between them, as Jenny was soon talking age-appropriately.

The observer—like another in a similar situation (Kaplan, 1998; Wedeles, Grimandi, & Cioeta, 2002; Williams, Grimandi, & Cioeta, 2002)—speculated on the importance of control: perhaps, she thought, Jenny felt as though she could assert some degree of mastery by literally allowing nothing to escape her lips. This links with the despair she sometimes seems to have felt about being heard. Jenny's unusual recourse to speech at a point of crisis, when she was literally beating her head against a wall, brings to mind the behaviour of some children with autism who do speak when they are desperate.

I must stress that this vignette is not meant to imply anything so crude as the supposition that children with autism do not speak because their mothers have gone back to work. This is obviously nonsense. What it does illustrate, I believe, is that children who are not autistic may sometimes hold back their words as a way of trying to establish some measure of control—in this case, of words leaving their mouth—as an illusory, magical way of dealing with emotional loss.

By way of contrast, here is an observation of a little girl of 8 months whose mother was absent for long periods, but who "found her voice" in order to communicate about her to sympathetic adults (Cristinelli, 1997):

> Nina had been at a day nursery from a very young age when her mother returned to work. She had a good rapport both with her keyworker and with the observer, who had been struck by Nina's

> enjoyment of each new developmental opportunity. She relished new kinds of food, vocalized enthusiastically, and seemed to be making the most of her interactions with other children as well as with adults. This observation shows her for the first time transforming babbling into communicative words. She caught the adults' eye in a way that showed that she both expected and wanted them to get the message—a clear example of what Trevarthen (1998b) calls secondary intersubjectivity.
>
> Nina, at 8 months 2 weeks, watches children playing with a very realistic doll baby. She vocalizes in a crescendo of emotion: "Ma . . . ma . . . mamama!" and establishes eye contact with both the observer and her keyworker. The observer notes that both she and the keyworker feel very moved. Nina crawls over to the keyworker, who picks her up and cuddles her.

Cristinelli's reading of this event was that the children's play with the doll reminded Nina of a mother with a baby, and hence of her own mother. The emotional atmosphere was such that neither observer nor keyworker had any doubt about what the child wanted them to understand. Far from losing her voice in her mother's absence, Nina was able to transmute babbling into speech thanks to her expectation of being understood. That is: words that left her mouth would elicit understanding and an appropriate response, rather than leading to concrete loss and impoverishment.

Factors in Adam's language development

The therapeutic observation of Adam, the toddler at risk of autism I referred to in chapter 10, provided illustrations of a number of important factors relating to the capacity to use language.

First, as I have already noted, Adam was able to imitate the occasional word within a context of emotional reciprocity from the very beginning of the observation. Equally, from the beginning he showed the capacity for social referencing when he was the focus of someone's undivided attention. However, his unresponsive behaviour at other times was sufficiently discouraging so that neither his parents nor the observer could fully appreciate the implications of what he was sometimes able to do, or even remember it, let alone expect him to do it again and therefore support his patchy capacities. This illustrates the importance of emotional factors for the full expression of a child's communicative competence.

Another important emotional factor in Adam's language development concerned the degree to which he identified with the language production of people who were important to him. For example, at one stage he began to speak into a toy telephone, imitating his mother who was herself speaking on the telephone. He very deliberately demonstrated this for the observer, who had for many weeks sought to engage him in imitative games. It was as though he were showing her that he could take the important step of following his mother's example, and that he could expect her to support this.

Finally, Adam had a considerable developmental spurt when he was reunited with people he saw regularly, and from whom he had been separated during a holiday break. This developmental spurt involved increased mastery in the use of his dummy and ball, as well as the beginning of two-word sentences. One could see these capacities as being related in terms of Adam's growing confidence that things—the ball and the dummy—could be retrieved, just as absent people could be found again. That would imply (as in the case of Jenny) that, with increasing security, the child feels more able to let go of his words.

Concluding remarks

I have touched on a few of the factors among the many that affect the production of speech: theories concerning syntax, for instance, are beyond the scope of this chapter (see Pinker, 1994), and I have not discussed theories of language development based on a cognitive approach, such as theory of mind (Baron-Cohen, Leslie, & Frith, 1985), or on a relational perspective (Hobson, 2002). My focus has been on a psychoanalytic approach to anxieties about bodily integrity and how these affect whether the mouth can be employed for speech. I have suggested that the use of language reflects primitive bodily anxieties, often staged in the Theatre of the Mouth, and that work supporting the integration of these anxieties can promote more integrated speech and can allow inbuilt capacities for relatedness and the use of language to come into play.

Note

Some of this material was previously published in M. Rhode, "Sensory Aspects of Language Development in Relation to Primitive Anxieties." *International Journal of Infant Observation,* Vol. 6 (2004): 12–32, and is reproduced by permission.